UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 OR 15(d)
of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 26, 2024 (March 25, 2024)

Q32 Bio Inc.
(Exact name of registrant as specified in its charter)

Delaware	**001-38433**	**47-3468154**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

830 Winter Street, Waltham, MA	**02451**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (781) 999-0232

Homology Medicines, Inc.
One Patriots Park
Bedford, MA 01730
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value $0.0001 per share	QTTB	The Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 1.01. Entry into a Material Definitive Agreement.

As a result of the Merger (as defined in Item 2.01 of this Current Report on Form 8-K), the following agreements of our wholly owned subsidiary, Q32 Bio Operations Inc. (formerly known as Q32 Bio Inc.), a Delaware corporation, or Legacy Q32, effectively became our agreements.

Subscription Agreement

On November 16, 2023, concurrently with the execution and delivery of the Agreement and Plan of Merger, dated as of November 16, 2023, or the Merger Agreement, by and among Homology Medicines, Inc., or Homology, Kenobi Merger Sub, Inc., a wholly owned subsidiary of Homology, or Merger Sub, and Legacy Q32, Legacy Q32 entered into a subscription agreement, or the subscription agreement, with certain accredited investors named therein, or the investors. Pursuant to the subscription agreement, immediately prior to consummation of the Merger, Legacy Q32 issued and sold an aggregate of 35,032,111 shares of its common stock at a purchase price of approximately $1.1989 per share, for an aggregate purchase price of approximately $42.0 million. We refer to this as the pre-closing financing.

The sale of the shares of Legacy Q32 common stock pursuant to the subscription agreement in the pre-closing financing was not registered under the Securities Act of 1933, as amended, or the Securities Act, and was exempt from registration pursuant to Section 4(a)(2) thereunder as a transaction not involving a public offering.

The foregoing description of the subscription agreement does not purport to be complete and is qualified in its entirety by the full text of such agreement, the form of which is filed hereto as Exhibit 10.1 and is incorporated herein by reference.

Registration Rights Agreement

Pursuant to the subscription agreement, on March 25, 2024, Legacy Q32 and the investors in the pre-closing financing entered into a registration rights agreement. Under the registration rights agreement, among other things, we agreed to register for resale certain shares of our common stock held by such investors from time to time, including shares of our common stock issued in the Merger in exchange for the shares of Legacy Q32 common stock issued in the pre-closing financing.

Pursuant to the registration rights agreement, we are obligated to prepare and file a shelf registration statement covering the resale of covered shares of our common stock within forty-five (45) calendar days following the closing of the Merger, subject to certain exceptions, pursuant to Rule 415 of the Securities Act. We also agreed to use our reasonable best efforts to keep such registration statement continuously effective under the Securities Act until the earlier of the date that all registrable securities covered by such registration statement (a) have been sold, thereunder or pursuant to Rule 144 of the Securities Act, or Rule 144, or (b) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for us to be in compliance with the current public information requirement under Rule 144. The registration rights agreement also provides that we will pay certain expenses of the securityholders and indemnify the applicable securityholders against certain liabilities.

The foregoing description of the registration rights agreement does not purport to be complete and is qualified in its entirety by the full text of such agreement, a copy of which is filed hereto as Exhibit 10.2 and is incorporated herein by reference.

Contingent Value Rights Agreement

On March 23, 2024, we entered into a Contingent Value Rights Agreement, or the CVR Agreement, with Equiniti Trust Company, LLC, or the Rights Agent, pursuant to which Homology's common stockholders of record as of March 21, 2024 received one contingent value right, each a CVR, for each outstanding share of Homology common stock held by such stockholder on such date.

Each CVR represents the contractual right to receive payments from us upon the actual receipt by us or our subsidiaries of certain contingent proceeds derived from any cash consideration that is paid to us or our subsidiaries as a result of the sale, transfer, license, assignment or other divestiture, disposition or commercialization of any of our assets, rights and interests relating to our HMI-103, HMI-204, Capsids and AAVHSC Platform, including any equity interests held directly or indirectly by us in Oxford Biomedica Solutions, LLC or its affiliates, or OXB Solutions, pursuant to that certain Equity Securities Purchase Agreement, dated as of January 28, 2022, by and between Homology and OXB Solutions, or the Legacy Assets, and such disposition, a Legacy Asset Disposition, net of certain tax, transaction costs and certain other expenses.

The contingent payments under the CVR Agreement, if they become payable, will become payable to the Rights Agent for subsequent distribution to the holders of the CVRs. There can be no assurance that any holders of CVRs will receive payments with respect thereto.

The right to the contingent payments contemplated by the CVR Agreement is a contractual right only and will not be transferable, except in the limited circumstances specified in the CVR Agreement. The CVRs are not evidenced by a certificate or any other instrument and are not registered with the U.S. Securities and Exchange Commission, or the SEC. The CVRs do not have any voting or dividend rights and do not represent any equity or ownership interest in us or any of our affiliates. No interest will accrue on any amounts payable in respect of the CVRs.

The foregoing description of the CVR Agreement does not purport to be complete and is qualified in its entirety by the full text of the CVR Agreement, a copy of which is filed hereto as Exhibit 10.4 and is incorporated herein by reference.

Lock-Up Agreements

In connection with the closing of the Merger, we entered into lock-up agreements with certain of our stockholders, directors and executive officers, including Jodie Morrison, Arthur Tzianabos, Mary Thistle, Bill Lundberg, David Grayzel, Diyong Xu, Isaac Manke, Kathleen LaPorte, Mark Iwicki, Jason Campagna, Lee Kalowski and Shelia Violette, which restrict transfer of their shares (other than any shares acquired in Legacy Q32's pre-closing financing) for a period of 180 days following the closing date of the Merger, subject to certain limited exceptions.

The foregoing description of the lock-up agreements does not purport to be complete and is qualified in its entirety by the full text of the form of lock-up agreement, which is filed hereto as Exhibit 10.3 and incorporated herein by reference.

Indemnification Agreements

In connection with the closing of the Merger, on March 25, 2024, we entered into indemnification agreements with each of our directors and executive officers that provide for indemnification and advancement of certain expenses and costs relating to claims, suits or proceedings arising from each individual's service as an officer or director of our company, as applicable, to the maximum extent permitted by applicable law.

The foregoing description of the indemnification agreements is qualified in its entirety by the full text of the forms of indemnification agreement, which are filed hereto as Exhibits 10.6 and 10.7 and incorporated herein by reference.

FORM 10 INFORMATION

Cautionary Note Regarding Forward-Looking Statements

This Current Report on Form 8-K contains forward-looking statements within the meaning of Section 27A of the Securities Act and 21E of the Exchange Act, including statements regarding the anticipated benefits of the Merger and the financial condition, results of operations, and prospects of Q32 Bio Inc. (formerly known as Homology Medicine, Inc.), or the Company. These statements may discuss goals, intentions and expectations as to future plans, trends, events, results of operations or financial condition, or otherwise, based on current expectations and beliefs of the management of the Company, as well as assumptions made by, and information currently available to, the management of the Company. Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "would," "expect," "anticipate," "plan," "likely," "believe," "estimate," "project," "intend," and other similar expressions or the negative or plural of these words, or other similar expressions that are predictions or indicate future events or prospects, although not all forward-looking statements contain these words. Statements that are not historical facts are forward-looking statements. Forward-looking statements in this communication include, but are not limited to, the section titled "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" in this Current Report on Form 8-K. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Forward-looking statements include, but are not limited to, any statements regarding the strategies, prospects, plans, expectations or objectives of management the Company for future operations, the progress, scope or timing of the development of the Company's product candidates, the expectations surrounding the potential safety, efficacy, and regulatory and clinical progress of the Company's product candidates, including bempikibart and ADX-097, and anticipated milestones and timing therefor, the benefits that may be derived from any future products or the commercial or market opportunity with respect to any future products of the Company, the ability of the Company to protect its intellectual property rights, the anticipated operations, financial position, ability to raise capital to fund operations, revenues, costs or expenses of the Company, statements regarding future economic conditions or performance, statements of belief and any statement of assumptions underlying any of the foregoing. Forward-looking statements may also include any statements regarding the Merger, including the location and management of the Company, the percentage ownership of the Company, the contingent payments contemplated by the CVRs, the Company's expected cash and the sufficiency of the Company's cash, cash equivalents and short-term investments to fund operations into mid-2026, and any statement of assumptions underlying any of the foregoing.

The foregoing review of important factors that could cause actual events to differ from expectations should not be construed as exhaustive and should be read in conjunction with statements that are included herein and elsewhere, including the risk factors included in the "*Risk Factors*" section of this Current Report on Form 8-K and other documents to be filed by the Company from time to time with the SEC, discussions of potential risks, uncertainties, and other important factors in the Company's subsequent filings with the SEC, and risk factors associated with companies, such as the Company, that operate in the biopharma industry. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond the Company's control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. Nothing in this communication should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that the contemplated results of any such forward-looking statements will be achieved. Forward-looking statements in this communication speak only as of the day they are made and are qualified in their entirety by reference to the cautionary statements herein. Except as required by applicable law, the Company undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise.

Business, Facilities and Legal Proceedings

The information set forth in Exhibit 99.3 hereto is incorporated herein by reference.

Risk Factors

The risks associated with the Company's business and operations and the combined company's business and operations are described in Exhibit 99.2 hereto and are incorporated herein by reference.

Financial Information

Audited Financial Statements

The audited financial statements of the Company as of and for the years ended December 31, 2023 and 2022 and the related notes thereto are set forth in Item 9.01 of this Current Report on Form 8-K and are incorporated herein by reference.

Unaudited Pro Forma Condensed Combined Financial Information

The unaudited pro forma condensed combined financial information of the Company and Homology as of and for the year ended December 31, 2023 and the related notes thereto are set forth in Item 9.01 of this Current Report on Form 8-K and are incorporated herein by reference.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Management's Discussion and Analysis of Financial Condition and Results of Operations for the years ended December 31, 2023 and 2022 is set forth in Exhibit 99.4 to this Current Report on Form 8-K, and is incorporated herein by reference.

Management's Discussion and Analysis of Financial Condition and Results of Operations for Homology for the years ended December 31, 2023 and 2022 are included in Homology's annual report on Form 10-K for the fiscal year ended December 31, 2023 that was filed with the SEC on March 13, 2024, and is incorporated herein by reference.

Additional information regarding management's discussion and analysis of the financial condition and results of operations prior to the Merger is included in Homology's definitive proxy statement/prospectus included in the Registration Statement, or the Proxy Statement/Prospectus, in the sections entitled "*Homology's Management's Discussion and Analysis of Financial Condition and Results of Operations*" beginning on page 352 and "*Q32 Management's Discussion and Analysis of Financial Condition and Results of Operations*" beginning on page 373, which are incorporated herein by reference.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information regarding beneficial ownership of our common stock as of March 25, 2024 and reflects the 1-for-18 reverse stock split of our common stock effected March 25, 2024.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Under those rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power with respect to the securities as well as any shares of common stock that the individual or entity has the right to acquire within 60 days of March 25, 2024 the exercise of stock options or other rights. These shares are deemed to be outstanding and beneficially owned by the person holding those options for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Except as noted by footnote, and subject to community property laws where applicable, we believe, based on the information provided to them, that the persons and entities named in the table below have sole voting and investment power with respect to all common stock shown as beneficially owned by them.

The table lists applicable percentage ownership based on 11,929,528 shares of common stock outstanding as of March 25, 2024. The number of shares beneficially owned includes shares of common stock that each person has the right to acquire within 60 days, including upon the exercise of stock options and the vesting of restricted stock units.

These stock options and restricted stock units shall be deemed to be outstanding for the purpose of computing the percentage of outstanding shares of our common stock expected to be owned by such person but shall not be deemed to be outstanding for the purpose of computing the percentage of outstanding shares of the combined organization's common stock expected to be owned by any other person.

Name of Beneficial Owner	Beneficial Ownership Prior to the Merger	
	Number	Percent
5% or Greater Stockholders:		
OrbiMed Private Investments VII, LP (1)	2,252,987	18.89%
Entities affiliated with Atlas Venture (2)	2,092,106	17.54%
Abingworth Bioventures VII LP (3)	1,102,741	9.24%
Acorn Bioventures, L.P. (4)	803,425	6.73%
Bristol-Myers Squibb Company (5)	759,145	6.36%
Directors and Named Executive Officers:		
Jason A. Campagna (6)	76,649	*
Jodie Morrison (7)	123,352	1.02%
Lee Kalowski (8)	16,901	*
Shelia M. Violette (9)	106,307	*
Mary Thistle (10)	5,596	*
Arthur Tzianabos (11)	120,820	1.00%
Bill Lundberg (12)	11,793	*
Kathleen LaPorte (13)	8,563	*
Mark Iwicki (14)	34,527	*
David Grayzel (15)	2,092,106	17.54%
Isaac Manke	—	—
Diyong Xu (16)	2,252,987	18.89%
All executive officers and directors as a group (12 persons)(17)	4,849,601	39.16%

* Represents beneficial ownership of less than 1%.

(1) Consists of 2,252,987 shares of our common stock held by OrbiMed Private Investments VII, LP, or OPI VII. OrbiMed Capital VII LLC, or GP VII, is the general partner of OPI VII. OrbiMed Advisors LLC, or OrbiMed Advisors, is the managing member of GP VII. By virtue of such relationships, GP VII and OrbiMed Advisors may be deemed to have beneficial ownership over such shares. OrbiMed Advisors exercises investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild. Diyong Xu, a member of Q32's board of directors, is an employee of OrbiMed Advisors. Each of Dr. Gordon and Messrs. Borho, Neild, and Xu disclaim beneficial ownership of the shares held by OPI VII. The address for the OrbiMed entities is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022.

(2) Consists of (i) 864,261 shares of our common stock held by Atlas Venture Fund X, L.P., or Atlas X, (ii) 503,296 shares of our common stock held by Atlas Venture Opportunity Fund I, L.P., or Atlas Opportunity I, and (iii) 724,549 shares of our common stock held by Atlas Venture Opportunity Fund II, L.P., or Atlas Opportunity II. The general partner of Atlas X is Atlas Venture Associates X, L.P., or AVA X, and the general partner of AVA X is Atlas Ventures Associates X, LLC, or AVA X LLC. The general partner of Atlas Opportunity I is Atlas Venture Associates Opportunity I, L.P., or AVAO I, and the general partner of AVAO I is Atlas Venture Associates Opportunity I, LLC, or AVAO I LLC. The general partner of Atlas Opportunity II is Atlas Venture Associates Opportunity II, L.P., or AVAO II, and the general partner of AVAO II is Atlas Venture Associates Opportunity II, LLC, or AVAO II LLC. David Grayzel is a member of AVA X LLC, AVAO I LLC, and AVAO II LLC, and is a member of Q32's board of directors. Each of AVA X, AVA X LLC, AVAO I, AVAO I LLC, AVAO II, AVAO II LLC, and Mr. Grayzel may be deemed to beneficially own the shares held by Atlas X, Atlas Opportunity I, and Atlas Opportunity II. Each of AVA X, AVA X LLC, AVAO I, AVAO I LLC, AVAO II, AVAO II LLC, and Mr. Grayzel expressly disclaim beneficial ownership of the securities owned by Atlas X, Atlas Opportunity I, and Atlas Opportunity II, except to the extent of its pecuniary interest therein, if any. The address for Atlas X, AVA X, AVA X LLC, Atlas Opportunity I, AVAO I, AVAO I LLC, Atlas Opportunity II, AVAO II, AVAO II LLC is 300 Technology Sq., 8th Floor, Cambridge, MA 02139.

(3) Consists of 1,102,741 shares of our common stock held by Abingworth Bioventures VII LP, or ABV VII. The Carlyle Group Inc., which is a publicly traded entity listed on Nasdaq, is the sole shareholder of Carlyle Holdings I GP Inc., which is the sole member of Carlyle Holdings I GP Sub L.L.C., which is the general partner of Carlyle Holdings I L.P., which, with respect to the securities reported herein, is the managing member of CG Subsidiary Holdings L.L.C., which is the managing member of TC Group, L.L.C., which is the managing member of Carlyle Investment Management, L.L.C., which is the sole member of Carlyle Genesis UK LLC. Carlyle Genesis UK LLC is the principal member of Abingworth LLP. ABV VII has delegated to Abingworth LLP all investment and dispositive power over the securities held of record by ABV VII. As a result, each of the foregoing entities may be deemed to share beneficial ownership of the securities held of record by ABV VII, but each disclaims such beneficial ownership. Voting and investment determinations with respect to the securities held by ABV VII are made by an investment committee of Abingworth LLP, which is comprised of Timothy Haines, Kurt von Emster, Bali Muralidhar and Andrew Sinclair. Each member of the investment committee disclaims beneficial ownership of the securities beneficially held by ABV VII.

(4) Consists of 803,425 shares of our common stock held by Acorn Bioventures, L.P., or Acorn. The general partner of Acorn is Acorn Capital Advisors GP, LLC. Isaac Manke is a General Partner at Acorn and a member of Q32's board of directors. The address for Acorn and Acorn Capital Advisors GP, LLC is 410 Lexington Ave, Suite 2626, New York, NY 10170.

(5) Consists of 759,145 shares of our common stock held by Bristol-Myers Squibb Company, or BMS. The address for BMS is Route 206 & Province Line Road, Princeton, NJ 08543-4000.

(6) Consists of 76,649 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

(7) Consists of 123,352 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

(8) Consists of 16,901 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

(9) Consists of (i) 36,277 shares of our common stock held by Violette Holdings LLC, or Violette Holdings, and (ii) 70,030 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024. The address of Violette Holdings is c/o Shelia Violette, 91 Simonds Road, Lexington, MA 02420.

(10) Consists of 5,596 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

(11) Consists of (i) 7,154 shares of our common stock held by Dr. Tzianabos, and (ii) 113,666 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

(12) Consists of (i) 1,200 shares of our common stock held by Mr. Lundberg, and (ii) 10,593 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

(13) Consists of (i) 5,431 shares of our common stock held by The Kathleen D. LaPorte Revocable Trust, or the LaPorte Trust, and (ii) 3,132 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024. The address of the LaPorte Trust is c/o Kathleen D. LaPorte 30 Quail Ct, Portola Valley, CA 94028.

(14) Consists of 34,527 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

(15) Consists of (i) 864,261 shares of our common stock held by Atlas Venture Fund X, L.P., or Atlas X, (ii) 503,296 shares of our common stock held by Atlas Venture Opportunity Fund I, L.P., or Atlas Opportunity I, and (iii) 724,549 shares of our common stock held by Atlas Venture Opportunity Fund II, L.P., or Atlas Opportunity II. The general partner of Atlas X is Atlas Venture Associates X, L.P., or AVA X, and the general partner of AVA X is Atlas Ventures Associates X, LLC, or AVA X LLC. The general partner of Atlas Opportunity I is Atlas Venture Associates Opportunity I, L.P., or AVAO I, and the general partner of AVAO I is Atlas Venture Associates Opportunity I, LLC, or AVAO I LLC. The general partner of Atlas Opportunity II is Atlas Venture Associates Opportunity II, L.P., or AVAO II, and the general partner of AVAO II is Atlas Venture Associates Opportunity II, LLC, or AVAO II LLC. David Grayzel is a member of AVA X LLC, AVAO I LLC, and AVAO II LLC, and is a member of Q32's board of directors. Each of AVA X, AVA X LLC, AVAO I, AVAO I LLC, AVAO II, AVAO II LLC, and Mr. Grayzel may be deemed to beneficially own the shares held by Atlas X, Atlas Opportunity I, and Atlas Opportunity II. Each of AVA X, AVA X LLC, AVAO I, AVAO I LLC, AVAO II, AVAO II LLC, and Mr. Grayzel expressly disclaim beneficial ownership of the securities owned by Atlas X, Atlas Opportunity I, and Atlas Opportunity II, except to the extent of its pecuniary interest therein, if any. The address for Atlas X, AVA X, AVA X LLC, Atlas Opportunity I, AVAO I, AVAO I LLC, Atlas Opportunity II, AVAO II, AVAO II LLC is 300 Technology Sq., 8th Floor, Cambridge, MA 02139.

(16) Consists of 2,252,987 shares of our common stock held by OrbiMed Private Investments VII, LP, or OPI VII. OrbiMed Capital VII LLC, or GP VII, is the general partner of OPI VII. OrbiMed Advisors LLC, or OrbiMed Advisors, is the managing member of GP VII. By virtue of such relationships, GP VII and OrbiMed Advisors may be deemed to have beneficial ownership over such shares. OrbiMed Advisors exercises investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild. Diyong Xu, a member of Q32's board of directors, is an employee of OrbiMed Advisors. Each of Dr. Gordon and Messrs. Borho, Neild, and Xu disclaim beneficial ownership of the shares held by OPI VII. The address for the OrbiMed entities is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022.

(17) Consists of (i) 4,849,601 shares of our common stock and (ii) 454,446 shares of our common stock underlying options which are exercisable or will become exercisable within 60 days of March 25, 2024.

Information about Directors and Executive Officers; Director Compensation and Director Independence; Executive Compensation

The information set forth in Item 5.02 of this Current Report on Form 8-K is incorporated herein by reference.

The information set forth in the section of the Proxy Statement/Prospectus entitled "*Management Following the Merger*" beginning on page 395 is incorporated herein by reference.

Certain Relationships and Related Party Transactions

The information set forth in the section of the Proxy Statement/Prospectus entitled "*Certain Relationships and Related Party Transactions of the Combined Company*" beginning on page 429 is incorporated herein by reference.

Market Price of and Dividends on the Registrant's Common Equity and Related Stockholder Matters

Shares of Homology common stock were historically listed on the Nasdaq Global Select Market under the symbol "FIXX." On March 26, 2024, shares of Company common stock were listed on the Nasdaq Global Market under the symbol "QTTB."

As of the closing and following the completion of the Merger and after giving effect to the reverse stock split effected on March 25, 2024, the Company had approximately 11,929,528 shares of common stock issued and outstanding held of record by approximately 205 holders. The number of holders of record does not include a substantially greater number of "street name" holders or beneficial holders whose shares of Company common stock are held of record by banks, brokers and other financial institutions.

The information set forth in the section of the Proxy Statement/Prospectus entitled "*Market Price and Dividend Information—Dividends*" on page 29 is incorporated herein by reference.

Description of Registrant's Securities

The information set forth in the section of the Proxy Statement/Prospectus entitled "*Homology's Description of Capital Stock*" beginning on page 434 and in the section entitled "*Comparison of Rights of Holders of Homology Capital Stock and Q32 Capital Stock*" beginning on page 438 is incorporated herein by reference.

Indemnification of Directors and Officers

The information set forth in Item 1.01 of this Current Report on Form 8-K under the heading "*Indemnification Agreements*" is incorporated herein by reference.

A description of the Company's indemnification obligations in respect of its directors and officers is included in the Proxy Statement/Prospectus in the section entitled "*The Merger Agreement—Indemnification and Insurance for Directors and Officers*" beginning on page 208 and is incorporated herein by reference.

WHERE YOU CAN FIND MORE INFORMATION

The Company is subject to the informational requirements of the Exchange Act and in accordance therewith, files annual, quarterly and current reports, proxy statements and other information with the SEC electronically, and the SEC maintains a website that contains the Company's filings as well as reports, proxy and information statements, and other information issuers file electronically with the SEC at www.sec.gov.

The Company also makes available free of charge on or through its website at www.q32bio.com, its Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after the Company electronically files such material with or otherwise furnishes it to the SEC. The website addresses for the SEC and the Company are inactive textual references and except as specifically incorporated by reference into this Current Report on Form 8-K, information on those websites is not part of this Current Report on Form 8-K.

If you would like to request documents from the Company, please send a request in writing or by telephone to the following address:

Q32 Bio Inc.
830 Winter Street
Waltham, MA 02451
Attn: Investor Relations
(781) 999-0232
Email: IR@q32bio.com

Item 2.01. Completion of Acquisition or Disposition of Assets.

As previously reported, on March 15, 2024, Homology held a special meeting at which the Homology stockholders considered and approved, among other matters, the issuance of Homology common stock, which represented more than 20% of the shares of Homology common stock outstanding immediately prior to the Merger, to stockholders of Legacy Q32, pursuant to the terms of the Merger Agreement, and the change of control resulting from the Merger.

On March 24, 2023, Homology and Legacy Q32 entered into a waiver and consent in connection with the Merger, pursuant to which the parties agreed to waive the requirements set forth in (a) Section 2.5 of the Merger Agreement that (i) the record date for the Pre-Closing Distribution (as defined in the Merger Agreement) with respect to the CVRs shall be the close of business on the last Business Day (as defined in the Merger Agreement) prior to on which the effective time of the Merger occurs and (ii) the payment date for the Pre-Closing Distribution with respect to the CVRs shall be three Business Days after the effective time of the Merger, and (b) Section 1.1 of the Merger Agreement that a "Homology ITM Option" means each Homology Option (as defined in the Merger Agreement) with an exercise price per share less than the closing trading price of a share of Homology common stock on the last full trading day on which the Homology common stock is traded prior to the date on which the effective time of the Merger occurs. The parties also agreed that, (i) the record date for the Pre-Closing Distribution with respect to the CVRs would be March 21, 2024, (ii) the payment date for the Pre-Closing Distribution with respect to the CVRs would be March 27, 2024, and (iii) the reference price for the Homology ITM Option amount in the Q32 Exchange Ratio (as defined in the Merger Agreement) calculation would be March 21, 2024, in each case, subject to the closing of the Merger occurring on March 25, 2024.

On March 25, 2024, the parties to the Merger Agreement completed the merger of Merger Sub with and into Legacy Q32, with Legacy Q32 surviving as our wholly owned subsidiary, the Merger, and the other transactions contemplated thereby in accordance with the terms of the Merger Agreement, and our business became primarily the business conducted by Legacy Q32. We are now a clinical stage biotechnology company focused on developing novel biologics to effectively and safely restore healthy immune balance in patients with autoimmune and inflammatory diseases driven by pathological immune dysfunction. Effective at 4:05 p.m. eastern time on March 25, 2024, our company effected a reverse stock split at a ratio of 1:18, effective at 4:06 p.m. eastern time on March 25, 2024 the parties to the Merger Agreement consummated the Merger, and effective at 4:07 p.m. eastern time on March 25, 2024, our company changed its name from "Homology Medicines, Inc." to "Q32 Bio Inc.". Unless noted otherwise, all references to share and per share amounts in this Current Report on Form 8-K, other than information incorporated by reference to other reports, reflect the reverse stock split.

In accordance with the terms and subject to the conditions of the Merger Agreement, (i) immediately prior to the effective time of the Merger, each share of Legacy Q32 preferred stock was converted into one share of Legacy Q32 common stock, and (ii) at the effective time of the Merger, (a) each outstanding share of Legacy Q32 common stock (excluding Legacy Q32 common stock issued in the Concurrent Financing, as described below) was converted into the right to receive a number of shares of the Homology common stock, calculated in accordance with the Merger Agreement, (b) each outstanding Legacy Q32 stock option and warrant that had not previously been exercised prior to the closing of the Merger was assumed by Homology and become an option or warrant, as applicable, to purchase a number of shares of Homology common stock and (c) the Legacy Q32 common stock issued in the Concurrent Financing (as defined in the Merger Agreement) was converted into the right to receive a number of shares of the Homology common stock calculated in accordance with the Merger Agreement, in each case, based on an exchange ratio of 0.0480. The Merger is intended to qualify for federal income tax purposes as a tax-free reorganization under the provisions of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code.

At the effective time of the Merger, we issued (or reserved for issuance upon exercise of options assumed in the Merger) an aggregate of approximately 9,830,284 shares of our common stock to Legacy Q32 securityholders (before eliminating fractions), calculated as provided in the Merger Agreement, or the Exchange, resulting in approximately 11,929,528 shares of our common stock being issued and outstanding immediately following the effective time of the Merger. This number includes shares of our common stock that we issued upon vesting and settlement of certain outstanding equity awards at the effective time of the Merger.

Under the exchange ratio formula in the Merger Agreement, immediately following the effective time of the Merger, the Legacy Q32 securityholders owned approximately 74.4% of the outstanding shares of the combined company's common stock on a fully-diluted basis and securityholders of Homology as of immediately prior to the effective time of the Merger owned approximately 25.6% of the outstanding shares of the combined company's common stock on a fully-diluted basis.

Upon closing of the Merger, we assumed the Legacy Q32 2017 Stock Incentive Plan, or the Legacy Q32 Plan, and each outstanding and unexercised option to purchase Legacy Q32 shares at such time, each of which converted into an option to purchase shares of our common stock, with necessary adjustments to the number of shares and exercise price to reflect the exchange ratio. In addition, upon the closing of the Merger, we assumed each outstanding and unexercised warrant to purchase Legacy Q32 shares at such time, each of which converted into a warrant to purchase shares of our common stock, with necessary adjustments to the number of shares and exercise price to reflect the Exchange. Immediately prior to the closing of the Merger, the outstanding principal and accrued but unpaid interest on Legacy Q32's convertible notes was converted into 29,853,711 shares of Legacy Q32 common stock, each of which then converted into 1,433,412 shares of our common stock.

We registered the issuance of our common stock to Legacy Q32's securityholders in the Merger on a Registration Statement on Form S-4, as amended (SEC File No. 333-276093), or the Registration Statement.

Effective March 26, 2024, our common stock began trading on The Nasdaq Capital Market on a post-reverse stock split, post-Merger basis under the ticker symbol "QTTB," and is now represented by a new CUSIP number, 746964105.

The foregoing description of the Merger Agreement does not purport to be complete and is qualified in its entirety by the full text of such agreement, a copy of which is filed hereto as Exhibit 2.1 and is incorporated herein by reference. The foregoing description of the warrants does not purport to be complete and is qualified in its entirety by the full text of such warrants, copies of which is filed hereto as Exhibits 10.13 and 10.14 and are incorporated herein by reference.

Item 2.02. Results of Operations and Financial Condition.

The audited financial statements of Legacy Q32 for the years ended December 31, 2023 and 2022 and the related notes thereto are filed as Exhibit 99.5 hereto and incorporated herein by reference.

Management's Discussion and Analysis of Financial Condition and Results of Operations of Legacy Q32 for the years ended December 31, 2023 and 2022 is filed as Exhibit 99.4 hereto and incorporated herein by reference.

Certain unaudited pro forma condensed combined financial information is filed as Exhibit 99.6 hereto and incorporated herein by reference.

Item 2.03. Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of Registrant.

On March 22, 2024, Legacy Q32 entered into an eighth amendment to that certain Loan and Security Agreement with Silicon Valley Bank, a division of First-Citizens Bank & Trust Company, or, as amended from time to time, the Loan Agreement. The eighth amendment extends the time Legacy Q32 has to receive certain specified unrestricted net proceeds to fulfill a milestone event from March 31, 2024 to May 31, 2024 and also extends the availability period during which Legacy Q32 can draw down on the tranche B term loan advance of $7.0 million from March 31, 2024 to May 31, 2024. On March 26, 2024, Q32 drew down the tranche B term loan advance of $7.0 million. The date changes were adjusted to align the milestone in the Loan Agreement with closing of the Merger.

The foregoing description of the eighth amendment to the Loan Agreement does not purport to be complete and is qualified in its entirety by the full text of such agreement, a copy of which is filed hereto as Exhibit 10.5 and is incorporated herein by reference.

Item 3.02. Unregistered Sales of Equity Securities.

To the extent required by this Item, the information included in Item 1.01 of this Current Report on Form 8-K is incorporated herein by reference.

Item 3.03. Material Modification to Rights of Security Holders.

We held a special meeting of stockholders of Homology on March 15, 2024, or the Special Meeting. At the Special Meeting, our stockholders approved an amendment to our restated certificate of incorporation, or Charter, to effect the reverse stock split and to increase the number of authorized shares of our common stock from 200,000,000 shares to 400,000,000 shares. Following the Special Meeting, our Board of Directors, or the Board, approved the combination of our outstanding shares of common stock at a ratio of 1:18. We filed a certificate of amendment to the Charter with the Secretary of State of the State of Delaware on March 25, 2024, which took effect on March 25, 2024, and following which each 18 shares of common stock issued and outstanding immediately prior thereto were automatically reclassified, combined, converted and changed into one share of our common stock, and which increased the number of authorized shares of our common stock to 400,000,000. Immediately following the reverse stock split, there were approximately 11,929,528 shares of our common stock issued and outstanding before eliminating fractional shares.

We did not issue any fractional shares as a result of the reverse stock split. Instead, any stockholder who would otherwise have been entitled to a fractional share as a result of the reverse stock split (after aggregating all fractions of a share to which such stockholder would otherwise be entitled) is, in lieu thereof, entitled to receive a cash payment equal to the product of such resulting fractional interest in one share of common stock multiplied by the closing trading price of a share of our common stock on The Nasdaq Stock Market LLC on March 25, 2024. The par value per share of common stock remains unchanged.

On March 25, 2024, we filed a second certificate of amendment to the Charter with the Secretary of State of the State of Delaware to change our name to “Q32 Bio Inc.”, which name change became effective on March 25, 2024.

The foregoing descriptions of the certificate of amendments to the Charter do not purport to be complete and are qualified in their entirety by reference to the full text of such amendments, copies of which are filed as Exhibit 3.1 and Exhibit 3.2 respectively, hereto and are incorporated herein by reference.

Item 4.01. Changes in Registrant’s Certifying Accountant.

(a) Dismissal of Independent Registered Public Accounting Firm

Deloitte & Touche LLP, or Deloitte, served as our independent registered public accounting firm prior to completion of the Merger. On March 25, 2024, following the completion of the Merger, Deloitte was dismissed as our independent registered public accounting firm. The decision to dismiss Deloitte was approved by the Audit Committee of the Board.

The reports of Deloitte on our consolidated financial statements for the fiscal years ended December 31, 2023 and 2022 did not contain an adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope or accounting principles, or other similar opinion as defined in Item 304(a)(1)(ii) of Regulation S-K (17 CFR § 229.304(a)(1)(ii) except for an explanatory paragraph regarding existence of substantial doubt about the Company’s ability to continue as a going concern in the report for the year ended December 31, 2023.

During our two most recent fiscal years and the subsequent period from January 1, 2024 to March 25, 2024, there were (i) no disagreements (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions thereto) with Deloitte on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreement, if not resolved to the satisfaction of Deloitte, would have caused it to make reference to the subject matter of the disagreement in connection with its report and (ii) no reportable events (as described in Item 304(a)(1)(v) of Regulation S-K).

We provided Deloitte with a copy of the disclosures made in this Item 4.01 and requested Deloitte to furnish us with a letter addressed to the SEC stating whether it agrees with the statements made by us and, if not, stating the respects in which it does not agree. A copy of Deloitte's letter to the SEC dated March 26, 2024 regarding these statements is filed as Exhibit 16.1 to this Current Report on Form 8-K.

(b) Appointment of New Independent Registered Public Accounting Firm

Ernst & Young LLP, or E&Y, served as the independent registered public accounting firm of Legacy Q32 prior to the completion of the Merger. On March 25, 2024, following the completion of the Merger, the Audit Committee of the Board approved the appointment of E&Y as our independent registered public accounting firm.

During our two most recent fiscal years and the subsequent period from January 1, 2024 to March 25, 2024, we did not consult with E&Y regarding any of the matters or events set forth in Item 304(a)(2)(i) and (ii) of Regulation S-K.

Item 5.01. Changes in Control of Registrant.

The information set forth in Item 2.01 of this Current Report on Form 8-K regarding the Merger and the information set forth in Item 5.02 of this Current Report on Form 8-K regarding the Board and executive officers following the Merger are incorporated by reference into this Item 5.01.

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Resignation of Directors

In accordance with the Merger Agreement, immediately prior to the Merger, Steven Gillis, Matthew R. Patterson, Jeffrey V. Poulton and Alise S. Reicin resigned from the Board and committees of the Board on which they respectively served, which resignations were not the result of any disagreements with our company relating to our operations, policies or practices.

Appointment of Directors

Effective upon the closing of the Merger on March 25, 2024, the Board was reconstituted as follows: (i) Arthur Tzianabos and Mary Thistle (designated by Homology), and (ii) Jodie Morrison, David Grayzel, Diyong Xu, Isaac Manke, Kathleen LaPorte, Mark Iwicki and Bill Lundberg (designated by Legacy Q32). The classification of the Board of Directors was confirmed as follows: Dr. Grayzel, Mr. Xu and Dr. Manke were appointed as Class I directors (terms expire at our 2025 annual meeting), Dr. Tzianabos, Ms. Morrison and Ms. LaPorte were appointed as Class II directors (terms expire at our 2026 annual meeting), and Ms. Thistle, Mr. Iwicki and Dr. Lundberg were appointed as Class III directors (terms expire at our 2027 annual meeting). In addition, Mark Iwicki was appointed Chairperson of the Board. Under the Nasdaq Listing Rules, a majority of the members of the Board must qualify as "independent," as affirmatively determined by the Board. Under the Nasdaq Listing Rules, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director The Board has determined that each of Mark Iwicki, David Grayzel, Bill Lundberg, Kathleen LaPorte, Isaac Manke, Mary Thistle and Diyong Xu qualify as "independent directors" as defined by the Nasdaq Listing Rules.

Immediately after the closing of the Merger on March 25, 2024, the Board reconstituted its various standing committees as follows:

Audit Committee

Ms. LaPorte, Ms. Thistle and Mr. Iwicki were appointed to the Audit Committee of the Board. Ms. LaPorte was appointed chair of the Audit Committee and designated as the "audit committee financial expert."

Compensation Committee

Mr. Iwicki, Dr. Lundberg and Dr. Manke were appointed to the Compensation Committee of the Board. Mr. Iwicki was appointed chair of the Compensation Committee.

Nominating and Corporate Governance Committee

Ms. Thistle, Ms. LaPorte and Mr. Xu were appointed to the Nominating and Corporate Governance Committee of the Board. Ms. Thistle was appointed chair of the Nominating and Corporate Governance Committee.

In addition, immediately after the closing of the Merger on March 25, 2024, the Board formed a Research and Development committee as follows:

Research and Development Committee

Dr. Lundberg, Dr. Tzianabos and Dr. Grayzel were appointed to the Research and Development Committee of the Board. Dr. Lundberg was appointed as chair of the Research and Development Committee.

Each of the newly appointed directors' biographical information is set forth below.

Jodie Morrison. Ms. Morrison, age 48, has served as our Chief Executive Officer and a member of the Board since completion of the Merger. Ms. Morrison previously served a member of Legacy Q32's board of directors since September 2022. Ms. Morrison also previously served as the President and Chief Executive Officer of Q32, where she had been employed since September 2022. Prior to joining Legacy Q32, Ms. Morrison was a Venture Partner at Atlas Venture from July 2021 to September 2022, Chief Executive Officer of Cadent Therapeutics from January 2019 to March 2021, and Chief Executive Officer of Keryx Biopharmaceuticals from April 2018 until December 2018. Ms. Morrison has also served as an Advisor at Atlas Venture since January 2019. She also currently sits on the board of directors of Rectify Pharmaceuticals. She has previously served as the chair of the board at Ribon Therapeutics and held board positions at Aileron Therapeutics, Akebia and Keryx. Ms. Morrison received a certificate through the Greater Boston Executive Program at the MIT Sloan School of Management, a clinical research certification from Boston University School of Medicine, and B.A. in Neuroscience from Mount Holyoke College. We believes Ms. Morrison's experience in the biopharmaceutical industry provides her with the qualifications and skills to serve on the Board.

Arthur O. Tzianabos, Ph.D. Dr. Tzianabos, age 60, previously served as the Chairman of the Board from September 2022 to March 2024, and has served as a member of the Board since April 2016. Dr. Tzianabos has served as Venture Partner at 5AM Ventures since September 2022. Dr. Tzianabos was Homology's President and Chief Executive Officer from April 2016 to September 2022. Dr. Tzianabos joined Homology from OvaScience, Inc., a biotechnology company (which has since merged with and into Millendo Therapeutics, Inc.), where he served as President and Chief Scientific Officer from September 2013 to March 2016. Prior to OvaScience, Dr. Tzianabos spent eight years at Shire plc, a biotechnology company, where he served in positions of increasing responsibility, including Senior Director, Discovery Research, Vice President, Program Management and Senior Vice President and Head, Research and Early Development. From 1992 to 2005, Dr. Tzianabos was a faculty member at Harvard Medical School and maintained laboratories at the Channing Laboratory, Brigham and Women's Hospital and the Department of Microbiology and Molecular Genetics at Harvard Medical School. Dr. Tzianabos has served as a director of Stoke Therapeutics, Inc., a public biotechnology company, since April 2018. Dr. Tzianabos previously served as chairman of the board of directors of Akouos, Inc., a public biotechnology company, from July 2018 until its acquisition by Eli Lilly in December 2022, and a director of BIND Therapeutics, Inc., a biotechnology company, from October 2015 until its acquisition by Pfizer in July 2016. Dr. Tzianabos holds a B.S. in Biology from Boston College and a Ph.D. in Microbiology from the University of New Hampshire, and completed a Post-Doctoral Fellowship in Immunology at Harvard Medical School. We believe that Dr. Tzianabos' extensive academic and clinical experience, as well as his knowledge of the company and the industry, qualifies him to serve on the Board.

Mary Thistle. Ms. Thistle, age 64, has served as a member of the Board since 2018. Ms. Thistle has served as Special Advisor to the Bill & Melinda Gates Medical Research Institute, a non-profit biotech organization, from the fall of 2020 to June 2022, and previously served as the organization's Chief of Staff from January 2018 to the fall of 2020. Prior to that, she held senior leadership positions at Dimension Therapeutics, Inc., a gene therapy company, including Chief Operating Officer from 2016 to 2017 and Chief Business Officer from 2015 to 2016. Prior to joining Dimension Therapeutics, Inc., she spent six years at Cubist Pharmaceuticals, Inc., a biopharmaceutical company, where she held various leadership positions, including Senior Vice President, Business Development from 2014 to 2015, Vice President, Business Development from 2012 to 2013 and Senior Director, Business Development from 2009 to 2012. Prior to that, she held various positions at ViaCell, Inc. and PerkinElmer Inc. Ms. Thistle has served on the board of directors of Alaunos Therapeutics, Inc., formerly known as Ziopharm Oncology, Inc. since November 2020, Entrada Therapeutics, Inc. since May 2021 and Vigil Neuroscience, Inc. since April 2022. Ms. Thistle holds a B.S. in Business and Accounting from the University of Massachusetts, Boston and is a former Certified Public Accountant. We believe that Ms. Thistle's finance and business development background and industry experience qualifies her to serve on the Board.

Bill Lundberg, M.D. Dr. Lundberg, age 60, has served as a member of the Board since completion of the Merger. Dr. Lundberg previously served on Legacy Q32's board of directors since December 2017. In addition to his role at Legacy Q32, Dr. Lundberg is the Chief Executive Officer, President, Principal Financial Officer and Director of Merus NV (NASDAQ: MRUS). Prior to that role, Dr. Lundberg has served as Chief Scientific Officer at CRISPR Therapeutics AG, a biotechnology company, from January 2015 until February 2018. Dr. Lundberg also served as Vice President and Head of Transitional Medicine at Alexion Pharmaceuticals, Inc. from February 2011 until January 2015. Prior to that position, Dr. Lundberg served as Director and Chief Medical Officer of Taligen Therapeutics, Inc., a biotechnology company, which was acquired by Alexion in 2011. Prior to Taligen, he held several senior roles in clinical drug development and medical affairs at Xanthus/Antisoma, Wyeth (now Pfizer), and Genzyme. Dr. Lundberg currently serves on the board of directors of the publicly traded life science company Vor Biopharma and Merus N.V. Dr. Lundberg holds an M.D. from Stanford University and M.B.A. from the University of Massachusetts. We believe Dr. Lundberg's experience, expertise and leadership in the biopharmaceutical industry qualifies him to serve on the Board.

David Grayzel. Dr. Grayzel, age 56, has served as a member of the Board since completion of the Merger. Dr. Grayzel was a co-founder of Legacy Q32 and previously served as a member of Legacy Q32's board of directors since 2017. Since joining Atlas in 2010, Dr. Grayzel has co-founded and served as chief executive officer of numerous companies including Arteaus Therapeutics acquired by Eli Lilly in 2014, Annovation Biopharma acquired by The Medicines Company in 2015, and was a founding board member of both Delinia acquired by Celgene in 2017, and Cadent Therapeutics acquired by Novartis in 2021. David is a co-founder and board member Vima Therapeutics, and also sits on the boards of Affinia Therapeutics, Aerovate Therapeutics (NASDAQ: AVTE), and TRIANA Biomedicines. He was previously a board director of Surface Oncology acquired by Coherus (NASDAQ: CHRS), Xilio Therapeutics (NASDAQ: XLO), and a board observer at Day One Biopharmaceuticals (NASDAQ: DAWN). Dr. Grayzel received his B.A. from Stanford University, M.D. from Harvard Medical School, and completed his internship and residency training in internal medicine at Massachusetts General Hospital. We believe Dr. Grayzel's experience as an investor and board member in the life sciences industry, as well as his scientific and medical knowledge, provides him with the qualifications and skills to serve on the Board.

Diyong Xu. Mr. Xu, age 41, has served as a member of the Board since completion of the Merger. Mr. Xu previously served as a member of Legacy Q32's board of directors since August 2020. Mr. Xu has also served as Principal of OrbiMed Advisors LLC since August 2012. Prior to joining OrbiMed, Mr. Xu worked for Lazard Freres & Co. in its Healthcare Investment Banking Group. Mr. Xu received his M.S. in Management Science and Engineering from Stanford University, M.S. in Molecular and Cellular Biology from Dartmouth College, and B.S. in Biology from Zhejiang University. We believe Mr. Xu's experience in the life sciences industry provides him with the qualifications and skills to serve on the Board.

Isaac Manke. Dr. Manke, age 47, has served as a member of the Board since completion of the Merger. Dr. Manke previously served as a member of Legacy Q32's board of directors since October 2020. Dr. Manke is currently a General Partner at Acorn Bioventures, where he focuses on investing in small cap public and private biotechnology companies. Prior to Acorn, Dr. Manke spent 11 years at New Leaf Venture Partners (NLV) through 2019. In addition to private venture investments, during his time at NLV, Dr. Manke also led the firm's public investment activities. Dr. Manke has been a board member for several public and private biotechnology companies. Dr. Manke received a B.A. in Biology and a B.A. in Chemistry at Minnesota State University (Moorhead), and a Ph.D. in Biophysical Chemistry and Molecular Structure at the Massachusetts Institute of Technology, or MIT. We believe Dr. Manke's experience in the life sciences industry provides him with the qualifications and skills to serve on the Board.

Kathleen LaPorte. Ms. LaPorte, age 62, has served as a member of the Board since completion of the Merger. Ms. LaPorte previously served as a member of Legacy Q32's board of directors since July 2021. In addition to her role at Q32, Ms. LaPorte has served as a director of Phoenix Biotech Acquisition Corp. (NASDAQ: PBAX), Precipio Diagnostics (NASDAQ: PRPO), 89Bio (NASDAQ: ENTB), D2G Oncology and Elysium Therapeutics. Ms. LaPorte also serves as the chair of the audit committees of both Bolt Biotherapeutics and Precipio Diagnostics, since 2020 and 2019, respectively. Ms. LaPorte co-founded New Leaf Ventures, served as a General Partner of The Sprout Group from 1993 until 2005, and was Chief Business Officer and Chief Executive Officer of Nodality Inc from 2014 until 2016. Prior to her current roles, Ms. LaPorte served on the California Institute for Regenerative Medicine. Ms. LaPorte holds a B.S. degree in Biology from Yale University and a M.B.A. from the Stanford University Graduate School of Business. We believe Ms. LaPorte's significant leadership experience in the biopharmaceutical industry provides her with the qualifications and skills to serve on the Board.

Mark Iwicki. Mr. Iwicki, age 57, has served as a member of the Board since completion of the Merger. Mr. Iwicki previously served as the Chairman of Legacy Q32's board of directors since 2020. Mr. Iwicki currently serves as chairman and Chief Executive Officer of Kala Bio, Inc. Prior to this role, Mr. Iwicki served as President and Chief Executive Officer of Civitas Therapeutics, Inc. or Civitas, a biopharmaceutical company from January 2014 until November 2014, as well as President and Chief Executive Officer of Blend Therapeutics, Inc., or Blend, a pharmaceutical company, from December 2012 until January 2014. Prior to Blend, Mr. Iwicki served as President and Chief Executive Officer of Sunovion Pharmaceuticals Inc., or Sunovion, a pharmaceutical company from October 2007 until June 2012. Prior to joining Sunovion, Mr. Iwicki was Vice President and Business Unit Head at Novartis Pharmaceuticals Corporation, a biopharmaceutical company. He was at Novartis from March 1998 to October 2007. Prior to that, Mr. Iwicki held management positions at Astra Merck Inc. and Merck & Co., Inc. In addition to serving as Executive Chairman of our Board of Directors, Mr. Iwicki also currently serves on the boards of Akero Therapeutics, Third Harmonic, Aerovate and Merus. Mr. Iwicki holds a B.S. in Business Administration from Ball State University and an M.B.A. from Loyola University. We believe Mr. Iwicki's significant leadership and investment experience in the biopharmaceutical industry provides him with the qualifications and skills to serve on the Board.

Non-Employee Director Compensation

Following the closing of the Merger, each non-employee director will receive compensation for his or her service on the Board in accordance with our non-employee director compensation policy, which was amended and restated in connection with the closing of the Merger and now provides for the following cash and equity retainers:

- an annual cash retainer of $40,000 for members of the Board (or $73,500 for the non-executive chair of the Board);

- an additional annual cash retainer of $9,500 for service on the Audit Committee (or $19,000 for service as chair of the Audit Committee);
- an additional annual cash retainer of $6,000 for service on the Compensation Committee (or $12,000 for service as chair of the Compensation Committee);
- an additional annual cash retainer of $5,000 for service on the Nominating and Corporate Governance Committee (or $10,000 for service as chair of the Nominating and Corporate Governance Committee); and
- an additional annual cash retainer of $5,000 for service on the Research and Development Committee (or $10,000 for service as chair of the Research and Development Committee).

In addition, upon initial election or appointment, each new non-employee director will be granted a non-statutory stock option with a value of up to $228,000 (as determined in accordance with the policy). The initial grant will vest one-third on the first anniversary of the grant date with the remainder in equal monthly installments over the following two years, subject to continued service through the applicable vesting date. On the date of each annual meeting of stockholders, each non-employee director who will continue as a non-employee director following such meeting will be granted an annual award of a non-statutory stock option with a value of $114,000. The annual grants will vest in full on the earlier of the one-year anniversary of the grant date or on the date of our next annual meeting of stockholders, subject to continued service through the applicable vesting date. These director grants are subject to full accelerated vesting upon the sale of our company. All of the foregoing stock options will be granted with a per share exercise price equal to the fair market value of a share of our common stock on the grant date have a 10 year term.

The aggregate amount of compensation, including both equity compensation and cash compensation, paid to any non-employee director for services as a director in a calendar year period will not exceed $1,000,000 in the first calendar year such individual becomes a non-employee director and $750,000 in any other calendar year.

The foregoing description of the non-employee director compensation policy does not purport to be complete and is qualified in its entirety by the full text of such policy, a copy of which is filed hereto as Exhibit 10.11 and is incorporated herein by reference.

In connection with the closing of the Merger, our directors, other than Ms. Morrison, received certain option grants as described below under "*Closing Option Grants*".

Departure of Executive Officers

Immediately after closing of the Merger, Paul Alloway resigned as our President, Chief Operating Officer and Secretary and principal executive officer, and Charles Michaud, Jr. resigned as our Vice President, Corporate Controller and Treasurer and principal financial officer and principal accounting officer.

Appointment of Executive Officers

On March 25, 2024, the Board appointed Jodie Morrison as our Chief Executive Officer and principal executive officer, Lee Kalowski as our Chief Financial Officer and President and principal financial officer and principal accounting officer, Jason Campagna as our Chief Medical Officer, and Shelia Violette as our Chief Scientific Officer and President of Research.

There are no family relationships among any of our newly appointed executive officers. None of our newly appointed executive officers has a direct or indirect material interest in any transaction required to be disclosed pursuant to Item 404(a) of Regulation S-K.

Each of the newly appointed executive officers' biographical information is set forth below.

Jodie Morrison. Ms. Morrison's biographical information is disclosed in the section above under the heading "Appointment of Directors."

Lee Kalowski. M.B.A. Mr. Kalowski, age 43, has served as our Chief Financial Officer and President since completion of the Merger. Mr. Kalowski previously served as Legacy Q32's Interim Chief Financial Officer since October 2023 and has also served as a consultant to the life sciences industry since October 2023. Prior to joining Q32, Mr. Kalowski served as Chief Financial Officer from July 2017 to June 2023 and as President from January 2019 to June 2023 of Bicycle Therapeutics. Previously, Mr. Kalowski was Chief Financial Officer of Tokai Pharmaceuticals. Prior to Tokai, Mr. Kalowski served in global biotechnology equity research at Credit Suisse, where he covered companies in the biopharmaceutical industry as a Senior Analyst. Mr. Kalowski received a B.A. in biology and economics from Union College and an M.B.A. from The Wharton School of the University of Pennsylvania.

Jason A. Campagna, M.D., Ph.D. Dr. Campagna, age 54, has served as our Chief Medical Officer since completion of the Merger. Dr. Campagna previously served as the Chief Medical Officer of Legacy Q32, where he had been employed since March 2021. Prior to this role, Dr. Campagna was Chief Medical Officer at Intercept Pharmaceuticals from November 2019 to March 2021, and where he also served as Senior Vice President and Global NASH Lead from August 2016 to November 2019. From December 2020 to March 2023, Dr. Campagna served on the board of directors for Plantable Health. Dr. Campagna holds an M.D./Ph.D. in Molecular and Cellular Pharmacology from the University of Miami Miller School of Medicine and a B.S. in Biology from the University of Miami.

Shelia M. Violette, Ph.D. Dr. Violette, age 63, has served as our Chief Scientific Officer and President of Research since completion of the Merger. Dr. Violette previously served as the Chief Scientific Officer and President of Research of Legacy Q32, where she had been employed since September 2017. Prior to this role, Dr. Violette was an Entrepreneur in Residence at Atlas Venture from November 2016 to September 2017, and she has continued to serve as an Advisor since September 2017. From July 2016 to June 2021, Dr. Violette was an Adjunct Associate Professor at Yale University School of Medicine's Department of Internal Medicine. Prior to that position, Dr. Violette held several senior roles in research at Biogen from March 2012 to October 2016. Dr. Violette currently serves on the Scientific Advisory Boards of Triveni Bio Inc., Morphic Therapeutics, Inc., Mediar Therapeutics Inc., and APIE Therapeutics Inc. Dr. Violette also served on the board of directors of Cytimmune Science from October 2021 to June 2023, and she was on the Scientific Advisory Boards of Scholar Rock Holding Corporation from April 2017 to December 2022, Enleofen Bio Pte Ltd from June 2017 to April 2020, and NuMedii, Inc. from February 2018 to February 2019. Dr. Violette holds a Ph.D. in Pharmacology from Yale University and a B.S. in Pharmacology from the Massachusetts College of Pharmacy.

Executive Employment Arrangements

Jodie Morrison

Effective as of the closing of the Merger, we entered into an employment agreement with Ms. Morrison, or the Morrison Employment Agreement, to serve as our Chief Executive Officer. The employment agreement provides for Ms. Morrison's at-will employment and an annual base salary of $645,600, an annual bonus with a target amount equal to 55% of her base salary, as well as her ability to participate in the Company's employee benefit plans generally. The Morrison Employment Agreement provides that if her employment is terminated either (i) by the Company without Cause (as defined therein) or (ii) by Ms. Morrison for Good Reason (as defined therein), within twelve months after a Change in Control (as defined in the therein), or the Change in Control Period, then Ms. Morrision will be entitled to receive, subject to signing a release, (i) a lump sum payment equal to 1.5 times the sum of (a) twelve months of base salary plus (b) the target bonus for the then-current year, (ii) COBRA health continuation for eighteen months, and (iii) 100% acceleration of all outstanding and unvested stock-based awards subject to time-based vesting. The Morrison Employment Agreement also provides that if her employment is terminated either (i) by the Company without Cause or (ii) by Ms. Morrison for Good Reason outside the Change in Control Period, then Ms. Morrison will be entitled to receive, subject to signing a release, (a) a lump sum payment of twelve months of base salary and (b) COBRA health continuation for twelve months. The Morrison Employment Agreement contains a Section 280G partial clawback, in which Ms. Morrison is entitled to receive the greater of (a) the best net after-tax amount of any payments that are subject to the excise tax imposed by Section 4999 of the Code, calculated in a manner consistent with Section 280G of the Code, and (b) the amount of parachute payments she would be entitled to receive if they were reduced to an amount equal to one dollar less than the amount at which Ms. Morrison becomes subject to excise tax imposed by Section 4999 of the Code.

Lee Kalowski

Effective as of the closing of the Merger, we entered into an employment agreement with Mr. Kalowski, or the Kalowski Employment Agreement, to serve as our Chief Financial Officer and President. The employment agreement provides for Mr. Kalowski's at-will employment and an annual base salary of $565,000, an annual bonus with a target amount equal to 40% of his base salary, as well as his ability to participate in the Company's employee benefit plans generally. The Kalowski Employment Agreement provides that if his employment is terminated either (i) by the Company without Cause (as defined therein) or (ii) by Mr. Kalowski for Good Reason (as defined therein), within twelve months after a Change in Control (as defined in the therein), or the Change in Control Period, then Mr. Kalowski will be entitled to receive, subject to signing a release, (i) a lump sum payment of (a) twelve months of base salary and (b) the target bonus for the then-current year, (ii) COBRA health continuation for twelve months, and (iii) 100% acceleration of all outstanding and unvested stock-based awards subject to time-based vesting. The Kalowski Employment Agreement also provides that if his employment is terminated either (i) by the Company without Cause or (ii) by Mr. Kalowski for Good Reason outside the Change in Control Period, then Mr. Kalowski will be entitled to receive, subject to signing a release, (a) a lump sum payment of twelve months of base salary and (b) COBRA health continuation for twelve months. The Kalowski Employment Agreement contains a Section 280G partial clawback, in which Mr. Kalowski is entitled to receive the greater of (a) the best net after-tax amount of any payments that are subject to the excise tax imposed by Section 4999 of the Code, calculated in a manner consistent with Section 280G of the Code, and (b) the amount of parachute payments he would be entitled to receive if they were reduced to an amount equal to one dollar less than the amount at which Mr. Kalowski becomes subject to excise tax imposed by Section 4999 of the Code.

Jason Campagna

Effective as of the closing of the Merger, we entered into an employment agreement with Dr. Campagna, or the Campagna Employment Agreement, to serve as our Chief Medical Officer. The employment agreement provides for Dr. Campagna's at-will employment and an annual base salary of $500,000, an annual bonus with a target amount equal to 40% of his base salary, as well as his ability to participate in the Company's employee benefit plans generally. The Campagna Employment Agreement provides that if his employment is terminated either (i) by the Company without Cause (as defined therein) or (ii) by Dr. Campagna for Good Reason (as defined therein), within twelve months after a Change in Control (as defined in the therein), or the Change in Control Period, then Dr. Campagna will be entitled to receive, subject to signing a release, (i) a lump sum payment of (a) twelve months of base salary and (b) the target bonus for the then-current year, (ii) COBRA health continuation for twelve months, and (iii) 100% acceleration of all outstanding and unvested stock-based awards subject to time-based vesting. The Campagna Employment Agreement also provides that if his employment is terminated either (i) by the Company without Cause or (ii) by Dr. Campagna for Good Reason outside the Change in Control Period, then Dr. Campagna will be entitled to receive, subject to signing a release, (a) a lump sum payment of nine months of base salary and (b) COBRA health continuation for nine months. The Campagna Employment Agreement contains a Section 280G partial clawback, in which Dr. Campagna is entitled to receive the greater of (a) the best net after-tax amount of any payments that are subject to the excise tax imposed by Section 4999 of the Code, calculated in a manner consistent with Section 280G of the Code, and (b) the amount of parachute payments he would be entitled to receive if they were reduced to an amount equal to one dollar less than the amount at which Dr. Campagna becomes subject to excise tax imposed by Section 4999 of the Code.

Shelia M. Violette

Effective as of the closing of the Merger, we entered into an employment agreement with Dr. Violette, or the Violette Employment Agreement, to serve as our Chief Scientific Officer and President of Research. The employment agreement provides for Dr. Violette's at-will employment and an annual base salary of $455,000, an annual bonus with a target amount equal to 40% of her base salary, as well as her ability to participate in the Company's employee benefit plans generally. The Violette Employment Agreement provides that if her employment is terminated either (i) by the Company without Cause (as defined therein) or (ii) by Dr. Violette for Good Reason (as defined therein), within twelve months after a Change in Control (as defined in the therein), or the Change in Control Period, then Dr. Violette will be entitled to receive, subject to signing a release, (i) a lump sum payment of (a) twelve months of base salary and (b) the target bonus for the then-current year, (ii) COBRA health continuation for twelve months, and (iii) 100% acceleration of all outstanding and unvested stock-based awards subject to time-based vesting. The Violette Employment Agreement also provides that if her employment is terminated either (i) by the Company without Cause or (ii) by Dr. Violette for Good Reason outside the Change in Control Period, then Dr. Violette will be entitled to receive, subject to signing a release, (a) a lump sum payment of (i) twelve months of base salary and (ii) the target bonus for the then-current year, (b) COBRA health continuation for twelve months and (c) 100% acceleration of all outstanding and unvested stock-based awards subject to time-based vesting. The Violette Employment Agreement contains a Section 280G partial clawback, in which Dr. Violette is entitled to receive the greater of (a) the best net after-tax amount of any payments that are subject to the excise tax imposed by Section 4999 of the Code, calculated in a manner consistent with Section 280G of the Code, and (b) the amount of parachute payments she would be entitled to receive if they were reduced to an amount equal to one dollar less than the amount at which Dr. Violette becomes subject to excise tax imposed by Section 4999 of the Code.

The above descriptions of the employment related agreements for Ms. Morrison, Mr. Kalowski, Dr. Campagna and Dr. Violette do not purport to be complete and are subject to and qualified in their entirety by reference to the copies of the employment related agreements for Ms. Morrison, Mr. Kalowski, Dr. Campagna and Dr. Violette included as Exhibits 10.15, 10.16, 10.17 and 10.18 to this Current Report on Form 8-K, which are incorporated herein by reference.

2017 Stock Option and Grant Plan

We assumed, effective as of the closing of the Merger, the 2017 Stock Option and Grant Plan of Legacy Q32, or the 2017 Plan, which is filed as Exhibit 10.8 to this Current Report on Form 8-K and incorporated herein by reference, as well as the outstanding awards granted thereunder, the award agreements evidencing the grants of such awards and the remaining shares available under the 2017 Plan.

2024 Stock Option and Incentive Plan

At the Special Meeting, our stockholders considered and approved the 2024 Stock Option and Incentive Plan, or the 2024 Plan, which became effective at the closing of the Merger and following the reverse stock split. As of the effective time of the Merger, there were 2,839,888 shares of the Company's common stock available for grant under the 2024 Plan which number does not reflect any options previously granted under the 2017 Plan or granted to certain officers and directors immediately following the closing of the Merger (including as described in Section 5.02 of this Current Report on Form 8-K). In addition, the number of shares initially reserved and available for issuance under the 2024 Plan will automatically increase each January 1, beginning on January 1, 2025, by 5% of the outstanding number of shares on the immediately preceding December 31, or such lesser amount as determined by the plan administrator.

A more complete summary of the terms of the 2024 Plan is set forth in the Proxy statement/Prospectus under the section titled "Proposal 5: Approval of the 2024 Stock Option and Incentive Plan" and is incorporated by reference herein. That summary and the foregoing description of the 2024 Plan do not purport to be complete and are qualified in their entirety by reference to the text of the 2024 Plan, forms of option grant notice and option agreement and forms of restricted stock unit grant notice and unit award agreement, copies of which are attached to this Current Report on Form 8-K as Exhibits 10.9 hereto and are incorporated herein by reference.

2024 Employee Stock Purchase Plan

At the Special Meeting, our stockholders considered and approved the 2024 Employee Stock Purchase Plan, or the 2024 ESPP, which became effective at the closing of the Merger and following the reverse stock split. As of the effective time of the Merger, there were 120,836 shares of the Company's common stock reserved for issuance under the 2024 ESPP. In addition, the number of shares initially reserved and available for issuance under the 2024 ESPP will automatically increase each January 1, beginning on January 1, 2025, by the lesser of a number of shares equal to 241,677, 1% of the outstanding number of shares on the immediately preceding December 31, or such lesser amount as determined by the plan administrator.

A more complete summary of the terms of the 2024 ESPP is set forth in the Proxy statement/Prospectus under the section titled "Proposal 6: Approval of the 2024 Employee Stock Purchase Plan" and is incorporated by reference herein. That summary and the foregoing description of the 2024 ESPP do not purport to be complete and are qualified in their entirety by reference to the text of the 2024 ESPP, a copy of which is attached to this Current Report on Form 8-K as Exhibit 10.10 hereto and are incorporated herein by reference.

Senior Executive Cash Incentive Bonus Plan

On March 25, 2024, we adopted a Senior Executive Cash Incentive Bonus Plan, or the Bonus Plan. The Bonus Plan provides for cash bonus payments based upon the attainment of performance targets established by the Compensation Committee. The performance targets may be related to financial and operational measures or objectives with respect to us and/or any of our subsidiaries, or corporate performance goals, as well as individual performance objectives.

The Compensation Committee may select corporate performance goals from among the following: developmental, publication, clinical or regulatory milestones; cash flow (including, but not limited to, operating cash flow and free cash flow); revenue; corporate revenue; earnings before interest, taxes, depreciation and amortization; net income (loss) (either before or after interest, taxes, depreciation and/or amortization); changes in the market price of our common stock; economic value-added; acquisitions, licenses or strategic transactions; financing or other capital raising transactions; operating income (loss); return on capital, assets, equity, or investment; stockholder returns; return on sales; total stockholder return; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings (loss) per share of our common stock; bookings, new bookings or renewals; sales or market shares; number of prescriptions or prescribing physicians; coverage decisions; leadership development, employee retention, and recruiting and other human resources matters; operating income and/or net annual recurring revenue; or any other performance goal selected by the Compensation Committee any of which may be (A) measured in absolute terms or compared to any incremental increase, (B) measured in terms of growth, (C) compared to another company or companies or to results of a peer group, (D) measured against the market as a whole and/or as compared to applicable market indices and/or (E) measured on a pre-tax or post-tax basis (if applicable).

Each executive officer who is selected to participate in the Bonus Plan will have a target bonus opportunity set for each performance period. The bonus formulas will be adopted in each performance period by the Compensation Committee and communicated to each executive officer at the beginning of each performance period. The corporate performance goals will be measured at the end of each performance period. If the corporate performance goals and individual performance objectives are met, payments will be made as soon as practicable following the end of each performance period, but no later than March 15 following the end of the fiscal year in which such performance period ends (for corporate performance goals established and measured on a basis more frequently than annually) or two and one-half months after the end of the fiscal year in which such performance period ends (for corporate performance goals established and measured on an annual or multi-year basis), in each case unless otherwise determined by the Compensation Committee. Subject to the rights contained in any agreement between the executive officer and us or unless otherwise determined by the Compensation Committee, an executive officer must be employed by us on the bonus payment date to be eligible to receive a bonus payment. The Bonus Plan will also permit the Compensation Committee to approve additional bonuses to executive officers in its sole discretion.

The foregoing description of the Bonus Plan does not purport to be complete and is qualified in its entirety by the full text of the Bonus Plan, a copy of which is filed hereto as Exhibit 10.12 and is incorporated herein by reference.

Closing Option Grants

In connection with the closing of the Merger, the Compensation Committee recommended, and the Board approved upon such recommendation, option grants to certain of our employees, including Jodie Morrison (our new Chief Executive Officer and principal executive officer), Lee Kalowski (our new Chief Financial Officer and President and principal financial officer and principal accounting officer), Jason Campagna (our new Chief Medical Officer) and Shelia Violette (our new Chief Scientific Officer and President of Research). As a result, on March 25, 2024, Ms. Morrison received an option grant to purchase 394,445 shares of our common stock, Mr. Kalowski received an option grant to purchase 161,323 shares of our common stock, Dr. Campagna received an option grant to purchase 70,687 shares of our common stock and Dr. Violette received an option grant to purchase 56,413 shares of our common stock, each with an exercise price per share equal to the closing price per share of our common stock as reported on The Nasdaq Capital Market on such date (as adjusted for the 1-for-18 reverse stock split of our common stock effected on such date). The shares subject to these option grants will vest 25% on the first anniversary of the grant date, and thereafter the remaining 75% of the shares will vest in equal monthly installments over the following three years, in each case subject to the recipient's continuous service through the applicable vesting dates, such that the options are vested in full on the four-year anniversary of the grant date.

In addition, in connection with the closing of the Merger, the Compensation Committee recommended, and the Board approved upon such recommendation, certain option grants to our directors, other than Ms. Morrison. As a result, on March 25, 2024, Mark Iwicki received an option grant to purchase 25,534 shares of our common stock, and each of Arthur Tzianabos, Bill Lundberg, David Grayzel, Diyong Xu, Isaac Manke, Kathleen LaPorte and Mary Thistle received an option grant to purchase 12,767 shares of our common stock, in each case, with an exercise price per share equal to the closing price per share of our common stock as reported on The Nasdaq Capital Market on such date (as adjusted for the 1-for-18 reverse stock split of our common stock effected on such date). The shares subject to these option grants will vest 1/3 on the first anniversary of the grant date, and thereafter the remaining 2/3 of the shares will vest in equal monthly installments over the following two years, in each case subject to the recipient's continuous service through the applicable vesting dates, such that the options are vested in full on the three-year anniversary of the grant date.

Item 5.03. Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.

To the extent required by this Item, the information included in Item 2.01 and Item 3.03 of this Current Report on Form 8-K is incorporated herein by reference.

Item 5.06. Change in Shell Company Status.

As a result of the Merger, we ceased to be a shell company (as defined in Rule 12b-2 of the Exchange Act) as of the closing of the Merger. A description of the Merger and the terms of the Merger Agreement are included in the Proxy statement/Prospectus in the section entitled "Proposal No. 1—Approval of the Issuance of Common Stock in the Merger and the Change of Control Resulting from the Merger" beginning on page 235 of the Proxy statement/Prospectus. Further reference is made to the information contained in Item 2.01 of this Current Report on Form 8-K.

Item 7.01. Regulation FD Disclosure.

On March 25, 2024, we issued a press release announcing, among other things, the closing of the Merger. The press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K and incorporated herein by reference, except that the information contained on the websites referenced in the press releases is not incorporated herein by reference.

The information in this Item 7.01, including Exhibit 99.1 attached hereto, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, except as expressly set forth by specific reference in such filing

Item 9.01. Financial Statements and Exhibits.

(a) Financial statements of businesses acquired.

The audited consolidated financial statements of Legacy Q32 for the years ended December 31, 2023 and 2022 and the related notes thereto are attached hereto as Exhibit 99.5 and are incorporated herein by reference.

The audited consolidated financial statements of Homology as of and for the years ended December 31, 2023 and 2022 and the related notes are included in Homology's annual report on Form 10-K for the fiscal year ended December 31, 2023 that was filed with the SEC on March 13, 2024, and are incorporated herein by reference.

(b) Pro forma financial information.

The unaudited pro forma condensed combined financial information of the Company and Homology as of and for the year ended December 31, 2023 and the related notes thereto is filed hereto as Exhibit 99.6 is incorporated herein by reference.

(c) Exhibits.

Exhibit No.	Description
2.1*#	Agreement and Plan of Merger, dated as of November 16, 2023, by and among Homology Medicines, Inc., Kenobi Merger Sub, Inc. and Q32 Bio Inc. (incorporated by reference to Exhibit 2.1 to Homology Medicine, Inc.'s Registration Statement on Form S-4 (File No. 333-276093) filed with the Securities and Exchange Commission on December 18, 2023).
3.1	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company—reverse stock split and authorized share increase, dated March 25, 2024
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company—name change, dated March 25, 2024
10.1*	Subscription Agreement, dated November 16, 2023, by and among Q32 Bio Operations Inc. (formerly Q32 Bio Inc.) and certain parties thereto.
10.2*	Registration Rights Agreement, dated March 25, 2024, by and among Q32 Bio Operations Inc. (formerly Q32 Bio Inc.) and certain parties thereto.
10.3	Form of Lock-Up Agreement.
10.4	Contingent Value Rights Agreement dated March 23, 2024, by and between Homology Medicines Inc. and Equiniti Trust Company, LLC.
10.5*	Consent and Eighth Amendment to Loan and Security Agreement, by and between Q32 Bio, Inc. and Silicon Valley Bank, a division of First-Citizens Bank & Trust Company, dated March 21, 2024.
10.6	Form of Indemnification Agreement for Officers of Q32 Bio Inc.
10.7	Form of Indemnification Agreement for Directors of Q32 Bio Inc.
10.8+	Q32 Bio Inc. 2017 Stock Incentive Plan, and form of award agreements thereunder.
10.9+	Q32 Bio Inc. 2024 Stock Option and Incentive Plan, and form of award agreements thereunder.
10.10+	Q32 Bio Inc. 2024 Employee Stock Purchase Plan.
10.11+	Q32 Bio Inc. Non-Employee Director Compensation Policy.
10.12+	Q32 Bio Inc. Senior Executive Cash Incentive Bonus Plan.
10.13	Q32 Bio Inc. Warrant to Purchase Common Stock dated December 11, 2020.
10.14	Q32 Bio Inc. Warrant to Purchase Common Stock dated July 12, 2023.

10.15+	Employment Agreement between Q32 Bio Inc. and Jodie Morrison, dated March 25, 2024.
10.16+	Employment Agreement between Q32 Bio Inc. and Lee Kalowski, dated March 25, 2024.
10.17+	Employment Agreement between Q32 Bio Inc. and Jason Campagna, dated March 25, 2024.
10.18+	Employment Agreement between Q32 Bio Inc. and Shelia Violette, dated March 25, 2024.
16.1	Letter from Deloitte & Touche LLP dated March 26, 2024.
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm of Q32 Bio Inc.
99.1	Press release issued on March 25, 2024.
99.2	Risk Factors of Q32 Bio Inc.
99.3	Business Section of Q32 Bio Inc.
99.4	Management's Discussion and Analysis of Financial Condition and Results of Operations Q32 Bio Operations Inc. (formerly Q32 Bio Inc.) for the years ended December 31, 2023 and 2022.
99.5	Audited financial statements of Q32 Bio Operations Inc. (formerly Q32 Bio Inc.) for each of the years ended December 31, 2023 and 2022.
99.6	Unaudited pro forma condensed combined financial information of Q32 Bio Inc. and Q32 Bio Operations Inc. (formerly Q32 Bio Inc.) for the year ended December 31, 2023.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

\+ Indicates management contract or compensatory plan
\# Filed previously
* Annexes, schedules and exhibits have been omitted pursuant to Item 601(b)(2) or 601(a)(5), as applicable, of Regulation S-K. The Registrant agrees to furnish supplementally a copy of any omitted attachment to the SEC on a confidential basis upon request

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Q32 BIO INC.

Date: March 26, 2024

By: /s/ Jodie Morrison
Name: Jodie Morrison
Title: Chief Executive Officer

Exhibit 3.1

CERTIFICATE OF AMENDMENT TO

RESTATED CERTIFICATE OF INCORPORATION

OF

HOMOLOGY MEDICINES, INC.

Homology Medicines, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), does hereby certify as follows:

FIRST: That the board of directors of the Corporation duly adopted resolutions recommending and declaring advisable that the Restated Certificate of Incorporation of the Corporation be amended and that such amendment be submitted to the stockholders of the Corporation for their consideration, as follows:

RESOLVED, that the first sentence of Article FOURTH of the Restated Certificate of Incorporation be, and hereby is, amended and restated in its entirety to read as follows:

"**Authorized Stock**. The total number of shares of all classes of stock which the Corporation shall have authority to issue is 410,000,000 shares, consisting of (a) 400,000,000 shares of Common Stock, $0.0001 par value per share ("Common Stock"), and (b) 10,000,000 shares of Preferred Stock, $0.0001 par value per share ("Preferred Stock").

Reverse Stock Split. That, effective at 4:05 p.m., Eastern time, on the date this Certificate of Amendment to the Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware (the "Effective Time"), a one-for-eighteen reverse stock split of the Common Stock (as defined below) shall become effective, pursuant to which each eighteen shares of Common Stock issued and held of record by each stockholder of the Corporation (including treasury shares) immediately prior to the Effective Time shall be reclassified and combined into one validly issued, fully paid and nonassessable share of Common Stock automatically and without any action by the holder thereof upon the Effective Time and shall represent one share of Common Stock from and after the Effective Time (such reclassification and combination of shares, the "Reverse Stock Split"). No fractional shares of Common Stock shall be issued as a result of the Reverse Stock Split and, in lieu thereof, (a) with respect to holders of one or more certificates, if any, which formerly represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time, upon surrender after the Effective Time of such certificate or certificates, any holder who would otherwise be entitled to a fractional share of Common Stock as a result of the Reverse Stock Split, following the Effective Time, shall be entitled to receive a cash payment (the "Fractional Share Payment") equal to the fraction of which such holder would

otherwise be entitled multiplied by the closing price per share of Common Stock on the date of the Effective Time as reported by The Nasdaq Global Select Market (as adjusted to give effect to the Reverse Stock Split); provided that, whether or not fractional shares would be issuable as a result of the Reverse Stock Split shall be determined on the basis of (i) the total number of shares of Common Stock that were issued and outstanding immediately prior to the Effective Time formerly represented by certificates that the holder is at the time surrendering and (ii) the aggregate number of shares of Common Stock after the Effective Time into which the shares of Common Stock formerly represented by such certificates shall have been reclassified; and (b) with respect to holders of shares of Common Stock in book-entry form in the records of the Corporation's transfer agent that were issued and outstanding immediately prior to the Effective Time, any holder who would otherwise be entitled to a fractional share of Common Stock as a result of the Reverse Stock Split (after aggregating all fractional shares), following the Effective Time, shall be entitled to receive the Fractional Share Payment automatically and without any action by the holder."

SECOND: That, at a meeting of stockholders of the Corporation, the aforesaid amendment was duly adopted by the stockholders of the Corporation.

THIRD: That the aforesaid amendment was duly adopted in accordance with the applicable provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be signed by its President and Chief Operating Officer on this 25th day of March 2024.

HOMOLOGY MEDICINES, INC.

By: /s/ Paul Alloway
Name: Paul Alloway
Title: President and Chief Operating Officer

Exhibit 3.2

CERTIFICATE OF AMENDMENT

TO

RESTATED CERTIFICATE OF INCORPORATION

OF

HOMOLOGY MEDICINES, INC.

Homology Medicines, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), does hereby certify as follows:

FIRST: That the name of the corporation is Homology Medicines, Inc. The Corporation was originally incorporated pursuant to the General Corporation Law of the State of Delaware (the "DGCL") on March 12, 2015.

SECOND: Article FIRST of the Corporation's Restated Certificate of Incorporation (the "Restated Certificate"), is hereby amended and restated to read in its entirety as follows:

FIRST: The name of the corporation is Q32 Bio Inc. (the "Corporation").

THIRD: In accordance with the provisions of Section 141(f) and 242 of the DGCL the foregoing amendment to the Restated Certificate has been duly adopted and declared advisable by the Board of Directors of the Corporation.

FOURTH: This Certificate of Amendment is to become effective as of 4:07 p.m. Eastern Standard Time on March 25, 2024.

IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on this 25th day of March, 2024.

HOMOLOGY MEDICINES, INC.

By: /s/ Jodie Morrison
Name: Jodie Morrison
Title: Chief Executive Officer

Exhibit 10.1

SUBSCRIPTION AGREEMENT

This Subscription Agreement (this "***Agreement***") is made and entered into as of November 16, 2023 (the "***Effective Date***") by and among Q32 Bio Inc., a Delaware corporation (the "***Company***"), and each of the purchasers listed on the signature pages hereto, severally and not jointly (each a "***Purchaser***" and together the "***Purchasers***"). Certain terms used and not otherwise defined in the text of this Agreement are defined in Section 8 hereof.

RECITALS

WHEREAS, the Company is party to that certain Agreement and Plan of Merger by and among the Company, Kenobi Merger Sub, Inc. ("***Merger Sub***"), and Homology Medicines, Inc. ("***Homology***"), dated on or about the date hereof (the "***Merger Agreement***"), pursuant to which Merger Sub will merge with and into the Company, with the Company surviving as a wholly-owned subsidiary of Homology (the "***Merger***");

WHEREAS, the Company desires to sell to the Purchasers, and the Purchasers, severally and not jointly, desire to purchase from the Company, an aggregate amount equal to $42,000,000 (the "***Total Subscription Amount***") of shares of the Company's Common Stock, par value $0.0001 per share (the "***Common Stock***"); and

WHEREAS, the Company and each Purchaser is executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the 1933 Act and/or in reliance upon any of the safe harbors set forth in Regulation D thereunder.

NOW, THEREFORE, in consideration of the foregoing and the mutual representations, warranties and covenants herein contained, the parties hereto hereby agree as follows:

SECTION 1. Authorization of Securities.

1.01 The Company has authorized the sale and issuance of shares of Common Stock on the terms and subject to the conditions set forth in this Agreement. The shares of Common Stock sold hereunder at the Closing (as defined below) shall be referred to as the "***Securities***."

SECTION 2. Sale and Purchase of the Securities.

2.01 Upon the terms and subject to the conditions herein contained, the Company agrees to sell and issue to each Purchaser, and each Purchaser agrees, severally and not jointly, to purchase from the Company, at a closing to take place remotely via exchange of executed documents (the "***Closing***" and the date of the Closing, the "***Closing Date***") to occur immediately prior to the Effective Time (as such term is defined in the Merger Agreement), that number of Securities set forth opposite such Purchaser's name on the Schedule of Purchasers for the aggregate Purchase Price set forth under the heading "Subscription Amount."

2.02 At or prior to the Closing, each Purchaser will pay the subscription amount set forth opposite such Purchaser's name on the Schedule of Purchasers (the "***Subscription Amount***") by wire transfer of immediately available funds in accordance with wire instructions provided by the Company to the Purchasers at least five Business Days prior to the Closing (the "***Wire Instructions Notice***"). If so requested by the Company or the Purchasers constituting a Purchaser Majority in the Wire Instructions Notice and agreed by the applicable Purchaser, the Subscription Amount of each Purchaser shall be paid into an escrow fund or trust account designated by the Company in writing (the "***Escrow Account***") to be released to the Company only upon satisfaction of each of the closing conditions set forth in Section 6 below. In the event the Closing does not occur within three Business Days of the Closing Date specified in the Wire Instructions Notice, unless otherwise agreed by the Company and such Purchaser, the Company shall, or shall cause the escrow agent for the Escrow Account to, promptly (but not later than two Business Days thereafter) return the aggregate Purchase Price to each Purchaser by wire transfer of U.S. dollars in immediately available funds to the account specified by such Purchaser. On the Closing Date, the Company will deliver, against payment by each Purchaser of its Subscription Amount, the Securities in book-entry form, and shall provide evidence of such issuance from the Company's transfer agent as of the Closing Date to each Purchaser.

2.03 Notwithstanding anything to the contrary in this Agreement, the (i) Schedule of Purchasers and (ii) the aggregate Subscription Amount may be amended by the Company and the affected Purchaser (which may be a new Purchaser) prior to the effectiveness of the Registration Statement, without the consent of the other parties hereto, to reflect the actual number of Securities purchased by each Purchaser at the Closing, *provided* that (x) the Company shall provide to Purchasers such updated Schedule of Purchasers and (y) the aggregate Subscription Amount of all Purchasers after giving effect to such amendment shall not be less than the Total Subscription Amount.

2.04 In the event of any stock split, subdivision, dividend or distribution payable in shares of Common Stock (or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly shares of Common Stock), combination or other similar recapitalization or event occurring after the date hereof and prior to the Closing, each reference in this Agreement to a number of shares or a price per share shall be deemed to be amended to appropriately account for such event.

SECTION 3. Representations and Warranties of the Purchasers. Each Purchaser, severally and not jointly, represents and warrants to the Company that:

3.01 Validity. The execution, delivery and performance of this Agreement and the consummation by the Purchaser of the transactions contemplated hereby have been duly authorized by all necessary corporate, partnership, limited liability or similar actions, as applicable, on the part of such Purchaser. This Agreement has been duly executed and delivered by the Purchaser and, assuming that this Agreement constitutes the valid and binding obligation of the Company, constitutes a valid and binding obligation of the Purchaser, enforceable against it in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies.

3.02 Brokers. There is no broker, investment banker, financial advisor, finder or other person which has been retained by or is authorized to act on behalf of the Purchaser who is entitled to any fee or commission for which the Company will be liable in connection with the execution of this Agreement and the consummation of the transactions contemplated hereby.

3.03 Investment Representations and Warranties. The Purchaser understands and agrees that the offering and sale of the Securities has not been registered under the 1933 Act or any applicable state securities laws or the securities laws of any other jurisdiction and is being made in reliance upon federal and state exemptions for transactions not involving a public offering which depend upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed herein.

3.04 Acquisition for Own Account. The Purchaser is acquiring the Securities for its own account for investment purposes and not with a view towards distribution in a manner which would violate the 1933 Act or any applicable state or federal securities laws. The Purchaser has not been formed for the specific purpose of acquiring the Securities.

3.05 No General Solicitation. The Purchaser is not purchasing the Securities as a result of any advertisement, article, notice or other communication regarding the Securities published in any newspaper, magazine or similar media or broadcast over television, radio or the internet or presented at any seminar or any other general solicitation or general advertisement. The purchase of the Securities by the Purchaser has not been solicited by or through anyone other than the Company or, on the Company's behalf, Leerink Partners LLC and Piper Sandler & Co., the "***Placement Agents***"), who have been engaged as joint placement agents for the offering of the Securities; provided that the Company may engage additional Placement Agents from time to time in its sole discretion.

3.06 Ability to Protect Its Own Interests and Bear Economic Risks. The Purchaser is a sophisticated institutional investor, has the capacity to protect its own interests in connection with the transactions contemplated by this Agreement, and has sufficient knowledge and experience in investing in investments similar to the Securities to properly evaluate the merits and risks of the investment in the Securities. The Purchaser is able to bear the substantial risks of an investment in the Securities including but not limited to loss of the Purchaser's entire

investment therein. The Purchaser has exercised independent judgment in evaluating its participation in the purchase of the Securities, and has determined based on its own independent review and such professional advice as it deems appropriate that its purchase of the Securities and participation in the transactions contemplated by this agreement (i) are consistent with the Purchaser's financial needs, objectives and applicable investment policies or guidelines, (ii) do not and will not violate or constitute a default under the Purchaser's charter, by-laws or other constituent document or under any law, rule, regulation, agreement or other obligation by which it is bound and (iii) is a fit, proper and suitable investment for the Purchaser, notwithstanding the substantial risks inherent in investing in or holding the Securities, except in the case of clauses (ii) and (iii) to the extent such non-compliance, violation or default would not materially and adversely affect the Purchaser's ability to consummate the transactions contemplated by this Agreement..

3.07 Accredited Investor. The Purchaser is (i) a qualified institutional buyer (as defined in Rule 144A of the 1933 Act), or (ii) an "accredited investor" within the meaning of Rule 501(a) (1), (2), (3) or (7) under the 1933 Act. Accordingly, the Purchaser understands that the offering meets the exemptions from filing under FINRA Rule 5123(b)(1)(C) or (J).. The Purchaser is an institutional account as defined in FINRA Rule 4512(c). Accordingly, the Purchaser has also been advised that the offering meets (i) the exemptions from filing under FINRA Rule 5123(b)(1)(A) and (ii) the institutional customer exemption under FINRA Rule 2111(b).

3.08 Restricted Securities. The Purchaser understands that the Securities will be characterized as "restricted securities" under the federal securities laws inasmuch as they are being acquired from the Company in a private placement under Section 4(a)(2) of the 1933 Act and that, under such laws and applicable regulations, such Securities may be resold without registration under the 1933 Act only in certain limited circumstances.

3.09 Review and Advisors. The Purchaser has had the opportunity to review with the Purchaser's own tax advisors the federal, state and local tax consequences of its purchase of the Securities set forth opposite such Purchaser's name on the Schedule of Purchasers and the transactions contemplated by this Agreement. The Purchaser is relying solely on the Purchaser's own determination as to tax consequences, and on the Purchaser's own sources of information and advisors with respect to all tax matters, and not on any statements or representations of the Company (other than the representations and warranties in this Agreement), the Placement Agents or any of their respective agents, and understands that the Purchaser (and not the Company) shall be responsible for the Purchaser's own tax liability that may arise as a result of the transactions contemplated by this Agreement. Based on such information as the Purchaser deemed appropriate and without reliance upon the Placement Agents, the Purchaser has independently made its own analysis and decision to purchase the Securities. The Purchaser has (i) had the opportunity to ask questions of and receive answers directly with respect to its purchase of Securities, and (ii) conducted and completed its own independent due diligence with respect to the purchase of Securities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 4 of this Agreement or the right of the Purchasers to rely thereon.

3.10 Residency. Such Purchaser's residence (if an individual) or offices in which its investment decision with respect to the Securities was made (if an entity) are located at the address immediately below such Purchaser's name on the Schedule of Purchasers, or as otherwise noted on the Schedule of Purchasers.

3.11 Disclosure of Information. The Purchaser has had an opportunity to review Homology's 1934 Act filings, such audited financial information of the Company for the years ended December 31, 2021 and December 31, 2022 and such other information as the undersigned deems necessary in order to make an investment decision with respect to the Securities, and discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Securities and the terms and related risks of the Merger with the Company's management. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 4 of this Agreement or the right of the Purchasers to rely thereon.

3.12 Placement Agents. Such Purchaser hereby acknowledges and agrees that it has independently evaluated the merits of its decision to purchase the Securities, and that (a) the Placement Agents are acting solely as placement agents in connection with the execution, delivery and performance of this Agreement, the Registration Rights Agreement or the Merger Agreement and are not acting as an underwriter or in any other capacity and is not and shall not be construed as a fiduciary for such Purchaser, the Company or any other Person in connection with the execution, delivery and performance of this Agreement, the Registration Rights Agreement or

the Merger Agreement, (b) the Placement Agents have not made and will not make any representation or warranty, whether express or implied, of any kind or character and has not provided any advice or recommendation in connection with the execution, delivery and performance of this Agreement, the Registration Rights Agreement or the Merger Agreement and (c) the Placement Agents will not have any responsibility with respect the business, affairs, financial condition, operations, properties or prospects of, or any other matter concerning the Company.

SECTION 4. Representations and Warranties by the Company. The Company represents and warrants to the Purchasers that:

4.01 Absence of Changes. The Company has conducted its business only in the ordinary course of business (except for the execution and performance of this Agreement and the Merger Agreement, and the discussions, negotiations, and transactions related thereto) and (i) there has not been any change, condition, event, circumstance, occurrence, result, state of facts or development that has or would reasonably be expected to have a materially adverse effect on the business, financial condition, assets, operations, results of operations, stockholders' equity or financial performance of the Company and its subsidiaries, taken as a whole (a "***Material Adverse Effect***"), (ii) there have been no transactions entered into by the Company or any of its subsidiaries, other than those in the ordinary course of business and except as contemplated in this Agreement and the Merger Agreement, which are material with respect to the Company and its subsidiaries considered as one enterprise, and (iii) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

4.02 Organization and Good Standing of the Company. The Company and its subsidiaries have been duly organized or incorporated (as applicable) and are validly existing and in good standing (as applicable) under the laws of their respective jurisdictions of organization or incorporation, and have all necessary power and authority (i) to conduct the business in which they are engaged in all material respects in the manner in which their respective business is currently being conducted, (ii) to own or lease and use their respective property and assets in the manner in which their respective property and assets are currently owned or leased and used in all material respects and (iii) to perform their respective obligations under all contracts by which they are bound in all material respects. The Company and its subsidiaries are each duly qualified as a foreign corporation (or other applicable entity) to transact business and are in good standing in each other jurisdiction in which such qualification is required, whether by ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not result in a Material Adverse Effect.

4.03 Subsidiaries. The Company does not have any subsidiaries except as set forth on Schedule 4.03, and does not otherwise own any shares of capital stock or any interest in any other Person. The Company does not control directly or indirectly or have any direct or indirect equity participation or similar interest in any corporation, partnership, limited liability company, joint venture, trust or other business association or entity, except as set forth on Schedule 4.03. Except as disclosed on Schedule 4.03, the Company owns 100% of the equity interests of each of its subsidiaries.

4.04 Validity; Valid Issuance of Securities. The Company has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated by this Agreement, subject only to the adoption of the Merger Agreement in accordance with the terms thereof by the Company's stockholders under the Delaware General Corporation Law and the Company's certificate of incorporation. The execution and delivery of this Agreement and the consummation of the transactions contemplated by this Agreement by the Company have been duly authorized by all necessary corporate action on the part of the Company. Assuming the due authorization, execution and delivery by Purchaser, this Agreement constitutes a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies. The Securities are duly authorized and, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, will be validly issued, fully paid and nonassessable and free and clear of any liens or other restrictions, other than restrictions on transfer under applicable state and federal securities laws or such restrictions as the Purchaser has agreed to in writing with the Company, and will not have been issued in violation of or subject to any preemptive or similar rights created under the Company's certificate of incorporation or bylaws or the Delaware General Corporation Law.

4.05 Governmental Consents and Filings. Assuming the accuracy of the representations made by the Purchasers in Section 3 hereof and except as set forth in the Merger Agreement, no material consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any Governmental Entity (as defined below) is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for filings pursuant to Regulation D of the 1933 Act and applicable state securities laws, which have been made or will be made in a timely manner.

4.06 Absence of Violations, Defaults and Conflicts. Neither the Company nor any of its subsidiaries is (i) in violation of its charter, bylaws or similar organizational document, (ii) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound or to which any of the properties or assets of the Company or any subsidiary is subject (collectively, "***Agreements and Instruments***"), except for such defaults that would not, singly or in the aggregate, result in a Material Adverse Effect, or (iii) in violation of any law, statute, rule, regulation, judgment, order, writ or decree of any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency having jurisdiction over the Company or any of its subsidiaries or any of their respective properties, assets or operations (each, a "***Governmental Entity***"), except for such violations that would not, singly or in the aggregate, result in a Material Adverse Effect. The execution, delivery and the performance of this Agreement and the consummation of the transactions contemplated herein (including the issuance and sale of the Securities) and compliance by the Company with its obligations hereunder do not and will not, whether with or without the giving of notice or passage of time or both, (1) conflict with or constitute a breach of, or default under, or result in the creation or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or any subsidiary pursuant to, the Agreements and Instruments, (2) result in any violation of the provisions of the certificate of incorporation, by-laws or similar organizational document of the Company or any of its subsidiaries or (3) result in any violation of any applicable law, statute, rule, regulation, judgment, order, writ or decree of any Governmental Entity, except in the case of clauses (1) and (3), for such violations as would not, singly or in the aggregate, have or reasonably be expected to have a Material Adverse Effect, or materially affect the validity of the Securities or the legal authority of the Company to perform its obligations hereunder and timely comply in all material respects with the terms of this Agreement or the Merger Agreement.

4.07 Absence of Proceedings. There is no action, suit, proceeding or, to the knowledge of the Company, inquiry or investigation, before or brought by any Governmental Entity now pending or, to the knowledge of the Company, threatened, against or affecting the Company or any of its subsidiaries, which would have or reasonably be expected to materially and adversely affect the validity of the Securities or the legal authority of the Company to perform its obligations hereunder and timely comply in all material respects with the terms of this Agreement or the Merger Agreement.

4.08 Possession of Licenses and Permits. The Company and its subsidiaries possess such permits, licenses, approvals, consents and other authorizations (collectively, "***Governmental Licenses***") issued by the appropriate Governmental Entities necessary to conduct the business now operated by them, except where the failure so to possess would not, singly or in the aggregate, reasonably be expected to be material to the Company or any of its subsidiaries, taken as a whole. The Company and its subsidiaries are in compliance with the terms and conditions of all Governmental Licenses, except where the failure so to comply would not, singly or in the aggregate, reasonably be expected to be material to the Company or any of its subsidiaries, taken as a whole. All of the Governmental Licenses are valid and in full force and effect, except when the invalidity of such Governmental Licenses or the failure of such Governmental Licenses to be in full force and effect would not, singly or in the aggregate, reasonably be expected to be material to the Company or any of its subsidiaries, taken as a whole. Neither the Company nor any of its subsidiaries has received any notice of proceedings relating to the revocation or modification of any Governmental Licenses which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would reasonably be expected to be material to the Company or any of its subsidiaries, taken as a whole.

4.09 Payment of Taxes. All United States federal income tax returns of the Company and its subsidiaries required by law to be filed have been filed and all taxes shown by such returns or otherwise assessed, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly

taken and as to which adequate reserves have been provided. No assessment in connection with United States federal tax returns has been made against the Company. The Company and its subsidiaries have filed all other material tax returns that are required to have been filed by them or have timely requested extensions thereof pursuant to applicable foreign state, local or other law, and has paid all material taxes due pursuant to such returns or all material taxes due and payable pursuant to any assessment received by the Company and its subsidiaries, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been established by the Company or its subsidiaries. There are no (i) examinations or audits of any tax return of the Company or its subsidiaries that are pending or in progress involving any material taxes or (ii) unresolved written claims that have been received by the Company or its subsidiaries from any governmental body in any jurisdiction where the Company or any such subsidiary, as applicable, does not file tax returns that the Company or any such subsidiary is or may be subject to taxes in that jurisdiction. No extension or waiver of the statute of limitation period applicable to any material tax returns of the Company or material tax has been granted and is currently in effect other than automatic extensions of the time in which to file a tax return of the Company obtained in the ordinary course of business.

4.10 Insurance. The Company and the subsidiaries carry or are entitled to the benefits of insurance, with what the Company reasonably believes to be financially sound and reputable insurers, in such amounts and covering such risks as is adequate for the conduct of their respective businesses and the value of their respective properties and assets, and all such insurance is in full force and effect. The Company has no reason to believe that it or any of the subsidiaries will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not reasonably be expected to be material to the Company or any of its subsidiaries, taken as a whole.

4.11 Investment Company Act. Neither the Company nor any of its subsidiaries is or, immediately after the sale of the Securities hereunder will be and immediately after the closing of the Merger, neither the combined company nor any of its subsidiaries will be required to be registered as an "investment company" under the Investment Company Act of 1940, as amended.

4.12 Shell Company Status. Neither the Company nor Homology is, or has ever been, an issuer identified in Rule 144(i)(1) promulgated under the 1933 Act.

4.13 Studies, Tests and Preclinical and Clinical Trials. The pre-clinical studies and clinical trials conducted by or, to the Company's knowledge, on behalf of or sponsored by the Company and its subsidiaries were, and if still pending are, being conducted in all material respects in accordance with standard medical and scientific research standards and procedures for products or product candidates comparable to those being developed by the Company and Applicable Law and current Good Clinical Practices and Good Laboratory Practices. Neither the Company nor its subsidiaries has received any written notices or correspondence from any Governmental Entity requiring or threatening the termination, modification or suspension of any pre-clinical studies or clinical trials other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies or trials, and, to the Company's knowledge, there are no reasonable grounds for the same.

4.14 Regulatory Matters. Except as would not, singly or in the aggregate, have or reasonably be expected to have a Material Adverse Effect: (i) neither the Company nor any of its subsidiaries has received any FDA Form 483, notice of adverse finding, warning letter or other correspondence or written notice from the U.S. Food and Drug Administration ("***FDA***") or any other Governmental Entity alleging or asserting noncompliance with (x) any statutes, laws, ordinances, rules and regulations applicable to the Company and its subsidiaries for the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company, including without limitation, the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 301, et seq., similar laws of other Governmental Entities and the regulations promulgated pursuant to such laws (collectively, "***Applicable Laws***") or (y) any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws and/or to carry on its businesses as now conducted ("***Authorizations***") and (ii) the Company and each of its subsidiaries has filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete, correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission)..

4.15 Compliance With Laws. The Company has complied in all material respects with, is not in material violation of, and has not received any written notice alleging any violation with respect to, any applicable provisions of any statute, law or regulation with respect to the conduct of its business, or the ownership or operation of its properties or assets.

4.16 Information Provided. The information to be supplied by or on behalf of the Company for inclusion or incorporation by reference in the Registration Statement (as defined in the Merger Agreement), or supplied by or on behalf of the Company for inclusion in any filing pursuant to Rule 165 and Rule 425 under the 1933 Act or Rule 14a-12 under the 1934 Act (each a "***Regulation M-A Filing***"), shall not, at the time the Registration Statement or any such Regulation M-A Filing is filed with the Securities and Exchange Commission (the "***Commission***"), at any time it is amended or supplemented or at the time the Registration Statement is declared effective by the Commission, as applicable, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading. The information to be supplied by or on behalf of the Company for inclusion in the Registration Statement to be sent to the stockholders of Homology in connection with the meeting of Homology's stockholders (the "***Public Company Meeting***"), shall not, on the date the proxy statement/prospectus included in the Registration Statement is first mailed to stockholders of Homology, at the time of the Public Company Meeting or at the Effective Time, contain any statement that, at such time and in light of the circumstances under which it shall be made, is false or misleading with respect to any material fact, or omit to state any material fact necessary in order to make the statements made in the Registration Statement not false or misleading; or omit to state any material fact necessary to correct any statement in any earlier communication with respect to the solicitation of proxies for the Public Company Meeting that has become false or misleading.

4.17 No Additional Agreements. The Company does not have any agreement with any Purchaser with respect to the transactions contemplated by this Agreement other than as specified in this Agreement.

4.18 Private Placement. None of the Company, its subsidiaries or any person acting on its or their behalf, has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security under any circumstances that would require registration under the 1933 Act of the Securities being sold pursuant to this Agreement. Assuming the accuracy of the representations and warranties of the Purchasers contained in Section 3 hereof, the issuance and sale of the Securities is exempt from registration under the 1933 Act.

4.19 No Disqualification Events. No "bad actor" disqualifying event described in Rule 506(d)(1)(i)-(viii) of the 1933 Act (a "***Disqualification Event***") is applicable to the Company or, to the Company's knowledge, any Company Covered Person (as defined below), except for a Disqualification Event as to which Rule 506(d)(2)(ii–iv) or (d)(3) is applicable. "***Company Covered Person***" means, with respect to the Company as an "issuer" for purposes of Rule 506 promulgated under the 1933 Act, any person listed in the first paragraph of Rule 506(d)(1). The Company is not aware of any Person (other than any Company Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of the Securities pursuant to this Agreement. The Company has complied, to the extent applicable, with its disclosure obligations under Rule 506(e).

4.20 No General Solicitation. Neither the Company nor, to the Company's knowledge, any person acting on behalf of the Company has offered or sold any of the Securities by any form of general solicitation or general advertising.

4.21 No Integrated Offering. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3 hereof, none of the Company, its subsidiaries nor, to the Company's knowledge, any of its or their Affiliates or any Person acting on its or their behalf has, directly or indirectly, at any time within the past six (6) months, made any offers or sales of any Company security or solicited any offers to buy any security under circumstances that would (i) eliminate the availability of the exemption from registration under Section 4(a)(2) and/or Regulation D under the 1933 Act in connection with the offer and sale by the Company of the Securities as contemplated hereby or (ii) cause the offering of the Securities pursuant to this Agreement to be integrated with prior offerings by the Company for purposes of any applicable law, regulation or stockholder approval provisions, including, without limitation, under the rules and regulations of any National Exchange on which any of the securities of the Company are listed or designated.

4.22 Brokers. Other than the Placement Agents, there is no broker, investment banker, financial advisor, finder or other person which has been retained by or is authorized to act on behalf of the Company that is entitled to any fee or commission in connection with the execution of this Agreement and the consummation of the transactions contemplated hereby.

4.23 Additional Representations and Warranties. The Company's representations and warranties set forth in the Merger Agreement in Section 3.3 (Authority; Binding Nature of Agreement), Section 3.7 (Financial Statements), Section 3.6 (Capitalization), 3.10 (Title to Assets), 3.11 (Real Property; Leasehold), 3.12 (Intellectual Property), 3.13 (Agreements, Contracts and Commitments), 3.14 (Compliance; Permits; Restrictions) (except with respect to the first sentence of clause (a) thereof and with respect to clauses (e) and (h) thereof), 3.17 (Employee and Labor Matters; Benefit Plans), 3.18 (Environmental Matters), 3.21 (Transactions with Affiliates) and 3.22 (Privacy and Data Security) are hereby incorporated by reference and made by the Company, as qualified by the disclosures in the Q32 Disclosure Schedule (as defined in the Merger Agreement). As of the Effective Date, the representations and warranties of Homology in the Merger Agreement and in any certificate or other writing delivered by Homology pursuant thereto are true and correct.

4.24 Merger Agreement. The Purchasers have been provided with true, complete and correct copies of the Merger Agreement and the Q32 Disclosure Schedule (as defined in the Merger Agreement) in the form originally executed, and there have been no amendments or waivers thereto other than those as to which the Purchasers have been advised in writing.

4.25 Employee Agreements. To the Company's knowledge, each current and former employee, consultant and officer of the Company has executed an agreement with the Company regarding confidentiality, proprietary information and assignment of inventions and intellectual property rights (the "***Confidential Information Agreements***"). To the Company's knowledge, no current or former employee or consultant has excluded works or inventions from his or her assignment of inventions pursuant to such person's Confidential Information Agreement. To the Company's knowledge, no employee or consultant is in violation of any agreement described in this Section 4.25.

4.26 Anti-Corruption. Neither the Company nor any of its subsidiaries nor any officer or director of the Company or its subsidiaries nor, to the Company's knowledge, any employee of, or any agent, affiliate or other person associated with or acting on behalf of, the Company or any of its subsidiaries has (a) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity, (b) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office, (c) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law or (d) made, offered, agreed, requested or taken an act in furtherance of any unlawful bribe or other unlawful benefit, including, without limitation, any rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit. The Company and its subsidiaries have conducted their businesses in compliance with applicable anti-corruption laws in all material respects and each has instituted, maintains and enforces, policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws.

4.27 Anti-Money Laundering. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable money laundering statutes of all jurisdictions where the Company or any of its subsidiaries conducts business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency (collectively, the "***Anti-Money Laundering Laws***") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the Company's knowledge, threatened.

4.28 Sanctions. Neither the Company nor any of its subsidiaries nor any director or officer of the Company or its subsidiaries nor to the Company's knowledge, any employee of, or any agent, Affiliate or other person associated with or acting on behalf of, the Company or any of its subsidiaries is currently the subject or the target of any sanctions administered or enforced by the U.S. government (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as a "specially designated national" or "blocked person"), the United Nations Security Council, the European Union, His Majesty's Treasury or other relevant sanctions authority (collectively, "***Sanctions***"), nor is the Company or any of its subsidiaries located, organized or resident in a country or territory that is the subject or target of Sanctions, including, without limitation, the so-called Donetsk People's Republic, the so-called Luhansk People's Republic or any other Covered Region of Ukraine identified pursuant to Executive Order 14065, Crimea, Cuba, Iran, North Korea and Syria (each, a "***Sanctioned Country***"). The Company will not directly or indirectly use the proceeds of the offering and sale of the Securities hereunder, or lend, contribute or otherwise make available such proceeds to any Company subsidiary, joint venture partner or other person or entity (a) to fund or facilitate any activities of or business with any Person that, at the time of such funding or facilitation, is the subject or target of Sanctions, (b) to fund or facilitate any activities of or business in any Sanctioned Country or (c) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions, except in cases where compliance with extraterritorial provisions in any such sanctions would be unlawful for the Company. For the past five (5) years, the Company and its subsidiaries have not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country. Nothing in this paragraph shall impose any obligations and/or restrictions on the Company or any of its subsidiaries that will cause the Company or any of its subsidiaries to be, and will only apply if and to the extent that it does not cause the Company or any of its subsidiaries to be, in violation of EU Regulation (EC) 2271/96 (EU Blocking Statute) as amended from time to time, or any applicable implementing legislation, including, but not limited, to the German Foreign Trade Regulations (*Außenwirtschaftsverordnung*), or any similar anti-boycott law, statute or regulation.

4.29 Reliance by Purchasers. The Company acknowledges that each Purchaser will rely upon the truth and accuracy of, and the Company's compliance with, the representations, warranties, agreements, acknowledgements and understandings of the Company set forth in this Agreement.

SECTION 5. Covenants.

5.01 Further Assurances. At or prior to Closing, each party agrees to cooperate and generally do such reasonable acts and things in good faith as may be necessary to timely satisfy each of the conditions to be satisfied by it as provided in Section 6 of this Agreement and effectuate the intents and purposes of this Agreement subject to the terms and conditions hereof.

5.02 Disclosure of Transactions and Other Material Information. The Company shall or shall cause Homology to, (i) on or before 9:30 a.m., New York City time, within one (1) Business Day immediately following the date of this Agreement, issue one or more press releases disclosing the signing of the Merger Agreement and (ii) on or before 5:30 p.m., New York City time, within one (1) Business Day immediately following the date of this Agreement, file with the Commission a Current Report on Form 8-K (collectively with the press release, the "***Disclosure Document***") disclosing all material terms of the transactions contemplated hereby and any other material nonpublic information within the meaning of the federal securities laws that the Company, Homology or their respective officers, directors, employees, agents or any other person acting at the direction of the Company or Homology has provided to the Purchasers in connection with the transactions contemplated by this Agreement prior to the filing of the Disclosure Document. The Company represents and warrants that, from and after the issuance of the Disclosure Document, no Purchaser shall be in possession of any material nonpublic information received from the Company, Homology or their respective officers, directors, employees, agents or other person acting at their direction. The Company shall not, and shall cause its officers, directors, employees and agents and Homology not to, publicly disclose the name of any Purchaser or any affiliate or investment adviser of any Purchaser, or include the name of any Purchaser or any affiliate or investment adviser of any Purchaser without the prior written consent (including by e-mail) of such Purchaser (i) in any press release or marketing materials, or (ii)

in any filing with the Commission or any regulatory agency or trading market, except (A) as required by the federal securities laws, rules or regulations, (B) to the extent such disclosure is required by other laws, rules or regulations, at the request of the staff of the Commission or regulatory agency or under regulations of any national securities exchange on which Homology's securities are listed for trading or (C) to the extent such disclosure contains only information previously approved in accordance with this Section 5.02, and in the case of any disclosure made pursuant to clause (ii), the Company will provide the Purchaser with prior written notice (including by e-mail) of and an opportunity to review the applicable portion of such filing.

5.03 Expenses. The Company and each Purchaser is liable for, and will pay, its own expenses incurred in connection with the negotiation, preparation, execution and delivery of this Agreement, including, without limitation, attorneys' and consultants' fees and expenses.

5.04 Blue Sky Laws. The Company, on or before the Closing Date, shall take such action as the Company shall reasonably determine is necessary in order to obtain an exemption for or to qualify the Securities for sale to each Purchaser at the Closing pursuant to this Agreement under applicable securities or "blue sky" laws of the states of the United States (or to obtain an exemption from such qualification). The Company shall make all filings and reports relating to the offer and sale of the Securities required under applicable securities or "blue sky" laws of the states of the United States following the Closing Date.

5.05 No Amendment or Waiver of Merger Agreement Terms. The Company shall not amend, modify or waive (or approve an amendment, modification or a waiver requested by Homology of, or fail to contest an action regarding a breach of) any provision of the Merger Agreement in a manner that would reasonably be expected to materially and adversely affect the benefits that the Purchaser would reasonably expect to receive pursuant to this Agreement without the consent of each Purchaser, it being understood that any amendment or modification of the Q32 Equity Value (as defined in the Merger Agreement) or the consideration paid pursuant to the Allocation Certificate (as defined in the Merger Agreement) are deemed to be amendments that materially and adversely affect the benefits that the Purchaser would reasonably expect to receive pursuant to this Agreement.

5.06 Equal Treatment of Purchasers. No consideration shall be offered or paid to any Purchaser to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration is also offered to all of the Purchasers. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of shares of Common Stock or otherwise.

SECTION 6. Conditions of Closing.

6.01 Conditions of the Purchasers' Obligations at the Closing. The obligations of each Purchaser under Section 2 hereof are subject to the fulfillment, at or prior to the Closing, of all of the following conditions, unless otherwise waived by such Purchaser solely as to itself.

(a) Representations and Warranties. The representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects on the Effective Date, and shall be true and correct in all material respects on and as of the Closing Date with the same effect as though such representations and warranties had been made on and as of the Closing Date (except (i) to the extent expressly made as of an earlier date in which case as of such earlier date and (ii) representations and warranties that are qualified as to materiality or Material Adverse Effect, which representations and warranties shall be true in all respects).

(b) Performance. The Company shall have performed and complied in all material respects with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by it on or prior to the Closing Date.

(c) Compliance Certificate. The Chief Executive Officer of the Company shall have delivered to the Purchasers at the Closing Date a certificate, in form and substance reasonably acceptable to the Purchasers, certifying that the conditions specified in Sections 6.01(a), 6.01(b), 6.01(f), 6.01(j), 6.01(k) and 6.01(l) of this Agreement have been fulfilled.

(d) Qualification under Securities Laws. All registrations, qualifications, permits and approvals, if any, required under applicable securities laws shall have been obtained for the lawful execution, delivery and performance of this Agreement.

(e) Secretary's Certificate. The Secretary of the Company shall have delivered to the Purchasers at the Closing a certificate, in form and substance reasonably acceptable to the Purchasers (such consent not to be unreasonably withheld, conditioned or delayed), certifying (i) the certificate of incorporation and bylaws of the Company, (ii) authorization of the Board of Directors of the Company approving this Agreement and the transactions contemplated under this Agreement (including the Merger Agreement) and (iii) as to certificates evidencing the good standing of the Company in Delaware issued by the Secretary of State of Delaware and in the Commonwealth of Massachusetts issued by the Secretary of the Commonwealth of Massachusetts, each as of a date within five Business Days of the Closing Date.

(f) Merger. All conditions to the closing of the Merger shall have been satisfied or waived (other than the Closing hereunder and other than those conditions which, by their nature, are to be satisfied at the closing of the transactions contemplated by the Merger Agreement, but subject to the satisfaction of such conditions as of the closing of the transactions contemplated by the Merger Agreement), and the closing of the Merger shall be set to occur substantially concurrently with the Closing hereunder. The Company shall not have amended, modified, or waived any provision under the Merger Agreement (as the same exists on the date of this Agreement) in a manner that would reasonably be expected to materially and adversely affect the benefits that Purchaser would reasonably expect to receive under this Agreement without having received each affected Purchaser's prior written consent, it being understood that any amendment or modification of the Q32 Equity Value or consideration paid pursuant to the Allocation Certificate (as defined in the Merger Agreement) are deemed to be amendments that materially and adversely affects the benefits that the Purchaser would reasonably expect to receive pursuant to this Agreement

(g) No Injunction. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any Governmental Entity of competent jurisdiction that prohibits the consummation of any of the transactions contemplated by this Agreement.

(h) Registration Rights Agreement. The Company shall have delivered the fully executed Registration Rights Agreement.

(i) Opinion of Company Counsel. The Purchasers shall have received from Goodwin Procter LLP, counsel for the Company, an opinion, dated as of the Closing, in the form and substance typical for transactions of this nature.

(j) Registration Statement; Proxy Statement/Prospectus. The Registration Statement shall have become effective under the 1933 Act and no stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceeding for that purpose, and no similar proceeding with respect to the Registration Statement shall have been, to the Company's knowledge, initiated or threatened in writing by the Commission or its staff.

(k) Nasdaq. The shares of Homology's common stock, par value $0.0001 per share (the "***Homology Common Stock***") to be issued in the Merger (including, for the avoidance of doubt, shares of Homology Common Stock issued in exchange for the Securities issued hereunder) shall have been approved for listing (subject to official notice of issuance) on Nasdaq.

(l) Financing Amount. The Company shall receive at Closing the Financing Amount.

6.02 Conditions of the Company's Obligations. The obligations of the Company under Section 2 hereof are subject to the fulfillment, at or prior to the Closing, of all of the following conditions, any of which may be waived in whole or in part by the Company in its absolute discretion.

(a) Representations and Warranties. The representations and warranties of the Purchasers contained in this Agreement shall be true and correct as of the Effective Date and true and correct in all material respects on and as of the Closing Date with the same effect as though such representations and warranties had been made on and as of the Closing Date (except to the extent expressly made as of an earlier date in which case shall be as of such earlier date).

(b) Performance. Each Purchaser shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by it on or prior to the Closing Date.

(c) Qualification under Securities Laws. All registrations, qualifications, permits and approvals, if any, required under applicable securities laws shall have been obtained for the lawful execution, delivery and performance of this Agreement.

(d) Merger. All conditions to the closing of the Merger shall have been satisfied or waived (other than the Closing hereunder and other than those conditions which, by their nature, are to be satisfied at the closing of the transactions contemplated by the Merger Agreement), and the closing of the Merger shall be set to occur substantially concurrently with the Closing hereunder.

SECTION 7. Transfer Restrictions; Restrictive Legend.

7.01 Transfer Restrictions.

(a) Each Purchaser understands that the Company may, as a condition to the transfer of any of the Securities, require that the request for transfer be accompanied by a certificate and/or an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed transfer does not result in a violation of the 1933 Act, unless such transfer is covered by an effective registration statement or is exempt from the registration requirements of the 1933 Act, including under Rule 144. It is understood that the certificates evidencing the Securities may bear substantially the following legend:

"THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY APPLICABLE STATE SECURITIES LAWS. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF A REGISTRATION STATEMENT IN EFFECT WITH RESPECT TO THE SECURITIES UNDER SUCH ACT OR APPLICABLE STATE SECURITIES LAWS OR A VALID EXEMPTION FROM REGISTRATION UNDER SUCH ACT OR APPLICABLE STATE SECURITIES LAWS."

(b) Upon request by a Purchaser, the Company shall use reasonable best efforts to cause to be removed any restrictive legend within three (3) Business Days of such request in connection with any sale of any Securities bearing such restrictive legend pursuant to Rule 144 or any other applicable exemption from the registration requirements of the Securities Act; provided the Company has received customary representations and other documentation reasonably acceptable to the Company in connection therewith. Notwithstanding the foregoing, promptly following the one-year anniversary of the Closing, the Company shall remove any legend from the book-entry position representing the Securities then held by non-affiliates of the Company. The Company shall be responsible for the fees of its transfer agent and counsel to the Company associated with such issuances.

Section 8. Definitions. Unless the context otherwise requires, the terms defined in this Section 8 shall have the meanings specified for all purposes of this Agreement.

"***1933 Act***" means the Securities Act of 1933, as amended.

"***1934 Act***" means the Securities Exchange Act of 1934, as amended.

"***Affiliate***" shall have the meaning ascribed to such term in Rule 12b-2 of the General Rules and Regulations under the 1934 Act.

"***Business Day***" means any day other than Saturday, Sunday or other day on which commercial banks in the City of New York are authorized or required by law to remain closed.

"***Financing Amount***" means $42,000,000.

"***Good Clinical Practices***" means the FDA's standards for the design, conduct, performance, monitoring, auditing, recording, analysis, and reporting of clinical trials contained in 21 C.F.R. Parts 50, 54, 56 and 312.

"***Good Laboratory Practices***" means the FDA's standards for conducting non-clinical laboratory studies contained in 21 C.F.R. Part 58.

"***National Exchange***" means the Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market, or the New York Stock Exchange.

"***Person***" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"***Purchase Price***" means an amount equal to (i) the Q32 Equity Value (as defined in the Merger Agreement), divided by (ii) the number of outstanding shares of Q32 Common Stock (as defined in the Merger Agreement but excluding the Securities being issued hereunder) as of immediately prior to the closing of the offering of the Securities hereunder.

"***Purchaser Majority***" means, prior to the Closing, the Purchasers committed to purchase at least a majority the Securities and, following the Closing, the Purchasers who hold at least a majority of the Securities (including any Homology Common Stock issued in exchange therefore) still held by the Purchasers.

"***Registration Rights Agreement***" means the Registration Rights Agreement, in the form attached hereto as Exhibit A, to be entered into at the Closing among the Company and each Purchaser.

"***Rule 144***" means Rule 144 promulgated by the Commission pursuant to the 1933 Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as Rule 144.

SECTION 9. Miscellaneous.

9.01 Waivers and Amendments. Neither this Agreement, nor any provision hereof, may be changed, waived, amended or modified orally or by course of dealing, but only by an instrument in writing executed by the Company and the Purchaser Majority, *provided* that, (a) if any, change, waiver, amendment, modification disproportionately and adversely impacts a Purchaser (or group of Purchasers), the consent of such disproportionately impacted Purchaser (or group of Purchasers) shall be required and (b) the consent of each Purchaser shall be required for any change in the Purchase Price or applicable Purchaser's Subscription Amount, any change in the type of security to be issued to Purchasers at Closing, or the amendment or waiver of Section 9.12 or 9.13 or of any of the closing conditions set forth in Sections 6.01(a), 6.01(f), 6.01(j), 6.01(k), or 6.01(l).

9.02 Notices. All notices, requests, consents, and other communications under this Agreement shall be in writing and shall be deemed delivered (a) when delivered, if delivered personally, (b) four Business Days after being sent by registered or certified mail, return receipt requested, postage prepaid, (c) one Business Day after being sent via a reputable nationwide overnight courier service guaranteeing next Business Day delivery, or (d) when receipt is acknowledged, in the case of email, in each case to the intended recipient as set forth below, with respect to the Company, and to the addresses set forth on the Schedule of Purchasers with respect to the Purchasers.

if to the Company:

Q32 Bio Inc.
830 Winter St.
Waltham, MA 02451
Attention: Jodie Morrison
Email: Jmorrison@q32bio.com

with a copy to (which shall not constitute notice):

Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
Attention: Jacqueline Mercier, Kingsley Taft
Email: JMercier@goodwinlaw.com, KTaft@goodwinlaw.com

or at such other address as the Company or each Purchaser may specify by written notice to the other parties hereto in accordance with this Section 9.02.

9.03 Cumulative Remedies. None of the rights, powers or remedies conferred upon each Purchaser, on the one hand, or the Company, on the other hand, shall be mutually exclusive, and each such right, power or remedy shall be cumulative and in addition to every other right, power or remedy, whether conferred by this Agreement or now or hereafter available at law, in equity, by statute or otherwise.

9.04 Successors and Assigns. All the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective parties hereto, the successors and permitted assigns of each Purchaser and the successors of the Company, whether so expressed or not. None of the Purchasers may assign its rights or obligations hereof without the prior written consent of the Company, except that a Purchaser may, without the prior consent of the Company, assign its rights to purchase the Securities hereunder to any of its affiliates or to any other investment funds or accounts managed or advised by the investment manager who acts on behalf of Purchaser (*provided* each such assignee agrees to be bound by the terms of this Agreement and makes the same representations and warranties set forth in Section 3 hereof). The Company may not assign its rights or obligations hereof without the consent of the Purchaser Majority. This Agreement shall not inure to the benefit of or be enforceable by any other person.

9.05 Exculpation of Placement Agents. Each party hereto agrees for the express benefit of each of the Placement Agents, its affiliates and its representatives that:

(a) Each of the Placement Agents is acting solely as financial advisor to the Company in connection with the sale of the Securities and is not acting in any other capacity and is not and shall not be construed as a fiduciary for the Purchaser, or any other person or entity in connection with the sale of Securities.

(b) No Placement Agent or any of its affiliates or any of its representatives (i) shall be liable for any improper payment made in accordance with the information provided by the Company, (ii) has made or will make any representation or warranty, express or implied, of any kind or character, and has not provided any advice or recommendation to the Purchasers in connection with the purchase or sale of the Securities, (iii) has any responsibilities as to the validity, accuracy, completeness, value or genuineness, as of any date, of any information, certificates or documentation delivered by or on behalf of the Company pursuant to this Agreement, the Registration Rights Agreement or the Merger Agreement, or in connection with any of the transactions contemplated by such agreements, including any valuation, offering or marketing materials, or any omissions from such materials; or (iv) shall be liable or have any obligation (including without limitation, for or with respect to any losses, claims, damages, obligations, penalties, judgments, awards, liabilities, costs, expenses or disbursements incurred by the Purchaser, the Company or any other person or entity), whether in contract, tort or otherwise to the Purchaser or to any person claiming through the Purchaser, (x) for any action taken, suffered or omitted by any of them in good faith and reasonably believed to be authorized or within the discretion or rights or powers conferred upon it by this Agreement, the Registration Rights Agreement or the Merger Agreement or (y) for anything which any of them may do or refrain from doing in connection with this Agreement, the Registration Rights Agreement or the Merger Agreement, except for such party's own gross negligence, willful misconduct or bad faith.

(c) The Placement Agents, their respective affiliates and their respective representatives shall be entitled to rely on, and shall be protected in acting upon, any certificate, instrument, opinion, notice, letter or any other document or security delivered to any of them by or on behalf of the Company.

9.06 Headings. The headings of the Sections and paragraphs of this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement.

9.07 Governing Law; Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, regardless of the laws that might otherwise govern under applicable principles of conflicts of laws. IN ANY ACTION OR PROCEEDING BETWEEN ANY OF THE PARTIES ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OF THE CONTEMPLATED TRANSACTIONS, EACH OF THE PARTIES: (A) IRREVOCABLY AND UNCONDITIONALLY CONSENTS AND SUBMITS TO THE EXCLUSIVE JURISDICTION AND VENUE OF THE COURT OF CHANCERY OF THE STATE OF DELAWARE OR, TO THE EXTENT SUCH COURT DOES NOT HAVE SUBJECT MATTER JURISDICTION, THE SUPERIOR COURT OF THE STATE OF DELAWARE OR THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE, (B) AGREES THAT ALL CLAIMS IN RESPECT OF SUCH ACTION OR PROCEEDING SHALL BE HEARD AND DETERMINED EXCLUSIVELY IN ACCORDANCE WITH CLAUSE (A) OF THIS SECTION 9.07, (C) WAIVES ANY OBJECTION TO LAYING VENUE IN ANY SUCH ACTION OR PROCEEDING IN SUCH COURTS, (D) WAIVES ANY OBJECTION THAT SUCH COURTS ARE AN INCONVENIENT FORUM OR DO NOT HAVE JURISDICTION OVER ANY PARTY, (E) AGREES THAT SERVICE OF PROCESS UPON SUCH PARTY IN ANY SUCH ACTION OR PROCEEDING SHALL BE EFFECTIVE IF NOTICE IS GIVEN IN ACCORDANCE WITH SECTION 9.02 OF THIS AGREEMENT AND (F) IRREVOCABLY WAIVES THE RIGHT TO TRIAL BY JURY.

9.08 Survival. The representations and warranties of the Company and the Purchasers contained in Sections 3 and 4 and the agreements and covenants set forth in Sections 5 and 9 shall survive the Closing for the applicable statute of limitations (unless such covenant or agreement terminates earlier in accordance with its terms), which shall not be extended by Section 8106(c) of Title 10 of the Delaware Code or any similar law. Each Purchaser shall be responsible only for its own representations, warranties, agreements and covenants hereunder.

9.09 Counterparts; Effectiveness. This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, with the same effect as if all parties had signed the same document. All such counterparts (including counterparts delivered by facsimile or other electronic format) shall be deemed an original, shall be construed together and shall constitute one and the same instrument. This Agreement shall become effective when each party hereto shall have received counterparts hereof signed by all of the other parties hereto.

9.10 Entire Agreement. This Agreement, together with the Registration Rights Agreement, contains the entire agreement among the parties hereto with respect to the subject matter hereof and, except as set forth below, this agreement supersedes and replaces all other prior agreements, written or oral, among the parties hereto with respect to the subject matter hereof. Notwithstanding the foregoing or anything to the contrary in this Agreement and subject to Section 5.02, this Agreement shall not supersede any confidentiality or other nondisclosure agreements that may be in place between the Company and any Purchaser as of the date hereof.

9.11 Severability. If any provision of this Agreement shall be found by any court of competent jurisdiction to be invalid or unenforceable, the parties hereby waive such provision to the extent that it is found to be invalid or unenforceable. Such provision shall, to the maximum extent allowable by law, be modified by such court so that it becomes enforceable, and, as modified, shall be enforced as any other provision hereof, all the other provisions hereof continuing in full force and effect.

9.12 Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under this Agreement are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance of the obligations of any other Purchaser under this Agreement. Nothing contained herein, and no action taken by any Purchaser pursuant hereto, shall be deemed to constitute the Purchasers as, and the Company acknowledges that the Purchasers do not so constitute, a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group, and the Company will not assert any such claim with respect to such obligations or the transactions contemplated by this Agreement, and the Company acknowledges that the Purchasers are not acting in concert or as a group with respect to such obligations or the transactions contemplated by this Agreement. The Company acknowledges and each Purchaser confirms that it has independently participated in the negotiation of the transaction contemplated hereby with the advice of its own counsel and advisors. Each Purchaser shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose. The Company has elected to provide all Purchasers with the same terms for the convenience of the Company and not because it was required or requested to do so by any Purchaser.

9.13 Termination. This Agreement shall terminate and be void and of no further force and effect, and all obligations of the parties hereunder shall terminate without any further liability on the part of any party in respect thereof, upon the earlier to occur of (a) such date and time that the Merger Agreement is terminated in accordance with its terms, (b) upon the mutual written agreement of the Company and the Purchaser, (c) if, on the Closing Date, any of the conditions of Closing set forth in Section 6 have not been satisfied as of the time required hereunder to be so satisfied or waived by the party entitled to grant such waiver and, as a result thereof, the transactions contemplated by this Agreement are not consummated, or (d) if the Closing has not occurred on or before the Outside Date (as defined in the Merger Agreement), other than as a result of a Willful Breach of a Purchaser's obligations hereunder; *provided*, *however*, that nothing herein shall relieve any party to this Agreement of any liability for common law fraud or for any Willful Breach of any representation, warranty, covenant, obligation or other provision contained in this Agreement. "Willful Breach" means a deliberate act or deliberate failure to act, taken with the actual knowledge that such act or failure to act would result in or constitute a material breach of this Agreement.

9.14 No Third-Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person; *provided*, *however*, that each of the Placement Agents will be entitled to rely, as an express third-party beneficiary, on the representations and warranties of the Purchasers and the Company set forth in Section 3 and Section 4 hereof, the covenants set forth in Section 5 hereof and Sections 9.04, 9.05, 9.08, 9.12 and 9.13 hereof.

[*Signature pages follow*]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

COMPANY:

Q32 BIO INC.,
a Delaware corporation

By: /s/ Jodie Morrison
Name: Jodie Morrison
Title: Chief Executive Officer

HOLDER:

By: _____
Name:
Title:

SCHEDULE OF PURCHASERS

[Intentionally Omitted]

Exhibit A

[Intentionally Omitted]

Schedule 4.03

[Intentionally Omitted]

Exhibit 10.2

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "***Agreement***") is made and entered into as of March 25, 2024, among Q32 Bio Inc., a Delaware corporation, and each of the several purchasers signatory hereto (each such purchaser, a "***Purchaser***" and. collectively, the "***Purchasers***").

WHEREAS, the Company is party to that certain Agreement and Plan of Merger by and among the Company, Kenobi Merger Sub, Inc., and Homology Medicines, Inc. ("***Homology***"), dated as of November 16, 2023 (the "***Merger Agreement***"), pursuant to which the Company will become a wholly-owned subsidiary of Homology (the "***Merger***");

WHEREAS, following the Effective Time (as defined in the Merger Agreement), Homology will change its name to Q32 Bio Inc. ("***TopCo***");

WHEREAS, the Company and the Purchasers are parties to a Subscription Agreement, dated as of November 16, 2023 (the "***Purchase Agreement***"), pursuant to which the Purchasers, severally and not jointly, are purchasing, prior to the Effective Time, shares of Common Stock of the Company (the "***Purchased Shares***"); and

WHEREAS, in connection with the consummation of the transactions contemplated by the Purchase Agreement, and pursuant to the terms of the Purchase Agreement, the parties desire to enter into this Agreement in order to grant certain rights to the Purchasers as set forth below.

NOW, THEREFORE, in consideration of the covenants and promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Definitions.

In addition to the terms defined herein, capitalized terms used and not otherwise defined herein that are defined in the Purchase Agreement shall have the meanings given to such terms in the Purchase Agreement. As used in this Agreement, the following terms shall have the following meanings:

"***Advice***" shall have the meaning set forth in Section 6(c).

"***Company***" means Q32 Bio Inc. for all periods prior to the Effective Time and TopCo for all periods after the Effective Time.

"***Effectiveness Date***" means, with respect to the Initial Registration Statement required to be filed hereunder, the 75th calendar day following the Effective Time (or, in the event of a "full review" by the Commission, the 105th calendar day following the Effective Time) and with respect to any additional Registration Statements that may be required pursuant to Sections 2(b) and 2(c) or Section 3(c), the 60th calendar day following the date on which an additional Registration Statement is required to be filed hereunder (or, in the event of a "full review" by the Commission, the 90th calendar day following the date thereof); provided, however, that in the event the Company is notified by the Commission (orally or in writing) that one or more of the above Registration Statements will not be reviewed or is no longer subject to further review and comments, the Effectiveness Date as to such Registration Statement shall be the fifth (5th) Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above, provided, further, if such Effectiveness Date falls on a day that is not a Trading Day, then the Effectiveness Date shall be the next succeeding Trading Day.

"***Effectiveness Period***" shall have the meaning set forth in Section 2(a).

"***Filing Date***" means, with respect to the Initial Registration Statement required hereunder, the 45th calendar day following the Effective Time; provided that if such date would fall during the period in which the Company's Annual Report on Form 10-K for the fiscal year ending December 31, 2023 (the "***2023 Form 10-K***") is due to be filed and the Company's financial statements incorporated by reference into the Initial Registration Statement would be "stale" under Regulation S-X, then such date will be the 5th Business Day following the date upon which the Company files its 2023 Form 10-K, including the information required pursuant to Part III of Form 10-K, and, with respect to any additional Registration Statements that may be required pursuant to Sections 2(b) and 2(c) or Section 3(c), the 30th calendar day following the date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities.

"***Holder***" or "***Holders***" means the holder or holders, as the case may be, from time to time of Registrable Securities.

"***Indemnified Party***" shall have the meaning set forth in Section 5(c).

"***Indemnifying Party***" shall have the meaning set forth in Section 5(c).

"***Initial Registration Statement***" means the initial Registration Statement filed pursuant to this Agreement.

"***Losses***" shall have the meaning set forth in Section 5(a).

"***Plan of Distribution***" shall have the meaning set forth in Section 2(a).

"***Prospectus***" means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A or Rule 430B promulgated by the Commission pursuant to the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by a Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

"***Registrable Securities***" means, as of any date of determination, (a) all shares of TopCo common stock issued to the Purchasers at the closing of the Merger in respect of the Purchased Shares (which shall account for any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect to the foregoing) (the "***Purchase Agreement Shares***"), (b) all shares of TopCo issued at the closing of the Merger to the Purchasers in respect of all other shares of capital stock of the Company (including capital stock underlying any convertible notes held by the Purchasers immediately prior to the Effective Time) held by Purchaser as of immediately prior to the Effective Time, (c) all shares of Homology common stock held by Purchaser as of immediately prior to the Effective Time, if any, and (d) any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect to the foregoing; provided, however, that any such Registrable Securities shall cease to be Registrable Securities (and the Company shall not be required to maintain the effectiveness of any, or file another, Registration Statement hereunder with respect thereto) upon the earliest to occur of (i) a Registration Statement with respect to the sale of such Registrable Securities is declared effective by the Commission under the Securities Act and such Registrable Securities have been disposed of by the Holder in accordance with such effective Registration Statement, (ii) such Registrable Securities have been previously sold in accordance with Rule 144, or (iii) such securities become eligible for resale without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144, as reasonably determined by counsel to the Company.

"***Registration Statement***" means any registration statement required to be filed hereunder pursuant to Section 2(a) and any additional registration statements contemplated by Section 2(c) or Section 3(c), including (in each case) the Prospectus, amendments and supplements to any such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in any such registration statement.

"***Rule 415***" means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"***Rule 424***" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"***SEC Guidance***" means (i) any publicly-available written or oral guidance of the Commission staff, or any comments, requirements or requests of the Commission staff (whether or not publicly-available); provided, that any such oral guidance, comments, requirements or requests are reduced to writing by the Commission and (ii) the Securities Act.

"***Selling Stockholder Questionnaire***" shall have the meaning set forth in Section 3(a).

"***Trading Day***" means any day on which the TopCo's common stock is traded on a National Exchange.

2. Shelf Registration.

(a) On or prior to each Filing Date, the Company shall prepare and file with the Commission a Registration Statement covering the resale of all of the Registrable Securities that are not then registered on an effective Registration Statement for an offering to be made on a continuous basis pursuant to Rule 415. Each Registration Statement filed hereunder shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance with the provisions of Section 2(d)), and shall contain (unless otherwise directed by Holders holding at least 85% of Registrable Securities) disclosure substantially in the form of the "***Plan of Distribution***" attached hereto as Annex A and substantially in the form of the "***Selling Stockholder***" section attached hereto as Annex B. Subject to the terms of this Agreement, the Company shall use commercially reasonable efforts to cause a Registration Statement filed under this Agreement (including, without limitation, under Section 3(c)) to be declared effective under the Securities Act as promptly as possible after the filing thereof, but in any event no later than the applicable Effectiveness Date, and shall use its reasonable best efforts to keep such Registration Statement continuously effective under the Securities Act until the earlier of the date that all Registrable Securities covered by such Registration Statement (i) have been sold, thereunder or pursuant to Rule 144, or (ii) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144, as determined by the counsel to the Company pursuant to a written opinion letter to such effect, addressed and acceptable to the Company's transfer agent (the "***Effectiveness Period***"). The Company shall telephonically request effectiveness of a Registration Statement as of 5:00 p.m. (New York City time) on a Trading Day. The Company shall notify the Holders via e-mail of the effectiveness of a Registration Statement promptly following confirmation of effectiveness with the Commission. The Company shall, in accordance with SEC Guidance, file a final Prospectus with the Commission as required by Rule 424.

(b) Notwithstanding the registration obligations set forth in Section 2(a), if the Commission informs the Company that all of the Registrable Securities cannot, as a result of the application of Rule 415, be registered for resale as a secondary offering on a single registration statement, the Company agrees to promptly inform each of the Holders thereof and use commercially reasonable efforts to file amendments to the Initial Registration Statement as required by the Commission, covering the maximum number of Registrable Securities permitted to be registered by the Commission, on Form S-3 or such other form available to register for resale the Registrable Securities as a secondary offering; with respect to filing on Form S-3 or other appropriate form; provided, however, that prior to filing such amendment, the Company shall be obligated to use commercially reasonable efforts to advocate with the Commission for the registration of all of the Registrable Securities in accordance with the SEC Guidance.

(c) Notwithstanding any other provision of this Agreement, if the Commission or any SEC Guidance sets forth a limitation on the number of Registrable Securities permitted to be registered on a particular Registration Statement as a secondary offering, including as a result of the application of Rule 415 (and notwithstanding that the Company used commercially reasonable efforts to advocate with the Commission for the registration of all or a greater portion of Registrable Securities), unless otherwise directed in writing by a Holder as to its Registrable Securities, the total number of Registrable Securities to be registered on such Registration Statement will be reduced as follows:

a. First, the Company shall reduce or eliminate any securities to be included other than Registrable Securities;

b. Second, the Company shall reduce Registrable Securities represented by shares of Common Stock other than the Purchase Agreement Shares (applied, in the case that some of such shares of Common Stock may be registered, to the Holders on a pro rata basis based on the total number of such unregistered shares of Common Stock held by such Holders); and

c. Third, the Company shall reduce Registrable Securities represented by the Purchase Agreement Shares (applied, in the case that some but not all of Purchase Agreement Shares may be registered, to the Holders on a pro rata basis based on the total number of unregistered Purchase Agreement Shares held by such Holders).

In the event of a cutback hereunder, the Company shall give the Holder at least two (2) Trading Days prior written notice along with the calculations as to such Holder's allotment. In the event the Company amends the Initial Registration Statement in accordance with the foregoing, the Company will use its commercially reasonable efforts to file with the Commission, as promptly as allowed by the Commission or SEC Guidance provided to the Company or to registrants of securities in general, one or more registration statements on Form S-3 or such other form available to register for resale those Registrable Securities that were not registered for resale on the Initial Registration Statement, as amended.

(d) If Form S-3 is not available for the registration of the resale of Registrable Securities hereunder, the Company shall (i) register the resale of the Registrable Securities on another appropriate form and (ii) undertake to register the Registrable Securities on Form S-3 as soon as such form is available, provided that the Company shall maintain the effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the Commission.

3. Registration Procedures.

In connection with the Company's registration obligations hereunder, the Company shall:

(a) As far in advance as reasonably practicable, but in any event not less than five (5) Trading Days prior to the filing of each Registration Statement and not less than one (1) Trading Day prior to the filing of any related Prospectus or any amendment or supplement thereto (including any document that would be incorporated or deemed to be incorporated therein by reference), the Company shall (i) furnish to each Holder copies of all such documents proposed to be filed, which documents (other than those incorporated or deemed to be incorporated by reference) will be subject to the review of such Holders, and (ii) use commercially reasonable efforts to cause its officers and directors, counsel and independent registered public accountants to respond to such inquiries as shall be necessary, in the reasonable opinion of respective counsel to each Holder, to conduct a reasonable investigation within the meaning of the Securities Act. The Company shall not file a Registration Statement or any such Prospectus or any amendments or supplements thereto to which the Required Holders (as defined below) shall reasonably object in good faith, provided that, the Company is notified of such objection in writing no later than three (3) Trading Days after the Holders have been so furnished copies of a Registration Statement or one (1) Trading Day after the Holders have been so furnished copies of any related Prospectus or amendments or supplements thereto. Each Holder agrees to furnish to the Company a completed questionnaire in the form attached to this Agreement as Annex C or such other form as reasonably acceptable to the Company (a "***Selling Stockholder Questionnaire***") on a date that is not less than two (2) Trading Days prior to the Filing Date or by the end of the third (3rd) Trading Day following the date on which such Holder receives draft materials in accordance with this Section. The Company shall not be required to include any Registrable Securities in the Registration Statement for any Holder that has not provided such Selling Stockholder Questionnaire.

(b) (i) Prepare and file with the Commission such amendments, including post-effective amendments, to a Registration Statement and the Prospectus used in connection therewith as may be necessary to keep a Registration Statement continuously effective as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities, (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement (subject to the terms of this Agreement), and, as so supplemented or amended, to be filed pursuant to Rule 424, (iii) respond as promptly as reasonably possible to any comments received from the Commission with respect to a Registration Statement or any amendment thereto and, upon request of Holders, provide as promptly as reasonably possible to the Holders true and complete copies of all correspondence from and to the Commission relating to a Registration Statement (provided that, the Company shall excise any information contained therein that would constitute material non-public information regarding the Company or any of its subsidiaries), and (iv) comply in all material respects with the applicable provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by a Registration Statement during the applicable period in accordance (subject to the terms of this Agreement) with the intended methods of disposition by the Holders thereof set forth in such Registration Statement as so amended or in such Prospectus as so supplemented.

(c) If during the Effectiveness Period, the number of Registrable Securities at any time exceeds 100% of the number of shares of Common Stock then registered in a Registration Statement, then the Company shall, subject to Sections 2(b) and 2(c), if applicable, file as soon as reasonably practicable, an additional Registration Statement covering the resale by the Holders of not less than the number of such Registrable Securities.

(d) Notify the Holders of Registrable Securities to be sold (which notice shall, pursuant to clauses (iii) through (v) hereof, be accompanied by an instruction to suspend the use of the Prospectus until the requisite changes have been made) as promptly as reasonably possible (and, in the case of (i)(A) below, not less than one (1) Trading Day prior to such filing) and (if requested by any such Person) confirm such notice in writing no later than one (1) Trading Day following the day (i)(A) when a Prospectus or any Prospectus supplement or post-effective amendment to a Registration Statement is proposed to be filed, (B) when the Commission notifies the Company whether there will be a "review" of such Registration Statement and whenever the Commission comments in writing on such Registration Statement, and (C) with respect to a Registration Statement or any post-effective amendment, when the same has become effective, (ii) of any request by the Commission or any other federal or state governmental authority for amendments or supplements to a Registration Statement or Prospectus or for additional information, (iii) of the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of a Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceeding for that purpose, (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any action, suit, proceeding, inquiry or investigation before or brought by any Governmental Entity (a "***Proceeding***") for such purpose, and (v) of the occurrence of any event or passage of time that makes the financial statements included in a Registration Statement ineligible for inclusion therein or any statement made in a Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to a Registration Statement, Prospectus or other documents so that, in the case of a Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; provided, however, that in no event shall any such notice contain any information that would constitute material, non-public information regarding the Company or any of its subsidiaries.

(e) Use its commercially reasonable efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order stopping or suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment.

(f) If requested by a Holder, furnish to each Holder, without charge, an electronic copy of the conformed copy of each such Registration Statement and each amendment thereto, including financial statements and schedules, all documents incorporated or deemed to be incorporated therein by reference to the extent requested by such Person, and all exhibits to the extent requested by such Person (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission, provided that any such item that is available on the EDGAR system (or successor thereto) need not be furnished.

(g) Subject to the terms of this Agreement, the Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto, except after the giving of any notice pursuant to Section 3(d).

(h) Prior to any resale of Registrable Securities by a Holder, use its commercially reasonable efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the registration or qualification) of such Registrable Securities for the resale by the Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep each registration or qualification (or exemption therefrom) effective during the Effectiveness Period and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by each Registration Statement, provided that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(i) In connection with any sale pursuant to an effective Registration Statement, if requested by a Holder, promptly (and in any event within five (5) Trading Days of such request) deliver to Holder certificates or book entry statements, as applicable, representing Registrable Securities to be delivered to a transferee pursuant to such effective Registration Statement, which certificates shall be free of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in the name of the transferee as such Holder may reasonably request.

(j) Upon the occurrence of any event contemplated by Section 3(d)(iii) through (v), as promptly as reasonably possible under the circumstances taking into account the Company's good faith determination of any adverse consequences to the Company and its stockholders of the premature disclosure of such event, prepare a supplement or amendment, including a post-effective amendment, to a Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither a Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Company notifies the Holders in accordance with clauses (iii) through (v) of Section 3(d) above to suspend the use of any Prospectus until the requisite changes to such Prospectus have been made, then the Holders shall suspend use of such Prospectus; provided that the Company shall only be entitled to exercise its right under this Section 3(j) to suspend the availability of a Registration Statement and Prospectus up to two (2) occasions in any 12-month period for a period not to exceed 45 consecutive days or a total of ninety (90) calendar days, in each case in any such 12- month period. The Company will use its reasonable best efforts to ensure that the use of the Prospectus may be resumed as promptly as is reasonably practicable.

(k) Otherwise use commercially reasonable efforts to comply with all applicable rules and regulations of the Commission under the Securities Act and the Exchange Act, including, without limitation, Rule 172 under the Securities Act, file any final Prospectus, including any supplement or amendment thereof, with the Commission pursuant to Rule 424 under the Securities Act, promptly inform the Holders in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Holders are required to deliver a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder.

(l) The Company shall use its commercially reasonable efforts to maintain eligibility for use of Form S-3 (or any successor form thereto) for the registration of the resale of the Registrable Securities once eligible to use such form.

(m) The Company may require each selling Holder to furnish to the Company a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and, if required by the Commission, the natural persons thereof that have voting and dispositive control over the shares.

(n) The Company shall use its reasonable best efforts to cause all Registrable Securities to be listed on each securities exchange or market, if any, on which the shares of Homology common stock are listed.

(o) The Company shall, at its sole expense, upon appropriate notice from a Holder stating that Registrable Securities have been sold or transferred pursuant to an effective Registration Statement, promptly (and in any event within five (5) Trading Days of such notice) prepare and deliver certificates or evidence of book-entry positions representing the Registrable Securities to be delivered to a transferee pursuant to such Registration Statement, which certificates or book-entry positions shall be free of any restrictive legends and in such denominations and registered in such names as the undersigned may request.

4. Registration Expenses. All fees and expenses incident to the performance of or compliance with this Agreement by the Company shall be borne by the Company whether or not any Registrable Securities are sold pursuant to a Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses of the Company's counsel and independent registered public accountants) (A) with respect to filings made with the Commission, (B) with respect to filings required to be made with any National Exchange on which the Common Stock is then listed for trading, and (C) in compliance with applicable state securities or Blue Sky laws reasonably agreed to by the Company in writing (including, without limitation, fees and disbursements of counsel for the Company in connection with Blue Sky qualifications or exemptions of the Registrable Securities), (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement, including the Company's transfer agent, and (vii) solely in connection with the review and filing of the initial Registration Statement, the reasonable fees and expenses, not to exceed $50,000, of one counsel for the selling Holders selected by the Holders of a majority of the Registrable Securities to be registered. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any underwriting, broker or similar fees or commissions of any Holder or, except to the extent provided for in the Purchase Agreement or this Agreement, any legal fees or other costs of the Holders.

5. Indemnification.

(a) Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Holder and its affiliates, the officers, directors, members, partners, agents, brokers (including brokers who offer and sell Registrable Securities as principal as a result of a pledge or any failure to perform under a margin call of Common Stock), investment advisors and employees (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each of them, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, members, stockholders, partners, agents and employees (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, reasonable and documented attorneys' fees) and expenses (collectively, "***Losses***"), as incurred, arising out of or based solely upon (1) any untrue or alleged untrue statement of a material fact contained in a Registration Statement, any Prospectus

or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading or (2) any violation or alleged violation by the Company of the Securities Act, the Exchange Act or any state securities law, or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement, except to the extent, but only to the extent, that (i) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein and that has not been corrected in a subsequent writing prior to or concurrently with the sale of Registrable Securities to the Person asserting the claim or (ii) in the case of an occurrence of an event of the type specified in Section 3(d)(iii)-(v), such Losses result from the use by such Holder of an outdated, defective or otherwise unavailable prospectus after the Company has notified such Holder in writing that the Prospectus is outdated, defective or otherwise unavailable for use by such Holder and prior to the receipt by such Holder of the Advice contemplated in Section 6(c). The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding arising from or in connection with the transactions contemplated by this Agreement of which the Company is aware. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such indemnified person and shall survive the transfer of any Registrable Securities by any of the Holders in accordance with Section 6(f).

(b) Indemnification by Holders. Each Holder shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, to the extent arising out of or based solely upon any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in the light of the circumstances under which they were made) not misleading to the extent, but only to the extent, that such untrue statement or omission is contained in any information so furnished in writing by such Holder to the Company expressly for inclusion in such Registration Statement or such Prospectus, including information provided in the Selling Stockholder Questionnaire and that has not been corrected in a subsequent writing prior to or concurrently with the sale of Registrable Securities to the Person asserting the claim. In no event shall the liability of a selling Holder be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such Holder in connection with any claim relating to this Section 5 and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue statement or omission) received by such Holder upon the sale of the Registrable Securities included in the Registration Statement giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "***Indemnified Party***"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "***Indemnifying Party***") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all reasonable fees and expenses incurred in connection with defense thereof, provided that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have materially and adversely prejudiced the Indemnifying Party.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses, (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding, or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party

and the Indemnifying Party, and counsel to the Indemnified Party shall reasonably believe that a conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable fees and expenses of no more than one separate counsel shall be at the expense of the Indemnifying Party). Notwithstanding anything in this Section 5, the Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld or delayed. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

Subject to the terms of this Agreement, all reasonable and documented fees and expenses of the Indemnified Party (including reasonable and documented fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within ten Trading Days of written notice thereof to the Indemnifying Party, provided that the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) not to be entitled to indemnification hereunder.

(d) Contribution. If the indemnification under Section 5(a) or 5(b) is unavailable to an Indemnified Party or insufficient to hold an Indemnified Party harmless for any Losses, then each Indemnifying Party shall contribute to the amount paid or payable by such Indemnified Party, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission; provided, however, that no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in this Agreement, any reasonable attorneys' or other fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. In no event shall the contribution obligation of a Holder of Registrable Securities, when combined with any amounts owed under Section 5(b) be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such Holder in connection with any claim relating to this Section 5 and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission) received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

The indemnity and contribution agreements contained in this Section 5(d) are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

6. Miscellaneous.

(a) Remedies. In the event of a breach by the Company or by a Holder of any of their respective obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, shall be entitled to specific performance of its rights under this Agreement. Each of the Company and each Holder agrees that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement.

(b) No Piggyback on Registrations; Prohibition on Filing Other Registration Statements. Neither the Company nor any of its security holders (other than the Holders in such capacity pursuant hereto) may include securities of the Company in any Registration Statements other than the Registrable Securities. The Company shall not file any other registration statements until all Registrable Securities are registered pursuant to a Registration Statement that is declared effective by the Commission, provided that this Section 6(b) shall not prohibit the Company from filing amendments to registration statements filed prior to the date of this Agreement so long as no new securities are registered on any such existing registration statements, nor preparing and filing with the Commission a registration statements on Form S-8 relating to its equity incentive plans.

(c) Discontinued Disposition. By its acquisition of Registrable Securities, each Holder agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(d)(iii) through (v), such Holder will forthwith discontinue disposition of such Registrable Securities under a Registration Statement until it is advised in writing (the "Advice") by the Company that the use of the applicable Prospectus (as it may have been supplemented or amended) may be resumed. The Company will use its commercially reasonable efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable.

(d) Amendments and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the same shall be in writing and signed by the Company and the Required Holders, provided that, (i) if any amendment, modification or waiver disproportionately and adversely impacts a Holder (or group of Holders), the consent of such disproportionately impacted Holder (or group of Holders) shall be required, (ii) any amendment, modification or waiver of the definition of Registrable Securities, Section 5 or this Section 6(d) shall require the consent of each Holder affected by such amendment, modification or waiver, and (iii) the consent of all Holders is required for any amendment or modification that creates or imposes new or additional obligations on the Holders, including, without limitation, any lockup agreement. If a Registration Statement does not register all of the Registrable Securities pursuant to a waiver or amendment done in compliance with the previous sentence, then the number of Registrable Securities to be registered for each Holder shall be reduced pro rata among all Holders and each Holder shall have the right to designate which of its Registrable Securities shall be omitted from such Registration Statement. Notwithstanding the foregoing, a waiver or consent to depart from the provisions hereof with respect to a matter that relates exclusively to the rights of a Holder or some Holders and that does not directly or indirectly affect the rights of other Holders may be given only by such Holder or Holders of all of the Registrable Securities to which such waiver or consent relates; provided, however, that the provisions of this sentence may not be amended, modified, or supplemented except in accordance with the provisions of the first sentence of this Section 6(d). No consideration shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration also is offered to all of the parties to this Agreement. As used herein, "Required Holders" means Holders of 50.1% or more of the then outstanding Registrable Securities (for purposes of clarification, this includes any securities issuable upon conversion or exercise of any Registrable Security).

(e) Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be delivered as set forth in the Purchase Agreement.

(f) Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties and shall inure to the benefit of each Holder. The Company may not assign (except by merger that results in the transfer of all or substantially all of the assets of the Company to the successor entity, provided such successor entity assumes all obligations of the Company hereunder) its rights or obligations hereunder without the prior written consent of the Purchaser Majority (as defined in the Purchase Agreement). Each Holder may assign their respective rights hereunder in the manner and to the Persons as permitted under Section 9.04 of the Purchase Agreement, provided each such assignee agrees to be bound by the terms of this Agreement.

(g) No Inconsistent Agreements. Neither the Company nor any of its subsidiaries has entered, as of the date hereof, nor shall the Company or any of its subsidiaries, on or after the date of this Agreement, enter into any agreement with respect to its securities, that would have the effect of impairing the rights granted to the Holders in this Agreement or otherwise conflicts with the provisions hereof. Neither the Company nor any of its subsidiaries has previously entered into any agreement granting any registration rights with respect to any of its securities to any Person that have not been satisfied in full.

(h) Execution and Counterparts. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page was an original thereof.

(i) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be determined in accordance with the provisions of the Purchase Agreement and Section 9.07 is hereby incorporated herein *mutatis mutandi*.

(j) Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any other remedies provided by law.

(k) Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(l) Headings. The headings in this Agreement are for convenience only, do not constitute a part of the Agreement and shall not be deemed to limit or affect any of the provisions hereof.

(m) Independent Nature of Holders' Obligations and Rights. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder hereunder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder hereunder. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Holder pursuant hereto or thereto, shall be deemed to constitute the Holders as a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Holders are in any way acting in concert or as a group or entity with respect to such obligations or the transactions contemplated by this Agreement or any other matters, and the Company acknowledges that the Holders are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or transactions. Each Holder shall be entitled to protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Holder to be joined as an additional party in any proceeding for such purpose. The use of a single agreement with respect to the obligations of the Company contained was solely in the control of the Company, not the action or decision of any Holder, and was done solely for the convenience of the Company and not because it was required or requested to do so by any Holder. It is expressly understood and agreed that each provision contained in this Agreement is between the Company and a Holder, solely, and not between the Company and the Holders collectively and not between and among Holders.

(*Signature Pages Follow*)

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

COMPANY:

Q32 BIO INC.,
a Delaware corporation

By: /s/ Jodie Morrison
Name: Jodie Morrison
Title: Chief Executive Officer

[Intentionally Omitted]

[Intentionally Omitted]

Exhibit 10.3

LOCK-UP AGREEMENT

_____, 2023

Q32 Bio Inc.
830 Winter St.
Waltham, MA 02451

Ladies and Gentlemen:

The undersigned signatory of this lock-up agreement (this "***Lock-Up Agreement***") understands that Homology Medicines, Inc., a Delaware corporation ("***Homology***"), has entered into an Agreement and Plan of Merger, dated as of November 16, 2023 (as the same may be amended from time to time, the "***Merger Agreement***") with Kenobi Merger Sub, Inc., a Delaware corporation and a direct, wholly owned subsidiary of Homology, and Q32 Bio Inc., a Delaware corporation (the "***Company***"). Capitalized terms used but not otherwise defined herein shall have the respective meanings ascribed to such terms in the Merger Agreement.

As a condition and inducement to each of the parties to enter into the Merger Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned hereby irrevocably agrees that, subject to the exceptions set forth herein, without the prior written consent of Homology and, solely prior to the Closing, the Company, the undersigned will not, during the period commencing upon the Closing and ending on the date that is 180 days after the Closing Date (the "***Restricted Period***"):

(i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Homology Common Stock or any securities convertible into or exercisable or exchangeable for Homology Common Stock (including without limitation, Homology Common Stock or such other securities which may be deemed to be beneficially owned (as such term is used in Rule 13d-3 of the Exchange Act) by the undersigned in accordance with the rules and regulations of the SEC and securities of Homology which may be issued upon exercise of an option to purchase Homology Common Stock or warrant or settlement of a Homology Restricted Stock Unit) that are currently or hereafter owned of record or beneficially (including holding as a custodian) by the undersigned (collectively, the "***Undersigned's Shares***"), or publicly disclose the intention to make any such offer, sale, pledge, grant, transfer or disposition;

(ii) enter into any swap, short sale, hedge or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Undersigned's Shares regardless of whether any such transaction described in clause (i) above or this clause (ii) is to be settled by delivery of Homology Common Stock or other securities, in cash or otherwise; or

(iii) make any demand for, or exercise any right with respect to, the registration of any shares of Homology Common Stock or any security convertible into or exercisable or exchangeable for Homology Common Stock (other than such rights set forth in the Merger Agreement or the obligations of the Company or the combined company under the Registration Rights Agreement).

The restrictions and obligations contemplated by this Lock-Up Agreement shall not apply to:

(a) transfers of the Undersigned's Shares:

(i) if the undersigned is a natural person, (A) to any person related to the undersigned by blood or adoption who is an immediate family member of the undersigned, or by marriage or domestic partnership (a "***Family Member***"), or to a trust formed for the direct or indirect benefit of the undersigned or any of the undersigned's Family Members, (B) to the undersigned's estate, following the death of the undersigned, by will, intestacy or other operation of Law, (C) as a bona fide gift or a charitable contribution, as such term is described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended, (D) by operation of Law pursuant to a qualified domestic order or in connection with a divorce settlement, or (E) to any partnership, corporation or limited liability company which is controlled by the undersigned and/or by any such Family Member(s);

(ii) if the undersigned is a corporation, partnership, limited liability company or other entity, (A) to another corporation, partnership, limited liability company, or other entity that is an affiliate (as defined under Rule 12b-2 of the Exchange Act) of the undersigned, including investment funds or other entities under common control or management or advisement with the undersigned (including, for the avoidance of doubt, where the undersigned is a partnership, to its general partner or a successor partnership or fund, or any other funds managed by such partnership), (B) as a distribution or dividend to equity holders, including, without limitation, current or former general or limited partners, members or managers (or to the estates of any of the foregoing), as applicable, of the undersigned (including upon the liquidation and dissolution of the undersigned pursuant to a plan of liquidation approved by the undersigned's equity holders), (C) as a bona fide gift or a charitable contribution, as such term is described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended, (D) transfers or dispositions not involving a change in beneficial ownership or (E) with prior written consent of Homology; or

(iii) if the undersigned is a trust, to any grantors or beneficiaries of the trust;

provided that, in the case of any transfer or distribution pursuant to this clause (a), such transfer is not for value and each donee, heir, beneficiary or other transferee or distributee shall sign and deliver to Homology a lock-up agreement in the form of this Lock-Up Agreement with respect to the shares of Homology Common Stock or such other securities that have been so transferred or distributed;

(b) the exercise of an option to purchase Homology Common Stock (including a net or cashless exercise of an option to purchase Homology Common Stock), and any related transfer of shares of Homology Common Stock to Homology or sale of Homology Common Stock in the open market, in each case, for the purpose of paying the exercise price of such options or for paying taxes (including estimated taxes) during the Restricted Period due as a result of the exercise of such options; *provided that*, for the avoidance of doubt, the underlying shares of Homology Common Stock held by the undersigned following such exercise and any such open market sales shall continue to be subject to the restrictions on transfer set forth in this Lock-Up Agreement;

(c) the disposition (including a forfeiture or repurchase) to Homology of any shares of restricted stock granted pursuant to the terms of any employee benefit plan or restricted stock purchase agreement;

(d) the vesting of any restricted stock unit or settlement of any other equity award that represents the right to receive shares of Homology Common Stock, and transfers to Homology, or sales of Homology Common Stock in the open market, in connection with the vesting of any restricted stock unit or settlement of any other equity award that represents the right to receive shares of Homology Common Stock settled in Homology Common Stock, in each case, to pay any tax withholding obligations due during the Restricted Period; *provided that*, for the avoidance of doubt, the underlying shares of Homology Common Stock held by the undersigned following such vesting or settlement and any such open market sales shall continue to be subject to the restrictions on transfer set forth in this Lock-Up Agreement;

(e) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act (a "***10b5-1 Plan***") for the transfer of Homology Common Stock; provided that such plan does not provide for any transfers of Homology Common Stock during the Restricted Period, or the sale of Homology Common Stock pursuant to a 10b5-1 Plan existing as of the date of the Merger Agreement (which, for clarity, shall not be amended during the Restricted Period, but may be terminated during the Restricted Period);

(f) transfers, sales, dispositions, or the entering into of transactions (including, without limitation, any swap, hedge or similar agreement) by the undersigned of or relating to shares of capital stock or other securities of Homology purchased or acquired by the undersigned on the open market, in a public offering by Homology, or that otherwise do not involve or relate to shares of Homology Common Stock issued pursuant to the Merger Agreement in respect of shares of the Company;

(g) pursuant to a bona-fide third party tender offer, merger, consolidation or other similar transaction made to all holders of Homology's capital stock involving a change of control of Homology, provided that in the event that such tender offer, merger, consolidation or other such transaction is not completed, the Undersigned's Shares shall remain subject to the restrictions contained in this Lock-Up Agreement; or

(h) pursuant to an order of a court or regulatory agency;

(i) Transfers, sales, dispositions, or the entering into of transactions (including, without limitation, any swap, hedge, or similar agreement), by the undersigned relating to shares of Homology Common Stock issued pursuant to the Merger Agreement in respect of shares of the Company, if any, purchased from the Company pursuant to the Concurrent Financing (as defined in the Merger Agreement) (the "***Q32 Concurrent Financing Released Shares***") or issued in exchange for, or on conversion or exercise of, any securities issued as part of the Concurrent Financing. The number of Q32 Concurrent Financing Released Shares held by each stockholder of the Company is set forth opposite his, her or its name on Schedule I to this Lock-up Agreement under the heading "Q32 Concurrent Financing Released Shares".

And *provided, further*, that, with respect to each of (a), (b), (c), (d) and (e) above, no filing by any party (including any donor, donee, transferor, transferee, distributor or distributee) under Section 16 of the Exchange Act or other public announcement shall be made voluntarily in connection with such transfer or disposition during the Restricted Period; *provided* that (i) any filing under Section 16 of the Exchange Act made during the Restricted Period shall clearly indicate in the footnotes thereto that such filing relates to the circumstances described in (a), (b), (c), (d) or (e), as applicable and (ii) the foregoing shall not prevent the undersigned from filing a Form 13F, Schedule 13G or Schedule 13D, or any amendment thereto, or from disclosing its holdings in Homology as required by law or regulation or its internal disclosure policies in the ordinary course of business.

Any attempted transfer in violation of this Lock-Up Agreement will be of no effect and null and void, regardless of whether the purported transferee has any actual or constructive knowledge of the transfer restrictions set forth in this Lock-Up Agreement, and will not be recorded on the share register of Homology. In furtherance of the foregoing, the undersigned agrees that Homology and any duly appointed transfer agent for the registration or transfer of the securities described herein are hereby authorized to decline to make any transfer of securities if such transfer would constitute a violation or breach of this Lock-Up Agreement. Homology may cause the legend set forth below, or a legend substantially equivalent thereto, to be placed upon any certificate(s) or other documents, ledgers or instruments evidencing the undersigned's ownership of Homology Common Stock:

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO AND MAY ONLY BE TRANSFERRED IN COMPLIANCE WITH A LOCK-UP AGREEMENT, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned understands that if the Merger Agreement is terminated for any reason, the undersigned shall be released from all obligations under this Lock-Up Agreement. The undersigned understands that Homology and the Company are proceeding with the Contemplated Transactions in reliance upon this Lock-Up Agreement. Notwithstanding anything to the contrary contained herein, this letter agreement will automatically terminate and the undersigned shall be released from all obligations under this letter agreement upon the earliest to occur, if any, of (i) the Company advising the undersigned in writing that it has determined not to proceed with the Contemplated Transactions or (ii) the Merger Agreement being terminated.

Any and all remedies herein expressly conferred upon Homology or the Company will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by Law or equity, and the exercise by Homology or the Company of any one remedy will not preclude the exercise of any other remedy. The undersigned agrees that irreparable damage could occur to Homology and/or the Company in the event that any provision of this Lock-Up Agreement were not performed in accordance with its specific terms or were otherwise breached. It is accordingly agreed that Homology and the Company shall be entitled to seek an injunction or injunctions to prevent breaches of this Lock-Up Agreement and to enforce specifically the terms and provisions hereof in any court of the United States or any state having jurisdiction, this being in addition to any other remedy to which Homology or the Company is entitled at Law or in equity, and the undersigned waives any bond, surety or other security that might be required of Homology or the Company with respect thereto.

In the event that any holder of Homology's securities that are subject to a substantially similar agreement entered into by such holder, other than the undersigned, is permitted by Homology (or prior to the Closing, the Company), including through any written consent granted under subparagraph a(ii)(E) above, to sell or otherwise transfer or dispose of shares of Homology Common Stock for value other than as permitted by this or a substantially similar agreement entered into by such holder or is granted an early release from the restrictions described herein during the Restricted Period, the same percentage of shares of the Undersigned's Shares shall be immediately and fully released on the same terms from any remaining restrictions set forth herein (the "***Pro-Rata Release***"); *provided*, *however*, that such Pro-Rata Release shall not be applied unless and until permission or early release has been granted by Homology, and solely prior to the Closing, the Company, to an equity holder or equity holders to sell or otherwise transfer or dispose of all or a portion of such equity holder's shares of Homology Common Stock that, when combined with all such other such permissions and early releases, represent an aggregate amount in excess of 1% of the number of shares of Homology Common Stock originally subject to a substantially similar agreements. Homology shall notify the undersigned of any Pro Rata Release of its shares on the same day that any permission that triggers the Pro Rata Release is granted.

Upon the release of any of the Undersigned's Shares from this Lock-Up Agreement, Homology will cooperate with the undersigned to facilitate the timely preparation and delivery of certificates representing the Undersigned's Shares without the restrictive legend above or the withdrawal of any stop transfer instructions.

This Lock-Up Agreement and any claim, controversy or dispute arising under or related to this Lock-Up Agreement shall be governed by and construed in accordance with the Laws of the State of Delaware, without regard to the conflict of Laws principles thereof.

This Lock-Up Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Lock-Up Agreement (in counterparts or otherwise) by Homology, the Company and the undersigned by facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com) or electronic transmission in .pdf format shall be sufficient to bind such parties to the terms and conditions of this Lock-Up Agreement.

(Signature Page Follows)

Very truly yours,

Print Name of Stockholder:

[_____]

Signature (for individuals):

_____

Signature (for entities):

By: _____
Name: _____
Title: _____

Accepted and Agreed
By Homology Medicines, Inc.:

By: _____
Name: _____
Title: _____

Accepted and Agreed by Q32 Bio Inc.:

By: _____
Name: _____
Title: _____

SCHEDULE I

[Intentionally Omitted]

Exhibit 10.4

CONTINGENT VALUE RIGHTS AGREEMENT

BETWEEN

HOMOLOGY MEDICINES, INC.

and

EQUINITI TRUST COMPANY, LLC, as Rights Agent

Dated as of March 23, 2024

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CONTINGENT VALUE RIGHTS AGREEMENT

THIS CONTINGENT VALUE RIGHTS AGREEMENT (this "Agreement"), dated as of March 23, 2024, is entered into by and between Homology Medicines, Inc., a Delaware corporation ("Homology"), and Equiniti Trust Company, LLC, a New York limited liability company ("EQ"), as initial Rights Agent (as defined herein).

PREAMBLE

WHEREAS, Homology, Kenobi Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of Homology ("Merger Sub"), and Q32 Bio Inc., a Delaware corporation (the "Company"), have entered into an Agreement and Plan of Merger, dated as of November 16, 2023 (the "Merger Agreement"), pursuant to which Merger Sub will merge with and into the Company (the "Merger"), with the Company surviving the Merger as a wholly-owned subsidiary of Homology (the "Surviving Corporation");

WHEREAS, in connection with the Merger Agreement, Homology has agreed to provide to the Holders (as defined herein) contingent value rights as hereinafter described;

WHEREAS, the parties have done all things necessary to make the contingent value rights, when issued pursuant to this Agreement, the valid obligations of Homology and to make this Agreement a valid and binding agreement of Homology, in accordance with its terms; and

NOW, THEREFORE, in consideration of the premises and the consummation of the transactions referred to above, it is mutually covenanted and agreed, for the proportionate benefit of all Holders, as follows:

ARTICLE 1
DEFINITIONS

Section 1.1 *Definitions*.

Capitalized terms used but not otherwise defined herein have the meanings ascribed thereto in the Merger Agreement. The following terms have the meanings ascribed to them as follows:

"Business Day" means any day other than a day on which banks in the State of New York are authorized or obligated to be closed.

"Closing" means the closing of the Merger.

"Closing Date" means the date on which the Closing actually takes place.

"Commercially Reasonable Efforts" means with respect to the disposition of the Legacy Assets, carrying out those obligations and tasks in a good faith and diligent manner, including the fact that, following the Merger, the Legacy Assets are not part of Homology's go-forward business plan, taking into account all commercial and other relevant factors that Homology, exercising good faith, would normally take into account with a disposition of non-core assets, *provided* that, notwithstanding the foregoing, such level of efforts and resources shall not require Homology to

(i) hire or retain any business development personnel or third-party financial advisors specifically for the purpose of the Legacy Asset Disposition, or (ii) initiate any bona fide sale process or other pro-active efforts to identify potential counterparties with respect to any Legacy Assets, and *provided*, *further*, that such level of efforts and resources shall be determined without taking into account the CVR Payment payable in accordance with, and subject to, the terms hereof.

"CVR" means a contingent contractual right of Holders to receive CVR Payments under this Agreement.

"CVR Payment" means the CVR Proceeds for a given payment.

"CVR Period" means the period beginning immediately following the Effective Time and ending on the tenth anniversary of the Closing Date.

"CVR Proceeds" means, upon the consummation of any Legacy Asset Disposition following the Closing Date and prior to expiration of the Disposition Period or, if applicable, the fiscal quarter during the CVR Period in which the proceeds of any Legacy Asset Disposition are received, the amount of Gross Proceeds actually received by Homology or any of its Subsidiaries upon such consummation or during the applicable fiscal quarter, less Permitted Deductions with respect to such Gross Proceeds, in each case as calculated in accordance with GAAP consistently applied.

"Disposition Period" means the period beginning on the execution date of the Merger Agreement and ending on the 18 month anniversary of the Closing Date; *provided*, that, for any sale, transfer, license, assignment, or other divestiture, disposition or commercialization of any Oxford Assets, the Disposition Period means the period beginning on the execution date of the Merger Agreement and ending on the 24 month anniversary of the Closing Date solely with respect to such Oxford Assets.

"Effective Time" means the time at which the Merger shall become effective at the time of the filing of the Certificate of Merger and the acceptance by the Secretary of State of the State of Delaware, or at such later time as may be specified in such Certificate of Merger with the consent of Homology and the Company.

"Expense Reserve" means $400,000.00.

"Gross Proceeds" means, without duplication, all cash consideration that is paid to, or is received by, Homology or any of its Subsidiaries during the CVR Period in consideration for a Legacy Asset Disposition.

"Holder" means, at the relevant time, a Person in whose name CVRs are registered in the CVR Register.

"Majority of Holders" means, at any time, the registered Holder or Holders of more than 50% of the total number of CVRs registered at such time, as set forth on the CVR Register.

"Legacy Assets" means the assets, rights and interests held by or on behalf of Homology or any of its Subsidiaries as of the execution date of the Merger Agreement relating to Homology's HMI-103 (Adult/Pediatric PKU), HMI-204 (MLD), Capsids and AAVHSC Platform, including any equity interests held directly or indirectly by Homology in Oxford Biomedica Solutions, LLC or its affiliates ("OXB Solutions") pursuant to that certain Equity Securities Purchase Agreement, dated as of January 28, 2022, by and between Homology and OXB Solutions, in which Homology owns twenty percent (20%) of the fully diluted equity interests in OXB Solutions and Homology is entitled to exercise a put option to sell or transfer Homology's equity interests in OXB Solutions set forth therein on March 10, 2025 (such interests, the "Oxford Assets"); provided that Legacy Assets shall not include any Abandoned Homology Legacy IP Rights (as defined in the Merger Agreement).

"Legacy Asset Disposition" means the sale, transfer, license, assignment or other divestiture, disposition or commercialization of any Legacy Assets (including any such sale or disposition of equity securities in any Subsidiary that was established by Homology during the Disposition Period solely to hold any right, title or interest in or to all or any Legacy Assets) in a transaction or series of transactions, in each case entered into during the Disposition Period.

"Officer's Certificate" means a certificate signed by the chief executive officer or the chief financial officer of Homology, in their respective official capacities.

"Permitted Deductions" means the following costs or expenses, without duplication:

(i) any applicable and non-recoverable value added, sales or similar Taxes imposed on the Gross Proceeds and payable in cash by Homology or any of its Subsidiaries and any income Taxes required to be paid in cash by Homology or any of its Subsidiaries, in each case, with respect to the taxable year in which such Gross Proceeds were received which Taxes would not have been required to be paid by Homology or its applicable Subsidiary but for its receipt of Gross Proceeds; *provided*, that, for purposes of calculating any income Taxes of Homology or any of its Subsidiaries for this purpose, (a) such income Taxes shall be computed after taking into account any net operating loss carryforwards or other Tax attributes (including Tax credits) of Homology or any of its Subsidiaries that are available to offset income or gain, after taking into account any limits of the usability of such attributes under applicable Law, including under Section 382 of the Code, as reasonably determined by a nationally recognized tax advisor, which Tax attributes were generated either (I) prior to the Closing Date or (II) after the Closing Date, in the case of this clause (II) if such Tax attributes relate to the Legacy Assets, and (b) for the avoidance of doubt, any item(s) of income or gain resulting or arising from such Gross Proceeds shall be treated as the first item(s) of income or gain, as applicable, in the applicable taxable year;

(ii) any documented out-of-pocket costs and expenses incurred or accrued by Homology or any of its Subsidiaries in respect of its performance of this Agreement following the Closing Date or in respect of its negotiation, execution, delivery or performance of any agreement in connection with the Legacy Assets (for clarity, including any Sale Agreement), including (i) any costs related to the prosecution, maintenance or enforcement by Homology or any of its Subsidiaries of intellectual property rights (but excluding any costs related to a breach of this Agreement by Homology, including costs incurred in litigation in respect of the same), (ii) any costs related to Liabilities of or relating to the Legacy Assets that remain with Homology following the consummation of any Legacy Asset Disposition or (iii) any documented out-of-pocket fees of the Rights Agent in connection with this Agreement;

(iii) any documented out-of-pocket costs incurred or accrued by Homology or any of its Subsidiaries in connection with the negotiation, entry into and closing of any Legacy Asset Disposition, including any brokerage fee, finder's fee, opinion fee, success fee, transaction fee, service fee, regulatory and other filing fees, or other fee, commission or expense owed to any broker, finder, investment bank, auditor, accountant, counsel, advisor or other third party in relation thereto;

(iv) any Losses incurred and paid or payable by Homology or any of its Subsidiaries arising out of any third party claims, demands, actions or other proceedings relating to or in connection with any Legacy Assets or any Legacy Asset Disposition, including in respect of its performance of this Agreement, any Sale Agreement or any other agreement relating to any Legacy Asset Disposition and, notwithstanding anything in this Agreement to the contrary, the maximum amount that could be payable under any obligations of Homology or any of its Subsidiaries (including contingent or indemnification obligations provided for, arising out of or in connection with any Sale Agreement or any other agreement relating to any Legacy Asset Disposition); provided that any amounts deducted in respect of contingent or indemnification obligations shall be held back by Homology in a separate account for the benefit of the Holders and to the extent such amounts have not been used to pay such contingent or indemnification obligations upon the lapse in survival of the such contingent or indemnification obligations (or, if applicable, until any dispute related to such provisions is finally resolved if such resolution occurs subsequent to such lapse) prior to the end of the CVR Period, shall be paid over to the Rights Agent within five (5) Business days of such lapse; and

(v) any liabilities borne by Homology or any of its Subsidiaries pursuant to contracts related to the Legacy Assets, including costs arising from the termination thereof (in each case only to the extent not included in the calculation of Homology Net Cash (as defined in the Merger Agreement)).

"Permitted Transfer" means a Transfer of one or more CVRs (i) upon death of a Holder by will or intestacy; (ii) by instrument to an *inter vivos* or testamentary trust in which the CVRs are to be passed to beneficiaries upon the death of the trustee; (iii) made pursuant to a court order of a court of competent jurisdiction (such as in connection with divorce, bankruptcy or liquidation); (iv) made by operation of law (including a consolidation or merger) or without consideration in connection with the dissolution, liquidation or termination of any corporation, limited liability company, partnership or other entity; (v) in the case of CVRs payable to a nominee, from a nominee to a beneficial owner (and, if applicable, through an intermediary) or from such nominee to another nominee for the same beneficial owner, in each case as permitted by The Depository Trust Company; (vi) to Homology or its Subsidiaries; or (vii) as provided in Section 2.6.

"Person" means any individual, partnership, joint venture, limited liability company, firm, corporation, unincorporated association or organization, trust or other entity, and shall include any successor (by merger or otherwise) of any such Person.

"Record Date" means March 21, 2024.

"Rights Agent" means the Rights Agent named in the first paragraph of this Agreement, until a successor Rights Agent shall have been appointed pursuant to Article 3 of this Agreement, and thereafter "Rights Agent" will mean such successor Rights Agent.

"Transfer" means transfer, pledge, hypothecation, encumbrance, assignment or other disposition (whether by sale, merger, consolidation, liquidation, dissolution, dividend, distribution or otherwise), the offer to make such a transfer or other disposition, and each contract, arrangement or understanding, whether or not in writing, to effect any of the foregoing.

ARTICLE 2
CONTINGENT VALUE RIGHTS

Section 2.1 *Holders of CVRs; Appointment of Rights Agent*.

(a) The CVRs shall be issued to the holders of shares of Homology Common Stock as of the Record Date.

(b) Homology hereby appoints the Rights Agent to act as rights agent for Homology in accordance with the express terms and conditions set forth in this Agreement, and the Rights Agent hereby accepts such appointment.

Section 2.2 *Non-transferable*.

A Holder may not at any time Transfer CVRs, other than pursuant to a Permitted Transfer. Any attempted Transfer that is not a Permitted Transfer, in whole or in part, will be void *ab initio* and of no effect. The CVRs will not be listed on any quotation system or traded on any securities exchange.

Section 2.3 *No Certificate; Registration; Registration of Transfer; Change of Address*.

(a) Holders' rights and obligations in respect of CVRs derive solely from this Agreement; CVRs will not be evidenced by a certificate or other instrument.

(b) The Rights Agent will maintain an up-to-date register (the "CVR Register") for the purposes of (i) identifying the Holders of CVRs, (ii) determining Holders' entitlement to CVRs and (iii) registering the CVRs and Permitted Transfers thereof. The CVR Register will initially show one position for The Depository Trust Company (or its nominee) representing all of the CVRs provided to the holders of shares of Homology Common Stock held as of the Record Date. Except as expressly provided herein with respect to the rights of the Rights Agent, neither Homology nor its Subsidiaries will have any responsibility or liability whatsoever to any person other than the Holders.

(c) Subject to the restriction on transferability set forth in Section 2.2, every request made to Transfer CVRs must be in writing and accompanied by a written instrument of Transfer reasonably acceptable to the Rights Agent, together with the signature guarantee of a guarantor institution which is a participant in a signature guarantee program approved by the Securities Transfer Association (a "signature guarantee") and other requested documentation in a form reasonably satisfactory to the Rights Agent, duly executed and properly completed, as applicable, by the Holder or Holders thereof, or by the duly appointed legal representative, personal representative or survivor of such Holder or Holders, setting forth in reasonable detail the circumstances relating to the Transfer. Upon receipt of such written notice, the Rights Agent will, subject to its reasonable determination in accordance with its own internal procedures that the Transfer instrument is in proper form and the Transfer is a Permitted Transfer and otherwise complies on its face with the other terms and conditions of this Agreement, register the Transfer of the applicable CVRs in the CVR Register. All Transfers of CVRs registered in the CVR Register will be the valid obligations of Homology, evidencing the same right, and entitling the transferee to the same benefits and rights under this Agreement, as those held by the transferor. Each of Homology and the Rights Agent may require payment (without duplication) of a sum sufficient to cover any stamp or other transfer Tax or governmental charge that is imposed in connection with (and would not have been imposed but for) any such registration of transfer, unless the transferee shall have established to the reasonable satisfaction of Homology or the Rights Agent, as applicable, that such Tax, if any, has been paid. No transfer of CVRs shall be valid until registered in the CVR Register and any transfer not duly registered in the CVR Register shall be void. Homology shall not be responsible for any costs and expenses related to any transfer or assignment of the CVRs (including the cost of any transfer tax).

(d) A Holder may make a written request to the Rights Agent to change such Holder's address of record in the CVR Register. Such written request must be duly executed by such Holder. Upon receipt of such written notice, the Rights Agent shall promptly record the change of address in the CVR Register.

Section 2.4 *Payment Procedures*.

(a) As promptly as practicable (and, in any event, within twenty (20) days) after the consummation of any Legacy Asset Dispositions and, in any event, not later than the date that is forty-five (45) days following the end of each fiscal quarter of Homology following the Closing in which CVR Proceeds are actually received by Homology or any of its Subsidiaries, Homology shall (i) deliver to the Rights Agent, an Officer's Certificate certifying the aggregate amount of (A) the CVR Proceeds (if any) actually received by Homology or its Subsidiaries during such fiscal quarter (or, in the case of the first delivery of such an Officer's Certificate hereunder, all CVR Proceeds actually received through the end of such fiscal quarter); (B) the Permitted Deductions reflected in such CVR Proceeds; and (C) the CVR Payment payable to Holders, if any, in respect of such CVR Proceeds, and (ii) deliver to the Rights Agent, or as the Rights Agent directs, the CVR Payment (if any) by wire transfer of immediately available funds to an account designated in writing by the Rights Agent. Upon receipt of the wire transfer referred to in the foregoing sentence, the Rights Agent shall promptly (and in any event, within ten (10) Business Days) pay, by

check mailed, first-class postage prepaid, to the address of each Holder set forth in the CVR Register at such time or by other method of delivery as specified by the applicable Holder in writing to the Rights Agent, an amount equal to the product determined by multiplying (i) the quotient determined by dividing (A) the applicable CVR Payment by (B) the total number of CVRs registered in the CVR Register at such time, by (ii) the number of CVRs registered to such Holder in the CVR Register at such time. For the avoidance of doubt Homology shall have no further liability in respect of the relevant CVR Payment upon delivery of such CVR Payment in accordance with this Section 2.4(a) and the satisfaction of each of Homology's obligations set forth in this Section 2.4(a). The Rights Agent shall have no duty or obligation to calculate, verify or confirm the accuracy, validity or sufficiency of any CVR Payment and shall have no duty or obligation to verify or confirm whether any Legacy Asset Disposition has occurred or any CVR Proceeds have been received by Homology or any of its Subsidiaries.

(b) Except to the extent otherwise required pursuant to a change in applicable Law after the date hereof, the parties hereto agree to treat the issuance of the CVRs as not constituting a current distribution and all CVR Payments for U.S. federal (and applicable state and local) income Tax purposes as distributions of money governed by Section 301 of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), which will constitute a dividend to the extent payable out of Homology and its Subsidiaries' current and accumulated "earnings and profits" (pursuant to Section 316 of the Code) in the taxable year in which any such CVR Payment is made. The parties hereto will not take any position to the contrary on any Tax Return or for other Tax purposes except as required by a change in applicable Law after the date hereof.

(c) Homology and the Rights Agent will be entitled to deduct and withhold, or cause to be deducted and withheld, from any CVR Payment otherwise payable pursuant to this Agreement, such amounts as it is required to deduct and withhold with respect to the making of such payment under any provision of applicable Law relating to Taxes. To the extent that amounts are so deducted and withheld and paid over to the appropriate Governmental Authority, such deducted and withheld amounts will be treated for all purposes of this Agreement as having been paid to the Holder in respect of which such deduction and withholding was made. Prior to making any such deductions or withholdings or causing any such deductions or withholdings to be made with respect to any Holder, the Rights Agent will, to the extent reasonably practicable, provide notice to the Holder of such potential Tax deduction or withholding and a reasonable opportunity for the Holder to provide any necessary Tax forms in order to avoid or reduce such withholding amounts; *provided* that the time period for payment of a CVR Payment by the Rights Agent set forth in Section 2.4(a) will be extended by a period equal to any delay caused by the Holder providing such forms; *provided*, *further*, that in no event shall such period be extended for more than ten (10) Business Days, unless otherwise requested by the Holder for the purpose of delivering such forms and agreed to by the Rights Agent.

(d) Any portion of a CVR Payment that remains undistributed to the Holders six (6) months after the applicable fiscal quarter end (including by means of uncashed checks or invalid addresses on the CVR Register) will be delivered by the Rights Agent to Homology or a person nominated in writing by Homology (with written notice thereof from Homology to the Rights Agent), and any Holder will thereafter look only to Homology for payment of such CVR Payment (which shall be without interest).

(e) Neither Homology nor the Rights Agent will be liable to any Person in respect of any CVR Payment amount delivered to a public official pursuant to any applicable abandoned property, escheat or similar legal requirement under applicable law. In addition to and not in limitation of any other indemnity obligation herein, Homology agrees to indemnify and hold harmless the Rights Agent with respect to any liability, penalty, cost or expense the Rights Agent may incur or be subject to in connection with transferring such property to Homology or a public official.

Section 2.5 *No Voting, Dividends or Interest; No Equity or Ownership Interest*.

(a) CVRs will not have any voting or dividend rights, and interest will not accrue on any amounts payable in respect of CVRs.

(b) CVRs will not represent any equity or ownership interest in Homology or any of its Subsidiaries or in the Surviving Corporation. The sole right of the Holders to receive property hereunder is the right to receive CVR Payments, if any, in accordance with the terms hereof. It is hereby acknowledged and agreed that a CVR shall not constitute a security of Homology or any of its Subsidiaries or of the Surviving Corporation.

(c) It is hereby acknowledged and agreed that the CVRs and the possibility of any payment hereunder with respect thereto are highly speculative and subject to numerous factors outside of Homology's control, and there is no assurance that Holders will receive any payments under this Agreement or in connection with the CVRs. Each Holder acknowledges that it is highly possible that there will not be any Gross Proceeds that may be the subject of a CVR Payment Amount. It is further acknowledged and agreed that neither Homology nor its Subsidiaries owe, by virtue of their obligations under this Agreement, a fiduciary duty or any implied duties to the Holders and the parties hereto intend solely the express provisions of this Agreement to govern their contractual relationship with respect to the CVRs. It is acknowledged and agreed that this Section 2.5(c) is an essential and material term of this Agreement.

Section 2.6 *Ability to Abandon CVR*.

A Holder may at any time, at such Holder's option, abandon all of such Holder's remaining rights represented by CVRs by transferring such CVR to Homology or a person nominated in writing by Homology (with written notice thereof from Homology to the Rights Agent) without consideration or compensation therefor, and such rights will be cancelled, with the Rights Agent being promptly notified in writing by Homology of such transfer and cancellation. Nothing in this Agreement is intended to prohibit Homology or its Subsidiaries from offering to acquire or acquiring CVRs, in private transactions or otherwise, for consideration in its sole discretion.

ARTICLE 3
THE RIGHTS AGENT

Section 3.1 *Certain Duties and Responsibilities*.

(a) The Rights Agent will not have any liability for any actions taken or not taken in connection with this Agreement, except to the extent such liability arises as a result of the willful misconduct, bad faith or gross negligence of the Rights Agent (in each case as determined by a final non-appealable judgment of court of competent jurisdiction). Notwithstanding anything in this Agreement to the contrary, any liability of the Rights Agent under this Agreement will be limited to the amount of annual fees paid by Homology to the Rights Agent during the twelve (12) months immediately preceding the event for which recovery from the Rights Agent is being sought, except in the case of the willful misconduct, bad faith or fraud of the Rights Agent (in each case as determined by a final non-appealable judgment of court of competent jurisdiction). Anything to the contrary notwithstanding, in no event will the Rights Agent be liable for special, punitive, indirect, incidental or consequential loss or damages of any kind whatsoever (including, without limitation, lost profits), even if the Rights Agent has been advised of the likelihood of such loss or damages, and regardless of the form of action.

(b) The Rights Agent shall not have any duty or responsibility in the case of the receipt of any written demand from any Holder with respect to any action or default by any person or entity, including, without limiting the generality of the foregoing, any duty or responsibility to initiate or attempt to initiate any proceedings at law or otherwise or to make any demand upon Homology or the Company.

Section 3.2 *Certain Rights of Rights Agent*.

(a) The Rights Agent undertakes to perform such duties and only such duties as are specifically set forth in this Agreement, and no implied covenants or obligations will be read into this Agreement against the Rights Agent.

(b) The Rights Agent may rely and will be protected by Homology in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order or other paper or document reasonably believed by it in the absence of bad faith to be genuine and to have been signed or presented by or on behalf of Homology.

(c) The Rights Agent may engage and consult with counsel of its selection, and the advice or opinion of such counsel will, in the absence of bad faith, gross negligence or willful misconduct (in each case, as determined by a final, non-appealable judgment of a court of competent jurisdiction) on the part of the Rights Agent, be full and complete authorization and protection in respect of any action taken or not taken by the Rights Agent in reliance thereon.

(d) Any permissive rights of the Rights Agent hereunder will not be construed as a duty.

(e) The Rights Agent will not be required to give any note or surety in respect of the execution of its powers or otherwise under this Agreement.

(f) Homology agrees to indemnify the Rights Agent for, and to hold the Rights Agent harmless from and against, any loss, liability, damage, judgment, fine, penalty, cost or expense (each, a "Loss") suffered or incurred by the Rights Agent and arising out of or in connection with the Rights Agent's performance of its obligations under this Agreement, including the reasonable and documented costs and expenses of defending the Rights Agent against any claims, charges, demands, actions or suits arising out of or in connection in connection with the execution, acceptance, administration, exercise and performance of its duties under this Agreement, including the costs and expenses of defending against any claim of liability arising therefrom, directly or indirectly, or enforcing its rights hereunder, except to the extent such Loss has been determined by a final non-appealable decision of a court of competent jurisdiction to have resulted from the Rights Agent's gross negligence, bad faith or willful misconduct (in each case, as determined by a final, non-appealable judgment of a court of competent jurisdiction).

(g) In addition to the indemnification provided under Section 3.2(e), Homology agrees (i) to pay the fees of the Rights Agent in connection with the Rights Agent's performance of its obligations hereunder, as agreed upon in writing by the Rights Agent and Homology on or prior to the date of this Agreement, and (ii) to reimburse the Rights Agent for all reasonable and documented out-of-pocket expenses and other disbursements incurred in the preparation, delivery, negotiation, amendment, administration and execution of this Agreement and the exercise and performance of its duties hereunder, including all taxes (other than income, receipt, franchise or similar taxes) and governmental charges, incurred by the Rights Agent in the performance of its obligations under this Agreement, except that Homology will have no obligation to pay the fees of the Rights Agent or reimburse the Rights Agent for the fees of counsel in connection with any lawsuit initiated by the Rights Agent on behalf of itself or the Holders, except in the case of any suit enforcing the provisions of Section 2.4(a), Section 2.4(b) or Section 3.2(e), if Homology is found by a court of competent jurisdiction to be liable to the Rights Agent or the Holders, as applicable in such suit.

(h) No provision of this Agreement shall require the Rights Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers if it believes that repayment of such funds or adequate indemnification against such risk or liability is not reasonably assured to it.

(i) The Rights Agent will not be deemed to have knowledge of any event of which it was supposed to receive notice hereunder but has not received written notice of such event, and the Rights Agent will not incur any liability for failing to take action in connection therewith, in each case, unless and until it has received such notice in writing.

(j) The Rights Agent may execute and exercise any of the rights or powers hereby vested in it or perform any duty hereunder either itself or by or through its attorney or agents and the Rights Agent shall not be answerable or accountable for any act, default, neglect or misconduct of any such attorney or agents or for any loss to Homology or the Company resulting from any such act, default, neglect or misconduct, absent gross negligence, bad faith or willful misconduct (each as determined by a final non-appealable judgment of a court of competent jurisdiction) in the selection and continued employment thereof.

(k) Homology shall perform, acknowledge and deliver or cause to be performed, acknowledged and delivered all such further and other acts, documents, instruments and assurances as may be reasonably required by the Rights Agent for the carrying out or performing by the Rights Agent of the provisions of this Agreement.

(l) The Rights Agent shall not be liable for or by reason of any of the statements of fact or recitals contained in this Agreement (except its countersignature thereof) or be required to verify the same, and all such statements and recitals are and shall be deemed to have been made by Homology only.

(m) The Rights Agent shall act hereunder solely as agent for Homology and shall not assume any obligations or relationship of agency or trust with any of the owners or holders of the CVRs. The Rights Agent shall not have any duty or responsibility in the case of the receipt of any written demand from any Holders with respect to any action or default by Homology, including, without limiting the generality of the foregoing, any duty or responsibility to initiate or attempt to initiate any proceedings at law or otherwise or to make any demand upon Homology.

(n) The Rights Agent may rely on and be fully authorized and protected in acting or failing to act upon (i) any guaranty of signature by an "eligible guarantor institution" that is a member or participant in the Securities Transfer Agents Medallion Program or other comparable "signature guarantee program" or insurance program in addition to, or in substitution for, the foregoing; or (ii) any law, act, regulation or any interpretation of the same even though such law, act, or regulation may thereafter have been altered, changed, amended or repealed.

(o) The Rights Agent shall not be liable or responsible for any failure of Homology to comply with any of its obligations relating to any registration statement filed with the Securities and Exchange Commission or this Agreement, including without limitation obligations under applicable Law.

(p) Whenever the Rights Agent deems it desirable that a matter be proved or established prior to taking or omitting any action hereunder, the Rights Agent may (i) rely upon an Officer's Certificate and (ii) incur no liability and be held harmless by the Company for or in respect of any action taken or omitted to be taken by it under the provisions of this Agreement in reliance upon such Officer's Certificate.

(q) All funds received by EQ under this Agreement that are to be distributed or applied by EQ in the performance of services hereunder (the "Funds") shall be held by EQ as agent for Homology and deposited in one or more bank accounts to be maintained by EQ in its name as agent for Homology. Until paid pursuant to the terms of this Agreement, EQ will hold the Funds through such accounts in: deposit accounts of commercial banks with Tier 1

capital exceeding $1 billion or with an average rating above investment grade by S&P (LT Local Issuer Credit Rating), Moody's (Long Term Rating) and Fitch Ratings, Inc. (LT Issuer Default Rating) (each as reported by Bloomberg Finance L.P.). EQ shall have no responsibility or liability for any diminution of the Funds that may result from any deposit made by EQ in accordance with this paragraph, including any losses resulting from a default by any bank, financial institution or other third party. EQ may from time to time receive interest, dividends or other earnings in connection with such deposits. EQ shall not be obligated to pay such interest, dividends or earnings to Homology, any holder or any other party.

(r) The obligations of Homology and the rights of the Rights Agent under this Section 3.2, Section 3.1 and Section 2.4 shall survive the expiration of the CVRs and the termination of this Agreement and the resignation, replacement or removal of the Rights Agent.

Section 3.3 *Resignation and Removal; Appointment of Successor*.

(a) The Rights Agent may resign at any time by written notice to Homology. Any such resignation notice shall specify the date on which such resignation will take effect (which shall be at least thirty (30) days following the date that such resignation notice is delivered), and such resignation will be effective on the earlier of (i) the date so specified and (ii) the appointment of a successor Rights Agent.

(b) Homology will have the right to remove the Rights Agent at any time by written notice to the Rights Agent, specifying the date on which such removal will take effect. Such notice will be given at least thirty (30) days prior to the date so specified (or, if earlier, the appointment of the successor Rights Agent).

(c) If the Rights Agent resigns, is removed or becomes incapable of acting, Homology will promptly appoint a qualified successor Rights Agent. Notwithstanding the foregoing, if Homology fails to make such appointment within a period of thirty (30) days after giving notice of such removal or after it has been notified in writing of such resignation or incapacity by the resigning or incapacitated Rights Agent, then the incumbent Rights Agent may apply to any court of competent jurisdiction for the appointment of a new Rights Agent. The successor Rights Agent so appointed will, upon its acceptance of such appointment in accordance with this Section 3.3(c) and Section 3.4, become the Rights Agent for all purposes hereunder.

(d) Homology will give notice to the Holders of each resignation or removal of the Rights Agent and each appointment of a successor Rights Agent in accordance with Section 7.2. Each notice will include the name and address of the successor Rights Agent. If Homology fails to send such notice within ten (10) Business Days after acceptance of appointment by a successor Rights Agent, the successor Rights Agent will cause the notice to be mailed at the expense of Homology.

(e) Notwithstanding anything to the contrary in this Section 3.3, unless consented to in writing by the Majority of Holders, Homology will not appoint as a successor Rights Agent any Person that is not a stock transfer agent of national reputation or the corporate trust department of a commercial bank.

(f) The Rights Agent will reasonably cooperate with Homology and any successor Rights Agent in connection with the transition of the duties and responsibilities of the Rights Agent to the successor Rights Agent, including the transfer of all relevant data, including the CVR Register, to the successor Rights Agent, but such predecessor Rights Agent shall not be required to make any additional expenditure or assume any additional liability in connection with the foregoing.

Section 3.4 *Acceptance of Appointment by Successor*.

Every successor Rights Agent appointed hereunder will, at or prior to such appointment, execute, acknowledge and deliver to Homology and to the resigning or removed Rights Agent an instrument accepting such appointment and a counterpart of this Agreement, and such successor Rights Agent, without any further act, deed or conveyance, will become vested with all the rights, powers, trusts and duties of the Rights Agent; *provided* that upon the request of Homology or the successor Rights Agent, such resigning or removed Rights Agent will execute and deliver an instrument transferring to such successor Rights Agent all the rights, powers and trusts of such resigning or removed Rights Agent.

ARTICLE 4
COVENANTS

Section 4.1 *List of Holders*.

Homology will furnish or cause to be furnished to the Rights Agent, in such form as Homology receives from Homology's transfer agent (or other agent performing similar services for Homology), the names and addresses of the Holders within fifteen (15) Business Days following the Closing Date.

Section 4.2 *CVR Committee; Efforts*.

(a) The Homology Board has delegated, to a special committee of the Homology Board (the "Special Committee") comprised of four (4) directors of the Homology Board (the "Initial Special Committee Members"), the primary responsibility, authority and discretion during the Disposition Period with respect to (i) managing the Legacy Assets, (ii) negotiating any Legacy Asset Disposition during the Disposition Period; provided that the Special Committee may not cause the Company to incur costs, expenses or obligations in excess of the Expense Reserve without the prior consent of the Homology Board. The Special Committee shall also be empowered with the authority to authorize and direct any officer of Homology to negotiate, execute and deliver a definitive written agreement with respect to a Legacy Asset Disposition in a form approved by the Special Committee and consistent with this Agreement and the Merger Agreement (a "Sale Agreement") in the name and on behalf of Homology; *provided*, *however*, that no Sale Agreement shall be entered into without the prior review and approval of the Homology Board (such approval not to be unreasonably withheld, conditioned or delayed). In the event (A) any Initial Special Committee Member no longer serves on the Special Committee during the Disposition

Period, such vacancy on the Special Committee shall be filled with another director of the Homology Board, and (B) any Initial Special Committee Member who was designated by Homology no longer serves on the Special Committee during the Disposition Period, such vacancy on the Special Committee shall be filled with a then-existing member of the Homology Board selected by the member of the post-Closing Homology Board designated by Homology. In each case of (A)-(B) above, the post-Closing Homology Board agrees to install the applicable replacement on the Special Committee.

(b) The delegation of responsibility and authority to the Special Committee set forth in Section 4.2(a) shall not be revoked or modified at any time during the Disposition Period; *provided*, that the Special Committee shall automatically dissolve upon expiration of the Disposition Period and shall have no further responsibility or authority thereafter. The Special Committee and Homology Board shall not have any liability to the Holders for any actions taken or not taken in accordance with this Agreement in respect of the matters expressly contemplated hereby. No provision of this Agreement shall require the Special Committee or any members thereof to expend or risk its, his or her own funds or otherwise incur any financial liability in the performance of any duties hereunder or in the exercise of any rights or powers hereunder.

(c) The Holders shall be intended third-party beneficiaries of the provisions of this Agreement; *provided*, that under no circumstances shall the rights of Holders as third-party beneficiaries pursuant to this Article 4 be enforceable by such Holders or any other Person acting for or on their behalf other than the Special Committee (or the Homology Board if the Special Committee no longer exists). The Special Committee (or the Homology Board if the Special Committee no longer exists) has the sole power and authority to act on behalf of the Holders in enforcing any of their rights hereunder.

(d) During the six (6) months immediately following the Closing, Homology will, and will cause its Subsidiaries to, use Commercially Reasonable Efforts to effect Legacy Asset Dispositions with respect to the then-existing Legacy Assets (i) pursuant to a letter of intent for such Legacy Asset Disposition that was executed prior to the Closing Date, and (ii) to a third party that has delivered a bona fide indication of interest to Homology subsequent to the Closing Date, *provided* that such obligation will not apply to the Oxford Assets. Homology shall use Commercially Reasonable Efforts to exercise the put option on the Oxford Assets contemplated in Section 9.4 of the Limited Liability Company Agreement dated as of March 10, 2022 of OXB Solutions promptly after such put option becomes exercisable on March 10, 2025. During the Disposition Period, if and to the extent the Special Committee recommends, and the Homology Board authorizes and directs, the execution and delivery of any Sale Agreement, Homology will, and will cause its Subsidiaries to, use commercially reasonable efforts to (i) execute and deliver the Sale Agreement, and (ii) effectuate the Legacy Asset Disposition pursuant to such Sale Agreement in accordance with its terms. Notwithstanding anything in this Agreement to the contrary, unless approved by the Special Committee, Homology shall have no obligation whatsoever to enter into any Sale Agreement or other agreement in connection with a Legacy Asset Disposition that imposes on Homology or requires Homology to retain or assume, any material obligations or liabilities, monetary or otherwise, following the consummation of such transaction.

(e) Except as expressly set forth in Article 3, Section 4.2(a), Section 4.2(b) or Section 4.2(d), none of Homology or any of its Subsidiaries shall have any obligation or liability whatsoever to any Person relating to or in connection with any action, or failure to act, with respect to any Legacy Asset Disposition.

(f) Subject to the foregoing clause (d) and the other contractual obligations of Homology expressly set forth in this Agreement, (i) the Holders acknowledge that Homology has a fiduciary obligation to operate its business in the best interests of its stockholders, and any potential obligation to pay CVR Proceeds will not create any express or implied obligation to operate its business in any particular manner in order to maximize such CVR Proceeds, (ii) except as expressly set forth in this Agreement, the Holders are not relying on any representation of Homology or any other Person with regard to any Legacy Asset Disposition or other action involving the Legacy Assets following the Closing, and neither Homology nor any other Person has provided, or can provide, any assurance to the Holders that any CVR Proceeds will in fact be earned and paid, and (iii) none of Homology or any of its Subsidiaries, officers or directors shall have any obligation or liability whatsoever to any Person relating to or in connection with any action, or failure to act, with respect to any Legacy Asset Disposition.

(g) Following the Disposition Period, Homology shall be permitted to take any action in respect of the Legacy Assets in order to satisfy any Liabilities of or arising from the Legacy Assets, including any wind-down or termination Liabilities. For clarity, following the CVR Period and following the Disposition Period without a Legacy Asset Disposition, Homology may take any action in respect of the Legacy Assets in its sole and absolute discretion.

Section 4.3 *Prohibited Actions*.

Unless approved by the Special Committee (or the Homology Board if the Special Committee no longer exists), Homology shall not grant any lien, security interest, pledge or similar interest in any Legacy Assets (other than liens or security interests generally granted with respect to all assets of Homology, and not specific to the Legacy Assets, and which do not prohibit the ability of Homology to complete a Legacy Asset Disposition and, in connection therewith, to deliver title to the Legacy Assets to the purchaser thereof, free and clear of such liens and security interests) or any CVR Proceeds.

ARTICLE 5
AMENDMENTS

Section 5.1 *Amendments Without Consent of Holders or Rights Agent*.

(a) Homology, at any time and from time to time, may (without the consent of any Person, other than the Rights Agent, which such consent not to be unreasonably withheld, conditioned, or delayed) enter into one or more amendments to this Agreement for any of the following purposes, without the consent of any of the Holders or the Rights Agent:

(i) to evidence the appointment of another Person as a successor Rights Agent and the assumption by any successor Rights Agent of the covenants and obligations of the Rights Agent herein in accordance with the provisions hereof;

(ii) subject to Section 6.1, to evidence the succession of another person to Homology and the assumption of any such successor of the covenants of Homology outlined herein in a transaction contemplated by Section 6.1;

(iii) to add to the covenants of Homology such further covenants, restrictions, conditions or provisions for the protection and benefit of the Holders; *provided* that in each case, such provisions shall not adversely affect the interests of the Holders;

(iv) to cure any ambiguity, to correct or supplement any provision in this Agreement that may be defective or inconsistent with any other provision in this Agreement, or to make any other provisions with respect to matters or questions arising under this Agreement; *provided* that in each case, such provisions shall not adversely affect the interests of the Holders;

(v) as may be necessary or appropriate to ensure that CVRs are not subject to registration under the U.S. Securities Act of 1933, as amended, or the U.S. Securities Exchange Act of 1934, as amended and the rules and regulations made thereunder, or any applicable state securities or "blue sky" laws;

(vi) as may be necessary or appropriate to ensure that Homology is not required to produce a prospectus or an admission document in order to comply with applicable Law;

(vii) to cancel CVRs (i) in the event that any Holder has abandoned its rights in accordance with Section 2.6, or (ii) following a transfer of such CVRs to Homology or its Subsidiaries in accordance with Section 2.2 or Section 2.3;

(viii) as may be necessary or appropriate to ensure that Homology complies with applicable Law; or

(ix) to effect any other amendment to this Agreement that would provide any additional rights or benefits to the Holders or that does not adversely affect the legal rights under this Agreement of any such Holder.

(b) Promptly after the execution by Homology of any amendment pursuant to this Section 5.1, Homology will (or will cause the Rights Agent to) notify the Holders in general terms of the substance of such amendment in accordance with Section 7.2.

Section 5.2 *Amendments with Consent of Holders*.

(a) In addition to any amendments to this Agreement that may be made by Homology without the consent of any Holder or the Rights Agent pursuant to Section 5.1, with the consent of the Majority of Holders, Homology and the Rights Agent may enter into one or more amendments to this Agreement for the purpose of adding, eliminating or amending any provisions of this Agreement, even if such addition, elimination or amendment is adverse to the interests of the Holders.

(b) Promptly after the execution by Homology and the Rights Agent of any amendment pursuant to the provisions of this Section 5.2, Homology will (or will cause the Rights Agent to) notify the Holders in general terms of the substance of such amendment in accordance with Section 7.2.

Section 5.3 *Effect of Amendments*.

Upon the execution of any amendment under this Article 5, this Agreement will be modified in accordance therewith, such amendment will form a part of this Agreement for all purposes and every Holder will be bound thereby. Upon the delivery of a certificate from an appropriate officer of Homology which states that the proposed supplement or amendment is in compliance with the terms of this Article 5, the Rights Agent shall execute such supplement or amendment. Notwithstanding anything in this Agreement to the contrary, the Rights Agent shall not be required to execute any supplement or amendment to this Agreement that it has determined would adversely affect its own rights, duties, obligations or immunities under this Agreement. No supplement or amendment to this Agreement shall be effective unless duly executed by the Rights Agent.

ARTICLE 6
CONSOLIDATION, MERGER, SALE OR CONVEYANCE

Section 6.1 *Homology May Not Consolidate, Etc.*

During the CVR Period, Homology shall not consolidate with or merge into any other Person or convey, transfer or lease all or substantially all of its properties and assets to any Person, unless:

(a) the Person formed by such consolidation or into which Homology is merged or the Person that acquires by conveyance or transfer, or that leases, all or substantially all of the properties and assets of Homology (the "Surviving Person") shall expressly assume Homology's obligations under this Agreement, including payment of amounts on all CVRs in accordance with the applicable terms; and

(b) Homology has delivered to the Rights Agent an Officer's Certificate, stating that such consolidation, merger, conveyance, transfer or lease complies with this Article 6.

Section 6.2 *Successor Substituted*.

Upon any consolidation of or merger by Homology with or into any other Person, or any conveyance, transfer or lease of the properties and assets substantially as an entirety to any Person in accordance with Section 6.1, the Surviving Person shall succeed to, and be substituted for, and may exercise every right and power of, and shall assume all of the obligations of Homology under this Agreement with the same effect as if the Surviving Person had been named as Homology herein.

ARTICLE 7
MISCELLANEOUS

Section 7.1 *Notices to Rights Agent and to Homology*.

All notices, requests and other communications (each, a "Notice") to any party hereunder shall be in writing. Such Notice shall be deemed given (a) on the date of delivery, if delivered in person, by Fedex or other internationally recognized overnight courier service or, (except with respect to any Person other than the Rights Agent), by e-mail (upon confirmation of receipt) prior to 5:00 p.m. in the time zone of the receiving party or on the next Business Day, if delivered after 5:00 p.m. in the time zone of the receiving party or (b) on the first Business Day following the date of dispatch, if delivered by FedEx or by other internationally recognized overnight courier service (upon proof of delivery), addressed as follows:

if to the Rights Agent, to:

Equiniti Trust Company, LLC
48 Wall Street, 22nd Floor
New York, NY 10005
Attention: Corporate Actions
Email: ReorgRM@equiniti.com

if to Homology, to:

Homology Medicines, Inc.
One Patriots Park
Bedford, MA 01730
Attention: Jodie Morrison
Email: Jmorrison@q32bio.com

with a copy, which shall not constitute notice, to:

Goodwin Procter LLP
100 Northern Avenue
Boston, Massachusetts 02210
Attention: John T. Haggerty; Jacqueline Mercier; Tevia K. Pollard
Email: JHaggerty@goodwinlaw.com; JMercier@goodwinlaw.com; TPollard@goodwinlaw.com

or to such other address or facsimile number as such party may hereafter specify for the purpose by notice to the other parties hereto.

Section 7.2 *Notice to Holders*.

All Notices required to be given to the Holders will be given (unless otherwise herein expressly provided) in writing and mailed, first-class postage prepaid, to each Holder at such Holder's address as set forth in the CVR Register, not later than the latest date, and not earlier than the earliest date, prescribed for the sending of such Notice, if any, and will be deemed given on the date of mailing. In any case where notice to the Holders is given by mail, neither the failure to mail such Notice, nor any defect in any Notice so mailed, to any particular Holder will affect the sufficiency of such Notice with respect to other Holders.

Section 7.3 *Entire Agreement*.

As between Homology and the Rights Agent, this Agreement constitutes the entire agreement between the parties with respect to the subject matter of this Agreement, notwithstanding the reference to any other agreement herein, and supersedes all prior agreements and understandings, both written and oral, among or between any of the parties with respect to the subject matter of this Agreement.

Section 7.4 *Merger or Consolidation or Change of Name of Rights Agent*.

Any Person into which the Rights Agent or any successor Rights Agent may be merged or with which it may be consolidated, or Person resulting from any merger or consolidation to which the Rights Agent or any successor Rights Agent shall be a party, or any Person succeeding to the stock transfer or other shareholder services business of the Rights Agent or any successor Rights Agent, shall be the successor to the Rights Agent under this Agreement without the execution or filing of any paper or any further act on the part of any of the parties hereto, *provided* that such Person would be eligible for appointment as a successor Rights Agent under the provisions of Section 3.3. The purchase of all or substantially all of the Rights Agent's assets employed in the performance of transfer agent activities shall be deemed a merger or consolidation for purposes of this Section 7.4.

Section 7.5 *Successors and Assigns*.

This Agreement will be binding upon, and will be enforceable by and inure solely to the benefit of, the Holders, Homology and the Rights Agent and their respective successors and assigns. Except for assignments pursuant to Section 7.4, the Rights Agent may not assign this Agreement without Homology's prior written consent. Subject to Section 5.1(a)(ii) and Article 6 hereof, Homology may assign, in its sole discretion and without the consent of any other party, any or all of its rights, interests and obligations hereunder to one or more of its Affiliates or to any Person with whom Homology is merged or consolidated, or any entity resulting from any merger or consolidation to which Homology shall be a party (each, an "Assignee"); *provided*, *however*, that in connection with any assignment to an Assignee, Homology shall agree to remain liable for the performance by Homology of its obligations hereunder (to the extent Homology exists following such assignment). Homology or an Assignee may not otherwise assign this Agreement without the prior consent of the Majority of Holders. Any attempted assignment of this Agreement in violation of this Section 7.5 will be void *ab initio* and of no effect.

Section 7.6 *Benefits of Agreement; Action by Majority of Holders*.

Nothing in this Agreement, express or implied, will give to any Person (other than Homology, the Rights Agent, the Holders and their respective permitted successors and assigns hereunder) any benefit or any legal or equitable right, remedy or claim under this Agreement or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of Homology, the Rights Agent, the Holders and their permitted successors and assigns. The Holders will have no rights hereunder except as are expressly set forth herein. Except for the rights of the Rights Agent set forth herein, the Majority of Holders will have the sole right, on behalf of all Holders, by virtue of or under any provision of this Agreement, to institute any action or proceeding at law or in equity with respect to this Agreement, and no individual Holder or other group of Holders will be entitled to exercise such rights.

Section 7.7 *Governing Law*.

This Agreement and the CVRs will be governed by, and construed in accordance with, the laws of the State of Delaware without regard to the conflicts of law rules of such state.

Section 7.8 *Jurisdiction*.

In any action or proceeding between any of the parties hereto arising out of or relating to this Agreement or any of the transactions contemplated hereby, each of the parties hereto: (a) irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the Chancery Court of the State of Delaware, County of New Castle, or, if under applicable Law exclusive jurisdiction is vested in the Federal courts, the United States District Court for the District of Delaware (and appellate courts thereof); (b) agrees that all claims in respect of such action or proceeding shall be heard and determined exclusively in accordance with clause (a) of this Section 7.8; (c) waives any objection to laying venue in any such action or proceeding in such courts; (d) waives any objection that such courts are an inconvenient forum or do not have jurisdiction over any Party; and (e) agrees that service of process upon such Party in any such action or proceeding shall be effective if notice is given in accordance with Section 7.1 or Section 7.2 of this Agreement.

Section 7.9 ***WAIVER OF JURY TRIAL***.

EACH OF THE PARTIES HERETO (AND BY ACCEPTING THE CVR' S, THE HOLDERS) HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY. EACH PARTY CERTIFIES AND ACKNOWLEDGES THAT (I) NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER, (II) EACH PARTY UNDERSTANDS AND HAS CONSIDERED THE IMPLICATION OF THIS WAIVER, (III) EACH PARTY MAKES THIS WAIVER VOLUNTARILY, AND (IV) EACH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 7.9.

Section 7.10 *Severability Clause*.

In the event that any provision of this Agreement, or the application of any such provision to any Person or set of circumstances, is for any reason determined to be invalid, unlawful, void or unenforceable to any extent, the remainder of this Agreement, and the application of such provision to Persons or circumstances other than those as to which it is determined to be invalid, unlawful, void or unenforceable, will not be impaired or otherwise affected and will continue to be valid and enforceable to the fullest extent permitted by applicable Law. Upon such a determination, the parties hereto will negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the fullest extent possible; *provided*, *however*, that if an excluded provision shall affect the rights, immunities, liabilities, duties or obligations of the Rights Agent, the Rights Agent shall be entitled to resign immediately upon written notice to Homology.

Section 7.11 *Counterparts; Effectiveness*.

This Agreement may be signed in any number of counterparts, each of which will be deemed an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement or any counterpart may be executed and delivered by facsimile copies or delivered by electronic communications by portable document format (.pdf), each of which shall be deemed an original. This Agreement will become effective when each party hereto will have received a counterpart hereof signed by the other party hereto. Until and unless each party has received a counterpart hereof signed by the other party hereto, this Agreement will have no effect and no party will have any right or obligation hereunder (whether by virtue of any oral or written agreement or any other communication).

Section 7.12 *Termination*.

This Agreement will automatically terminate and be of no further force or effect and, except as provided in Section 3.2, the parties hereto will have no further liability hereunder, and the CVRs will expire without any consideration or compensation therefor, upon the expiration of the CVR Period. The termination of this Agreement will not affect or limit the right of Holders to receive the CVR Payments under Section 2.4 to the extent earned prior to the termination of this Agreement, and the provisions applicable thereto will survive the expiration or termination of this Agreement.

Section 7.13 *Force Majeure*.

Notwithstanding anything to the contrary contained herein, none of the Rights Agent, Homology or any of its Subsidiaries (except as it relates to the obligations of the Company under Article 3) will be liable for any delays or failures in performance resulting from acts beyond its reasonable control including acts of God, pandemics (including COVID-19), terrorist acts, shortage of supply, breakdowns or malfunctions, interruptions or malfunctions of computer facilities, or loss of data due to power failures or mechanical difficulties with information storage or retrieval systems, labor difficulties, war or civil unrest.

Section 7.14 *Construction*.

(a) For purposes of this Agreement, whenever the context requires: singular terms will include the plural, and vice versa; the masculine gender will include the feminine and neuter genders; the feminine gender will include the masculine and neuter genders; and the neuter gender will include the masculine and feminine genders.

(b) As used in this Agreement, the words "include" and "including," and variations thereof, will not be deemed to be terms of limitation, but rather will be deemed to be followed by the words "without limitation."

(c) The headings contained in this Agreement are for convenience of reference only, will not be deemed to be a part of this Agreement and will not be referred to in connection with the construction or interpretation of this Agreement.

(d) Any reference in this Agreement to a date or time shall be deemed to be such date or time in New York City, United States, unless otherwise specified. The parties hereto and Homology have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties and Homology and no presumption or burden of proof shall arise favoring or disfavoring any Person by virtue of the authorship of any provision of this Agreement.

(e) All references herein to "$" are to United States Dollars.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be executed as of the day and year first above written.

HOMOLOGY MEDICINES, INC.

By: /s/ Paul Alloway
Name: Paul Alloway
Title: President and Chief Operating Officer

EQUINITI TRUST COMPANY, LLC, as Rights Agent

By: /s/ Michael Legregin
Name: Michael Legregin
Title: Senior Vice President, Corporate Actions Relationship Management & Operations

[Signature Page to CVR Agreement]

Exhibit 10.5

CONSENT AND EIGHTH AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Consent and Eighth Amendment to Loan and Security Agreement (this "**Amendment**") is entered into this 22nd day of March, 2024 by and between **Silicon Valley Bank, a division of First-Citizens Bank & Trust Company** and **Q32 Bio Inc.**, a Delaware corporation ("**Borrower**") whose address is 830 Winter Street, Waltham, Massachusetts 02451.

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of December 11, 2020, as amended by that certain First Amendment to Loan and Security Agreement by and between Borrower and Bank dated as of December 30, 2021, as further amended by that certain Second Amendment to Loan and Security Agreement by and between Borrower and Bank dated as of June 30, 2022, as amended by that certain Third Amendment to Loan and Security Agreement by and between Borrower and Bank dated as of August 10, 2022, as amended by that certain Fourth Amendment to Loan and Security Agreement by and between Borrower and Bank dated as of December 21, 2022 (the "**Fourth Amendment**"), as further amended by that certain Fifth Amendment to Loan and Security Agreement by and between Borrower and Bank dated as of April 26, 2023, as further amended by that certain Sixth Amendment to Loan and Security Agreement by and between Borrower and Bank dated as of July 12, 2023, and as further amended by that certain Seventh Amendment to Loan and Security Agreement by and between Borrower and Bank dated as of November 2, 2023 (as the same may from time to time be further amended, modified, supplemented or restated, the "**Loan Agreement**").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has notified Bank that Borrower has entered into that certain Agreement and Plan of Merger in the form attached hereto as Schedule 1 (the "**Merger Agreement**"), pursuant to which, (i) Kenobi Merger Sub, Inc., a Delaware corporation ("**Merger Sub**"), a wholly-owned subsidiary of Homology Medicines, Inc., a Delaware corporation ("**Homology**"), shall be merged with and into Borrower, (ii) the separate corporate existence of Merger Sub shall cease, and (iii) Borrower shall continue as the surviving corporation and as a direct, wholly-owned Subsidiary of Homology ((i) through (iii) collectively, the "**Merger**").

D. Borrower has requested that Bank amend the Loan Agreement to (i) consent to the Merger and (ii) make certain other revisions to the Loan Agreement as more fully set forth herein.

E. Bank has agreed to so consent to the Merger and amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Definitions. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. Amendments to Loan Agreement.

2.1 Section 13.1 (Definitions). The following terms and their respective definitions appearing in Section 13.1 are amended in their entirety and replaced with the following:

> " " **2023 Draw Period B**" is the period of time commencing upon the occurrence of 2023 Term B Milestone Event and continuing through the earlier to occur of (a) May 31, 2024, or (b) an Event of Default."
>
> " " **2023 Term B Milestone Event**" occurs if and when (if ever) Bank confirms in writing that it has received evidence satisfactory to Bank in its sole and absolute discretion, on or prior to May 31, 2024, that Borrower or Securities Corporation has received, after the Sixth Amendment Effective Date, but on or prior to May 31, 2024, unrestricted and unencumbered net cash proceeds of at least $75,000,000.00 from (a) the issuance and sale of its equity securities to investors satisfactory to Bank and/or (b) a business development transaction satisfactory to Bank; provided that, at least $37,500,000.00 of such net cash proceeds must be received from the issuance and sale of its equity securities to investors satisfactory to Bank."

3. Consent. Bank hereby consents to the Merger and agrees that the Merger shall not, in and of itself, constitute an Event of Default under Section 7.1 (relative to dispositions), Section 7.2 (relative to changes in business management), Section 7.3 of the Loan Agreement (relative to mergers or acquisitions) and Section 7.7 of the Loan Agreement (relative to distributions and investments), provided that such consent is subject to the following conditions being fulfilled, each to the satisfaction of Bank: (a) Borrower shall be a surviving legal entity after the consummation of the Merger, (b) Securities Corporation shall be a surviving legal entity after the consummation of the Merger and shall remain a wholly-owned Subsidiary of Borrower, (c) Borrower has delivered to Bank, evidence satisfactory to Bank in its sole and absolute discretion that, on or prior to the date of the consummation of the Merger, that Borrower has received, after January 25, 2024, but on or prior to the date of the consummation of the Merger, unrestricted and unencumbered net cash proceeds of at least $42,000,000.00 from the issuance and sale of its equity securities to investors satisfactory to Bank, (d) Borrower shall not assume or incur any Indebtedness or Liens in connection with the Merger, (e) Borrower shall provide Bank with certified copies, dated as of a recent date, of financing statement searches with respect to Merger Sub accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been terminated or released, and (e) no Event of Default shall occur and be continuing, both before and immediately after giving effect to the Merger. The consent provided for herein is a one-time consent relating only to the Merger, and shall not be deemed to constitute an agreement by Bank to any future consent or waiver of the terms and conditions of the Loan Agreement.

4. Additional Covenants. Borrower shall, on or prior to May 25, 2024, (i) deliver to Bank, in form and substance reasonably satisfactory to Bank, a duly executed Control Agreement with respect to each of Borrower's accounts maintained with Bank of America, (ii) cause Homology to provide to Bank a joinder to the Loan Agreement to cause Homology to become a co-borrower thereunder, together with such appropriate financing statements and/or Control Agreements, all in form and substance reasonably satisfactory to Bank (including being sufficient to grant Bank a first priority perfected security interest in the Collateral), (iii) provide to Bank appropriate certificates and powers and financing statements, pledging all of the direct or beneficial ownership interest in Homology, in form and substance satisfactory to Bank, and (iv) provide to Bank all other documentation in form and substance reasonably satisfactory to Bank which, in its opinion, is appropriate with respect to the execution and delivery of the applicable documentation referred to effect such a joinder to the Loan Agreement.

5. Limitation of Amendments.

5.1 The amendments set forth in Section 2 above are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Bank may now have or may have in the future under or in connection with any Loan Document.

5.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

6. Representations and Warranties. To induce Bank to enter into this Amendment, Borrower hereby represents and warrants to Bank as follows:

6.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct in all material respects as of such date), and (b) no Event of Default has occurred and is continuing;

6.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

6.3 The organizational documents of Borrower delivered to Bank on December 11, 2020 remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

6.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

6.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any material Requirement of Law, (b) any material agreement by which Borrower or any of its Subsidiaries is bound, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

6.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any Governmental Authority (except such Governmental Approvals which has already been obtained or are in full force and effect); and

6.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application relating to or affecting creditors' rights and by general equitable principles.

7. Release by Borrower:

7.1 FOR GOOD AND VALUABLE CONSIDERATION, Borrower hereby forever relieves, releases, and discharges Bank and its present or former employees, officers, directors, agents, representatives, attorneys, and each of them, from any and all claims, debts, liabilities, demands, obligations, promises, acts, agreements, costs and expenses, actions and causes of action, of every type, kind, nature, description or character whatsoever, whether known or unknown, suspected or unsuspected, absolute or contingent, arising out of or in any manner whatsoever connected with or related to facts, circumstances, issues, controversies or claims existing or arising from the beginning of time through and including the date of execution of this Amendment (collectively "**Released Claims**"). Without limiting the foregoing, the Released Claims shall include any and all liabilities or claims arising out of or in any manner whatsoever connected with or related to the Loan Documents, the recitals hereto, any instruments, agreements or documents executed in connection with any of the foregoing or the origination, negotiation, administration, servicing and/or enforcement of any of the foregoing.

7.2 In furtherance of this release, Borrower expressly acknowledges and waives any and all rights under Section 1542 of the California Civil Code, which provides as follows:

> "**A general release** does not extend to claims that the creditor or releasing party does not know or suspect to exist in his or her favor at the time of executing the release and that, if known by him or her, would have materially affected his or her settlement with the debtor or released party." (Emphasis added.)

7.3 By entering into this release, Borrower recognizes that no facts or representations are ever absolutely certain and it may hereafter discover facts in addition to or different from those which it presently knows or believes to be true, but that it is the intention of Borrower hereby to fully, finally and forever settle and release all matters, disputes and differences, known or unknown, suspected or unsuspected; accordingly, if Borrower should subsequently

discover that any fact that it relied upon in entering into this release was untrue, or that any understanding of the facts was incorrect, Borrower shall not be entitled to set aside this release by reason thereof, regardless of any claim of mistake of fact or law or any other circumstances whatsoever. Borrower acknowledges that it is not relying upon and has not relied upon any representation or statement made by Bank with respect to the facts underlying this release or with regard to any of such party's rights or asserted rights.

7.4 This release may be pleaded as a full and complete defense and/or as a cross-complaint or counterclaim against any action, suit, or other proceeding that may be instituted, prosecuted or attempted in breach of this release. Borrower acknowledges that the release contained herein constitutes a material inducement to Bank to enter into this Amendment, and that Bank would not have done so but for Bank's expectation that such release is valid and enforceable in all events.

7.5 Borrower hereby represents and warrants to Bank, and Bank is relying thereon, as follows:

(a) Except as expressly stated in this Amendment, neither Bank nor any agent, employee or representative of Bank has made any statement or representation to Borrower regarding any fact relied upon by Borrower in entering into this Amendment.

(b) Borrower has made such investigation of the facts pertaining to this Amendment and all of the matters appertaining thereto, as it deems necessary.

(c) The terms of this Amendment are contractual and not a mere recital.

(d) This Amendment has been carefully read by Borrower, the contents hereof are known and understood by Borrower, and this Amendment is signed freely, and without duress, by Borrower.

(e) Borrower represents and warrants that it is the sole and lawful owner of all right, title and interest in and to every claim and every other matter which it releases herein, and that it has not heretofore assigned or transferred, or purported to assign or transfer, to any person, firm or entity any claims or other matters herein released. Borrower shall indemnify Bank, defend and hold it harmless from and against all claims based upon or arising in connection with prior assignments or purported assignments or transfers of any claims or matters released herein.

8. Updated Perfection Certificate. Borrower has delivered an updated Perfection Certificate in connection with this Amendment (the "**Updated Perfection Certificate**") dated as of the date hereof, which Updated Perfection Certificate shall supersede in all respects that certain Perfection Certificate dated as of August 23, 2023. Borrower agrees that all references in the Loan Agreement to "Perfection Certificate" shall hereinafter be deemed to be a reference to the Updated Perfection Certificate.

9. Ratification of Stock Pledge Agreement. Borrower hereby ratifies, confirms and reaffirms, all and singular, the terms and disclosures contained in a certain Stock Pledge Agreement by and between Borrower and Bank dated as of December 11, 2020, and acknowledges, confirms and agrees that said Stock Pledge Agreement (a) contains an accurate and complete listing of all Shares (as such term is defined therein) and (b) shall remain in full force and effect.

10. Fees and Expenses. Borrower shall reimburse Bank for all unreimbursed Bank Expenses, including without limitation, all reasonable documented legal fees and out-of-pocket expenses incurred in connection with this Amendment.

11. Governing Law. This Amendment shall be governed and construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to conflicts of laws principles.

12. Integration. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

13. Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument. Each party hereto may execute this Amendment by electronic means and recognizes and accepts the use of electronic signatures and records by any other party hereto in connection with the execution and storage hereof.

14. Effectiveness. This Amendment shall be deemed effective as of the due execution and delivery to Bank of this Amendment by each party hereto.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered as a sealed instrument under the laws of the Commonwealth of Massachusetts as of the date first written above.

BANK

FIRST-CITIZENS BANK & TRUST COMPANY

By: /s/ John Sansone
Name: John Sansone
Title: Vice President

BORROWER

Q32 BIO INC.

By: /s/ Eric Bell
Name: Eric Bell
Title: SVP Finance and Controller

Schedule 1

[Intentionally Omitted]

Exhibit 10.6

Q32 BIO INC.
AMENDED AND RESTATED
FORM OF OFFICER INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("Agreement") is made as of _____ by and between Q32 Bio Inc., a Delaware corporation (the "Company"), and _____ ("Indemnitee").

RECITALS

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company;

WHEREAS, in order to induce Indemnitee to [provide or continue to provide] services to the Company, the Company wishes to provide for the indemnification of, and advancement of expenses to, Indemnitee to the maximum extent permitted by law;

WHEREAS, the Certificate of Incorporation (the "Charter") and the Bylaws (the "Bylaws") of the Company require indemnification of the officers and directors of the Company, and Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware (the "DGCL");

WHEREAS, the Charter, the Bylaws and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the board of directors, officers and other persons with respect to indemnification;

WHEREAS, the Board of Directors of the Company (the "Board") has determined that the increased difficulty in attracting and retaining highly qualified persons such as Indemnitee is detrimental to the best interests of the Company's stockholders;

WHEREAS, it is reasonable and prudent for the Company contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law, regardless of any amendment or revocation of the Charter or the Bylaws, so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified; and

WHEREAS, this Agreement is a supplement to and in furtherance of the indemnification provided in the Charter, the Bylaws and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

Section 1. Services to the Company. Indemnitee agrees to serve as [a director and] an officer of the Company. Indemnitee may at any time and for any reason resign from [any] such position (subject to any other contractual obligation or any obligation imposed by law), in which event the Company shall have no obligation under this Agreement to continue Indemnitee in such position. This Agreement shall not be deemed an employment contract between the Company (or any of its subsidiaries or any Enterprise) and Indemnitee.

Section 2. Definitions.

As used in this Agreement:

(a) "Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as in effect on the date of this Agreement; provided, however, that no Person who is a director or officer of the Company shall be deemed an Affiliate or an Associate of any other director or officer of the Company solely as a result of his or her position as director or officer of the Company.

(b) A Person shall be deemed the "Beneficial Owner" of, and shall be deemed to "Beneficially Own" and have "Beneficial Ownership" of, any securities:

(i) which such Person or any of such Person's Affiliates or Associates, directly or indirectly, Beneficially Owns (as determined pursuant to Rule 13d-3 of the Rules under the Exchange Act, as in effect on the date of this Agreement);

(ii) which such Person or any of such Person's Affiliates or Associates, directly or indirectly, has: (A) the legal, equitable or contractual right or obligation to acquire (whether directly or indirectly and whether exercisable immediately or only after the passage of time, compliance with regulatory requirements, satisfaction of one or more conditions (whether or not within the control of such Person) or otherwise) upon the exercise of any conversion rights, exchange rights, rights, warrants or options, or otherwise; (B) the right to vote pursuant to any agreement, arrangement or understanding (whether or not in writing); or (C) the right to dispose of pursuant to any agreement, arrangement or understanding (whether or not in writing) (other than customary arrangements with and between underwriters and selling group members with respect to a bona fide public offering of securities);

(iii) which are Beneficially Owned, directly or indirectly, by any other Person (or any Affiliate or Associate thereof) with which such Person or any of such Person's Affiliates or Associates has any agreement, arrangement or understanding (whether or not in writing) (other than customary agreements with and between underwriters and selling group members with respect to a bona fide public offering of securities) for the purpose of acquiring, holding, voting or disposing of any securities of the Company; or

(iv) that are the subject of a derivative transaction entered into by such Person or any of such Person's Affiliates or Associates, including, for these purposes, any derivative security acquired by such Person or any of such Person's Affiliates or Associates that gives such Person or any of such Person's Affiliates or Associates the economic equivalent of ownership of an amount of securities due to the fact that the value of the derivative security is explicitly determined by reference to the price or value of such securities, or that provides such Person or any of such Person's Affiliates or Associates an opportunity, directly or indirectly, to profit or to share in any profit derived from any change in the value of such securities, in any case without

regard to whether (A) such derivative security conveys any voting rights in such securities to such Person or any of such Person's Affiliates or Associates; (B) the derivative security is required to be, or capable of being, settled through delivery of such securities; or (C) such Person or any of such Person's Affiliates or Associates may have entered into other transactions that hedge the economic effect of such derivative security.

Notwithstanding the foregoing, no Person engaged in business as an underwriter of securities shall be deemed the Beneficial Owner of any securities acquired through such Person's participation as an underwriter in good faith in a firm commitment underwriting.

(c) A "Change in Control" shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events*:*

(i) Acquisition of Stock by Third Party. Any Person is or becomes the Beneficial Owner (as defined above), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities unless the change in relative Beneficial Ownership of the Company's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors, provided that a Change of Control shall be deemed to have occurred if subsequent to such reduction such Person becomes the Beneficial Owner, directly or indirectly, of any additional securities of the Company conferring upon such Person any additional voting power;

(ii) Change in Board of Directors. During any period of two (2) consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director (other than a director designated by a Person who has entered into an agreement with the Company to effect a transaction described in Sections 2(c)(i), 2(c)(iii) or 2(c)(iv)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the members of the Board;

(iii) Corporate Transactions. The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving or successor entity) more than 50% of the combined voting power of the voting securities of the surviving or successor entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the board of directors or other governing body of such surviving or successor entity;

(iv) Liquidation. The approval by the stockholders of the Company of a complete liquidation of the Company or an agreement for the sale, lease, exchange or other transfer by the Company, in one or a series of related transactions, of all or substantially all of the Company's assets; and

(v) Other Events. There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange Act whether or not the Company is then subject to such reporting requirement.

(d) "Corporate Status" describes the status of a person as a current or former [director or] officer of the Company or current or former director, manager, partner, officer, employee, agent or trustee of any other Enterprise which such person is or was serving at the request of the Company.

(e) "Enforcement Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with an action to enforce indemnification or advancement rights, or an appeal from such action. Expenses, however, shall not include fees, salaries, wages or benefits owed to Indemnitee.

(f) "Enterprise" shall mean any corporation (other than the Company), partnership, joint venture, trust, employee benefit plan, limited liability company or other legal entity of which Indemnitee is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee.

(g) "Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding or an appeal resulting from a Proceeding. Expenses, however, shall not include amounts paid in settlement by Indemnitee, the amount of judgments or fines against Indemnitee or fees, salaries, wages or benefits owed to Indemnitee.

(h) "Independent Counsel" means a law firm, or a partner (or, if applicable, member or shareholder) of such a law firm, that is experienced in matters of Delaware corporation law and neither presently is, nor in the past five (5) years has been, retained to represent: (i) the Company, any subsidiary of the Company, any Enterprise or Indemnitee in any matter material to any such party; or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any Person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully indemnify such counsel against any and all expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(i) "Person" shall mean (i) an individual, a corporation, a partnership, a limited liability company, an association, a joint stock company, a trust, a business trust, a government or political subdivision, any unincorporated organization or any other association or entity including any successor (by merger or otherwise) thereof or thereto, and (ii) a "group" as that term is used for purposes of Section 13(d)(3) of the Exchange Act.

(j) The term "Proceeding" shall include any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative, regulatory or investigative nature, and whether formal or informal, in which Indemnitee was, is or will be involved as a party or otherwise by reason of the fact that Indemnitee is or was [a director or] an officer of the Company or is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise or by reason of any action taken by Indemnitee or of any action taken on his or her part while acting as [a director or] an officer of the Company or while serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise, in each case whether or not serving in such capacity at the time any liability or expense is incurred for which indemnification, reimbursement or advancement of expenses can be provided under this Agreement; provided, however, that the term "Proceeding" shall not include any action, suit or arbitration, or part thereof, initiated by Indemnitee to enforce Indemnitee's rights under this Agreement as provided for in Section 12(a) of this Agreement.

Section 3. Indemnity in Third-Party Proceedings. The Company shall indemnify Indemnitee to the extent set forth in this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified against all Expenses, judgments, fines, penalties, excise taxes and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company and, in the case of a criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

Section 4. Indemnity in Proceedings by or in the Right of the Company. The Company shall indemnify Indemnitee to the extent set forth in this Section 4 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 4, Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company. No indemnification for Expenses shall be made under this Section 4 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to the Company, unless and only to the extent that the Delaware Court of Chancery (the "Delaware Court") shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification for such expenses as the Delaware Court shall deem proper.

Section 5. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement and except as provided in Section 7, to the extent that Indemnitee is a party to or a participant in any Proceeding and is successful in such Proceeding or in defense of any claim, issue or matter therein, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or her in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on his or her behalf in connection with each successfully resolved claim, issue or matter. For purposes of this Section and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 6. Reimbursement for Expenses of a Witness or in Response to a Subpoena. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee, by reason of his or her Corporate Status, (i) is a witness in any Proceeding to which Indemnitee is not a party and is not threatened to be made a party or (ii) receives a subpoena with respect to any Proceeding to which Indemnitee is not a party and is not threatened to be made a party, the Company shall reimburse Indemnitee for all Expenses actually and reasonably incurred by him or her or on his or her behalf in connection therewith.

Section 7. Exclusions. Notwithstanding any provision in this Agreement to the contrary, the Company shall not be obligated under this Agreement:

(a) to indemnify for amounts otherwise indemnifiable hereunder (or for which advancement is provided hereunder) if and to the extent that Indemnitee has otherwise actually received such amounts under any insurance policy, contract, agreement or otherwise; provided that the foregoing shall not [i] apply to any personal or umbrella liability insurance maintained by Indemnitee, [or (ii) affect the rights of Indemnitee or the Fund Indemnitors as set forth in Section 13(c)];

(b) to indemnify for an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Exchange Act or similar provisions of state statutory law or common law[, or from the purchase or sale by Indemnitee of such securities in violation of Section 306 of the Sarbanes-Oxley Act of 2002 ("SOX")][1];

(c) to indemnify for any reimbursement of, or repayment to, the Company by Indemnitee of (i) any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company pursuant to the terms of (A) Section 304 of SOX, (B) Exchange Act Rule 10D-1 or (C) any formal policy of the Company adopted by the Board (or a committee thereof) or (ii) any other remuneration paid to Indemnitee if it shall be determined by a final judgment or other final adjudication that payment of such remuneration was or would have been in violation of law;

[1] **Note to Q32**: This language to be included if the Company's executive officers are subject to the prohibition on trading during retirement fund black-out periods under SOX 306 (i.e., the bracketed language applies only if the Company's 401(k) plan permits holding company's securities in the plan). We do not see any issues with including this language now because if the Company were to have its securities in their 401(k) plan, the bracketed language would be applicable at that time.

(d) to indemnify with respect to any Proceeding, or part thereof, brought by Indemnitee against the Company, any legal entity which it controls, any director or officer thereof or any third party, unless (i) the Board has consented to the initiation of such Proceeding or part thereof and (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law; provided, however, that this Section 7(d) shall not apply to (A) counterclaims or affirmative defenses asserted by Indemnitee in an action brought against Indemnitee or (B) any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company in the suit for which indemnification or advancement is being sought as described in Section 12; or

(e) to provide any indemnification or advancement of expenses that is prohibited by applicable law (as such law exists at the time payment would otherwise be required pursuant to this Agreement).

Section 8. Advancement of Expenses. Subject to Section 9(b), the Company shall advance the Expenses incurred by Indemnitee in connection with any Proceeding, and such advancement shall be made within thirty (30) days after the receipt by the Company of a statement or statements requesting such advances (including any invoices received by Indemnitee, which such invoices may be redacted as necessary to avoid the waiver of any privilege accorded by applicable law) from time to time, whether prior to or after final disposition of any Proceeding. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's (i) ability to repay the expenses, (ii) ultimate entitlement to indemnification under the other provisions of this Agreement and (iii) entitlement to and availability of insurance coverage, including advancement, payment or reimbursement of defense costs, expenses or covered loss under the provisions of any applicable insurance policy (including, without limitation, whether such advancement, payment or reimbursement is withheld, conditioned or delayed by the insurer(s)). Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement which shall constitute an undertaking providing that Indemnitee undertakes to the fullest extent required by law to repay the advance if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company. No other form of undertaking shall be required. The right to advances under this paragraph shall in all events continue until final disposition of any Proceeding, including any appeal therein. Nothing in this Section 8 shall limit Indemnitee's right to advancement pursuant to Section 12(e) of this Agreement.

Section 9. Procedure for Notification and Defense of Claim.

(a) To obtain indemnification under this Agreement, Indemnitee shall submit to the Company a written request therefor specifying the basis for the claim, the amounts for which Indemnitee is seeking payment under this Agreement and all documentation related thereto as reasonably requested by the Company.

(b) In the event that the Company shall be obligated hereunder to provide indemnification for or make any advancement of Expenses with respect to any Proceeding, the Company shall be entitled to assume the defense of such Proceeding, or any claim, issue or matter therein, with counsel approved by Indemnitee (which approval shall not be unreasonably withheld or delayed) upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently employed by or on behalf of Indemnitee with respect to the same Proceeding; provided that (i) Indemnitee shall have the right to employ separate counsel in any such Proceeding at Indemnitee's expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of such defense, (C) the Company shall not continue to retain such counsel to defend such Proceeding or (D) a Change in Control shall have occurred, then the fees and expenses actually and reasonably incurred by Indemnitee with respect to his or her separate counsel shall be Expenses hereunder.

(c) In the event that the Company does not assume the defense in a Proceeding pursuant to paragraph (b) above, then the Company will be entitled to participate in the Proceeding at its own expense.

(d) The Company shall not be liable to indemnify Indemnitee under this Agreement for any amounts paid in settlement of any Proceeding effected without its prior written consent (which consent shall not be unreasonably withheld or delayed). Without limiting the generality of the foregoing, the fact that an insurer under an applicable insurance policy delays or is unwilling to consent to such settlement or is or may be in breach of its obligations under such policy, or the fact that directors' and officers' liability insurance is otherwise unavailable or not maintained by the Company, may not be taken into account by the Company in determining whether to provide its consent. The Company shall not, without the prior written consent of Indemnitee (which consent shall not be unreasonably withheld or delayed), enter into any settlement which (i) includes an admission of fault of Indemnitee, any non-monetary remedy imposed on Indemnitee or any monetary damages for which Indemnitee is not wholly and actually indemnified hereunder or (ii) with respect to any Proceeding with respect to which Indemnitee may be or is made a party or may be otherwise entitled to seek indemnification hereunder, does not include the full release of Indemnitee from all liability in respect of such Proceeding.

Section 10. Procedure Upon Application for Indemnification.

(a) Upon written request by Indemnitee for indemnification pursuant to Section 9(a), a determination, if such determination is required by applicable law, with respect to Indemnitee's entitlement to indemnification hereunder shall be made in the specific case by one of the following methods: (x) if a Change in Control shall have occurred and indemnification is being requested by Indemnitee hereunder in his or her capacity as a director of the Company, by Independent Counsel in a written opinion to the Board; or (y) in any other case, (i) by a majority vote of the disinterested directors, even though less than a quorum; (ii) by a committee of disinterested directors designated by a majority vote of the disinterested directors, even though

less than a quorum; or (iii) if there are no disinterested directors or if the disinterested directors so direct, by Independent Counsel in a written opinion to the Board. For purposes hereof, disinterested directors are those members of the Board who are not parties to the action, suit or proceeding in respect of which indemnification is sought. In the case that such determination is made by Independent Counsel, a copy of Independent Counsel's written opinion shall be delivered to Indemnitee and, if it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within thirty (30) days after such determination. Indemnitee shall cooperate with the Independent Counsel or the Company, as applicable, in making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such counsel or the Company, upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. The Company shall likewise cooperate with Indemnitee and Independent Counsel, if applicable, in making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such counsel and Indemnitee, upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to the Company and reasonably necessary to such determination. Any out-of-pocket costs or expenses (including reasonable attorneys' fees and disbursements) actually and reasonably incurred by Indemnitee in so cooperating with the Independent Counsel or the Company shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(b) If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 10(a), the Independent Counsel shall be selected by the Board; provided that, if a Change in Control shall have occurred and indemnification is being requested by Indemnitee hereunder in his or her capacity as a director of the Company, the Independent Counsel shall be selected by Indemnitee. Indemnitee or the Company, as the case may be, may, within ten (10) days after written notice of such selection, deliver to the Company or Indemnitee, as the case may be, a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 2 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the Person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or the Delaware Court has determined that such objection is without merit. If, within twenty (20) days after the later of (i) submission by Indemnitee of a written request for indemnification pursuant to Section 9(a) and (ii) the final disposition of the Proceeding, including any appeal therein, no Independent Counsel shall have been selected without objection, either Indemnitee or the Company may petition the Delaware Court for resolution of any objection which shall have been made by Indemnitee or the Company to the selection of Independent Counsel and/or for the appointment as Independent Counsel of a Person selected by the court or by such other Person as the court shall designate. The Person with respect to whom all objections are so resolved or the Person so appointed shall act as Independent Counsel under Section 10(a) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 12(a) of this Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

(c) Notwithstanding anything to the contrary contained in this Agreement, the determination of entitlement to indemnification under this Agreement shall be made without regard to the Indemnitee's entitlement to and availability of insurance coverage, including advancement, payment or reimbursement of defense costs, expenses or covered loss under the provisions of any applicable insurance policy (including, without limitation, whether such advancement, payment or reimbursement is withheld, conditioned or delayed by the insurer(s)).

Section 11. Presumptions and Effect of Certain Proceedings.

(a) To the extent permitted by applicable law, in making a determination with respect to entitlement to indemnification hereunder, it shall be presumed that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 9(a) of this Agreement, and the Company shall have the burden of proof and the burden of persuasion by clear and convincing evidence to overcome that presumption in connection with the making of any determination contrary to that presumption.

(b) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of guilty, nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful.

(c) Indemnitee shall be deemed to have acted in good faith if Indemnitee's actions based on the records or books of account of the Company or any other Enterprise, including financial statements, or on information supplied to Indemnitee by the directors, officers, agents or employees of the Company or any other Enterprise in the course of their duties, or on the advice of legal counsel for the Company or any other Enterprise or on information or records given or reports made to the Company or any other Enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Company or any other Enterprise. The provisions of this Section 11(c) shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement. In addition, the knowledge and/or actions, or failure to act, of any director, manager, partner, officer, employee, agent or trustee of the Company, any subsidiary of the Company, or any Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement. Whether or not the foregoing provisions of this Section 11(c) are satisfied, it shall in any event be presumed that Indemnitee has at all times acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

Section 12. Remedies of Indemnitee.

(a) Subject to Section 12(f), in the event that (i) a determination is made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 8 of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 10(a) of this Agreement within sixty (60) days after receipt by the Company of the request for indemnification for which a determination is to be made other than by Independent Counsel, (iv) payment of indemnification or reimbursement of expenses is not made pursuant to Section 5 or 6 or the last sentence of Section 10(a) of this Agreement within thirty (30) days after receipt by the Company of a written request therefor (including any invoices received by Indemnitee, which such invoices may be redacted as necessary to avoid the waiver of any privilege accorded by applicable law) or (v) payment of indemnification pursuant to Section 3 or 4 of this Agreement is not made within thirty (30) days after a determination has been made that Indemnitee is entitled to indemnification, Indemnitee shall be entitled to an adjudication by the Delaware Court of his or her entitlement to such indemnification or advancement. Alternatively, Indemnitee, at his or her option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 12(a); provided, however, that the foregoing time limitation shall not apply in respect of a proceeding brought by Indemnitee to enforce his or her rights under Section 5 of this Agreement. The Company shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 12 shall be conducted in all respects as a de novo trial, or arbitration, on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 12, the Company shall have the burden of proving Indemnitee is not entitled to indemnification or advancement, as the case may be.

(c) If a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 12, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification or (ii) a prohibition of such indemnification under applicable law.

(d) The Company shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 12 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement.

(e) The Company shall indemnify Indemnitee to the fullest extent permitted by law against any and all Enforcement Expenses and, if requested by Indemnitee, shall (within thirty (30) days after receipt by the Company of a written request therefor) advance, to the extent not prohibited by law, such Enforcement Expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company in the suit for which indemnification or advancement is being sought. Such written request for advancement shall include invoices received by Indemnitee in connection with such Enforcement Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law need not be included with the invoice.

(f) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding, including any appeal therein.

Section 13. Non-exclusivity; Survival of Rights; Insurance; Subrogation.

(a) The rights of indemnification and to receive advancement as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Charter, the Bylaws, any agreement, a vote of stockholders or a resolution of directors or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement than would be afforded currently under the Charter, Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, managers, partners, officers, employees, agents or trustees of the Company or of any other Enterprise, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, manager, partner, officer, employee, agent or trustee under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of such claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such Proceeding in accordance with the terms of such policies. Upon request of Indemnitee, the Company shall also promptly provide to Indemnitee: (i) copies of all of the Company's potentially applicable directors' and officers' liability insurance policies, (ii) copies of such notices delivered to the applicable insurers and (iii) copies of all subsequent communications and correspondence between the Company and such insurers regarding the Proceeding.

(c) In the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

(d) The Company's obligation to provide indemnification or advancement hereunder to Indemnitee who is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any other Enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement from such other Enterprise.

Section 14. Duration of Agreement. This Agreement shall continue until and terminate upon the later of: (a) ten (10) years after the date that Indemnitee shall have ceased to serve as [both a director and] an officer of the Company or (b) one (1) year after the final termination of any Proceeding, including any appeal, then pending in respect of which Indemnitee is granted rights of indemnification or advancement hereunder and of any proceeding commenced by Indemnitee pursuant to Section 12 of this Agreement relating thereto. This Agreement shall be binding upon the Company and its successors and assigns and shall inure to the benefit of Indemnitee and his or her heirs, executors and administrators. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

Section 15. Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent permitted by law; (b) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (c) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 16. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee [to serve or continue to serve] as [a director and] an officer of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as [a director and] an officer of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Charter, the Bylaws and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

Section 17. Modification and Waiver. No supplement, modification or amendment, or waiver of any provision, of this Agreement shall be binding unless executed in writing by the parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver. No supplement, modification or amendment of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee prior to such supplement, modification or amendment.

Section 18. Notice by Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification, reimbursement or advancement as provided hereunder. The failure of Indemnitee to so notify the Company or any delay in notification shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise, unless, and then only to the extent that, the Company did not otherwise learn of the Proceeding and such delay is materially prejudicial to the Company's ability to defend such Proceeding or matter; and, provided, further, that notice will be deemed to have been given without any action on the part of Indemnitee in the event the Company is a party to the same Proceeding.

Section 19. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (i) delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, (ii) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (iii) mailed by reputable overnight courier and receipted for by the party to whom said notice or other communication shall have been directed or (iv) sent by facsimile transmission, with receipt of oral confirmation that such transmission has been received:

(a) If to Indemnitee, at such address as Indemnitee shall provide to the Company.

(b) If to the Company to:

830 Winter Street
Waltham, MA 02451
Attention: Chief Executive Officer

or to any other address as may have been furnished to Indemnitee by the Company.

Section 20. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any Proceeding in such proportion as is deemed fair and reasonable in light of all of the circumstances in order to reflect (i) the relative benefits received by the Company and Indemnitee in connection with the event(s) and/or transaction(s) giving rise to such Proceeding; and/or (ii) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transactions.

Section 21. Internal Revenue Code Section 409A. The Company intends for this Agreement to comply with the Indemnification exception under Section 1.409A-1(b)(10) of the regulations promulgated under the Internal Revenue Code of 1986, as amended (the "Code"), which provides that indemnification of, or the purchase of an insurance policy providing for payments of, all or part of the expenses incurred or damages paid or payable by Indemnitee with respect to a bona fide claim against Indemnitee or the Company do not provide for a deferral of compensation, subject to Section 409A of the Code, where such claim is based on actions or failures to act by Indemnitee in his or her capacity as a service provider of the Company. The parties intend that this Agreement be interpreted and construed with such intent.

Section 22. Applicable Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 12(a) of this Agreement, the Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court, and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) consent to service of process at the address set forth in Section 19 of this Agreement with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

Section 23. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

Section 24. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

Section 25. Monetary Damages Insufficient/Specific Enforcement. The Company and Indemnitee agree that a monetary remedy for breach of this Agreement may be inadequate, impracticable and difficult of proof, and further agree that such breach may cause Indemnitee irreparable harm. Accordingly, the parties hereto agree that Indemnitee may enforce this Agreement by seeking injunctive relief and/or specific performance hereof, without any necessity of showing actual damage or irreparable harm (having agreed that actual and irreparable harm will result in not forcing the Company to specifically perform its obligations pursuant to this Agreement) and that by seeking injunctive relief and/or specific performance, Indemnitee shall not be precluded from seeking or obtaining any other relief to which he may be entitled. The Company and Indemnitee further agree that Indemnitee shall be entitled to such specific performance and injunctive relief, including temporary restraining orders, preliminary injunctions and permanent injunctions, without the necessity of posting bonds or other undertakings in connection therewith. The Company acknowledges that in the absence of a waiver, a bond or undertaking may be required of Indemnitee by the Court, and the Company hereby waives any such requirement of a bond or undertaking.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

Q32 BIO INC.

By: _____
Name:
Title:

_____
[Name of Indemnitee]

Q32 BIO INC.
AMENDED AND RESTATED
FORM OF DIRECTOR INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("Agreement") is made as of _____ by and between Q32 Bio Inc., a Delaware corporation (the "Company"), and _____ ("Indemnitee").

RECITALS

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company;

WHEREAS, in order to induce Indemnitee to [provide or continue to provide] services to the Company, the Company wishes to provide for the indemnification of, and advancement of expenses to, Indemnitee to the maximum extent permitted by law;

WHEREAS, the Certificate of Incorporation (the "Charter") and the Bylaws (the "Bylaws") of the Company require indemnification of the officers and directors of the Company, and Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware (the "DGCL");

WHEREAS, the Charter, the Bylaws and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the board of directors, officers and other persons with respect to indemnification;

WHEREAS, the Board of Directors of the Company (the "Board") has determined that the increased difficulty in attracting and retaining highly qualified persons such as Indemnitee is detrimental to the best interests of the Company's stockholders;

WHEREAS, it is reasonable and prudent for the Company contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law, regardless of any amendment or revocation of the Charter or the Bylaws, so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified;

WHEREAS, this Agreement is a supplement to and in furtherance of the indemnification provided in the Charter, the Bylaws and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder; and

[WHEREAS, Indemnitee has certain rights to indemnification and/or insurance provided by [Name of Fund/Sponsor] which Indemnitee and [Name of Fund/Sponsor] intend to be secondary to the primary obligation of the Company to indemnify Indemnitee as provided in this Agreement, with the Company's acknowledgment and agreement to the foregoing being a material condition to Indemnitee's willingness to [serve or continue to serve] on the Board.]

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

Section 1. Services to the Company. Indemnitee agrees to serve as a director of the Company. Indemnitee may at any time and for any reason resign from such position (subject to any other contractual obligation or any obligation imposed by law), in which event the Company shall have no obligation under this Agreement to continue Indemnitee in such position. This Agreement shall not be deemed an employment contract between the Company (or any of its subsidiaries or any Enterprise) and Indemnitee.

Section 2. Definitions.

As used in this Agreement:

(a) "Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended, the "Exchange Act"), as in effect on the date of this Agreement; provided, however, that no Person who is a director or officer of the Company shall be deemed an Affiliate or an Associate of any other director or officer of the Company solely as a result of his or her position as director or officer of the Company.

(b) A Person shall be deemed the "Beneficial Owner" of, and shall be deemed to "Beneficially Own" and have "Beneficial Ownership" of, any securities:

(i) which such Person or any of such Person's Affiliates or Associates, directly or indirectly, Beneficially Owns (as determined pursuant to Rule 13d-3 of the Rules under the Exchange Act, as in effect on the date of this Agreement);

(ii) which such Person or any of such Person's Affiliates or Associates, directly or indirectly, has: (A) the legal, equitable or contractual right or obligation to acquire (whether directly or indirectly and whether exercisable immediately or only after the passage of time, compliance with regulatory requirements, satisfaction of one or more conditions (whether or not within the control of such Person) or otherwise) upon the exercise of any conversion rights, exchange rights, rights, warrants or options, or otherwise; (B) the right to vote pursuant to any agreement, arrangement or understanding (whether or not in writing); or (C) the right to dispose of pursuant to any agreement, arrangement or understanding (whether or not in writing) (other than customary arrangements with and between underwriters and selling group members with respect to a *bona fid*e public offering of securities);

(iii) which are Beneficially Owned, directly or indirectly, by any other Person (or any Affiliate or Associate thereof) with which such Person or any of such Person's Affiliates or Associates has any agreement, arrangement or understanding (whether or not in writing) (other than customary agreements with and between underwriters and selling group members with respect to a *bona fide* public offering of securities) for the purpose of acquiring, holding, voting or disposing of any securities of the Company; or

(iv) that are the subject of a derivative transaction entered into by such Person or any of such Person's Affiliates or Associates, including, for these purposes, any derivative security acquired by such Person or any of such Person's Affiliates or Associates that gives such Person or any of such Person's Affiliates or Associates the economic equivalent of ownership of an amount of securities due to the fact that the value of the derivative security is explicitly determined by reference to the price or value of such securities, or that provides such Person or any of such Person's Affiliates or Associates an opportunity, directly or indirectly, to profit or to share in any profit derived from any change in the value of such securities, in any case without regard to whether (A) such derivative security conveys any voting rights in such securities to such Person or any of such Person's Affiliates or Associates; (B) the derivative security is required to be, or capable of being, settled through delivery of such securities; or (C) such Person or any of such Person's Affiliates or Associates may have entered into other transactions that hedge the economic effect of such derivative security;

Notwithstanding the foregoing, no Person engaged in business as an underwriter of securities shall be deemed the Beneficial Owner of any securities acquired through such Person's participation as an underwriter in good faith in a firm commitment underwriting.

(c) A "Change in Control" shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) Acquisition of Stock by Third Party. Any Person is or becomes the Beneficial Owner (as defined above), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities unless the change in relative Beneficial Ownership of the Company's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors, provided that a Change of Control shall be deemed to have occurred if subsequent to such reduction such Person becomes the Beneficial Owner, directly or indirectly, of any additional securities of the Company conferring upon such Person any additional voting power;

(ii) Change in Board of Directors. During any period of two (2) consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in Sections 2(c)(i), 2(c)(iii) or 2(c)(iv)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the members of the Board;

(iii) Corporate Transactions. The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving or successor entity) more than 50% of the combined voting power of the voting securities of the surviving or successor entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the board of directors or other governing body of such surviving or successor entity;

(iv) Liquidation. The approval by the stockholders of the Company of a complete liquidation of the Company or an agreement for the sale, lease, exchange or other transfer by the Company, in one or a series of related transactions, of all or substantially all of the Company's assets; and

(v) Other Events. There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange Act whether or not the Company is then subject to such reporting requirement.

(d) "Corporate Status" describes the status of a person as a current or former director of the Company or current or former director, manager, partner, officer, employee, agent or trustee of any other Enterprise which such person is or was serving at the request of the Company.

(e) "Enforcement Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with an action to enforce indemnification or advancement rights, or an appeal from such action. Expenses, however, shall not include fees, salaries, wages or benefits owed to Indemnitee.

(f) "Enterprise" shall mean any corporation (other than the Company), partnership, joint venture, trust, employee benefit plan, limited liability company or other legal entity of which Indemnitee is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee.

(g) "Expenses" shall include all reasonable attorneys' fees, court costs, transcript costs, fees of experts, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees and all other out-of-pocket disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding or an appeal resulting from a Proceeding. Expenses, however, shall not include amounts paid in settlement by Indemnitee, the amount of judgments or fines against Indemnitee or fees, salaries, wages or benefits owed to Indemnitee.

(h) "Independent Counsel" means a law firm, or a partner (or, if applicable, member or shareholder) of such a law firm, that is experienced in matters of Delaware corporation law and neither presently is, nor in the past five (5) years has been, retained to represent: (i) the Company, any subsidiary of the Company, any Enterprise or Indemnitee in any matter material to any such party; or (ii) any other party to the Proceeding giving rise to a claim

for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully indemnify such counsel against any and all expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(i) "Person" shall mean (i) an individual, a corporation, a partnership, a limited liability company, an association, a joint stock company, a trust, a business trust, a government or political subdivision, any unincorporated organization or any other association or entity including any successor (by merger or otherwise) thereof or thereto, and (ii) a "group" as that term is used for purposes of Section 13(d)(3) of the Exchange Act.

(j) The term "Proceeding" shall include any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative, regulatory or investigative nature, and whether formal or informal, in which Indemnitee was, is or will be involved as a party or otherwise by reason of the fact that Indemnitee is or was a director of the Company or is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise or by reason of any action taken by Indemnitee or of any action taken on his or her part while acting as a director of the Company or while serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any Enterprise, in each case whether or not serving in such capacity at the time any liability or expense is incurred for which indemnification, reimbursement or advancement of expenses can be provided under this Agreement; provided, however, that the term "Proceeding" shall not include any action, suit or arbitration, or part thereof, initiated by Indemnitee to enforce Indemnitee's rights under this Agreement as provided for in Section 12(a) of this Agreement.

Section 3. Indemnity in Third-Party Proceedings. The Company shall indemnify Indemnitee to the extent set forth in this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified against all Expenses, judgments, fines, penalties, excise taxes and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company and, in the case of a criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

Section 4. Indemnity in Proceedings by or in the Right of the Company. The Company shall indemnify Indemnitee to the extent set forth in this Section 4 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 4, Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by Indemnitee or on his or her

behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company. No indemnification for Expenses shall be made under this Section 4 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to the Company, unless and only to the extent that the Delaware Court of Chancery (the "Delaware Court") shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification for such expenses as the Delaware Court shall deem proper.

Section 5. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement and except as provided in Section 7, to the extent that Indemnitee is a party to or a participant in any Proceeding and is successful in such Proceeding or in defense of any claim, issue or matter therein, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or her in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on his or her behalf in connection with each successfully resolved claim, issue or matter. For purposes of this Section and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 6. Reimbursement for Expenses of a Witness or in Response to a Subpoena. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee, by reason of his or her Corporate Status, (i) is a witness in any Proceeding to which Indemnitee is not a party and is not threatened to be made a party or (ii) receives a subpoena with respect to any Proceeding to which Indemnitee is not a party and is not threatened to be made a party, the Company shall reimburse Indemnitee for all Expenses actually and reasonably incurred by him or her or on his or her behalf in connection therewith.

Section 7. Exclusions. Notwithstanding any provision in this Agreement to the contrary, the Company shall not be obligated under this Agreement:

(a) to indemnify for amounts otherwise indemnifiable hereunder (or for which advancement is provided hereunder) if and to the extent that Indemnitee has otherwise actually received such amounts under any insurance policy, contract, agreement or otherwise; provided that the foregoing shall not [i] apply to any personal or umbrella liability insurance maintained by Indemnitee, [or, (ii) affect the rights of Indemnitee or the Fund Indemnitors as set forth in Section 13(c)];

(b) to indemnify for an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Exchange Act or similar provisions of state statutory law or common law[, or from the purchase or sale by Indemnitee of such securities in violation of Section 306 of the Sarbanes-Oxley Act of 2002 ("SOX")];

(c) to indemnify with respect to any Proceeding, or part thereof, brought by Indemnitee against the Company, any legal entity which it controls, any director or officer thereof or any third party, unless (i) the Board has consented to the initiation of such Proceeding or part thereof and (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law; provided, however, that this Section 7(c) shall not apply to (A) counterclaims or affirmative defenses asserted by Indemnitee in an action brought against Indemnitee or (B) any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company in the suit for which indemnification or advancement is being sought as described in Section 12; or

(d) to provide any indemnification or advancement of expenses that is prohibited by applicable law (as such law exists at the time payment would otherwise be required pursuant to this Agreement).

Section 8. Advancement of Expenses. Subject to Section 9(b), the Company shall advance the Expenses incurred by Indemnitee in connection with any Proceeding, and such advancement shall be made within thirty (30) days after the receipt by the Company of a statement or statements requesting such advances (including any invoices received by Indemnitee, which such invoices may be redacted as necessary to avoid the waiver of any privilege accorded by applicable law) from time to time, whether prior to or after final disposition of any Proceeding. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's (i) ability to repay the expenses, (ii) ultimate entitlement to indemnification under the other provisions of this Agreement and (iii) entitlement to and availability of insurance coverage, including advancement, payment or reimbursement of defense costs, expenses or covered loss under the provisions of any applicable insurance policy (including, without limitation, whether such advancement, payment or reimbursement is withheld, conditioned or delayed by the insurer(s)). Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement which shall constitute an undertaking providing that Indemnitee undertakes to the fullest extent required by law to repay the advance if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company. No other form of undertaking shall be required. The right to advances under this paragraph shall in all events continue until final disposition of any Proceeding, including any appeal therein. Nothing in this Section 8 shall limit Indemnitee's right to advancement pursuant to Section 12(e) of this Agreement.

Section 9. Procedure for Notification and Defense of Claim.

(a) To obtain indemnification under this Agreement, Indemnitee shall submit to the Company a written request therefor specifying the basis for the claim, the amounts for which Indemnitee is seeking payment under this Agreement, and all documentation related thereto as reasonably requested by the Company.

(b) In the event that the Company shall be obligated hereunder to provide indemnification for or make any advancement of Expenses with respect to any Proceeding, the Company shall be entitled to assume the defense of such Proceeding, or any claim, issue or matter therein, with counsel approved by Indemnitee (which approval shall not be unreasonably withheld or delayed) upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently employed by or on behalf of Indemnitee with respect to the same Proceeding; provided that (i) Indemnitee shall have the right to employ separate counsel in any such Proceeding at Indemnitee's expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of such defense, (C) the Company shall not continue to retain such counsel to defend such Proceeding or (D) a Change in Control shall have occurred, then the fees and expenses actually and reasonably incurred by Indemnitee with respect to his or her separate counsel shall be Expenses hereunder.

(c) In the event that the Company does not assume the defense in a Proceeding pursuant to paragraph (b) above, then the Company will be entitled to participate in the Proceeding at its own expense.

(d) The Company shall not be liable to indemnify Indemnitee under this Agreement for any amounts paid in settlement of any Proceeding effected without its prior written consent (which consent shall not be unreasonably withheld or delayed). Without limiting the generality of the foregoing, the fact that an insurer under an applicable insurance policy delays or is unwilling to consent to such settlement or is or may be in breach of its obligations under such policy, or the fact that directors' and officers' liability insurance is otherwise unavailable or not maintained by the Company, may not be taken into account by the Company in determining whether to provide its consent. The Company shall not, without the prior written consent of Indemnitee (which consent shall not be unreasonably withheld or delayed), enter into any settlement which (i) includes an admission of fault of Indemnitee, any non-monetary remedy imposed on Indemnitee or any monetary damages for which Indemnitee is not wholly and actually indemnified hereunder or (ii) with respect to any Proceeding with respect to which Indemnitee may be or is made a party or may be otherwise entitled to seek indemnification hereunder, does not include the full release of Indemnitee from all liability in respect of such Proceeding.

Section 10. Procedure Upon Application for Indemnification.

(a) Upon written request by Indemnitee for indemnification pursuant to Section 9(a), a determination, if such determination is required by applicable law, with respect to Indemnitee's entitlement to indemnification hereunder shall be made in the specific case by one of the following methods: (x) if a Change in Control shall have occurred, by Independent Counsel in a written opinion to the Board; or (y) if a Change in Control shall not have occurred: (i) by a majority vote of the disinterested directors, even though less than a quorum; (ii) by a committee of disinterested directors designated by a majority vote of the disinterested directors, even though less than a quorum; or (iii) if there are no disinterested directors or if the disinterested directors so direct, by Independent Counsel in a written opinion to the Board. For purposes hereof, disinterested directors are those members of the Board who are not parties to the action, suit or proceeding in respect of which indemnification is sought. In the case that such

determination is made by Independent Counsel, a copy of Independent Counsel's written opinion shall be delivered to Indemnitee and, if it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within thirty (30) days after such determination. Indemnitee shall cooperate with the Independent Counsel or the Company, as applicable, in making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such counsel or the Company, upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. The Company shall likewise cooperate with Indemnitee and Independent Counsel, if applicable, in making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such counsel and Indemnitee, upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to the Company and reasonably necessary to such determination. Any out-of-pocket costs or expenses (including reasonable attorneys' fees and disbursements) actually and reasonably incurred by Indemnitee in so cooperating with the Independent Counsel or the Company shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(b) If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 10(a), the Independent Counsel shall be selected by the Board if a Change in Control shall not have occurred or, if a Change in Control shall have occurred, by Indemnitee. Indemnitee or the Company, as the case may be, may, within ten (10) days after written notice of such selection, deliver to the Company or Indemnitee, as the case may be, a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 2 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or the Delaware Court has determined that such objection is without merit. If, within twenty (20) days after the later of (i) submission by Indemnitee of a written request for indemnification pursuant to Section 9(a), and (ii) the final disposition of the Proceeding, including any appeal therein, no Independent Counsel shall have been selected without objection, either Indemnitee or the Company may petition the Delaware Court for resolution of any objection which shall have been made by Indemnitee or the Company to the selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the court or by such other person as the court shall designate. The person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 10(a) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 12(a) of this Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

(c) Notwithstanding anything to the contrary contained in this Agreement, the determination of entitlement to indemnification under this Agreement shall be made without regard to the Indemnitee's entitlement to and availability of insurance coverage, including advancement, payment or reimbursement of defense costs, expenses or covered loss under the provisions of any applicable insurance policy (including, without limitation, whether such advancement, payment or reimbursement is withheld, conditioned or delayed by the insurer(s)).

Section 11. Presumptions and Effect of Certain Proceedings.

(a) To the extent permitted by applicable law, in making a determination with respect to entitlement to indemnification hereunder, it shall be presumed that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 9(a) of this Agreement, and the Company shall have the burden of proof and the burden of persuasion by clear and convincing evidence to overcome that presumption in connection with the making of any determination contrary to that presumption.

(b) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of guilty, nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful.

(c) Indemnitee shall be deemed to have acted in good faith if Indemnitee's actions based on the records or books of account of the Company or any other Enterprise, including financial statements, or on information supplied to Indemnitee by the directors, officers, agents or employees of the Company or any other Enterprise in the course of their duties, or on the advice of legal counsel for the Company or any other Enterprise or on information or records given or reports made to the Company or any other Enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Company or any other Enterprise. The provisions of this Section 11(c) shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement. In addition, the knowledge and/or actions, or failure to act, of any director, manager, partner, officer, employee, agent or trustee of the Company, any subsidiary of the Company, or any Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement. Whether or not the foregoing provisions of this Section 11(c) are satisfied, it shall in any event be presumed that Indemnitee has at all times acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

Section 12. Remedies of Indemnitee.

(a) Subject to Section 12(f), in the event that (i) a determination is made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 8 of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 10(a) of this Agreement within sixty (60) days after receipt by the Company of the request for indemnification for which a determination is to be made other than by Independent Counsel, (iv) payment of indemnification or reimbursement of expenses is not made pursuant to Section 5 or 6 or the last sentence of Section 10(a) of this Agreement within thirty (30) days after receipt by the Company of a written request therefor (including any invoices received by Indemnitee, which such invoices may be redacted as necessary to avoid the waiver of any privilege accorded by applicable law) or (v) payment of indemnification pursuant to Section 3 or 4 of this Agreement is not made within thirty (30) days after a determination has been made that Indemnitee is entitled to indemnification, Indemnitee shall be entitled to an adjudication by the Delaware Court of his or her entitlement to such indemnification or advancement. Alternatively, Indemnitee, at his or her option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 12(a); provided, however, that the foregoing time limitation shall not apply in respect of a proceeding brought by Indemnitee to enforce his or her rights under Section 5 of this Agreement. The Company shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 12 shall be conducted in all respects as a de novo trial, or arbitration, on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 12, the Company shall have the burden of proving Indemnitee is not entitled to indemnification or advancement, as the case may be.

(c) If a determination shall have been made pursuant to Section 10(a) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 12, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification or (ii) a prohibition of such indemnification under applicable law.

(d) The Company shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 12 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement.

(e) The Company shall indemnify Indemnitee to the fullest extent permitted by law against any and all Enforcement Expenses and, if requested by Indemnitee, shall (within thirty (30) days after receipt by the Company of a written request therefor) advance, to the extent not prohibited by law, such Enforcement Expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advancement from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company in the suit for which indemnification or

advancement is being sought. Such written request for advancement shall include invoices received by Indemnitee in connection with such Enforcement Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law need not be included with the invoice.

(f) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding, including any appeal therein.

Section 13. Non-exclusivity; Survival of Rights; Insurance; [Primacy of Indemnification;] Subrogation.

(a) The rights of indemnification and to receive advancement as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Charter, the Bylaws, any agreement, a vote of stockholders or a resolution of directors, or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement than would be afforded currently under the Charter, Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, managers, partners, officers, employees, agents or trustees of the Company or of any other Enterprise, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, manager, partner, officer, employee, agent or trustee under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of such claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such Proceeding in accordance with the terms of such policies. Upon request of Indemnitee, the Company shall also promptly provide to Indemnitee: (i) copies of all of the Company's potentially applicable directors' and officers' liability insurance policies, (ii) copies of such notices delivered to the applicable insurers and (iii) copies of all subsequent communications and correspondence between the Company and such insurers regarding the Proceeding.

(c) [The Company hereby acknowledges that Indemnitee has certain rights to indemnification, advancement of expenses and/or insurance provided by [Name of Fund/Sponsor] and certain of [its][their] affiliates (collectively, the "Fund Indemnitors"). The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full amount of expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the Charter and/or Bylaws (or any other agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Fund Indemnitors, and (iii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company. The Company and Indemnitee agree that the Fund Indemnitors are express third party beneficiaries of the terms of this Section 13(c).]

(d) [Except as provided in paragraph (c) above,] [I/i]n the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee [(other than against the Fund Indemnitors)], who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

(e) [Except as provided in paragraph (c) above,] [T/t]he Company's obligation to provide indemnification or advancement hereunder to Indemnitee who is or was serving at the request of the Company as a director, manager, partner, officer, employee, agent or trustee of any other Enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement from such other Enterprise.

Section 14. Duration of Agreement. This Agreement shall continue until and terminate upon the later of: (a) ten (10) years after the date that Indemnitee shall have ceased to serve as a director of the Company or (b) one (1) year after the final termination of any Proceeding, including any appeal, then pending in respect of which Indemnitee is granted rights of indemnification or advancement hereunder and of any proceeding commenced by Indemnitee pursuant to Section 12 of this Agreement relating thereto. This Agreement shall be binding upon the Company and its successors and assigns and shall inure to the benefit of Indemnitee and his or her heirs, executors and administrators. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

Section 15. Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent permitted by law; (b) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (c) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 16. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to [serve or continue to serve] as a director of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as a director of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Charter, the Bylaws and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

Section 17. Modification and Waiver. No supplement, modification or amendment, or waiver of any provision, of this Agreement shall be binding unless executed in writing by the parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver. No supplement, modification or amendment of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee prior to such supplement, modification or amendment.

Section 18. Notice by Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification, reimbursement or advancement as provided hereunder. The failure of Indemnitee to so notify the Company or any delay in notification shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise, unless, and then only to the extent that, the Company did not otherwise learn of the Proceeding and such delay is materially prejudicial to the Company's ability to defend such Proceeding or matter; and, provided, further, that notice will be deemed to have been given without any action on the part of Indemnitee in the event the Company is a party to the same Proceeding.

Section 19. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (i) delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, (ii) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (iii) mailed by reputable overnight courier and receipted for by the party to whom said notice or other communication shall have been directed or (iv) sent by facsimile transmission, with receipt of oral confirmation that such transmission has been received:

(a) If to Indemnitee, at such address as Indemnitee shall provide to the Company.

(b) If to the Company to:

830 Winter Street
Waltham, MA 02451
Attention: Chief Executive Officer

or to any other address as may have been furnished to Indemnitee by the Company.

Section 20. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any Proceeding in such proportion as is deemed fair and reasonable in light of all of the circumstances in order to reflect (i) the relative benefits received by the Company and Indemnitee in connection with the event(s) and/or transaction(s) giving rise to such Proceeding; and/or (ii) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transactions.

Section 21. Internal Revenue Code Section 409A. The Company intends for this Agreement to comply with the Indemnification exception under Section 1.409A-1(b)(10) of the regulations promulgated under the Internal Revenue Code of 1986, as amended (the "Code"), which provides that indemnification of, or the purchase of an insurance policy providing for payments of, all or part of the expenses incurred or damages paid or payable by Indemnitee with respect to a bona fide claim against Indemnitee or the Company do not provide for a deferral of compensation, subject to Section 409A of the Code, where such claim is based on actions or failures to act by Indemnitee in his or her capacity as a service provider of the Company. The parties intend that this Agreement be interpreted and construed with such intent.

Section 22. Applicable Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 12(a) of this

Agreement, the Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court, and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) consent to service of process at the address set forth in Section 19 of this Agreement with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

Section 23. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

Section 24. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

Section 25. Monetary Damages Insufficient/Specific Enforcement. The Company and Indemnitee agree that a monetary remedy for breach of this Agreement may be inadequate, impracticable and difficult of proof, and further agree that such breach may cause Indemnitee irreparable harm. Accordingly, the parties hereto agree that Indemnitee may enforce this Agreement by seeking injunctive relief and/or specific performance hereof, without any necessity of showing actual damage or irreparable harm (having agreed that actual and irreparable harm will result in not forcing the Company to specifically perform its obligations pursuant to this Agreement) and that by seeking injunctive relief and/or specific performance, Indemnitee shall not be precluded from seeking or obtaining any other relief to which he may be entitled. The Company and Indemnitee further agree that Indemnitee shall be entitled to such specific performance and injunctive relief, including temporary restraining orders, preliminary injunctions and permanent injunctions, without the necessity of posting bonds or other undertaking in connection therewith. The Company acknowledges that in the absence of a waiver, a bond or undertaking may be required of Indemnitee by the Court, and the Company hereby waives any such requirement of a bond or undertaking.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

Q32 BIO INC.

By: _____
Name:
Title:

_____
[Name of Indemnitee]

Exhibit 10.8

ADMIRX INC.

2017 STOCK OPTION AND GRANT PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the AdMIRx Inc. 2017 Stock Option and Grant Plan (the "Plan"). The purpose of the Plan is to encourage and enable the officers, employees, directors, Consultants and other key persons of AdMIRx Inc., a Delaware corporation (including any successor entity, the "Company") and its Subsidiaries, upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business, to acquire a proprietary interest in the Company.

The following terms shall be defined as set forth below:

"*Affiliate*" of any Person means a Person that directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with the first mentioned Person. A Person shall be deemed to control another Person if such first Person possesses directly or indirectly the power to direct, or cause the direction of, the management and policies of the second Person, whether through the ownership of voting securities, by contract or otherwise.

"*Award*" or "*Awards,*" except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, NonQualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards, Restricted Stock Units or any combination of the foregoing.

"Award Agreement" means a written or electronic agreement setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Agreement may contain terms and conditions in addition to those set forth in the Plan; *provided, however,* in the event of any conflict in the terms of the Plan and the Award Agreement, the terms of the Plan shall govern**.**

"*Board*" means the Board of Directors of the Company.

"*Cause*" shall have the meaning as set forth in the Award Agreement(s). In the case that any Award Agreement does not contain a definition of "Cause," it shall mean (i) the grantee's dishonest statements or acts with respect to the Company or any Affiliate of the Company, or any current or prospective customers, suppliers vendors or other third parties with which such entity does business; (ii) the grantee's commission of (A) a felony or (B) any misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) the grantee's failure to perform his assigned duties and responsibilities to the reasonable satisfaction of the Company which failure continues, in the reasonable judgment of the Company, after written notice given to the grantee by the Company; (iv) the grantee's gross negligence, willful misconduct or insubordination with respect to the Company or any Affiliate of the Company; or (v) the grantee's material violation of any provision of any agreement(s) between the grantee and the Company relating to noncompetition, nonsolicitation, nondisclosure and/or assignment of inventions.

"Chief Executive Officer" means the Chief Executive Officer of the Company or, if there is no Chief Executive Officer, then the President of the Company.

"*Code*" means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

"*Committee*" means the Committee of the Board referred to in Section 2.

"Consultant" means any natural person that provides bona fide services to the Company (including a Subsidiary), and such services are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company's securities.

"*Disability*" means "disability" as defined in Section 422(c) of the Code.

"*Effective Date*" means the date on which the Plan is adopted as set forth on the final page of the Plan.

"*Exchange Act*" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

"*Fair Market Value*" of the Stock on any given date means the fair market value of the Stock determined in good faith by the Committee based on the reasonable application of a reasonable valuation method not inconsistent with Section 409A of the Code. If the Stock is admitted to trade on a national securities exchange, the determination shall be made by reference to the closing price reported on such exchange. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price. If the date for which Fair Market Value is determined is the first day when trading prices for the Stock are reported on a national securities exchange, the Fair Market Value shall be the "Price to the Public" (or equivalent) set forth on the cover page for the final prospectus relating to the Company's Initial Public Offering.

"Good Reason" shall have the meaning as set forth in the Award Agreement(s). In the case that any Award Agreement does not contain a definition of "Good Reason," it shall mean (i) a material diminution in the grantee's base salary except for across-the-board salary reductions similarly affecting all or substantially all similarly situated employees of the Company or (ii) a change of more than 50 miles in the geographic location at which the grantee provides services to the Company, so long as the grantee provides at least 90 days notice to the Company following the initial occurrence of any such event and the Company fails to cure such event within 30 days thereafter.

"*Grant Date"* means the date that the Committee designates in its approval of an Award in accordance with applicable law as the date on which the Award is granted, which date may not precede the date of such Committee approval.

"Holder" means, with respect to an Award or any Shares, the Person holding such Award or Shares, including the initial recipient of the Award or any Permitted Transferee.

"*Incentive Stock Option*" means any Stock Option designated and qualified as an "incentive stock option" as defined in Section 422 of the Code.

"*Initial Public Offering*" means the consummation of the first firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale by the Company of its equity securities, as a result of or following which the Stock shall be publicly held.

"*Non-Qualified Stock Option*" means any Stock Option that is not an Incentive Stock Option.

"*Option*" or "*Stock Option*" means any option to purchase shares of Stock granted pursuant to Section 5.

"*Permitted Transferees*" shall mean any of the following to whom a Holder may transfer Shares hereunder (as set forth in Section 9(a)(ii)(A)): the Holder's child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the Holder's household (other than a tenant or employee), a trust in which these persons have more than fifty percent of the beneficial interest, a foundation in which these persons control the management of assets, and any other entity in which these persons own more than fifty percent of the voting interests*; provided, however,* that any such trust does not require or permit distribution of any Shares during the term of the Award Agreement unless subject to its terms. Upon the death of the Holder, the term Permitted Transferees shall also include such deceased Holder's estate, executors, administrators, personal representatives, heirs, legatees and distributees, as the case may be.

"*Person*" shall mean any individual, corporation, partnership (limited or general), limited liability company, limited liability partnership, association, trust, joint venture, unincorporated organization or any similar entity.

"Restricted Stock Award" means Awards granted pursuant to Section 6 and *"Restricted Stock"* means Shares issued pursuant to such Awards.

"Restricted Stock Unit" means an Award of phantom stock units to a grantee, which may be settled in cash or Shares as determined by the Committee, pursuant to Section 8.

"*Sale Event"* means the consummation of (i) the dissolution or liquidation of the Company, (ii) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (iii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power immediately prior to such transaction do not own a majority of the outstanding voting power of the surviving or resulting entity (or its ultimate parent, if applicable), (iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons, or (v) any other acquisition of the business of the Company, as determined by the Board; *provided, however,* that the Company's Initial Public Offering, any subsequent public offering or another capital raising event, or a merger effected solely to change the Company's domicile shall not constitute a "Sale Event."

"Section 409A" means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

"*Securities Act*" means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

"Service Relationship" means any relationship as a full-time employee, part-time employee, director or other key person (including Consultants) of the Company or any Subsidiary or any successor entity (e.g., a Service Relationship shall be deemed to continue without interruption in the event an individual's status changes from full-time employee to part-time employee or Consultant).

"Shares" means shares of Stock.

"*Stock*" means the Common Stock, par value $0.0001 per share, of the Company. "*Subsidiary*" means any corporation or other entity (other than the Company) in which the Company has more than a 50 percent interest, either directly or indirectly.

"Ten Percent Owner" means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent of the Company or any Subsidiary.

"Termination Event" means the termination of the Award recipient's Service Relationship with the Company and its Subsidiaries for any reason whatsoever, regardless of the circumstances thereof, and including, without limitation, upon death, disability, retirement, discharge or resignation for any reason, whether voluntarily or involuntarily. The following shall not constitute a Termination Event: (i) a transfer to the service of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another Subsidiary or (ii) an approved leave of absence for military service or sickness, or for any other purpose approved by the Committee, if the individual's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Committee otherwise so provides in writing.

"*Unrestricted Stock Award"* means any Award granted pursuant to Section 7 and *"Unrestricted Stock"* means Shares issued pursuant to such Awards.

SECTION 2. ADMINISTRATION OF PLAN; COMMITTEE AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Board, or at the discretion of the Board, by a committee of the Board, comprised of not less than two directors. All references herein to the "Committee" shall be deemed to refer to the group then responsible for administration of the Plan at the relevant time (i.e., either the Board of Directors or a committee or committees of the Board, as applicable).

(b) Powers of Committee. The Committee shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the amount, if any, of Incentive Stock Options, NonQualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards, Restricted Stock Units, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of Shares to be covered by any Award and, subject to the provisions of the Plan, the price, exercise price, conversion ratio or other price relating thereto;

(iv) to determine and, subject to Section 12, to modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the form of Award Agreements;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award;

(vi) to impose any limitations on Awards, including limitations on transfers, repurchase provisions and the like, and to exercise repurchase rights or obligations;

(vii) subject to Section 5(a)(ii) and any restrictions imposed by Section 409A, to extend at any time the period in which Stock Options may be exercised; and

(viii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including Award Agreements); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Committee shall be binding on all persons, including the Company and all Holders.

(c) Award Agreement. Awards under the Plan shall be evidenced by Award Agreements that set forth the terms, conditions and limitations for each Award.

(d) Indemnification. Neither the Board nor the Committee, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Committee (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's governing documents, including its certificate of incorporation or bylaws, or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(e) Foreign Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and any Subsidiary operate or have employees or other individuals eligible for Awards, the Committee, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries, if any, shall be covered by the Plan; (ii) determine which individuals, if any, outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Committee determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to the Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitation contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Committee determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals.

SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS AND OTHER TRANSACTIONS; SUBSTITUTION

(a) Stock Issuable. The maximum number of Shares reserved and available for issuance under the Plan shall be 500,000 Shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the Shares underlying any Awards that are forfeited, canceled, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) and Shares that are withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding shall be added back to the Shares available for issuance under the Plan. Subject to such overall limitations, Shares may be issued up to such maximum number pursuant to any type or types of Award, and no more than 4,000,000 Shares may be issued pursuant to Incentive Stock Options. The Shares available for issuance under the Plan may be authorized but unissued Shares or Shares reacquired by the Company.

(b) Changes in Stock. Subject to Section 3(c) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding Shares are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional Shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such Shares or other securities, in each case, without the receipt of consideration by the Company, or, if, as a result of any merger or consolidation, or sale of all or substantially all of the assets of the Company, the outstanding Shares are converted into or exchanged for other securities of the Company or any successor entity (or a parent or subsidiary thereof), the Committee shall make an appropriate and proportionate adjustment in (i) the maximum number of Shares reserved for issuance under the Plan, (ii) the number and kind of Shares or other securities subject to any then outstanding Awards under the Plan, (iii) the repurchase price, if any, per Share subject to each outstanding Award, and (iv) the exercise price for each Share subject to any then outstanding Stock Options

under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of Stock Options) as to which such Stock Options remain exercisable. The Committee shall in any event make such adjustments as may be required by Section 25102(o) of the California Corporation Code and the rules and regulations promulgated thereunder. The adjustment by the Committee shall be final, binding and conclusive. No fractional Shares shall be issued under the Plan resulting from any such adjustment, but the Committee in its discretion may make a cash payment in lieu of fractional shares.

(c) Sale Events.

(i) Options.

(A) In the case of and subject to the consummation of a Sale Event, the Plan and all outstanding Options issued hereunder shall terminate upon the effective time of any such Sale Event unless assumed or continued by the successor entity, or new stock options or other awards of the successor entity or parent thereof are substituted therefor, with an equitable or proportionate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree (after taking into account any acceleration hereunder and/or pursuant to the terms of any Award Agreement).

(B) In the event of the termination of the Plan and all outstanding Options issued hereunder pursuant to Section 3(c), each Holder of Options shall be permitted, within a period of time prior to the consummation of the Sale Event as specified by the Committee, to exercise all such Options which are then exercisable or will become exercisable as of the effective time of the Sale Event; *provided, however*, that the exercise of Options not exercisable prior to the Sale Event shall be subject to the consummation of the Sale Event.

(C) Notwithstanding anything to the contrary in Section 3(c)(i)(A), in the event of a Sale Event, the Company shall have the right, but not the obligation, to make or provide for a cash payment to the Holders of Options, without any consent of the Holders, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the value as determined by the Committee of the consideration payable per share of Stock pursuant to the Sale Event (the "Sale Price") times the number of Shares subject to outstanding Options being cancelled (to the extent then vested and exercisable, including by reason of acceleration in connection with such Sale Event, at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding vested and exercisable Options.

(ii) Restricted Stock and Restricted Stock Unit Awards.

(A) In the case of and subject to the consummation of a Sale Event, all unvested Restricted Stock and unvested Restricted Stock Unit Awards (other than those becoming vested as a result of the Sale Event) issued hereunder shall be forfeited immediately prior to the effective time of any such Sale Event unless assumed or continued by the successor entity, or awards of the successor entity or parent thereof are substituted therefor, with an equitable or proportionate adjustment as to the number and kind of shares subject to such awards as such parties shall agree (after taking into account any acceleration hereunder and/or pursuant to the terms of any Award Agreement).

(B) In the event of the forfeiture of Restricted Stock pursuant to Section 3(c)(ii)(A), such Restricted Stock shall be repurchased from the Holder thereof at a price per share equal to the original per share purchase price paid by the Holder (subject to adjustment as provided in Section 3(b)) for such Shares.

(C) Notwithstanding anything to the contrary in Section 3(c)(ii)(A), in the event of a Sale Event, the Company shall have the right, but not the obligation, to make or provide for a cash payment to the Holders of Restricted Stock or Restricted Stock Unit Awards, without consent of the Holders, in exchange for the cancellation thereof, in an amount equal to the Sale Price times the number of Shares subject to such Awards, to be paid at the time of such Sale Event or upon the later vesting of such Awards.

SECTION 4. ELIGIBILITY

Grantees under the Plan will be such full or part-time officers and other employees, directors, Consultants and key persons of the Company and any Subsidiary who are selected from time to time by the Committee in its sole discretion; provided, however, that Awards shall be granted only to those individuals described in Rule 701(c) of the Securities Act.

SECTION 5. STOCK OPTIONS

Upon the grant of a Stock Option, the Company and the grantee shall enter into an Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and grantees.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

(a) Terms of Stock Options. The Committee in its discretion may grant Stock Options to those individuals who meet the eligibility requirements of Section 4. Stock Options shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Committee shall deem desirable.

(i) Exercise Price. The exercise price per share for the Shares covered by a Stock Option shall be determined by the Committee at the time of grant but shall not be less than 100 percent of the Fair Market Value on the Grant Date. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the exercise price per share for the Shares covered by such Incentive Stock Option shall not be less than 110 percent of the Fair Market Value on the Grant Date.

(ii) Option Term. The term of each Stock Option shall be fixed by the Committee, but no Stock Option shall be exercisable more than ten years from the Grant Date. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the Grant Date.

(iii) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable and/or vested at such time or times, whether or not in installments, as shall be determined by the Committee at or after the Grant Date. The Award Agreement may permit a grantee to exercise all or a portion of a Stock Option immediately at grant; provided that the Shares issued upon such exercise shall be subject to restrictions and a vesting schedule identical to the vesting schedule of the related Stock Option, such Shares shall be deemed to be Restricted Stock for purposes of the Plan, and the optionee may be required to enter into an additional or new Award Agreement as a condition to exercise of such Stock Option. An optionee shall have the rights of a stockholder only as to Shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options. An optionee shall not be deemed to have acquired any Shares unless and until a Stock Option shall have been exercised pursuant to the terms of the Award Agreement and this Plan and the optionee's name has been entered on the books of the Company as a stockholder.

(iv) Method of Exercise. Stock Options may be exercised by an optionee in whole or in part, by the optionee giving written or electronic notice of exercise to the Company, specifying the number of Shares to be purchased. Payment of the purchase price may be made by one or more of the following methods (or any combination thereof) to the extent provided in the Award Agreement:

(A) In cash, by certified or bank check, by wire transfer of immediately available funds, or other instrument acceptable to the Committee;

(B) If permitted by the Committee, by the optionee delivering to the Company a promissory note, if the Board has expressly authorized the loan of funds to the optionee for the purpose of enabling or assisting the optionee to effect the exercise of his or her Stock Option; provided, that at least so much of the exercise price as represents the par value of the Stock shall be paid in cash if required by state law;

(C) If permitted by the Committee and the Initial Public Offering has occurred (or the Stock otherwise becomes publicly-traded), through the delivery (or attestation to the ownership) of Shares that have been purchased by the optionee on the open market or that are beneficially owned by the optionee and are not then subject to restrictions under any Company plan. To the extent required to avoid variable accounting treatment under ASC 718 or other applicable accounting rules, such surrendered Shares if originally purchased from the Company shall have been owned by the optionee for at least six months. Such surrendered Shares shall be valued at Fair Market Value on the exercise date;

(D) If permitted by the Committee and the Initial Public Offering has occurred (or the Stock otherwise becomes publicly-traded), by the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Committee shall prescribe as a condition of such payment procedure; or

(E) If permitted by the Committee, and only with respect to Stock Options that are not Incentive Stock Options, by a "net exercise" arrangement pursuant to which the Company will reduce the number of Shares issuable upon exercise by the largest whole number of Shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. No certificates for Shares so purchased will be issued to the optionee or, with respect to uncertificated Stock, no transfer to the optionee on the records of the Company will take place, until the Company has completed all steps it has deemed necessary to satisfy legal requirements relating to the issuance and sale of the Shares, which steps may include, without limitation, (i) receipt of a representation from the optionee at the time of exercise of the Option that the optionee is purchasing the Shares for the optionee's own account and not with a view to any sale or distribution of the Shares or other representations relating to compliance with applicable law governing the issuance of securities, (ii) the legending of the certificate (or notation on any book entry) representing the Shares to evidence the foregoing restrictions, and (iii) obtaining from optionee payment or provision for all withholding taxes due as a result of the exercise of the Option. The delivery of certificates representing the shares of Stock (or the transfer to the optionee on the records of the Company with respect to uncertificated Stock) to be purchased pursuant to the exercise of a Stock Option will be contingent upon (A) receipt from the optionee (or a purchaser acting in his or her stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such Shares and the fulfillment of any other requirements contained in the Award Agreement or applicable provisions of laws and (B) if required by the Company, the optionee shall have entered into any stockholders agreements or other agreements with the Company and/or certain other of the Company's stockholders relating to the Stock. In the event an optionee chooses to pay the purchase price by previously-owned Shares through the attestation method, the number of Shares transferred to the optionee upon the exercise of the Stock Option shall be net of the number of Shares attested to.

(b) Annual Limit on Incentive Stock Options. To the extent required for "incentive stock option" treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the Grant Date) of the Shares with respect to which Incentive Stock Options granted under the Plan and any other plan of the Company or its parent and any Subsidiary that become exercisable for the first time by an optionee during any calendar year shall not exceed $100,000 or such other limit as may be in effect from time to time under Section 422 of the Code. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

(c) Termination. Any portion of a Stock Option that is not vested and exercisable on the date of termination of an optionee's Service Relationship shall immediately expire and be null and void. Once any portion of the Stock Option becomes vested and exercisable, the optionee's right to exercise such portion of the Stock Option (or the optionee's representatives and legatees as applicable) in the event of a termination of the optionee's Service Relationship shall continue until the earliest of: (i) the date which is: (A) 12 months following the date on which the optionee's Service Relationship terminates due to death or Disability (or such longer period of time as determined by the Committee and set forth in the applicable Award Agreement), or (B) three months following the date on which the optionee's Service Relationship terminates if the termination is due to any reason other than death or Disability (or such longer period of time as determined by the Committee and set forth in the applicable Award Agreement), or (ii) the Expiration Date set forth in the Award Agreement; provided that notwithstanding the foregoing, an Award Agreement may provide that if the optionee's Service Relationship is terminated for Cause, the Stock Option shall terminate immediately and be null and void upon the date of the optionee's termination and shall not thereafter be exercisable.

SECTION 6. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Committee may, in its sole discretion, grant (or sell at par value or such other purchase price determined by the Committee) to an eligible individual under Section 4 hereof a Restricted Stock Award under the Plan. The Committee shall determine the restrictions and conditions applicable to each Restricted Stock Award at the time of grant. Conditions may be based on continuing employment (or other Service Relationship), achievement of pre-established performance goals and objectives and/or such other criteria as the Committee may determine. Upon the grant of a Restricted Stock Award, the Company and the grantee shall enter into an Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and grantees.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee of Restricted Stock shall be considered the record owner of and shall be entitled to vote the Restricted Stock if, and to the extent, such Shares are entitled to voting rights, subject to such conditions contained in the Award Agreement. The grantee shall be entitled to receive all dividends and any other distributions declared on the Shares; provided, however, that the Company is under no duty to declare any such dividends or to make any such distribution. Unless the Committee shall otherwise determine, certificates evidencing the Restricted Stock shall remain in the possession of the Company until such Restricted Stock is vested as provided in subsection (d) below of this Section, and the grantee shall be required, as a condition of the grant, to deliver to the Company a stock power endorsed in blank and such other instruments of transfer as the Committee may prescribe.

(c) Restrictions. Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Award Agreement. Except as may otherwise be provided by the Committee either in the Award Agreement or, subject to Section 12 below, in writing after the Award Agreement is issued, if a grantee's Service Relationship with the Company and any Subsidiary terminates, the Company or its assigns shall have the right, as may be specified in the relevant instrument, to repurchase some or all of the Shares subject to the Award at such purchase price as is set forth in the Award Agreement.

(d) Vesting of Restricted Stock. The Committee at the time of grant shall specify in the Award Agreement the date or dates and/or the attainment of preestablished performance goals, objectives and other conditions on which the substantial risk of forfeiture imposed shall lapse and the Restricted Stock shall become vested, subject to such further rights of the Company or its assigns as may be specified in the Award Agreement.

SECTION 7. UNRESTRICTED STOCK AWARDS

The Committee may, in its sole discretion, grant (or sell at par value or such other purchase price determined by the Committee) to an eligible person under Section 4 hereof an Unrestricted Stock Award under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Committee may, in its sole discretion, grant to an eligible person under Section 4 hereof Restricted Stock Units under the Plan. The Committee shall determine the restrictions and conditions applicable to each Restricted Stock Unit at the time of grant. Vesting conditions may be based on continuing employment (or other Service Relationship), achievement of pre-established performance goals and objectives and/or other such criteria as the Committee may determine. Upon the grant of Restricted Stock Units, the grantee and the Company shall enter into an Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee and may differ among individual Awards and grantees. On or promptly following the vesting date or dates applicable to any Restricted Stock Unit, but in no event later than March 15 of the year following the year in which such vesting occurs, such Restricted Stock Unit(s) shall be settled in the form of cash or shares of Stock, as specified in the Award Agreement. Restricted Stock Units may not be sold, assigned, transferred, pledged, or otherwise encumbered or disposed of.

(b) Rights as a Stockholder. A grantee shall have the rights of a stockholder only as to Shares, if any, acquired upon settlement of Restricted Stock Units. A grantee shall not be deemed to have acquired any such Shares unless and until the Restricted Stock Units shall have been settled in Shares pursuant to the terms of the Plan and the Award Agreement, the Company shall have issued and delivered a certificate representing the Shares to the grantee (or transferred on the records of the Company with respect to uncertificated stock), and the grantee's name has been entered in the books of the Company as a stockholder.

(c) Termination. Except as may otherwise be provided by the Committee either in the Award Agreement or in writing after the Award Agreement is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's cessation of Service Relationship with the Company and any Subsidiary for any reason.

SECTION 9. TRANSFER RESTRICTIONS; COMPANY RIGHT OF FIRST REFUSAL; COMPANY REPURCHASE RIGHTS

(a) Restrictions on Transfer.

(i) Non-Transferability of Stock Options. Stock Options and, prior to exercise, the Shares issuable upon exercise of such Stock Option, shall not be transferable by the optionee otherwise than by will, or by the laws of descent and distribution, and all Stock Options shall be exercisable, during the optionee's lifetime, only by the optionee, or by the optionee's legal representative or guardian in the event of the optionee's incapacity. Notwithstanding the foregoing, the Committee, in its sole discretion, may provide in the Award Agreement regarding a given Stock Option that the optionee may transfer by gift, without consideration for the transfer, his or her NonQualified Stock Options to his or her family members (as defined in Rule 701 of the Securities Act), to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners (to the extent such trusts or partnerships are considered "family members" for purposes of Rule 701 of the Securities Act), provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award Agreement, including the execution of a stock power upon the issuance of Shares. Stock Options, and the Shares issuable upon exercise of such Stock Options, shall be restricted as to any pledge, hypothecation, or other transfer, including any short position, any "put equivalent position" (as defined in the Exchange Act) or any "call equivalent position" (as defined in the Exchange Act) prior to exercise.

(ii) Shares. No Shares shall be sold, assigned, transferred, pledged, hypothecated, given away or in any other manner disposed of or encumbered, whether voluntarily or by operation of law, unless (i) the transfer is in compliance with the terms of the applicable Award Agreement, all applicable securities laws (including, without limitation, the Securities Act), and with the terms and conditions of this Section 9, (ii) the transfer does not cause the Company to become subject to the reporting requirements of the Exchange Act, and (iii) the transferee consents in writing to be bound by the provisions of the Plan and the Award Agreement, including this Section 9. In connection with any proposed transfer, the Committee may require the transferor to provide at the transferor's own expense an opinion of counsel to the transferor, satisfactory to the Committee, that such transfer is in compliance with all foreign, federal and state securities laws (including, without limitation, the Securities Act). Any attempted transfer of Shares not in accordance with the terms and conditions of this Section 9 shall be null and void, and the Company shall not reflect on its records any change in record ownership of any Shares as a result of any such transfer, shall otherwise refuse to recognize any such transfer and shall not in any way give effect to any such transfer of Shares. The Company shall be entitled to seek protective orders, injunctive relief and other remedies available at law or in equity including, without limitation, seeking specific performance or the rescission of any transfer not made in strict compliance with the provisions of this Section 9. Subject to the foregoing general provisions, and unless otherwise provided in the applicable Award Agreement, Shares may be transferred pursuant to the following specific terms and conditions (provided that with respect to any transfer of Restricted Stock, all vesting and forfeiture provisions shall continue to apply with respect to the original recipient):

(A) Transfers to Permitted Transferees. The Holder may transfer any or all of the Shares to one or more Permitted Transferees; *provided, however*, that following such transfer, such Shares shall continue to be subject to the terms of this Plan (including this Section 9) and such Permitted Transferee(s) shall, as a condition to any such transfer, deliver a written acknowledgment to that effect to the Company and shall deliver a stock power to the Company with respect to the Shares. Notwithstanding the foregoing, the Holder may not transfer any of the Shares to a Person whom the Company reasonably determines is a direct competitor or a potential competitor of the Company or any of its Subsidiaries.

(B) Transfers Upon Death. Upon the death of the Holder, any Shares then held by the Holder at the time of such death and any Shares acquired after the Holder's death by the Holder's legal representative shall be subject to the provisions of this Plan, and the Holder's estate, executors, administrators, personal representatives, heirs, legatees and distributees shall be obligated to convey such Shares to the Company or its assigns under the terms contemplated by the Plan and the Award Agreement.

(b) Right of First Refusal. In the event that a Holder desires at any time to sell or otherwise transfer all or any part of his or her Shares (other than shares of Restricted Stock which by their terms are not transferrable), the Holder first shall give written notice to the Company of the Holder's intention to make such transfer. Such notice shall state the number of Shares that the Holder proposes to sell (the "Offered Shares"), the price and the terms at which the proposed sale is to be made and the name and address of the proposed transferee. At any time within 30 days after the receipt of such notice by the Company, the Company or its assigns may elect to purchase all or any portion of the Offered Shares at the price and on the terms offered by the proposed transferee and specified in the notice. The Company or its assigns shall exercise this right by mailing or delivering written notice to the Holder within the foregoing 30-day period. If the Company or its assigns elect to exercise its purchase rights under this Section 9(b), the closing for such purchase shall, in any event, take place within 45 days after the receipt by the Company of the initial notice from the Holder. In the event that the Company or its assigns do not elect to exercise such purchase right, or in the event that the Company or its assigns do not pay the full purchase price within such 45-day period, the Holder shall be required to pay a transaction processing fee of $10,000 to the Company (unless waived by the Committee) and then may, within 60 days thereafter, sell the Offered Shares to the proposed transferee and at the same price and on the same terms as specified in the Holder's notice. Any Shares not sold to the proposed transferee shall remain subject to the Plan. If the Holder is a party to any stockholders agreements or other agreements with the Company and/or certain other of the Company's stockholders relating to the Shares, (i) the transferring Holder shall comply with the requirements of such stockholders agreements or other agreements relating to any proposed transfer of the Offered Shares, and (ii) any proposed transferee that purchases Offered Shares shall enter into such stockholders agreements or other agreements with the Company and/or certain of the Company's stockholders relating to the Offered Shares on the same terms and in the same capacity as the transferring Holder.

(c) Company's Right of Repurchase.

(i) Right of Repurchase for Unvested Shares Issued Upon the Exercise of an Option. Upon a Termination Event, the Company or its assigns shall have the right and option to repurchase from a Holder of Shares acquired upon exercise of a Stock Option which are still subject to a risk of forfeiture as of the Termination Event. Such repurchase rights may be exercised by the Company within the later of (A) six months following the date of such Termination Event or (B) seven months after the acquisition of Shares upon exercise of a Stock Option. The repurchase price shall be equal to the lower of the original per share price paid by the Holder, subject to adjustment as provided in Section 3(b) of the Plan, or the current Fair Market Value of such Shares as of the date the Company elects to exercise its repurchase rights.

(ii) Right of Repurchase With Respect to Restricted Stock. Upon a Termination Event, the Company or its assigns shall have the right and option to repurchase from a Holder of Shares received pursuant to a Restricted Stock Award any Shares that are still subject to a risk of forfeiture as of the Termination Event. Such repurchase right may be exercised by the Company within six months following the date of such Termination Event. The repurchase price shall be the lower of the original per share purchase price paid by the Holder, subject to adjustment as provided in Section 3(b) of the Plan, or the current Fair Market Value of such Shares as of the date the Company elects to exercise its repurchase rights.

(iii) Procedure. Any repurchase right of the Company shall be exercised by the Company or its assigns by giving the Holder written notice on or before the last day of the repurchase period of its intention to exercise such repurchase right. Upon such notification, the Holder shall promptly surrender to the Company, free and clear of any liens or encumbrances, any certificates representing the Shares being purchased, together with a duly executed stock power for the transfer of such Shares to the Company or the Company's assignee or assignees. Upon the Company's or its assignee's receipt of the certificates from the Holder, the Company or its assignee or assignees shall deliver to him, her or them a check for the applicable repurchase price; *provided, however*, that the Company may pay the repurchase price by offsetting and canceling any indebtedness then owed by the Holder to the Company.

(d) Reserved.

(e) Escrow Arrangement.

(i) Escrow. In order to carry out the provisions of this Section 9 of this Plan more effectively, the Company shall hold any Shares issued pursuant to Awards granted under the Plan in escrow together with separate stock powers executed by the Holder in blank for transfer. The Company shall not dispose of the Shares except as otherwise provided in this Plan. In the event of any repurchase by the Company (or any of its assigns), the Company is hereby authorized by the Holder, as the Holder's attorney-in-fact, to date and complete the stock powers necessary for the transfer of the Shares being purchased and to transfer such Shares in accordance with the terms hereof. At such time as any Shares are no longer subject to the Company's repurchase and first refusal rights, the Company shall, at the written request of the Holder, deliver to the Holder a certificate representing such Shares with the balance of the Shares to be held in escrow pursuant to this Section.

(ii) Remedy. Without limitation of any other provision of this Plan or other rights, in the event that a Holder or any other Person is required to sell a Holder's Shares pursuant to the provisions of Sections 9(b) or (c) hereof and in the further event that he or she refuses or for any reason fails to deliver to the Company or its designated purchaser of such Shares the certificate or certificates evidencing such Shares together with a related stock power, the Company or such designated purchaser may deposit the applicable purchase price for such Shares with a bank designated by the Company, or with the Company's independent public accounting firm, as agent or trustee, or in escrow, for such Holder or other Person, to be held by such bank or accounting firm for the benefit of and for delivery to him, her, them or it, and/or, in its discretion, pay such purchase price by offsetting any indebtedness then owed by such Holder as provided above. Upon any such deposit and/or offset by the Company or its designated purchaser of such amount and upon notice to the Person who was required to sell the Shares to be sold pursuant to the provisions of Sections 9(b) or (c), such Shares shall at such time be deemed to have been sold, assigned, transferred and conveyed to such purchaser, such Holder shall have no further rights thereto (other than the right to withdraw the payment thereof held in escrow, if applicable), and the Company shall record such transfer in its stock transfer book or in any appropriate manner.

(f) Lockup Provision. If requested by the Company, a Holder shall not sell or otherwise transfer or dispose of any Shares (including, without limitation, pursuant to Rule 144 under the Securities Act) held by him or her for such period following the effective date of a public offering by the Company of Shares as the Company shall specify reasonably and in good faith. If requested by the underwriter engaged by the Company, each Holder shall execute a separate letter confirming his or her agreement to comply with this Section.

(g) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding Shares are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Section 9 shall apply with equal force to additional and/or substitute securities, if any, received by Holder in exchange for, or by virtue of his or her ownership of, Shares.

(h) Termination. The terms and provisions of Section 9(b) and Section 9(c) (except for the Company's right to repurchase Shares still subject to a risk of forfeiture upon a Termination Event) shall terminate upon the closing of the Company's Initial Public Offering or upon consummation of any Sale Event, in either case as a result of which Shares are registered under Section 12 of the Exchange Act and publicly-traded on any national security exchange.

SECTION 10. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Shares or other amounts received thereunder first becomes includable in the gross income of the grantee for income tax purposes, pay to the Company, or make arrangements satisfactory to the Committee regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and any Subsidiary shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee. The Company's obligation to deliver stock certificates (or evidence of book entry) to any grantee is subject to and conditioned on any such tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. The Company's minimum required tax withholding obligation may be satisfied, in whole or in part, by the Company withholding from Shares to be issued pursuant to an Award a number of Shares having an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the minimum withholding amount due.

SECTION 11. SECTION 409A AWARDS.

To the extent that any Award is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A (a "409A Award"), the Award shall be subject to such additional rules and requirements as may be specified by the Committee from time to time. In this regard, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of Section 409A) to a grantee who is considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. The Company makes no representation or warranty and shall have no liability to any grantee under the Plan or any other Person with respect to any penalties or taxes under Section 409A that are, or may be, imposed with respect to any Award.

SECTION 12. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Committee may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall adversely affect rights under any outstanding Award without the consent of the holder of the Award. The Committee may exercise its discretion to reduce the exercise price of outstanding Stock Options or effect repricing through cancellation of outstanding Stock Options and by granting such holders new Awards in replacement of the cancelled Stock Options. To the extent determined by the Committee to be required either by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code or otherwise, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 12 shall limit the Board's or Committee's authority to take any action permitted pursuant to Section 3(c). The Board reserves the right to amend the Plan and/or the terms of any outstanding Stock Options to the extent reasonably necessary to comply with the requirements of the exemption pursuant to paragraph (f)(4) of Rule 12h-1 of the Exchange Act.

SECTION 13. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Committee shall otherwise expressly so determine in connection with any Award.

SECTION 14. GENERAL PROVISIONS

(a) No Distribution; Compliance with Legal Requirements. The Committee may require each person acquiring Shares pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the Shares without a view to distribution thereof. No Shares shall be issued pursuant to an Award until all applicable securities law and other legal and stock exchange or similar requirements have been satisfied. The Committee may require the placing of such stop-orders and restrictive legends on certificates for Stock and Awards as it deems appropriate.

(b) Delivery of Stock Certificates. Stock certificates to grantees under the Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company; provided that stock certificates to be held in escrow pursuant to Section 9 of the Plan shall be deemed delivered when the Company shall have recorded the issuance in its records. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records).

(c) No Employment Rights**.** The adoption of the Plan and the grant of Awards do not confer upon any Person any right to continued employment or Service Relationship with the Company or any Subsidiary.

(d) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policy-related restrictions, terms and conditions as may be established by the Committee, or in accordance with policies set by the Committee, from time to time.

(e) Designation of Beneficiary. Each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award on or after the grantee's death or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Committee and shall not be effective until received by the Committee. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate.

(f) Legend. Any certificate(s) representing the Shares shall carry substantially the following legend (and with respect to uncertificated Stock, the book entries evidencing such shares shall contain the following notation):

> The transferability of this certificate and the shares of stock represented hereby are subject to the restrictions, terms and conditions (including repurchase and restrictions against transfers) contained in the AdMIRx Inc. 2017 Stock Option and Grant Plan and any agreements entered into thereunder by and between the company and the holder of this certificate (a copy of which is available at the offices of the company for examination).

(g) Information to Holders of Options. In the event the Company is relying on the exemption from the registration requirements of Section 12(g) of the Exchange Act contained in paragraph (f)(1) of Rule 12h-1 of the Exchange Act, the Company shall provide the information described in Rule 701(e)(3), (4) and (5) of the Securities Act to all holders of Options in accordance with the requirements thereunder. The foregoing notwithstanding, the Company shall not be required to provide such information unless the optionholder has agreed in writing, on a form prescribed by the Company, to keep such information confidential.

SECTION 15. EFFECTIVE DATE OF PLAN

The Plan shall become effective upon adoption by the Board and shall be approved by stockholders in accordance with applicable state law and the Company's articles of incorporation and bylaws within 12 months thereafter. If the stockholders fail to approve the Plan within 12 months after its adoption by the Board of Directors, then any Awards granted or sold under the Plan shall be rescinded and no additional grants or sales shall thereafter be made under the Plan. Subject to such approval by stockholders and to the requirement that no Shares may be issued hereunder prior to such approval, Stock Options and other Awards may be granted hereunder on and after adoption of the Plan by the Board. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the date the Plan is adopted by the Board or the date the Plan is approved by the Company's stockholders, whichever is earlier.

SECTION 16. GOVERNING LAW

This Plan, all Awards and any controversy arising out of or relating to this Plan and all Awards shall be governed by and construed in accordance with the **General Corporation Law of the State of Delaware** as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of **state of principal place of business**, without regard to conflict of law principles that would result in the application of any law other than the law of the State of **Delaware**.

DATE ADOPTED BY THE BOARD OF DIRECTORS: December 7, 2017

DATE APPROVED BY THE STOCKHOLDERS: December 7, 2017

INCENTIVE STOCK OPTION GRANT NOTICE
UNDER THE Q32 BIO INC.
2017 STOCK OPTION AND GRANT PLAN

Pursuant to the Q32 Bio Inc. 2017 Stock Option and Grant Plan (the "Plan"), Q32 Bio Inc., a Delaware corporation (together with any successor, the "Company"), has granted to the individual named below, an option (the "Stock Option") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value $0.0001 per share ("Common Stock"), of the Company indicated below (the "Shares"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Incentive Stock Option Grant Notice (the "Grant Notice"), the attached Incentive Stock Option Agreement (the "Agreement") and the Plan. This Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "Code"). To the extent that any portion of the Stock Option does not so qualify, it shall be deemed a non-qualified stock option.

Name of Optionee:	_____(the "Optionee")
No. of Shares:	_____Shares of Common Stock
Grant Date:	_____
Vesting Commencement Date:	_____(the "Vesting Commencement Date")
Expiration Date:	_____(the "Expiration Date")
Option Exercise Price/Share:	$_____(the "Option Exercise Price")
Vesting Schedule:	[25] percent of the Shares shall vest and become exercisable on the first anniversary of the Vesting Commencement Date; provided that the Optionee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest and become exercisable in [12] equal quarterly installments following the first anniversary of the Vesting Commencement Date, provided the Optionee continues to have a Service Relationship with the Company on each vesting date. Notwithstanding anything in the Agreement to the contrary, in the case of a Sale Event, this Stock Option and the Shares shall be treated as provided in Section 3(c) of the Plan.

Attachments: Incentive Stock Option Agreement, 2017 Stock Option and Grant Plan

INCENTIVE STOCK OPTION GRANT NOTICE
UNDER THE Q32 BIO INC.
2017 STOCK OPTION AND GRANT PLAN

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Grant Notice and the Plan.

1. Vesting, Exercisability and Termination.

(a) No portion of this Stock Option may be exercised until such portion shall have vested and become exercisable.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, this Stock Option shall be vested and exercisable on the respective dates indicated below:

(i) This Stock Option shall initially be unvested and unexercisable.

(ii) This Stock Option shall vest and become exercisable in accordance with the Vesting Schedule set forth in the Grant Notice.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case, to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or Disability, this Stock Option may be exercised, to the extent exercisable on the date of such termination, by the Optionee, the Optionee's legal representative or legatee for a period of 12 months from the date of death or Disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or Disability, and unless otherwise determined by the Committee, this Stock Option may be exercised, to the extent exercisable on the date of termination, for a period of 90 days from the date of termination or until the Expiration Date, if earlier; provided however, if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees. Any portion of this Stock Option that is not vested and exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

(d) It is understood and intended that this Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422 of the Code to the extent permitted under applicable law. Accordingly, the Optionee understands that in order to obtain the benefits of an incentive stock option under Section 422 of the Code, no sale or other disposition may be made of Shares for which incentive stock option treatment is desired within the one-year period beginning on the day after the day of the transfer of such Shares to him or her, nor within the two-year period beginning on the day after Grant Date of this Stock Option and further that this Stock Option must be exercised within three months after termination of employment as an employee (or 12 months in the case of death or disability) to qualify as an incentive stock option. If the Optionee disposes (whether by sale, gift, transfer or otherwise) of any such Shares within either of these periods, he or she will notify the Company within 30 days after such disposition. The Optionee also agrees to provide the Company with any information concerning any such dispositions required by the Company for tax purposes. Further, to the extent this Stock Option and any other incentive stock options of the Optionee having an aggregate Fair Market Value in excess of $100,000 (determined as of the Grant Date) first become exercisable in any year, such options will not qualify as incentive stock options.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Shares with respect to which this Stock Option is then exercisable. Such notice shall specify the number of Shares to be purchased. Payment of the purchase price may be made by one or more of the methods described in Section 5 of the Plan, subject to the limitations contained in such Section of the Plan, including the requirement that the Committee specifically approve in advance certain payment methods.

(b) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Stock Option is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Shares. The Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, this Stock Option or Shares acquired pursuant thereto.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

7. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or this Stock Option, this Agreement, or the breach, termination or validity of the Plan, this Stock Option or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the "J.A.M.S. Rules"). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1 16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Massachusetts.

(b) The arbitration shall commence within 60 days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Optionee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a "Party") covenants and agrees that such party will participate in the arbitration in good faith. This Section 7 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above named courts, that its property is exempt or immune from attachment or execution (except as protected by applicable law), that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

8. Waiver of Statutory Information Rights. The Optionee understands and agrees that, but for the waiver made herein, the Optionee would be entitled, upon written demand under oath stating the purpose thereof, to inspect for any proper purpose, and to make copies and extracts from, the Company's stock ledger, a list of its stockholders, and its other books and records, and the books and records of subsidiaries of the Company, if any, under the circumstances and in the manner provided in Section 220 of the General Corporation Law of Delaware (any and all such rights, and any and all such other rights of the Optionee as may be provided for in Section 220, the "Inspection Rights"). In light of the foregoing, until the first sale of Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, the Optionee hereby unconditionally and irrevocably waives the Inspection Rights, whether such Inspection Rights would be exercised or pursued directly or indirectly pursuant to Section 220 or otherwise, and covenants and agrees never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights. The foregoing waiver shall not affect any rights of a director, in his or her capacity as such, under Section 220. The foregoing waiver shall not apply to any contractual inspection rights of the Optionee under any other written agreement between the Optionee and the Company.

9. Acknowledgment. Optionee acknowledges that this Agreement has been executed and delivered, and that the Award granted hereunder has been made in full satisfaction of the Company's obligation to issue equity to the Optionee under Section [ ] of the [ ].

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

Q32 BIO INC.

By: _____
Name:
Title:

Address:

_____

_____

_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that this Stock Option is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 7 AND THE WAIVER OF STATUTORY INFORMATION RIGHTS SET FORTH IN SECTION 8 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

_____
Name:

Address:

_____

_____

_____

SPOUSE'S CONSENT
I acknowledge that I have read the
foregoing Incentive Stock Option Agreement
and understand the contents thereof.

_____

DESIGNATED BENEFICIARY:

_____

Beneficiary's Address:

_____

_____

_____

Appendix A

STOCK OPTION EXERCISE NOTICE

Q32 Bio Inc.

Attention: [_____]

_____

_____

Pursuant to the terms of the grant notice and stock option agreement between the undersigned and Q32 Bio Inc. (the "Company") dated _____ (the "Agreement") under the Q32 Bio Inc. 2017 Stock Option and Grant Plan, I, [Insert Name] _____, hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of $ representing the purchase price for [Fill in number of Shares] _____Shares. I have chosen the following form(s) of payment:

[ ] 1. Cash
[ ] 2. Certified or bank check payable to Q32 Bio Inc.
[ ] 3. Other (as referenced in the Agreement and described in the Plan (please describe))

_____.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

(i) I am purchasing the Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.

(iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period of time.

(v) I understand that the Shares may not be registered under the Securities Act of 1933 (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) I have read and understand the Plan and acknowledge and agree that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) I understand and agree that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) I understand and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) I understand and agree that I may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

(x) I understand and agree to the waiver of statutory information rights as set forth in Section 8 of the Agreement.

Sincerely yours,

_____

Name:

Address:

_____

_____

_____

Date: _____

NON-QUALIFIED STOCK OPTION GRANT NOTICE
UNDER THE Q32 BIO INC.
2017 STOCK OPTION AND GRANT PLAN

Pursuant to the Q32 Bio Inc. 2017 Stock Option and Grant Plan (the "Plan"), Q32 Bio Inc., a Delaware corporation (together with any successor, the "Company"), has granted to the individual named below, an option (the "Stock Option") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value $0.0001 per share ("Common Stock"), of the Company indicated below (the "Shares"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Non-Qualified Stock Option Grant Notice (the "Grant Notice"), the attached Non-Qualified Stock Option Agreement (the "Agreement") and the Plan. This Stock Option is not intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "Code").

Name of Optionee:	_____(the "Optionee")
No. of Shares:	_____Shares of Common Stock
Grant Date:	_____
Vesting Commencement Date:	_____(the "Vesting Commencement Date")
Expiration Date:	_____(the "Expiration Date")
Option Exercise Price/Share:	$_____(the "Option Exercise Price")
Vesting Schedule:	[25] percent of the Shares shall vest and become exercisable on the first anniversary of the Vesting Commencement Date; provided that the Optionee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest and become exercisable in [12] equal quarterly installments following the first anniversary of the Vesting Commencement Date, provided the Optionee continues to have a Service Relationship with the Company on each vesting date. Notwithstanding anything in the Agreement to the contrary, in the case of a Sale Event, this Stock Option and the Shares shall be treated as provided in Section 3(c) of the Plan.

Attachments: Non-Qualified Stock Option Agreement, 2017 Stock Option and Grant Plan

NON-QUALIFIED STOCK OPTION GRANT NOTICE
UNDER THE Q32 BIO INC.
2017 STOCK OPTION AND GRANT PLAN

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Grant Notice and the Plan.

1. Vesting, Exercisability and Termination.

(a) No portion of this Stock Option may be exercised until such portion shall have vested and become exercisable.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, this Stock Option shall be vested and exercisable on the respective dates indicated below:

(i) This Stock Option shall initially be unvested and unexercisable.

(ii) This Stock Option shall vest and become exercisable in accordance with the Vesting Schedule set forth in the Grant Notice.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case, to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or Disability, this Stock Option may be exercised, to the extent exercisable on the date of such termination, by the Optionee, the Optionee's legal representative or legatee for a period of 12 months from the date of death or Disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or Disability, and unless otherwise determined by the Committee, this Stock Option may be exercised, to the extent exercisable on the date of termination, for a period of 90 days from the date of termination or until the Expiration Date, if earlier; provided however, if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees and any Permitted Transferee. Any portion of this Stock Option that is not vested and exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an "Exercise Notice") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Shares with respect to which this Stock Option is then exercisable. Such notice shall specify the number of Shares to be purchased. Payment of the purchase price may be made by one or more of the methods described in Section 5 of the Plan, subject to the limitations contained in such Section of the Plan, including the requirement that the Committee specifically approve in advance certain payment methods.

(b) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Stock Option is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Shares. The Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, this Stock Option or Shares acquired pursuant thereto.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

7. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or this Stock Option, this Agreement, or the breach, termination or validity of the Plan, this Stock Option or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the "J.A.M.S. Rules"). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1-16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Massachusetts.

(b) The arbitration shall commence within 60 days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Optionee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a "Party") covenants and agrees that such party will participate in the arbitration in good faith. This Section 7 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above named courts, that its property is exempt or immune from attachment or execution (except as protected by applicable law), that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

8. Waiver of Statutory Information Rights. The Optionee understands and agrees that, but for the waiver made herein, the Optionee would be entitled, upon written demand under oath stating the purpose thereof, to inspect for any proper purpose, and to make copies and extracts from, the Company's stock ledger, a list of its stockholders, and its other books and records, and the books and records of subsidiaries of the Company, if any, under the circumstances and in the manner provided in Section 220 of the General Corporation Law of

Delaware (any and all such rights, and any and all such other rights of the Optionee as may be provided for in Section 220, the "Inspection Rights"). In light of the foregoing, until the first sale of Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, the Optionee hereby unconditionally and irrevocably waives the Inspection Rights, whether such Inspection Rights would be exercised or pursued directly or indirectly pursuant to Section 220 or otherwise, and covenants and agrees never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights. The foregoing waiver shall not affect any rights of a director, in his or her capacity as such, under Section 220. The foregoing waiver shall not apply to any contractual inspection rights of the Optionee under any other written agreement between the Optionee and the Company.

9. Acknowledgment. Optionee acknowledges that this Agreement has been executed and delivered, and that the Award granted hereunder has been made in full satisfaction of the Company's obligation to issue equity to the Optionee under Section [ ] of the [ ].

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

Q32 Bio Inc.

By: _____
Name:
Title:

Address:

_____

_____

_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that this Stock Option is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 7 AND THE WAIVER OF STATUTORY INFORMATION RIGHTS SET FORTH IN SECTION 8 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

_____
Name:

Address:

_____

_____

_____

SPOUSE'S CONSENT
I acknowledge that I have read the
foregoing Non-Qualified Stock Option Agreement
and understand the contents thereof.

_____

DESIGNATED BENEFICIARY:

_____

Beneficiary's Address:

_____

_____

_____

Appendix A

STOCK OPTION EXERCISE NOTICE

Q32 Bio Inc.

Attention: [_____]

_____

_____

Pursuant to the terms of the grant notice and stock option agreement between the undersigned and Q32 Bio Inc. (the "Company") dated (the "Agreement") under the Q32 Bio Inc. 2017 Stock Option and Grant Plan, I, [Insert Name] , hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of $_____ representing the purchase price for [Fill in number of Shares] Shares. I have chosen the following form(s) of payment:

[ ] 1. Cash

[ ] 2. Certified or bank check payable to Q32 Bio Inc.

[ ] 3. Other (as referenced in the Agreement and described in the Plan (please describe))

_____.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

(i) I am purchasing the Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.

(iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period of time.

(v) I understand that the Shares may not be registered under the Securities Act of 1933 (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) I have read and understand the Plan and acknowledge and agree that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) I understand and agree that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) I understand and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) I understand and agree that I may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

(x) I understand and agree to the waiver of statutory information rights as set forth in Section 8 of the Agreement.

Sincerely yours,

_____

Name:

Address:

_____

_____

_____

Date: _____

RESTRICTED STOCK AWARD NOTICE
UNDER THE Q32 BIO INC.
2017 STOCK OPTION AND GRANT PLAN

Pursuant to the Q32 Bio Inc. 2017 Stock Option and Grant Plan (the "Plan"), Q32 Bio Inc., a Delaware corporation (together with any successor, the "Company"), hereby grants, sells and issues to the individual named below, the Shares at the Per Share Purchase Price, subject to the terms and conditions set forth in this Restricted Stock Award Notice (the "Award Notice"), the attached Restricted Stock Agreement (the "Agreement") and the Plan. The Grantee agrees to the provisions set forth herein and acknowledges that each such provision is a material condition of the Company's agreement to issue and sell the Shares to him or her. The Company hereby acknowledges receipt of $[ ] in full payment for the Shares. All references to share prices and amounts herein shall be equitably adjusted to reflect stock splits, stock dividends, recapitalizations, mergers, reorganizations and similar changes affecting the capital stock of the Company, and any shares of capital stock of the Company received on or in respect of Shares in connection with any such event (including any shares of capital stock or any right, option or warrant to receive the same or any security convertible into or exchangeable for any such shares or received upon conversion of any such shares) shall be subject to this Agreement on the same basis and extent at the relevant time as the Shares in respect of which they were issued, and shall be deemed Shares as if and to the same extent they were issued at the date hereof.

Name of Grantee:	_____ (the "Grantee")
No. of Shares:	_____ Shares of Common Stock (the "Shares")
Grant Date:	_____ __, ____
Date of Purchase of Shares:	_____ __, ____
Vesting Commencement Date:	_____ __, ____ (the "Vesting Commencement Date")
Per Share Purchase Price:	$_____ (the "Per Share Purchase Price")
Vesting Schedule:	[25] percent of the Shares shall vest on the [first] anniversary of the Vesting Commencement Date; provided that the Grantee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest in [12] equal quarterly installments following the first anniversary of the Vesting Commencement Date, provided the Grantee continues to have a Service Relationship with the Company at such time. Notwithstanding anything in the Agreement to the contrary in the case of a Sale Event, the Shares of Restricted Stock shall be treated as provided in Section 3(c) of the Plan.
Attachments:	Restricted Stock Agreement, 2017 Stock Option and Grant Plan

RESTRICTED STOCK AWARD NOTICE
UNDER THE Q32 BIO INC.
2017 STOCK OPTION AND GRANT PLAN

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Award Notice and the Plan.

1. Purchase and Sale of Shares; Vesting; Investment Representations.

(a) Purchase and Sale. The Company hereby sells to the Grantee, and the Grantee hereby purchases from the Company, the number of Shares set forth in the Award Notice for the Per Share Purchase Price.

(b) Vesting. Initially, all of the Shares are non-transferable and subject to a substantial risk of forfeiture and are Shares of Restricted Stock. The risk of forfeiture shall lapse with respect to the Shares on the respective dates indicated on the Vesting Schedule set forth in the Award Notice.

(c) Investment Representations. In connection with the purchase and sale of the Shares contemplated by Section 1(a) above, the Grantee hereby represents and warrants to the Company as follows:

(i) The Grantee is purchasing the Shares for the Grantee's own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) The Grantee has had such an opportunity as he or she has deemed adequate to obtain from the Company such information as is necessary to permit him or her to evaluate the merits and risks of the Grantee's investment in the Company and has consulted with the Grantee's own advisers with respect to the Grantee's investment in the Company.

(iii) The Grantee has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) The Grantee can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(v) The Grantee understands that the Shares are not registered under the Act (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Act and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirements thereof). The Grantee further acknowledges that certificates representing the Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) The Grantee has read and understands the Plan and acknowledges and agrees that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) The Grantee understands and agrees that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) The Grantee understands and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) The Grantee understands and agrees that the Grantee may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

2. Repurchase Right. Upon a Termination Event, the Company shall have the right to repurchase Shares of Restricted Stock that are unvested as of the date of such Termination Event as set forth in Section 9(c) of the Plan.

3. Restrictions on Transfer of Shares. The Shares (whether or not vested) shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Restricted Stock Award shall be subject to and governed by all the terms and conditions of the Plan.

5. Miscellaneous Provisions.

(a) Record Owner; Dividends. The Grantee and any Permitted Transferees, during the duration of this Agreement, shall be considered the record owners of and shall be entitled to vote the Shares if and to the extent the Shares are entitled to voting rights. The Grantee and any Permitted Transferees shall be entitled to receive all dividends and any other distributions declared on the Shares; provided, however, that the Company is under no duty to declare any such dividends or to make any such distribution.

(b) Section 83(b) Election. The Grantee shall consult with the Grantee's tax advisor to determine whether it would be appropriate for the Grantee to make an election under Section 83(b) of the Code with respect to this Award. Any such election must be filed with the Internal Revenue Service within 30 days of the date of this Award. If the Grantee makes an election under Section 83(b) of the Code, the Grantee shall give prompt notice to the Company (and provide a copy of such election to the Company). A sample Section 83(b) election is attached to this Agreement as Exhibit A.

(c) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(d) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(e) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

(f) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(g) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(h) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(i) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(j) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(k) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

6. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or the Shares, this Agreement, or the breach, termination or validity of the Plan, the Shares or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the “J.A.M.S. Rules”). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1—16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Massachusetts.

(b) The arbitration shall commence within 60 days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Grantee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a "Party") covenants and agrees that such party will participate in the arbitration in good faith. This Section 6 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above named courts, that its property is exempt or immune from attachment or execution (except as protected by applicable law), that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

7. Waiver of Statutory Information Rights. The Grantee understands and agrees that, but for the waiver made herein, the Grantee would be entitled, upon written demand under oath stating the purpose thereof, to inspect for any proper purpose, and to make copies and extracts from, the Company's stock ledger, a list of its stockholders, and its other books and records, and the books and records of subsidiaries of the Company, if any, under the circumstances and in the manner provided in Section 220 of the General Corporation Law of Delaware (any and all such rights, and any and all such other rights of the Grantee as may be provided for in Section 220, the "Inspection Rights"). In light of the foregoing, until the first sale of Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, the Grantee hereby unconditionally and irrevocably waives the Inspection Rights, whether such Inspection Rights would be exercised or pursued directly or indirectly pursuant to Section 220 or otherwise, and covenants and agrees never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights. The foregoing waiver shall not affect any rights of a director, in his or her capacity as such, under Section 220. The foregoing waiver shall not apply to any contractual inspection rights of the Grantee under any other written agreement between the Grantee and the Company.

8. Acknowledgment. Grantee acknowledges that this Agreement has been executed and delivered, and that the Award granted hereunder has been made in full satisfaction of the Company's obligation to issue equity to the Grantee under Section [ ] of the [ ].

[SIGNATURE PAGE FOLLOWS]

The foregoing Restricted Stock Agreement is hereby accepted and the terms and conditions thereof are hereby agreed to by the undersigned as of the date of purchase of Shares above written.

Q32 Bio Inc.

By: _____
Name:
Title:

Address:

_____

_____

_____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof and understands that the Shares granted hereby are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Award Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 6 AND THE WAIVER OF STATUTORY INFORMATION RIGHTS SET FORTH IN SECTION 7 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

_____
Name:

Address:

_____

_____

_____

SPOUSE'S CONSENT
I acknowledge that I have read the foregoing Restricted Stock Agreement and understand the contents thereof.

_____

EXHIBIT A
Section 83(b) Election

The undersigned hereby elects pursuant to §83(b) of the Internal Revenue Code of 1986, as amended, to include in gross income as compensation for services the excess (if any) of the fair market value of the shares described below over the amount paid for those shares.

1. The name, taxpayer identification number, address of the undersigned, and the taxable year for which this election is being made are:

   Name: _____

   Address: _____

   _____

   Social Security No.: _____

   Taxable Year: Calendar Year 20__

2. The property which is the subject of this election is [number of unvested shares] shares of common stock of Q32 Bio Inc.

3. The property was transferred to the undersigned on [date of purchase/transfer].

4. The property is subject to the following restrictions:

   The Shares will be subject to restrictions on transfer and risk of forfeiture upon termination of service relationship and in certain other events.

5. The fair market value of the property at time of transfer (determined without regard to any restrictions other than nonlapse restrictions as defined in §1.83-3(h) of the Income Tax Regulations) is $[current FMV] per share x [number of unvested shares] shares = $_____.

6. For the property transferred, the undersigned paid $[exercise price] per share x [number of unvested shares] shares = $_____.

7. The amount to include in gross income is $[amount reported in Item 5 minus the amount reported in Item 6].

The undersigned taxpayer will file this election with the Internal Revenue Service Office with which the taxpayer files his or her annual income tax return not later than 30 days after the date of transfer of the property, at the IRS address listed for the taxpayer's state under "Are you not including a check or money order . . ." given in *Where Do You File* in the Instructions for Form 1040 and the Instructions for Form 1040A (which information can also be found at: https://www.irs.gov/uac/where-to-file-addresses-for-taxpayers-and-tax-professionals). A copy of the election will also be furnished to the person for whom the services were performed. The undersigned is the person performing services in connection with which the property was transferred.

Dated: _____, 20__

_____
Taxpayer

Q32 BIO INC.

2024 STOCK OPTION AND INCENTIVE PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Q32 Bio Inc. 2024 Stock Option and Incentive Plan (as amended from time to time, the "Plan"). The purpose of the Plan is to encourage and enable the officers, employees, Non-Employee Directors and Consultants of Q32 Bio Inc. (the "Company") and its Affiliates upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company's welfare will assure a closer identification of their interests with those of the Company and its stockholders, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

The following terms shall be defined as set forth below:

"*Act*" means the U.S. Securities Act of 1933, as amended, and the rules and regulations thereunder.

"*Administrator*" means either the Board or the compensation committee of the Board or a similar committee performing the functions of the compensation committee and which is comprised of not less than two Non-Employee Directors who are independent.

"*Affiliate*" means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 of the Act. The Board will have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

"*Award*" or "*Awards*," except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Units, Restricted Stock Awards, Unrestricted Stock Awards, Cash-Based Awards, and Dividend Equivalent Rights.

"*Award Agreement*" means a written or electronic document setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Agreement is subject to the terms and conditions of the Plan.

"*Board*" means the Board of Directors of the Company.

"*Cash-Based Award*" means an Award entitling the recipient to receive a cash-denominated payment.

"*Closing Date*" means the date of the closing of the transactions contemplated by that certain Agreement and Plan of Merger by and among Homology Medicines, Inc., the Company and Kenobi Merger Sub, Inc., dated as of November 16, 2023.

"*Code*" means the U.S. Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

"*Consultant*" means a consultant or adviser who provides bona fide services to the Company or an Affiliate as an independent contractor and who qualifies as a consultant or advisor under Instruction A.1.(a)(1) of Form S-8 under the Act.

"*Dividend Equivalent Right*" means an Award entitling the grantee to receive credits based on ordinary cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other award to which it relates) if such shares had been issued to and held by the grantee.

"*Effective Date*" means the date on which the Plan becomes effective as set forth in Section 19.

"*Exchange Act*" means the U.S. Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

"*Fair Market Value*" of the Stock on any given date means the fair market value of the Stock determined in good faith by the Administrator; provided, however, that if the Stock is listed on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ Global Market, The New York Stock Exchange or another national securities exchange or traded on any established market, the determination shall be made by reference to the closing price. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price.

"*Incentive Stock Option*" means any Stock Option designated and qualified as an "incentive stock option" as defined in Section 422 of the Code.

"*Non-Employee Director*" means a member of the Board who is not also an employee of the Company or any Subsidiary.

"*Non-Qualified Stock Option*" means any Stock Option that is not an Incentive Stock Option.

"*Option*" or "*Stock Option*" means any option to purchase shares of Stock granted pursuant to Section 5.

"*Restricted Shares*" means the shares of Stock underlying a Restricted Stock Award that remain subject to a risk of forfeiture or the Company's right of repurchase.

"*Restricted Stock Award*" means an Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant.

"*Restricted Stock Units*" means an Award of stock units subject to such restrictions and conditions as the Administrator may determine at the time of grant.

"*Sale Event*" shall mean (i) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (ii) a merger, reorganization, consolidation, or similar transaction pursuant to which the holders of the Company's outstanding voting power and outstanding stock immediately prior to such transaction do not own a majority of the outstanding voting power and outstanding stock or other equity interests of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction, (iii) the sale of all of the Stock of the Company to an unrelated person, entity or group thereof acting in concert, or (iv) any other transaction in which the owners of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the Company or any successor entity immediately upon completion of the transaction other than as a result of the acquisition of securities directly from the Company.

"*Sale Price*" means the value as determined by the Administrator of the consideration payable, or otherwise to be received by stockholders, per share of Stock pursuant to a Sale Event.

"*Section 409A*" means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

"*Service Relationship*" means any relationship as an employee, Non-Employee Director or Consultant of the Company or any Affiliate. Unless as otherwise set forth in the Award Agreement, a Service Relationship shall be deemed to continue without interruption in the event a grantee's status changes from full-time employee to part-time employee or a grantee's status changes from employee to Consultant or Non-Employee Director or vice versa, provided that there is no interruption or other termination of Service Relationship in connection with the grantee's change in capacity.

"*Stock*" means the Common Stock, par value $0.0001 per share, of the Company, subject to adjustments pursuant to Section 3.

"*Stock Appreciation Right*" means an Award entitling the recipient to receive shares of Stock (or cash, to the extent explicitly provided for in the applicable Award Agreement) having a value equal to the excess of the Fair Market Value of the Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

"*Subsidiary*" means any corporation or other entity (other than the Company) in which the Company has at least a 50 percent interest, either directly or indirectly.

"*Ten Percent Owner*" means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation.

"*Unrestricted Stock Award*" means an Award of shares of Stock free of any restrictions.

SECTION 2. ADMINISTRATION OF PLAN; ADMINISTRATOR AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Administrator.

(b) Powers of Administrator. The Administrator shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Unrestricted Stock Awards, Cash-Based Awards, and Dividend Equivalent Rights, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of shares of Stock to be covered by any Award;

(iv) to determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the forms of Award Agreements;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award;

(vi) subject to the provisions of Section 5(c) or 6(d), to extend at any time the period in which Stock Options or Stock Appreciation Rights, respectively, may be exercised; and

(vii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Administrator shall be binding on all persons, including the Company and Plan grantees.

(c) Delegation of Authority to Grant Awards. Subject to applicable law, the Administrator, in its discretion, may delegate to a committee consisting of one or more officers of the Company, including the Chief Executive Officer of the Company, all or part of the Administrator's authority and duties with respect to the granting of Awards to individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not members of the delegated committee. Any such delegation by the Administrator shall include a limitation as to the amount of Stock underlying Awards that may be granted during the period of the delegation and shall contain guidelines as to the determination of the exercise price and the vesting criteria. The Administrator may revoke or amend the terms of a delegation at any time but such action shall not invalidate any prior actions of the Administrator's delegate or delegates that were consistent with the terms of the Plan.

(d) Award Agreement. Awards under the Plan shall be evidenced by Award Agreements that set forth the terms, conditions and limitations for each Award which may include, without limitation, the term of an Award and the provisions applicable in the event the Service Relationship terminates.

(e) Indemnification. Neither the Board nor the Administrator, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Administrator (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's articles or bylaws or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(f) Non-U.S. Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and its Affiliates operate or have employees or other individuals eligible for Awards, the Administrator, in its sole discretion, shall have the power and authority to: (i) determine which Affiliates shall be covered by the Plan; (ii) determine which individuals outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Administrator determines such actions to be necessary or advisable (and such subplans and/or modifications shall be incorporated into and made part of this Plan); provided, however, that no such subplans and/or modifications shall increase the share limitations contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Administrator determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate the Exchange Act or any other applicable United States securities law, the Code, or any other applicable United States governing statute or law.

SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS; SUBSTITUTION

(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 2,839,888 shares (the "Initial Limit"), plus on January 1, 2025 and on each January 1 thereafter, the number of shares of Stock reserved and available for issuance under the Plan shall be cumulatively increased by five percent (5%) of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31, or such lesser number of shares as approved by the Administrator, in all cases subject to adjustment as provided in this Section 3(c) (the "Annual Increase"). Subject to such overall limitation, the maximum aggregate number of shares of Stock that may be issued in the form of Incentive Stock Options shall not exceed the Initial Limit cumulatively increased on January 1, 2025 and on each

January 1 thereafter by the lesser of the Annual Increase for such year or 2,839,888 shares of Stock, subject in all cases to adjustment as provided in Section 3(c). For purposes of this Plan, the shares of Stock underlying any awards under the Plan and the shares of Common Stock of the Company underlying any awards under the Company's 2017 Stock Option and Grant Plan, the Homology Medicines 2015 Stock Incentive Plan and the Homology Medicines, Inc. 2018 Incentive Award Plan, each as amended from time to time, that are forfeited, canceled, held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan and, to the extent permitted under Section 422 of the Code and the regulations promulgated thereunder, the shares of Stock that may be issued as Incentive Stock Options. In the event the Company repurchases shares of Stock on the open market, such shares shall not be added to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company. Awards that may be settled solely in cash shall not be counted against the share reserve, nor shall they reduce the shares of Stock authorized for grant to a grantee in any calendar year.

(b) Maximum Awards to Non-Employee Directors. Notwithstanding anything to the contrary in this Plan, the value of all Awards awarded under this Plan and all other cash compensation paid by the Company to any Non-Employee Director for services as a Non-Employee Director in any calendar year shall not exceed: (i) $1,000,000 in the first calendar year an individual becomes a Non-Employee Director and (ii) $750,000 in any other calendar year. For the purpose of this limitation, the value of any Award shall be its grant date fair value, as determined in accordance with ASC Topic 718 or successor provision but excluding the impact of estimated forfeitures related to service-based vesting provisions.

(c) Changes in Stock. Subject to Section 3(d) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, extraordinary cash dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, or, if, as a result of any merger or consolidation, sale of all or substantially all of the assets of the Company, the outstanding shares of Stock are converted into or exchanged for securities of the Company or any successor entity (or a parent or subsidiary thereof), the Administrator shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, including the maximum number of shares that may be issued in the form of Incentive Stock Options, (ii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, (iii) the repurchase price, if any, per share subject to each outstanding Restricted Stock Award, and (iv) the exercise price for each share subject to any then outstanding Stock Options and Stock Appreciation Rights under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of shares subject to Stock Options and Stock Appreciation Rights) as to which such Stock Options and Stock Appreciation Rights remain exercisable. The Administrator shall also make equitable or proportionate adjustments in the

number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration cash dividends paid other than in the ordinary course or any other extraordinary corporate event. The adjustment by the Administrator shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Administrator in its discretion may make a cash payment in lieu of fractional shares.

(d) Mergers and Other Transactions. In the case of and subject to the consummation of a Sale Event, the parties thereto may cause the assumption or continuation of Awards theretofore granted by the successor entity, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree. To the extent that the parties to such Sale Event do not provide for the assumption, continuation or substitution of Awards, upon the effective time of the Sale Event, the Plan and all outstanding Awards granted hereunder shall terminate. In addition, except as may be otherwise provided in the relevant Award Agreement, all Options and Stock Appreciation Rights with time-based vesting conditions or restrictions that are not vested and/or exercisable immediately prior to the effective time of the Sale Event shall become fully vested and exercisable as of the effective time of the Sale Event, all other Awards with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of the Sale Event, and all Awards with conditions and restrictions relating to the attainment of performance goals shall become vested and nonforfeitable in connection with a Sale Event at the greater of (A) target levels of performance or (B) actual performance. The Company shall have the option (in its sole discretion) to make or provide for a payment, in cash or in kind, to the grantees holding Options and Stock Appreciation Rights, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the Sale Price multiplied by the number of shares of Stock subject to outstanding Options and Stock Appreciation Rights (at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding Options and Stock Appreciation Rights (provided that, in the case of an Option or Stock Appreciation Right with an exercise price equal to or greater than the Sale Price, such Option or Stock Appreciation Right shall be cancelled for no consideration); or (ii) each grantee shall be permitted, within a specified period of time prior to the consummation of the Sale Event as determined by the Administrator, to exercise all outstanding Options and Stock Appreciation Rights held by such grantee; provided, however, the exercise of Options not exercisable prior to the Sale Event shall be subject to the consummation of the Sale Event. The Company shall also have the option (in its sole discretion) to make or provide for a payment, in cash or in kind, to the grantees holding other Awards in an amount equal to the Sale Price multiplied by the number of vested shares of Stock under such Awards (after taking into account the acceleration hereunder).

SECTION 4. ELIGIBILITY

Grantees under the Plan will be such employees, Non-Employee Directors or Consultants of the Company and its Affiliates as are selected from time to time by the Administrator in its sole discretion; provided that Awards may not be granted to employees, Non-Employee Directors or Consultants who are providing services only to any “parent” of the Company, as such term is defined in Rule 405 of the Act, unless (i) the stock underlying the Awards is treated as “service recipient stock” under Section 409A or (ii) the Company has determined that such Awards are exempt from or otherwise comply with Section 409A.

SECTION 5. STOCK OPTIONS

(a) Award of Stock Options. The Administrator may grant Stock Options under the Plan. Any Stock Option granted under the Plan shall be in such form as the Administrator may from time to time approve.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

Stock Options granted pursuant to this Section 5 shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Administrator shall deem desirable. If the Administrator so determines, Stock Options may be granted in lieu of cash compensation at the optionee's election, subject to such terms and conditions as the Administrator may establish.

(b) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to this Section 5 shall be determined by the Administrator at the time of grant but shall not be less than 100 percent of the Fair Market Value on the date of grant. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the exercise price of such Incentive Stock Option shall be not less than 110 percent of the Fair Market Value on the date of grant. Notwithstanding the foregoing, Stock Options may be granted with an exercise price per share that is less than 100 percent of the Fair Market Value on the date of grant (i) pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code, (ii) to individuals who are not subject to U.S. income tax on the date of grant or (iii) if the Stock Option is otherwise compliant with Section 409A.

(c) Option Term. The term of each Stock Option shall be fixed by the Administrator, but no Stock Option shall be exercisable more than ten years after the date the Stock Option is granted. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the date of grant.

(d) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Administrator at or after the date of grant. The Administrator may at any time accelerate the exercisability of all or any portion of any Stock Option. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.

(e) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written or electronic notice of exercise to the Company, specifying the number of shares to be purchased. Payment of the purchase price may be made by one or more of the following methods except to the extent otherwise provided in the Award Agreement:

(i) In cash, by certified or bank check or other instrument acceptable to the Administrator;

(ii) Through the delivery (or attestation to the ownership following such procedures as the Company may prescribe) of shares of Stock that are not then subject to restrictions under any Company plan. Such surrendered shares shall be valued at Fair Market Value on the exercise date;

(iii) By the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Company shall prescribe as a condition of such payment procedure; or

(iv) With respect to Stock Options that are not Incentive Stock Options, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. The transfer to the optionee on the records of the Company or of the transfer agent of the shares of Stock to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser acting in his stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Award Agreement or applicable provisions of laws (including the satisfaction of any taxes that the Company or an Affiliate is obligated to withhold with respect to the optionee). In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of attested shares. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the exercise of Stock Options, such as a system using an internet website or interactive voice response, then the paperless exercise of Stock Options may be permitted through the use of such an automated system.

(f) Annual Limit on Incentive Stock Options. To the extent required for "incentive stock option" treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed $100,000. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option. For purposes of this Section 5(f), Incentive Stock Options will be taken into account in the order in which they were granted, the Fair Market Value of the shares of Stock will be determined as of the time the Stock Option with respect to such shares of Stock is granted, and calculation will be performed in accordance with Section 422 of the Code and Treasury Regulations promulgated thereunder.

SECTION 6. STOCK APPRECIATION RIGHTS

(a) Award of Stock Appreciation Rights. The Administrator may grant Stock Appreciation Rights under the Plan. A Stock Appreciation Right is an Award entitling the recipient to receive shares of Stock (or cash, to the extent explicitly provided for in the applicable Award Agreement) having a value equal to the excess of the Fair Market Value of a share of Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

(b) Exercise Price of Stock Appreciation Rights. The exercise price of a Stock Appreciation Right shall not be less than 100 percent of the Fair Market Value of the Stock on the date of grant. Notwithstanding the foregoing, Stock Appreciation Rights may be granted with an exercise price per share that is less than 100 percent of the Fair Market Value on the date of grant (i) pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code, (ii) to individuals who are not subject to U.S. income tax on the date of grant, or (iii) if the Stock Appreciation Right is otherwise compliant with Section 409A.

(c) Grant and Exercise of Stock Appreciation Rights. Stock Appreciation Rights may be granted by the Administrator independently of any Stock Option granted pursuant to Section 5 of the Plan.

(d) Terms and Conditions of Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions as shall be determined on the date of grant by the Administrator. The term of a Stock Appreciation Right may not exceed ten years. The terms and conditions of each such Award shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees.

SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Administrator may grant Restricted Stock Awards under the Plan. A Restricted Stock Award is any Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant. Conditions may be based on continuing employment (or other Service Relationship) and/or achievement of pre-established performance goals and objectives.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee shall have the rights of a stockholder with respect to the voting of the Restricted Shares and receipt of dividends; provided that if the lapse of restrictions with respect to the Restricted Stock Award is tied to the attainment of vesting conditions, any dividends paid by the Company shall accrue and shall not be paid to the grantee until and to the extent the vesting conditions are met with respect to the Restricted Stock Award. Unless the Administrator shall otherwise determine, (i) uncertificated Restricted Shares shall be accompanied by a notation on the records of the Company or the transfer agent to the effect that they are subject to forfeiture until such Restricted Shares are vested as provided in Section 7(d) below, and (ii) certificated Restricted Shares shall remain in the possession of the Company until such Restricted Shares are vested as provided in Section 7(d) below, and the grantee shall be required, as a condition of the grant, to deliver to the Company such instruments of transfer as the Administrator may prescribe.

(c) Restrictions. Restricted Shares may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award Agreement. Except as may otherwise be provided by the Administrator either in the Award Agreement or, subject to Section 16 below, in writing after the Award is issued, if a grantee's employment (or other Service Relationship) with the Company and its Affiliates terminates for any reason, any Restricted Shares that have not vested at the time of termination shall automatically and without any requirement of notice to such grantee from or other action by or on behalf of, the Company be deemed to have been reacquired by the Company at its original purchase price (if any) from such grantee or such grantee's legal representative simultaneously with such termination of employment (or other Service Relationship), and thereafter shall cease to represent any ownership of the Company by the grantee or rights of the grantee as a stockholder. Following such deemed reacquisition of Restricted Shares that are represented by physical certificates, a grantee shall surrender such certificates to the Company upon request without consideration.

(d) Vesting of Restricted Shares. The Administrator at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the non-transferability of the Restricted Shares and the Company's right of repurchase or forfeiture shall lapse. Subsequent to such date or dates and/or the attainment of such pre-established performance goals, objectives and other conditions, the shares on which all restrictions have lapsed shall no longer be Restricted Shares and shall be deemed "vested."

SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Administrator may grant Restricted Stock Units under the Plan. A Restricted Stock Unit is an Award of stock units that may be settled in shares of Stock (or cash, to the extent explicitly provided for in the Award Agreement) upon the satisfaction of such restrictions and conditions at the time of grant. Conditions may be based on continuing employment (or other Service Relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees. Restricted Stock Units with deferred settlement dates are subject to Section 409A and shall contain such additional terms and conditions as the Administrator shall determine in its sole discretion in order to comply with the requirements of Section 409A.

(b) Election to Receive Restricted Stock Units in Lieu of Compensation. The Administrator may, in its sole discretion, permit a grantee to elect to receive a portion of future cash compensation otherwise due to such grantee in the form of an award of Restricted Stock Units. Any such election shall be made in writing and shall be delivered to the Company no later than the date specified by the Administrator and in accordance with Section 409A and such other rules and procedures established by the Administrator. Any such future cash compensation that the grantee elects to defer shall be converted to a fixed number of Restricted Stock Units based on the Fair Market Value of Stock on the date the compensation would otherwise have been paid to the grantee if such payment had not been deferred as provided herein. The Administrator shall

have the sole right to determine whether and under what circumstances to permit such elections and to impose such limitations and other terms and conditions thereon as the Administrator deems appropriate. Any Restricted Stock Units that are elected to be received in lieu of cash compensation shall be fully vested, unless otherwise provided in the Award Agreement.

(c) Rights as a Stockholder. A grantee shall have the rights as a stockholder only as to shares of Stock acquired by the grantee upon settlement of Restricted Stock Units; provided, however, that the grantee may be credited with Dividend Equivalent Rights with respect to the stock units underlying his or her Restricted Stock Units, subject to the provisions of Section 11 and such terms and conditions as the Administrator may determine.

(d) Termination. Except as may otherwise be provided by the Administrator either in the Award Agreement or, subject to Section 16 below, in writing after the Award is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's termination of employment (or cessation of Service Relationship) with the Company and its Affiliates for any reason.

SECTION 9. UNRESTRICTED STOCK AWARDS

Grant or Sale of Unrestricted Stock. The Administrator may grant (or sell at par value or such higher purchase price determined by the Administrator) an Unrestricted Stock Award under the Plan. An Unrestricted Stock Award is an Award pursuant to which the grantee may receive shares of Stock free of any restrictions under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

SECTION 10. CASH-BASED AWARDS

Grant of Cash-Based Awards. The Administrator may grant Cash-Based Awards under the Plan. A Cash-Based Award is an Award that entitles the grantee to a payment in cash upon the attainment of specified performance goals, including continued employment (or other Service Relationship). The Administrator shall determine the maximum duration of the Cash-Based Award, the amount of cash to which the Cash-Based Award pertains, the conditions upon which the Cash-Based Award shall become vested or payable, and such other provisions as the Administrator shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula or payment ranges as determined by the Administrator. Payment, if any, with respect to a Cash-Based Award shall be made in accordance with the terms of the Award and may be made in cash.

SECTION 11. DIVIDEND EQUIVALENT RIGHTS

(a) Dividend Equivalent Rights. The Administrator may grant Dividend Equivalent Rights under the Plan. A Dividend Equivalent Right is an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other Award to which it relates) if such shares had been issued to the grantee. A Dividend Equivalent Right may be granted hereunder to any grantee as a component of an award of Restricted Stock Units or as a freestanding award. The terms and conditions of Dividend Equivalent Rights shall be specified in the Award Agreement. Dividend

equivalents credited to the holder of a Dividend Equivalent Right may be paid currently or may be deemed to be reinvested in additional shares of Stock, which may thereafter accrue additional equivalents. Any such reinvestment shall be at Fair Market Value on the date of reinvestment or such other price as may then apply under a dividend reinvestment plan sponsored by the Company, if any. Dividend Equivalent Rights may be settled in cash or shares of Stock or a combination thereof, in a single installment or installments. A Dividend Equivalent Right granted as a component of an Award of Restricted Stock Units shall provide that such Dividend Equivalent Right shall be settled only upon settlement or payment of, or lapse of restrictions on, such other Award, and that such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other Award.

(b) Termination. Except as may otherwise be provided by the Administrator either in the Award Agreement or, subject to Section 16 below, in writing after the Award is issued, a grantee's rights in all Dividend Equivalent Rights shall automatically terminate upon the grantee's termination of employment (or cessation of Service Relationship) with the Company and its Affiliates for any reason.

SECTION 12. TRANSFERABILITY OF AWARDS

(a) Transferability. Except as provided in Section 12(b) below or otherwise determined by the Administrator, during a grantee's lifetime, his or her Awards shall be exercisable only by the grantee, or by the grantee's legal representative or guardian in the event of the grantee's incapacity. No Awards shall be sold, assigned, transferred or otherwise encumbered or disposed of by a grantee other than by will or by the laws of descent and distribution or pursuant to a domestic relations order. No Awards shall be subject, in whole or in part, to attachment, execution, or levy of any kind, and any purported transfer in violation hereof shall be null and void.

(b) Administrator Action. Notwithstanding Section 12(a), the Administrator, in its discretion, may provide either in the Award Agreement regarding a given Award or by subsequent written approval that the grantee (who is an employee or Non-Employee Director) may transfer his or her Non-Qualified Stock Options to his or her immediate family members, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award Agreement. In no event may an Award be transferred by a grantee for value.

(c) Family Member. For purposes of Section 12(b), "family member" shall mean a grantee's child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the grantee's household (other than a tenant of the grantee), a trust in which these persons (or the grantee) have more than 50 percent of the beneficial interest, a foundation in which these persons (or the grantee) control the management of assets, and any other entity in which these persons (or the grantee) own more than 50 percent of the voting interests.

(d) Designation of Beneficiary. To the extent permitted by the Company and valid under applicable law, each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Administrator and shall not be effective until received by the Administrator. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate or legal heirs.

SECTION 13. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the grantee for tax purposes, pay to the Company or any applicable Affiliate, or make arrangements satisfactory to the Administrator regarding payment of, any U.S. and non-U.S. federal, state, or local taxes of any kind required by law to be withheld by the Company or any applicable Affiliate with respect to such income. The Company and its Affiliates shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee or to satisfy any applicable withholding obligations by any other method of withholding that the Company and its Affiliates deem appropriate. The Company's obligation to deliver evidence of book entry (or stock certificates) to any grantee is subject to and conditioned on tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. The Administrator may cause any tax withholding obligation of the Company or any applicable Affiliate to be satisfied, in whole or in part, by the Company withholding from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due; provided, however, that the amount withheld does not exceed the maximum statutory rate or such lesser amount as is necessary to avoid liability accounting treatment. For purposes of share withholding, the Fair Market Value of withheld shares shall be determined in the same manner as the value of Stock includible in income of the grantees. The Administrator may also require any tax withholding obligation of the Company or any applicable Affiliate to be satisfied, in whole or in part, by an arrangement whereby a certain number of shares of Stock issued pursuant to any Award are immediately sold and proceeds from such sale are remitted to the Company or any applicable Affiliate in an amount that would satisfy the withholding amount due.

SECTION 14. SECTION 409A AWARDS

Awards are intended to be exempt from Section 409A to the greatest extent possible and to otherwise comply with Section 409A. The Plan and all Awards shall be interpreted in accordance with such intent. To the extent that any Award is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A (a "409A Award"), the Award shall be subject to such additional rules and requirements as specified by the Administrator from time to time in order to comply with Section 409A. In this regard, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of

Section 409A) to a grantee who is then considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. Further, the settlement of any 409A Award may not be accelerated except to the extent permitted by Section 409A. The Company makes no representation that any or all of the payments or benefits described in the Plan will be exempt from or comply with Section 409A of the Code and makes no undertaking to preclude Section 409A of the Code from applying to any such payment. The grantee shall be solely responsible for the payment of any taxes and penalties incurred under Section 409A.

SECTION 15. TERMINATION OF SERVICE RELATIONSHIP, TRANSFER, LEAVE OF ABSENCE, ETC.

(a) Termination of Service Relationship. If the grantee's Service Relationship is with an Affiliate and such Affiliate ceases to be an Affiliate, the grantee shall be deemed to have terminated his or her Service Relationship for purposes of the Plan.

(b) For purposes of the Plan, the following events shall not be deemed a termination of a Service Relationship:

(i) a transfer to the Service Relationship of the Company from an Affiliate or from the Company to an Affiliate, or from one Affiliate to another; or

(ii) an approved leave of absence, if the employee's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise so provides in writing.

SECTION 16. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Administrator may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall materially and adversely affect rights under any outstanding Award without the holder's consent. The Administrator is specifically authorized to exercise its discretion, without the approval of the Company's stockholders and without the consent of any holder, to reduce the exercise price of outstanding Stock Options or Stock Appreciation Rights or effect repricing through cancellation and re-grants or cancellation of Stock Options or Stock Appreciation Rights in exchange for cash or other Awards. To the extent required under the rules of any securities exchange or market system on which the Stock is listed, or to the extent determined by the Administrator to be required by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code, Plan amendments shall be subject to approval by Company stockholders. Nothing in this Section 16 shall limit the Administrator's authority to take any action permitted pursuant to Section 3(c) or 3(d).

SECTION 17. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Administrator shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Administrator may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

SECTION 18. GENERAL PROVISIONS

(a) No Distribution. The Administrator may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares without a view to distribution thereof.

(b) Issuance of Stock. To the extent certificated, stock certificates to grantees under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a Stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records). Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any evidence of book entry or certificates evidencing shares of Stock pursuant to the exercise or settlement of any Award, unless and until the Administrator has determined, with advice of counsel (to the extent the Administrator deems such advice necessary or advisable), that the issuance and delivery is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any exchange on which the shares of Stock are listed, quoted or traded. Any Stock issued pursuant to the Plan shall be subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with federal, state or foreign jurisdiction, securities or other laws, rules and quotation system on which the Stock is listed, quoted or traded. The Administrator may place legends on any Stock certificate or notations on any book entry to reference restrictions applicable to the Stock. In addition to the terms and conditions provided herein, the Administrator may require that an individual make such reasonable covenants, agreements, and representations as the Administrator, in its discretion, deems necessary or advisable in order to comply with any such laws, regulations, or requirements. The Administrator shall have the right to require any individual to comply with any timing or other restrictions with respect to the settlement or exercise of any Award, including a window-period limitation, as may be imposed in the discretion of the Administrator.

(c) Stockholder Rights. Until Stock is deemed delivered in accordance with Section 18(b), no right to vote or receive dividends or any other rights of a stockholder will exist with respect to shares of Stock to be issued in connection with an Award, notwithstanding the exercise of a Stock Option or any other action by the grantee with respect to an Award.

(d) Other Incentive Arrangements; No Rights to Continued Service Relationship. Nothing contained in this Plan shall prevent the Board from adopting other or additional incentive arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any grantee any right to continued employment or other Service Relationship with the Company or any Affiliate.

(e) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policies and procedures, as in effect from time to time.

(f) Clawback Policy. Awards under the Plan shall be subject to the Company's clawback policy, as in effect from time to time. In addition, the Administrator may impose such other clawback, recovery, or recoupment provisions in an Award Agreement as the Administrator determines necessary or appropriate, including, but not limited to, a reacquisition right in respect of previously acquired shares of Stock or other cash or property upon the occurrence of a termination for "cause" under any agreement with the Company or an Affiliate thereof. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or an Affiliate thereof.

(g) Fractional Shares. No fractional Shares shall be issued or delivered pursuant to the Plan or any Award, and the Administrator shall determine whether cash, other securities or other property shall be paid or transferred in lieu of any fractional Shares, or whether such fractional Shares or any rights thereto shall be canceled, terminated or otherwise eliminated.

SECTION 19. EFFECTIVE DATE OF PLAN

This Plan shall become effective upon the Closing Date subject to stockholder approval in accordance with applicable state law, the Company's bylaws and articles of incorporation, and applicable stock exchange rules. No grants of Awards may be made hereunder after the tenth anniversary of the Effective Date and no grants of Incentive Stock Options may be made hereunder after the tenth anniversary of the date the Plan is approved by the Board.

SECTION 20. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the State of Delaware applied without regard to conflict of law principles.

DATE APPROVED BY BOARD OF DIRECTORS: February 11, 2024

DATE APPROVED BY STOCKHOLDERS: March 15, 2024

INCENTIVE STOCK OPTION AGREEMENT
UNDER THE Q32 BIO INC.
2024 STOCK OPTION AND INCENTIVE PLAN

Name of Optionee: _____

No. of Option Shares: _____

Option Exercise Price per Share: $_____
[FMV on Grant Date (110% of FMV if a 10% owner)]

Grant Date: _____

Expiration Date: _____
[up to 10 years (5 if a 10% owner)]

Pursuant to the Q32 Bio Inc. 2024 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Q32 Bio Inc. (the "Company") hereby grants to the Optionee named above an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value $0.0001 per share (the "Stock"), of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated below so long as the Optionee continues to have a Service Relationship with the Company or a Subsidiary on such dates:

Incremental Number of Option Shares Exercisable*	Exercisability Date
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____

* Max. of $100,000 per yr.

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; or (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or (iv) a combination of (i), (ii) and (iii) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the shares of Stock attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Service Relationship. If the Optionee's Service Relationship with the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's Service Relationship with the Company or a Subsidiary terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's Service Relationship with the Company or a Subsidiary terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such termination, may thereafter be exercised by the Optionee for a period of 12 months from the date the Optionee's Service Relationship is terminated by reason of the Optionee's disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of the termination of the Optionee's Service Relationship by reason of the Optionee's disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's Service Relationship with the Company or a Subsidiary terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in an employment or service agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company.

(d) Other Termination. If the Optionee's Service Relationship with the Company or a Subsidiary terminates for any reason other than the Optionee's death, the Optionee's disability, or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of 12 months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's Service Relationship with the Company or a Subsidiary shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Status of the Stock Option. This Stock Option is intended to qualify as an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), but the Company does not represent or warrant that this Stock Option qualifies as such. The Optionee should consult with his or her own tax advisors regarding the tax effects of this Stock Option and the requirements necessary to obtain favorable income tax treatment under Section 422 of the Code, including, but not limited to, holding period requirements and that ***this Stock Option must be exercised within three months after termination of employment as an employee (or 12 months in the case of death or disability) to qualify as an "incentive stock option.***" To the extent any portion of this Stock Option does not so qualify as an "incentive stock option," such portion shall be deemed to be a non-qualified stock option. If the Optionee intends to dispose or does dispose (whether by sale, gift, transfer or otherwise) of any Option Shares within the one-year period beginning on the date after the transfer of such shares to him or her, or within the two-year period beginning on the day after the grant of this Stock Option, he or she will so notify the Company within 30 days after such disposition.

7. Tax Withholding. The Optionee shall, not later than the date as of which the exercise of this Stock Option becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the required tax withholding obligation to be satisfied, in whole or in part, by (i) withholding from shares of Stock to be issued to the Optionee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the withholding amount due; or (ii) causing its transfer agent to sell from the number of shares of Stock to be issued to the Optionee, the number of shares of Stock necessary to satisfy the Federal, state and local taxes required by law to be withheld from the Optionee on account of such transfer.

8. No Obligation to Continue Service Relationship. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Optionee in a Service Relationship with the Company or a Subsidiary and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the Optionee's Service Relationship with the Company or a Subsidiary at any time.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

12. [Clawback Acknowledgement. The Optionee acknowledges that the Optionee may become subject to the Q32 Bio Inc. Compensation Recovery Policy adopted pursuant to Rule 10D-1 promulgated under the Exchange Act and Nasdaq Rule 5608, or any successor rule (the "Clawback Policy"). The Optionee understands that if the Optionee is or becomes subject to the Clawback Policy, the Company and/or the Board shall be entitled to recover all Erroneously Awarded Compensation (as defined in the Clawback Policy) from the Optionee pursuant to such means as the Company and/or the Board may elect. The Optionee agrees that the Optionee shall take all required action to enable such recovery. The Optionee understands that such recovery may be sought and occur after the Executive's employment or service with the Company terminates. The Optionee further agrees that the Optionee is not entitled to indemnification for any Erroneously Awarded Compensation or for any claim or losses arising out of or in any way related to Erroneously Awarded Compensation recovered pursuant to the Clawback Policy and, to the extent any agreement or organizational document purports to provide otherwise, the Optionee hereby irrevocably agrees to forego such indemnification. The Optionee acknowledges and agrees that the Optionee has received and has had an opportunity to review the Clawback Policy. Any action by the Company to recover Erroneously Awarded Compensation under the Clawback Policy from the Optionee shall not, whether alone or in combination with any other action, event or condition, be deemed (i) an event giving rise to a right to resign for a Good Reason Condition (as defined in the Optionee's employment agreement with the Company) or serve as a basis for a claim of constructive termination under any benefits or compensation arrangement applicable to the Optionee, or (ii) to constitute a breach of a contract or other arrangement to which the Optionee is a party. This Section 12 is a material term of this Agreement.]

Q32 Bio Inc.

By: _____
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Optionee's Signature

Optionee's name and address:

_____

_____

_____

NON-QUALIFIED STOCK OPTION AGREEMENT
FOR NON-EMPLOYEE DIRECTORS
UNDER THE Q32 BIO INC.
2024 STOCK OPTION AND INCENTIVE PLAN

Name of Optionee: _____

No. of Option Shares: _____

Option Exercise Price per Share: $_____
[FMV on Grant Date]

Grant Date: _____

Expiration Date: _____
[No more than 10 years]

Pursuant to the Q32 Bio Inc. 2024 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Q32 Bio Inc. (the "Company") hereby grants to the Optionee named above, who is a Non-Employee Director of the Company but is not an employee of the Company, an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value $0.0001 per share (the "Stock"), of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated below so long as the Optionee continues to have a Service Relationship with the Company or a Subsidiary on such dates:

Incremental Number of Option Shares Exercisable	Exercisability Date
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the shares of Stock attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Service. If the Optionee's Service Relationship with the Company or a Subsidiary terminates, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's Service Relationship with the Company or a Subsidiary terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Other Termination. If the Optionee's Service Relationship with the Company or a Subsidiary terminates for any reason other than the Optionee's death, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of 12 months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. No Obligation to Continue as a Service Provider. Neither the Plan nor this Stock Option confers upon the Optionee any rights with respect to continuance as a Non-Employee Director or any other service provider of the Company or a Subsidiary.

7. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

8. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

9. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

Q32 Bio Inc.

By: _____
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Optionee's Signature

Optionee's name and address:

_____

_____

_____

NON-QUALIFIED STOCK OPTION AGREEMENT
FOR COMPANY EMPLOYEES
UNDER THE Q32 BIO INC.
2024 STOCK OPTION AND INCENTIVE PLAN

Name of Optionee: _____

No. of Option Shares: _____

Option Exercise Price per Share: $_____
[FMV on Grant Date]

Grant Date: _____

Expiration Date: _____
[No more than 10 years]

Pursuant to the Q32 Bio Inc. 2024 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Q32 Bio Inc. (the "Company") hereby grants to the Optionee named above an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value $0.0001 per share (the "Stock") of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated below so long as Optionee continues to have a Service Relationship with the Company or a Subsidiary on such dates:

Incremental Number of Option Shares Exercisable	Exercisability Date
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the shares of Stock attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Service Relationship. If the Optionee's Service Relationship with the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's Service Relationship with the Company or a Subsidiary terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's Service Relationship with the Company or a Subsidiary terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such termination, may thereafter be exercised by the Optionee for a period of 12 months from the date the Optionee's Service Relationship is terminated by reason of the Optionee's disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of the termination of the Optionee's Service Relationship by reason of disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's Service Relationship with the Company or a Subsidiary terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in an employment or other service agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement

between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company or a Subsidiary.

(d) Other Termination. If the Optionee's Service Relationship with the Company or a Subsidiary terminates for any reason other than the Optionee's death, the Optionee's disability or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of 12 months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's Service Relationship with the Company or a Subsidiary shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Tax Withholding. The Optionee shall, not later than the date as of which the exercise of this Stock Option becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the required tax withholding obligation to be satisfied, in whole or in part, by (i) withholding from shares of Stock to be issued to the Optionee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the withholding amount due; or (ii) causing its transfer agent to sell from the number of shares of Stock to be issued to the Optionee, the number of shares of Stock necessary to satisfy the Federal, state and local taxes required by law to be withheld from the Optionee on account of such transfer.

7. No Obligation to Continue Service Relationship. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Optionee in a Service Relationship with the Company or a Subsidiary and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the Optionee's Service Relationship with the Company or a Subsidiary at any time.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

11. [Clawback Acknowledgement. The Optionee acknowledges that the Optionee may become subject to the Q32 Bio Inc. Compensation Recovery Policy adopted pursuant to Rule 10D-1 promulgated under the Exchange Act and Nasdaq Rule 5608, or any successor rule (the "Clawback Policy"). The Optionee understands that if the Optionee is or becomes subject to the Clawback Policy, the Company and/or the Board shall be entitled to recover all Erroneously Awarded Compensation (as defined in the Clawback Policy) from the Optionee pursuant to such means as the Company and/or the Board may elect. The Optionee agrees that the Optionee shall take all required action to enable such recovery. The Optionee understands that such recovery may be sought and occur after the Executive's employment or service with the Company terminates. The Optionee further agrees that the Optionee is not entitled to indemnification for any Erroneously Awarded Compensation or for any claim or losses arising out of or in any way related to Erroneously Awarded Compensation recovered pursuant to the Clawback Policy and, to the extent any agreement or organizational document purports to provide otherwise, the Optionee hereby irrevocably agrees to forego such indemnification. The Optionee acknowledges and agrees that the Optionee has received and has had an opportunity to review the Clawback Policy. Any action by the Company to recover Erroneously Awarded Compensation under the Clawback Policy from the Optionee shall not, whether alone or in combination with any other action, event or condition, be deemed (i) an event giving rise to a right to resign for a Good Reason Condition (as defined in the Optionee's employment agreement with the Company) or serve as a basis

for a claim of constructive termination under any benefits or compensation arrangement applicable to the Optionee, or (ii) to constitute a breach of a contract or other arrangement to which the Optionee is a party. This Section 11 is a material term of this Agreement.]

Q32 Bio Inc.

By: _____
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Optionee's Signature

Optionee's name and address:

_____

_____

_____

NON-QUALIFIED STOCK OPTION AGREEMENT
FOR COMPANY CONSULTANTS
UNDER THE Q32 BIO INC.
2024 STOCK OPTION AND INCENTIVE PLAN

Name of Optionee: _____

No. of Option Shares: _____

Option Exercise Price per Share: $_____
[FMV on Grant Date]

Grant Date: _____

Vesting Commencement Date _____

Expiration Date: _____
[No more than 10 years]

Pursuant to the Q32 Bio Inc. 2024 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Q32 Bio Inc. (the "Company") hereby grants to the Optionee named above an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value $0.0001 per share (the "Stock") of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable as follows:

[_____], so long as Optionee continues to have a Service Relationship with the Company or a Subsidiary on such dates.

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the shares of Stock attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Service Relationship. Except as may otherwise be provided by the Administrator, if the Optionee's Service Relationship with the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's Service Relationship with the Company or a Subsidiary terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's Service Relationship with the Company or a Subsidiary terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such termination, may thereafter be exercised by the Optionee for a period of 12 months from the date the Optionee's Service Relationship is terminated by reason of disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of the termination of the Optionee's Service Relationship by reason of disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's Service Relationship with the Company or a Subsidiary terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in a consulting or other service agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company.

(d) Other Termination. If the Optionee's Service Relationship with the Company or a Subsidiary terminates for any reason other than the Optionee's death, the Optionee's disability or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of 12 months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's Service Relationship with the Company or a Subsidiary shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. No Obligation to Continue Service Relationship. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Optionee's Service Relationship with the Company or a Subsidiary and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the Optionee's Service Relationship with the Company or a Subsidiary at any time.

7. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

8. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

9. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

Q32 Bio Inc.

By: _____
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Optionee's Signature

Optionee's name and address:

_____

_____

_____

RESTRICTED STOCK UNIT AWARD AGREEMENT
FOR NON-EMPLOYEE DIRECTORS
UNDER THE Q32 BIO INC.
2024 STOCK OPTION AND INCENTIVE PLAN

Name of Grantee: _____

No. of Restricted Stock Units: _____

Grant Date: _____

Pursuant to the Q32 Bio Inc. 2024 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Q32 Bio Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Common Stock, par value $0.0001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee continues to have a Service Relationship with the Company or a Subsidiary on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

Incremental Number of Restricted Stock Units Vested	Vesting Date
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Service. If the Grantee's Service Relationship with the Company or a Subsidiary terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as "short-term deferrals" as described in Section 409A of the Code.

7. No Obligation to Continue as a Service Provider. Neither the Plan nor this Award confers upon the Grantee any rights with respect to continuance as a Non-Employee Director or other service provider to the Company or a Subsidiary.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

Q32 Bio Inc.

By: _____
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Grantee's Signature

Grantee's name and address:

_____

_____

_____

RESTRICTED STOCK UNIT AWARD AGREEMENT
FOR COMPANY EMPLOYEES
UNDER THE Q32 BIO INC.
2024 STOCK OPTION AND INCENTIVE PLAN

Name of Grantee: _____

No. of Restricted Stock Units: _____

Grant Date: _____

Pursuant to the Q32 Bio Inc. 2024 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Q32 Bio Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Common Stock, par value $0.0001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee continues to have a Service Relationship with the Company or a Subsidiary on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

Incremental Number of Restricted Stock Units Vested	Vesting Date
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Service Relationship. If the Grantee's Service Relationship with the Company or a Subsidiary terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Tax Withholding. The Grantee shall, not later than the date as of which the receipt of this Award becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the required tax withholding obligation to be satisfied, in whole or in part, by (i) withholding from shares of Stock to be issued to the Grantee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the withholding amount due; or (ii) causing its transfer agent to sell from the number of shares of Stock to be issued to the Grantee, the number of shares of Stock necessary to satisfy the Federal, state and local taxes required by law to be withheld from the Grantee on account of such transfer.

7. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as "short-term deferrals" as described in Section 409A of the Code.

8. No Obligation to Continue Service Relationship. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Grantee's Service Relationship with the Company or a Subsidiary and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the Grantee's Service Relationship with the Company or a Subsidiary at any time.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information").

By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

12. [Clawback Acknowledgement. The Grantee acknowledges that the Grantee may become subject to the Q32 Bio Inc. Compensation Recovery Policy adopted pursuant to Rule 10D-1 promulgated under the Exchange Act and Nasdaq Rule 5608, or any successor rule (the "Clawback Policy"). The Grantee understands that if the Grantee is or becomes subject to the Clawback Policy, the Company and/or the Board shall be entitled to recover all Erroneously Awarded Compensation (as defined in the Clawback Policy) from the Grantee pursuant to such means as the Company and/or the Board may elect. The Grantee agrees that the Grantee shall take all required action to enable such recovery. The Grantee understands that such recovery may be sought and occur after the Executive's employment or service with the Company terminates. The Grantee further agrees that the Grantee is not entitled to indemnification for any Erroneously Awarded Compensation or for any claim or losses arising out of or in any way related to Erroneously Awarded Compensation recovered pursuant to the Clawback Policy and, to the extent any agreement or organizational document purports to provide otherwise, the Grantee hereby irrevocably agrees to forego such indemnification. The Grantee acknowledges and agrees that the Grantee has received and has had an opportunity to review the Clawback Policy. Any action by the Company to recover Erroneously Awarded Compensation under the Clawback Policy from the Grantee shall not, whether alone or in combination with any other action, event or condition, be deemed (i) an event giving rise to a right to resign for a Good Reason Condition (as defined in the Grantee's employment agreement with the Company) or serve as a basis for a claim of constructive termination under any benefits or compensation arrangement applicable to

the Grantee, or (ii) to constitute a breach of a contract or other arrangement to which the Grantee is a party. This Section 12 is a material term of this Agreement.]

Q32 Bio Inc.

By: _____
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Grantee's Signature

Grantee's name and address:

_____

_____

_____

EXHIBIT 10.9.G

RESTRICTED STOCK UNIT AWARD AGREEMENT
FOR CONSULTANTS
UNDER THE Q32 BIO INC.
2024 STOCK OPTION AND INCENTIVE PLAN

Name of Grantee: _____

No. of Restricted Stock Units: _____

Grant Date: _____

Vesting Commencement Date: _____

Pursuant to the Q32 Bio Inc. 2024 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Q32 Bio Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Common Stock, par value $0.0001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee continues to have a Service Relationship with the Company or a Subsidiary on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

Incremental Number of Restricted Stock Units Vested	Vesting Date
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____
_____ (___%)	_____

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Service Relationship. If the Grantee's Service Relationship with the Company or a Subsidiary terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as "short-term deferrals" as described in Section 409A of the Code.

7. No Obligation to Continue Service Relationship. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Grantee in a Service Relationship with the Company or a Subsidiary and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the Service Relationship of the Grantee at any time.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

Q32 Bio Inc.

By: _____
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: _____

_____
Grantee's Signature

Grantee's name and address:

_____

_____

_____

Q32 BIO INC.

2024 EMPLOYEE STOCK PURCHASE PLAN

The purpose of the Q32 Bio Inc. 2024 Employee Stock Purchase Plan (the "Plan") is to provide eligible employees of Q32 Bio Inc. (the "Company") and each Designated Company (as defined in Section 11) with opportunities to purchase shares of the Company's common stock, par value $0.0001 per share (the "Common Stock"). 120,836 shares of Common Stock in the aggregate have been approved and reserved for this purpose, plus on January 1, 2025 and each January 1 thereafter until the Plan terminates pursuant to Section 20, the number of shares of Common Stock reserved and available for issuance under the Plan shall be cumulatively increased by the lesser of (i) 241,677 shares of Common Stock, (ii) one percent (1%) of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31, or (iii) such lesser number of shares of Common Stock as determined by the Administrator (as defined in Section 1).

The Plan includes two components: a Code Section 423 Component (the "423 Component") and a non-Code Section 423 Component (the "Non-423 Component"). It is intended for the 423 Component to constitute an "employee stock purchase plan" within the meaning of Section 423(b) of the Internal Revenue Code of 1986, as amended (the "Code"), and the 423 Component shall be interpreted in accordance with that intent. Under the Non-423 Component, which does not qualify as an "employee stock purchase plan" within the meaning of Section 423(b) of the Code, options will be granted pursuant to rules, procedures or sub-plans adopted by the Administrator designed to comply with applicable laws or achieve tax and other objectives. Except as otherwise provided herein or by the Administrator, the Non-423 Component will operate and be administered in the same manner as the 423 Component.

Unless otherwise defined herein, capitalized terms in this Plan shall have the meaning ascribed to them in Section 11.

1. Administration. The Plan will be administered by the person or persons (the "Administrator") appointed by the Company's Board of Directors (the "Board") for such purpose. The Administrator has authority at any time to: (i) adopt, alter and repeal such rules, guidelines and practices for the administration of the Plan and for its own acts and proceedings as it shall deem advisable; (ii) interpret the terms and provisions of the Plan; (iii) make all determinations it deems advisable for the administration of the Plan, including to accommodate the specific requirements of applicable laws, regulations and procedures in jurisdictions outside the United States; (iv) decide all disputes arising in connection with the Plan; and (v) otherwise supervise the administration of the Plan. All interpretations and decisions of the Administrator shall be binding on all persons, including the Company and the Participants. No member of the Board or individual exercising administrative authority with respect to the Plan shall be liable for any action or determination made in good faith with respect to the Plan or any option granted hereunder.

2. Offerings. The Company may make one or more offerings to eligible employees to purchase Common Stock under the Plan ("Offerings") consisting of one or more Purchase Periods. The Administrator may, in its discretion, determine when each Offering shall occur, including the duration of any Offering, provided that no Offering shall exceed 27 months in duration. Unless as otherwise determined by the Administrator, Participants will only be permitted to participate in one Offering at a time.

3. Eligibility. Except as otherwise determined by the Administrator in advance of an Offering and, with respect to the 423 Component, consistent with the requirements of Section 423 of the Code, all individuals classified as employees on the payroll records of the Company and each Designated Company are eligible to participate in any one or more of the Offerings under the Plan (provided, that a Participant is not permitted to participate in multiple Offerings at the same time, unless otherwise determined by the Administrator), provided that as of the first day of the applicable Offering (the "Offering Date"), they are customarily employed by the Company or a Designated Company for more than 20 hours a week. Notwithstanding any other provision herein, individuals who are not contemporaneously classified as employees of the Company or a Designated Company for purposes of the Company's or applicable Designated Company's payroll system are not considered to be eligible employees of the Company or any Designated Company and shall not be eligible to participate in the Plan. In the event any such individuals are reclassified as employees of the Company or a Designated Company for any purpose, including, without limitation, common law or statutory employees, by any action of any third party, including, without limitation, any government agency, or as a result of any private lawsuit, action or administrative proceeding, such individuals shall, notwithstanding such reclassification, remain ineligible for participation. Notwithstanding the foregoing, the exclusive means for individuals who are not contemporaneously classified as employees of the Company or a Designated Company on the Company's or Designated Company's payroll system to become eligible to participate in this Plan is through an amendment or subplan to this Plan, duly executed by the Company, which specifically renders such individuals eligible to participate herein.

4. Participation.

(a) An eligible employee who is not a Participant in any prior Offering may participate in a subsequent Offering by submitting an enrollment form to the Company or an agent designated by the Company (in the manner described in Section 4) at least 15 business days before the Offering Date (or by such other deadline as shall be established by the Administrator for the Offering).

(b) Enrollment. The enrollment form (which may be in an electronic format or such other method as determined by the Company in accordance with the Company's practices) will (a) state a whole percentage to be deducted from an eligible employee's Compensation (as defined in Section 11) per pay period, (b) authorize the purchase of Common Stock in each Offering in accordance with the terms of the Plan and (c) specify the exact name or names in which shares of Common Stock purchased for such individual are to be issued pursuant to Section 10. An employee who does not enroll in accordance with these procedures will be deemed to have waived the right to participate. Unless a Participant files a new enrollment form or withdraws from the Plan, such Participant's deductions or contributions and purchases will continue at the same percentage of Compensation for future Offerings, provided he or she remains eligible.

(c) Notwithstanding the foregoing, participation in the Plan will neither be permitted nor be denied contrary to the requirements of the Code.

5. Employee Contributions. Each eligible employee may authorize payroll deductions or contributions at a minimum of 1 percent (1%) up to a maximum of 15 percent (15%) of such employee's Compensation for each pay period or such other maximum as may be specified by the Administrator in advance of an Offering. The Company will maintain book accounts showing the amount of payroll deductions or contributions made by each Participant for each Purchase Period within an Offering. No interest will accrue or be paid on payroll deductions or contributions, except as may be required by applicable law. If payroll deductions or contributions for purposes of the Plan are prohibited or otherwise problematic under applicable law (as determined by the Administrator in its discretion), the Administrator may require Participants to contribute to the Plan by such other means as determined by the Administrator. Any reference to "payroll deductions or contributions" in this Section 5 (or in any other section of the Plan) will similarly cover contributions by other means made pursuant to this Section 5.

6. Deduction Changes. Except as may be determined by the Administrator in advance of an Offering, a Participant may not increase or decrease his or her payroll deduction or contributions during any Offering, but may increase or decrease his or her payroll deduction or contributions with respect to the next Offering (subject to the limitations of Section 5) by filing a new enrollment form at least 15 business days before the next Offering Date (or by such other deadline as shall be established by the Administrator for the Offering). The Administrator may, in advance of any Offering, establish rules permitting a Participant to increase, decrease or terminate his or her payroll deduction or contributions during an Offering.

7. Withdrawal. A Participant may withdraw from participation in the Plan by delivering a written notice of withdrawal to the Company or an agent designated by the Company (in accordance with such procedures as may be established by the Administrator). The Participant's withdrawal will be effective as of the next business day. Following a Participant's withdrawal, the Company will promptly refund such individual's entire account balance under the Plan to him or her (after payment for any Common Stock purchased before the effective date of withdrawal). Partial withdrawals are not permitted. Such an employee may not begin participation again during the remainder of the Offering, but may enroll in a subsequent Offering in accordance with Section 4.

8. Grant of Options. On each Offering Date, the Company will grant to each eligible employee who is then a Participant in the Plan an option ("Option") to purchase, on the last day of a Purchase Period (an "Exercise Date") and at the Option Price (as defined herein) hereinafter provided for, the lowest of (a) a number of shares of Common Stock determined by dividing such Participant's accumulated payroll deductions or contributions on such Exercise Date by the Option Price, (b) the number of shares of Common Stock determined by dividing $25,000 by the Fair Market Value of the Common Stock on the Offering Date for such Offering; or (c) such other lesser maximum number of shares as shall have been established by the Administrator in advance of the Offering; provided, however, that such Option shall be subject to the limitations set forth below. Each Participant's Option shall be exercisable only to the extent of such Participant's accumulated payroll deductions or contributions on the Exercise Date. The purchase price for each share purchased under each Option (the "Option Price") will be 85 percent (85%) of the Fair Market Value (as defined in Section 11) of the Common Stock on the Offering Date or the Exercise Date, whichever is less.

Notwithstanding the foregoing, no Participant may be granted an Option hereunder if such Participant, immediately after the Option was granted, would be treated as owning stock possessing 5 percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any Parent or Subsidiary (as defined in Section 11). For purposes of the preceding sentence, the attribution rules of Section 424(d) of the Code shall apply in determining the stock ownership of a Participant, and all stock which the Participant has a contractual right to purchase shall be treated as stock owned by the Participant. In addition, no Participant may be granted an Option which permits his or her rights to purchase stock under the Plan, and any other employee stock purchase plan of the Company and its Parents and Subsidiaries, to accrue at a rate which exceeds $25,000 of the Fair Market Value of the Common Stock (determined on the option grant date or dates) for each calendar year in which the Option is outstanding at any time. The purpose of the limitation in the preceding sentence is to comply with Section 423(b)(8) of the Code and shall be applied taking Options into account in the order in which they were granted.

9. Exercise of Option and Purchase of Shares. Each employee who continues to be a Participant in the Plan on an Exercise Date shall be deemed to have exercised his or her Option on such date and shall acquire from the Company such number of whole shares of Common Stock reserved for the purpose of the Plan as his or her accumulated payroll deductions or contributions on such date will purchase at the Option Price, subject to any other limitations contained in the Plan. Unless otherwise determined by the Administrator in advance of an Offering, any amount remaining in a Participant's account after the purchase of shares on an Exercise Date of an Offering solely by reason of the inability to purchase a fractional share will be carried forward to the next Purchase Period; provided, that if such Exercise Date is the final Exercise Date of an Offering, such amount will be carried forward to the next Offering and any other balance remaining in a Participant's account at the end of an Offering will be refunded to the Participant promptly.

10. Issuance of Certificates. Certificates or book-entries at the Company's transfer agent representing shares of Common Stock purchased under the Plan may be issued only in the name of the employee, in the name of the employee and another person of legal age as joint tenants with rights of survivorship, or in the name of a broker authorized by the employee to be his, her or their, nominee for such purpose.

11. Definitions.

The term "*Affiliate*" means any entity that, directly or indirectly through one or more intermediaries, controls, is controlled by or is under the common control with the Company.

The term "*Closing Date*" means the date of the closing (the "Closing") of the transactions contemplated by that certain Agreement and Plan of Merger by and among Homology Medicines, Inc., the Company and Kenobi Merger Sub, dated as of November 16, 2023.

The term "*Compensation*" means the amount of base pay, prior to salary reduction such as pursuant to Sections 125, 132(f) or 401(k) of the Code, but excluding overtime, commissions, incentive or bonus awards, allowances and reimbursements for expenses such as relocation allowances or travel expenses, income or gains related to Company stock options or other share-based awards, and similar items. The Administrator shall have the discretion to determine the application of this definition to Participants outside the United States.

The term "*Designated Company*" means any present or future Affiliate or Subsidiary that has been designated by the Administrator to participate in the Plan. The Administrator may so designate any Subsidiary or Affiliate, or revoke any such designation, at any time and from time to time, either before or after the Plan is approved by the stockholders, and may further designate such companies or Participants as participating in the 423 Component or the Non-423 Component. The Administrator may also determine which affiliates or eligible employees may be excluded from participation in the Plan, to the extent consistent with Section 423 of the Code or as implemented under the Non-423 Component, and determine which Designated Company or Companies will participate in separate Offerings (to the extent that the Company makes separate Offerings). For purposes of the 423 Component, only the Company and its Subsidiaries may be Designated Companies; provided, however, that at any given time, a Subsidiary that is a Designated Company under the 423 Component will not be a Designated Company under the Non-423 Component. The current list of Designated Companies is attached hereto as Appendix A.

The term "*Effective Date*" means the date on which the Plan becomes effective as set forth in Section 26.

The term "*Fair Market Value of the Common Stock*" on any given date means the fair market value of the Common Stock determined in good faith by the Administrator; provided, however, that if the Common Stock is listed on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ Global Market, The New York Stock Exchange or another national securities exchange or traded on any established market, the determination shall be made by reference to the closing price. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price.

The term "*New Exercise Date*" means a new Exercise Date if the Administrator shortens any Offering then in progress.

The term "*Parent*" means a "parent corporation" with respect to the Company, as defined in Section 424(e) of the Code.

The term "*Participant*" means an individual who is eligible as determined in Section 3 and who has complied with the provisions of Section 4.

The term "*Purchase Period*" means a period of time specified within an Offering beginning on the Offering Date or on the next day following an Exercise Date within an Offering and ending on an Exercise Date. An Offering may consist of one or more Purchase Periods.

The term "*Sale Event*" means (i) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (ii) a merger, reorganization, statutory share exchange, consolidation, or similar transaction pursuant to which the holders of the Company's outstanding voting power and outstanding stock immediately prior to such transaction do not own a majority of the outstanding voting power and outstanding stock or other equity interests of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction, (iii) the sale of all of the Common Stock to an unrelated person, entity or group thereof acting in concert, (iv) any other transaction in which the owners of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the Company or any successor entity immediately upon completion of the transaction other than as a result of the acquisition of securities directly from the Company, or (v) the approval by the stockholders of the Company of a complete liquidation or dissolution of the Company.

The term "*Subsidiary*" means a "subsidiary corporation" with respect to the Company, as defined in Section 424(f) of the Code.

12. Rights on Termination or Transfer of Employment. If a Participant's employment terminates for any reason before the Exercise Date for any Offering, no payroll deduction or contributions will be taken from any pay due and owing to the Participant and the balance in the Participant's account will be paid to such Participant or, in the case of such Participant's death, if permitted by the Administrator and valid under applicable law, to his or her designated beneficiary or to the legal representative of his or her estate as if such Participant had withdrawn from the Plan under Section 7. An employee will be deemed to have terminated employment, for this purpose, if the corporation that employs him or her, having been a Designated Company, ceases to be a Subsidiary or Affiliate, or if the employee is transferred to any corporation other than the Company or a Designated Company. Unless otherwise determined by the Administrator, a Participant whose employment transfers between, or whose employment terminates with an immediate rehire (with no break in service) by, Designated Companies or a Designated Company and the Company will not be treated as having terminated employment for purposes of participating in the Plan or an Offering; provided, however, that if a Participant transfers from an Offering under the 423 Component to an Offering under the Non-423 Component, the exercise of the Participant's Option will be qualified under the 423 Component only to the extent that such exercise complies with Section 423 of the Code. If a Participant transfers from an Offering under the Non-423 Component to an Offering under the 423 Component, the exercise of the Participant's Option will remain non-qualified under the Non-423 Component. Further, an employee will not be deemed to have terminated employment for purposes of this Section 12, if the employee is on an approved leave of absence where the employee's right to reemployment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise provides in writing.

13. Special Rules and Sub-Plans. Notwithstanding anything herein to the contrary, the Administrator may adopt special rules or sub-plans applicable to the employees of a particular Designated Company, whenever the Administrator determines that such rules are necessary or appropriate for the implementation of the Plan in a jurisdiction where such Designated Company has employees, regarding, without limitation, eligibility to participate in

the Plan, handling and making of payroll deductions or contributions by other means, establishment of bank or trust accounts to hold payroll deductions or contributions, payment of interest, conversion of local currency, obligation to pay payroll tax, withholding procedures and handling of share issuances, any of which may vary according to applicable requirements; provided that if such special rules or sub-plans are inconsistent with the requirements of Section 423(b) of the Code the employees subject to such special rules or sub-plans will participate in the Non-423 Component.

14. Optionees Not Stockholders. Neither the granting of an Option to a Participant nor the deductions or contributions from his or her pay shall result in such Participant becoming a holder of the shares of Common Stock covered by an Option under the Plan until such shares have been purchased by and issued to him or her.

15. Rights Not Transferable. Rights under the Plan are not transferable by a Participant other than by will or the laws of descent and distribution, and are exercisable during the Participant's lifetime only by the Participant.

16. Application of Funds. All funds received or held by the Company under the Plan may be combined with other corporate funds and may be used for any corporate purpose, unless otherwise required under applicable law.

17. Adjustment in Case of Changes Affecting Common Stock. In the event of a subdivision of outstanding shares of Common Stock, the payment of a dividend in Common Stock or any other change affecting the Common Stock, the number of shares approved for the Plan and the share limitation set forth in Section 8 shall be equitably or proportionately adjusted to give proper effect to such event. In the case of and subject to the consummation of a Sale Event, the Administrator, in its discretion, and on such terms and conditions as it deems appropriate, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent the dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any right under the Plan or to facilitate such transactions or events:

(a) To provide for either (i) termination of any outstanding Option in exchange for an amount of cash, if any, equal to the amount that would have been obtained upon the exercise of such Option had such Option been currently exercisable or (ii) the replacement of such outstanding Option with other options or property selected by the Administrator in its sole discretion.

(b) To provide that the outstanding Options under the Plan shall be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for similar options covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices.

(c) To make adjustments in the number and type of shares of Common Stock (or other securities or property) subject to outstanding Options under the Plan and/or in the terms and conditions of outstanding Options and Options that may be granted in the future.

(d) To provide that the Offering with respect to which an Option relates will be shortened by setting a New Exercise Date on which such Offering will end. The New Exercise Date will occur before the date of the Sale Event. The Administrator will notify each Participant in writing or electronically prior to the New Exercise Date, that the Exercise Date for the Participant's Option has been changed to the New Exercise Date and that the Participant's Option will be exercised automatically on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Offering as provided in Section 7 hereof.

(e) To provide that all outstanding Options shall terminate without being exercised and all amounts in the accounts of Participants shall be promptly refunded.

18. Amendment of the Plan. The Board may at any time and from time to time amend the Plan in any respect, except that, without the approval within 12 months of such Board action by the stockholders, no amendment shall be made increasing the number of shares approved for the 423 Component of the Plan or making any other change that would require stockholder approval in order for the Plan, as amended, to qualify as an "employee stock purchase plan" under Section 423(b) of the Code.

19. Insufficient Shares. If the total number of shares of Common Stock that would otherwise be purchased on any Exercise Date plus the number of shares purchased under previous Offerings under the Plan exceeds the maximum number of shares issuable under the Plan, the shares then available shall be apportioned among Participants in proportion to the amount of payroll deductions or contributions accumulated on behalf of each Participant that would otherwise be used to purchase Common Stock on such Exercise Date.

20. Termination of the Plan. The Plan may be terminated at any time by the Board. Upon termination of the Plan, all amounts in the accounts of Participants shall be promptly refunded. Unless terminated earlier, the Plan shall automatically terminate on the ten year anniversary of the Effective Date.

21. Compliance with Law. The Company's obligation to sell and deliver Common Stock under the Plan is subject to applicable laws and the completion of any registration or qualification of the Common Stock under any U.S. or non-U.S. local, state or federal securities or exchange control law, or under rulings or regulations of the SEC or of any other governmental regulatory body, and to obtaining any approval or other clearance from any U.S. and non-U.S. local, state or federal governmental agency, which registration, qualification or approval the Company shall, in its absolute discretion, deem necessary or advisable. The Company is under no obligation to register or qualify the Common Stock with the SEC or any other U.S. or non-U.S. securities commission or to seek approval or clearance from any governmental authority for the issuance or sale of such stock.

22. Governing Law. This Plan and all Options and actions taken thereunder shall be governed by, and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the State of Delaware applied without regard to conflict of law principles.

23. Issuance of Shares. Shares may be issued upon exercise of an Option from authorized but unissued Common Stock, from shares held in the treasury of the Company, or from any other proper source.

24. Tax Withholding. Participation in the Plan is subject to any applicable U.S. and non-U.S. federal, state or local tax withholding requirements on income the Participant realizes in connection with the Plan. Each Participant agrees, by entering the Plan, that the Company or any Subsidiary or Affiliate may withhold from a Participant's wages, salary or other compensation at any time the amount necessary for the Company or any Subsidiary or Affiliate to meet applicable withholding obligations, including any withholding required to make available to the Company or any Subsidiary or Affiliate any tax deductions or benefits attributable to the sale or disposition of Common Stock by such Participant. In addition, the Company or any Subsidiary or Affiliate may withhold from the proceeds of the sale of Common Stock or use any other method of withholding that the Company or any Subsidiary or Affiliate deems appropriate to the extent permitted by U.S. Treasury Regulation Section 1.423-2(f) with respect to the 423 Component. The Company will not be required to issue any Common Stock under the Plan until such obligations are satisfied.

25. Notification Upon Sale of Shares under the 423 Component. Each Participant agrees, by entering the 423 Component of the Plan, to give the Company prompt notice of any disposition of shares purchased under the Plan where such disposition occurs within two years after the date of grant of the Option pursuant to which such shares were purchased or within one year after the date such shares were purchased.

26. Effective Date and Approval of Stockholders. The Plan shall take effect on the Closing Date subject to approval by the holders of a majority of the votes cast at a meeting of stockholders at which a quorum is present or by written consent of the stockholders.

27. Equal Rights and Privileges. Notwithstanding any provision of the Plan to the contrary and in accordance with Section 423 of the Code for the 423 Component of the Plan, all eligible employees who are granted options under the Plan shall have the same rights and privileges.

28. No Right to Continued Service. Neither the Plan nor any compensation paid hereunder will confer on any Participant the right to continue as an employee or in any other capacity.

29. Entire Plan. This Plan constitutes the entire plan with respect to the subject matter hereof and supersedes all prior plans with respect to the subject matter hereof.

DATE APPROVED BY BOARD OF DIRECTORS: February 11, 2024

DATE APPROVED BY STOCKHOLDERS: March 15, 2024

Q32 BIO INC.
NON-EMPLOYEE DIRECTOR COMPENSATION POLICY

The purpose of this Non-Employee Director Compensation Policy (the "Policy") of Q32 Bio Inc. (the "Company") is to provide a total compensation package that enables the Company to attract and retain, on a long-term basis, high-caliber directors who are not employees or officers of the Company or its subsidiaries ("Outside Directors"). This Policy will become effective as of [March 22, 2024] (the "Effective Date"). In furtherance of the purpose stated above, all Outside Directors shall be paid compensation for services provided to the Company as set forth below:

Cash Retainers

Annual Retainer for Board Membership: $40,000 for general availability and participation in meetings and conference calls of our Board of Directors, to be paid quarterly in arrears, pro-rated based on the number of actual days served by the director during such calendar quarter. No additional compensation will be paid for attending individual meetings of the Board of Directors.

Additional Annual Retainer for Non-Executive Chair:	$33,500
Additional Annual Retainers for Committee Membership:	
Audit Committee Chair:	$19,000
Audit Committee member:	$ 9,500
Compensation Committee Chair:	$12,000
Compensation Committee member:	$ 6,000
Nominating and Corporate Governance Committee Chair:	$10,000
Nominating and Corporate Governance Committee member:	$ 5,000
Research and Development Committee Chair:	$10,000
Research and Development Committee member:	$ 5,000

Chair and committee member retainers are in addition to retainers for members of the Board of Directors. No additional compensation will be paid for attending individual committee meetings of the Board of Directors.

In lieu of receiving cash for her or his Annual Retainer, each non-employee director may elect to receive all (but not a portion) of her or his Annual Retainer in the form of an equity award of a stock option to purchase that number of shares of the Company's common stock, par value $0.0001 per share (the "Common Stock") with a grant date fair value (based on the Black-Scholes option-pricing model), determined in accordance with the reasonable assumptions and

methodologies employed by the Company for calculating the fair value of options under ASC 718. Any such election shall be made (i) for any continuing non-employee director, during the month of December that is before the start of the calendar year with respect to any cash compensation for such calendar year and (ii) for any new non-employee director, within 30 days of her or his election to the Board of Directors; provided that, with respect to calendar year 2024, non-employee directors of the Board as of the Effective Date may make any such election within 30 days following the Effective Date for the portion of the Annual Retainer to be earned in 2024 on or following the date of their election. Any election (A) shall be irrevocable with respect to such calendar year and (B) shall automatically apply to the Annual Retainer for each subsequent calendar year unless otherwise revoked prior to the start of such calendar year. Each such stock option shall be granted effective January 15 of the applicable year (or April 1, in the case of 2024) (noting that if any such date is not a trading day, the next trading day shall be the grant date) and shall vest in four equal quarterly installments as of the last date of each calendar quarter subject to the non-employee director's continued board service through such date (other than the stock options granted in 2024, which shall vest in three equal installments as of the last day of each remaining calendar quarter of 2024).

Equity Retainers

All grants of equity retainer awards to Outside Directors pursuant to this Policy will be automatic and nondiscretionary and will be made in accordance with the following provisions:

Initial Award: Upon his or her initial appointment or election to the Board of Directors, each Outside Director will receive an initial, one-time stock option award (the "Initial Award") with a Value (as defined below) of $228,000, which shall vest as follows: one-third on the first anniversary of the grant date with the remainder in equal monthly installments over the following two years, provided, however, that all vesting shall cease if the director ceases to have a Service Relationship (as defined in the Company's 2024 Stock Option and Incentive Plan). The Initial Award shall expire ten years from the date of grant, and shall have a per share exercise price equal to the Fair Market Value (as defined in the Company's 2024 Stock Option and Incentive Plan) of the Company's common stock on the date of grant. This Initial Award applies only to Outside Directors who are first elected to the Board of Directors subsequent to the Effective Date.

Annual Award: On each date of each Annual Meeting of Stockholders of the Company following the Effective Date (the "Annual Meeting"), each continuing Outside Director, other than a director receiving an Initial Award, will receive an annual stock option award (the "Annual Award") with a Value of $114,000, which shall vest in full upon the earlier of (i) the first anniversary of the date of grant or (ii) the date of the next Annual Meeting; provided, however, that all vesting shall cease if the director ceases to have a Service Relationship, unless the Board of Directors determines that the circumstances warrant continuation of vesting. Such Annual Award shall expire ten years from the date of grant, and shall have a per share exercise price equal to the Fair Market Value of the Company's common stock on the date of grant.

Value: For purposes of this Policy, "Value" means with respect to any stock option award, the grant date fair value of the option (i.e., Black-Scholes Value) determined in accordance with the reasonable assumptions and methodologies employed by the Company for calculating the fair value of options under Financial Accounting Standard Board ("FASB") Accounting Standards Codification ("ASC") Topic 718.

Sale Event Acceleration: All outstanding Initial Awards and Annual Awards held by an Outside Director shall become fully vested and exercisable upon a Sale Event (as defined in the Company's 2024 Stock Option and Incentive Plan).

Expenses

The Company will reimburse all reasonable out-of-pocket expenses incurred by non-employee directors in attending meetings of the Board of Directors or any committee thereof.

Maximum Annual Compensation

The aggregate amount of compensation, including both equity compensation and cash compensation, paid by the Company to any Outside Director in a calendar year for services as an Outside Director period shall not exceed $750,000; provided, however, that such amount shall be $1,000,000 for the calendar year in which the applicable Outside Director is initially elected or appointed to the Board of Directors; (or such other limits as may be set forth in Section 3(b) of the Company's 2024 Stock Option and Incentive Plan or any similar provision of a successor plan). For this purpose, the "amount" of equity compensation paid in a calendar year shall be determined based on the grant date fair value thereof, as determined in accordance with FASB ASC Topic 718 or its successor provision, but excluding the impact of estimated forfeitures related to service-based vesting conditions.

Adopted March 25, 2024.

Q32 BIO INC.
SENIOR EXECUTIVE CASH INCENTIVE BONUS PLAN

1. Purpose

This Senior Executive Cash Incentive Bonus Plan (the "Incentive Plan") is intended to provide an incentive for superior work and to motivate eligible executives of Q32 Bio Inc. (the "Company") and its subsidiaries toward even higher achievement and business results, to tie their goals and interests to those of the Company and its stockholders and to enable the Company to attract and retain highly qualified executives. The Incentive Plan is for the benefit of Covered Executives (as defined below).

2. Covered Executives

From time to time, the Compensation Committee of the Board of Directors of the Company (the "Compensation Committee") may select certain key executives (the "Covered Executives") to be eligible to receive bonuses hereunder. Participation in the Incentive Plan does not change the "at will" nature of a Covered Executive's employment with the Company.

3. Administration

The Compensation Committee shall have the sole discretion and authority to administer and interpret the Incentive Plan.

4. Bonus Determinations

(a) Corporate Performance Goals. A Covered Executive may receive a bonus payment under the Incentive Plan based upon the attainment of one or more performance objectives that are established by the Compensation Committee in its sole discretion and relate to financial and operational metrics with respect to the Company or any of its subsidiaries (the "Corporate Performance Goals"), including the following: developmental, publication, clinical or regulatory milestones; cash flow (including, but not limited to, operating cash flow and free cash flow); revenue; corporate revenue; earnings before interest, taxes, depreciation and amortization; net income (loss) (either before or after interest, taxes, depreciation and/or amortization); changes in the market price of the Company's common stock; economic value-added; acquisitions, licenses or strategic transactions; financing or other capital raising transactions; operating income (loss); return on capital, assets, equity, or investment; stockholder returns; return on sales; total stockholder return; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings (loss) per share of the Company's common stock; bookings, new bookings or renewals; sales or market shares; number of prescriptions or prescribing physicians; coverage decisions; leadership development, employee retention, and recruiting and other human resources matters; operating income and/or net annual recurring revenue; or any other performance goal selected by the Compensation Committee any of which may be (A) measured in absolute terms or compared to any incremental increase, (B) measured in terms of growth, (C) compared to another company or companies or to results of a peer group, (D) measured against the market as a whole and/or as compared to applicable market indices and/or (E) measured on a pre-tax or post-tax basis (if applicable). Further, any Corporate Performance Goals may be used to measure the performance of the Company as a whole or a business unit or other segment of the Company, or one or more product lines or specific markets. The Corporate Performance Goals may differ from Covered Executive to Covered Executive and from performance period to performance period.

(b) Calculation of Corporate Performance Goals. At the beginning of each applicable performance period, the Compensation Committee will determine whether any significant element(s) will be included in or excluded from the calculation of any Corporate Performance Goal with respect to any Covered Executive. In all other respects, Corporate Performance Goals will be calculated in accordance with the Company's financial statements, generally accepted accounting principles, or under a methodology established by the Compensation Committee at the beginning of the performance period and which is consistently applied with respect to a Corporate Performance Goal in the relevant performance period.

(c) Target; Minimum; Maximum. Each Corporate Performance Goal shall have a "target" (i.e., 100 percent attainment of the Corporate Performance Goal) and may also have a "minimum" hurdle and/or a "maximum" amount.

(d) Bonus Requirements; Individual Goals. Except as otherwise set forth in this Section 4(d): (i) any bonuses paid to Covered Executives under the Incentive Plan shall be based upon objectively determinable bonus formulas that tie such bonuses to one or more performance targets relating to the Corporate Performance Goals, (ii) bonus formulas for Covered Executives shall be adopted in each performance period by the Compensation Committee and communicated to each Covered Executive at the beginning of each performance period and (iii) no bonuses shall be paid to Covered Executives unless and until the Compensation Committee makes a determination with respect to the attainment of the performance targets relating to the Corporate Performance Goals. Notwithstanding the foregoing, the Compensation Committee may adjust bonuses payable under the Incentive Plan based on achievement of one or more individual performance objectives or pay bonuses (including, without limitation, discretionary bonuses) to Covered Executives under the Incentive Plan based on individual performance goals and/or upon such other terms and conditions as the Compensation Committee may in its discretion determine.

(e) Individual Target Bonuses. The Compensation Committee shall establish a target bonus opportunity for each Covered Executive for each performance period. For each Covered Executive, the Compensation Committee shall have the authority to apportion the target award so that a portion of the target award shall be tied to attainment of Corporate Performance Goals and a portion of the target award shall be tied to attainment of individual performance objectives.

(f) Employment Requirement. Subject to any additional terms contained in a written agreement between the Covered Executive and the Company or unless otherwise determined by the Compensation Committee, the payment of a bonus to a Covered Executive with respect to a performance period shall be conditioned upon the Covered Executive's employment by the Company on the bonus payment date. If a Covered Executive was not employed for an entire performance period, the Compensation Committee may pro rate the bonus based on the number of days employed during such period.

5. Timing of Payment

(a) With respect to Corporate Performance Goals established and measured on a basis more frequently than annually (e.g., quarterly or semi-annually), the Corporate Performance Goals will be measured at the end of each performance period. If the Corporate Performance Goals and/or individual goals for such period are met, payments will be made as soon as practicable following the end of such period, but not later than March 15 following the end of the fiscal year in which such performance period ends, unless otherwise determined by the Compensation Committee,.

(b) With respect to Corporate Performance Goals established and measured on an annual or multi-year basis, Corporate Performance Goals will be measured as of the end of each such performance period (e.g., the end of each fiscal year). If the Corporate Performance Goals and/or individual goals for any such period are met, bonus payments will be made as soon as practicable, but not later than two and one-half months after the end of the relevant fiscal year, unless otherwise determined by the Compensation Committee.

(c) For the avoidance of doubt, unless otherwise determined by the Compensation Committee, bonuses earned at any time in a fiscal year must be paid no later than March 15 following the fiscal year in which the such bonuses are earned.

6. Amendment and Termination

The Company reserves the right to amend or terminate the Incentive Plan at any time in its sole discretion.

7. Company Recoupment Rights

A Covered Executive's rights with respect to any award granted pursuant to the Incentive Plan shall in all events be subject to reduction, cancellation, forfeiture or recoupment to the extent necessary to comply with (i) any right that the Company may have under any Company clawback, forfeiture or recoupment policy as in effect from time to time or other agreement or arrangement with a Covered Executive, or (ii) applicable law.

Adopted March 25, 2024.

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 5.3 AND 5.4 BELOW, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: Q32 Bio Inc., a Delaware corporation
Number of Shares: 166,371, subject to adjustment
Type/Series of Stock: Common Stock, $0.0001 par value per share
Warrant Price: $0.33 per Share, subject to adjustment
Issue Date: December 11, 2020
Expiration Date: December 10, 2030 **See also Section 5.1(b).**
Credit Facility: This Warrant to Purchase Stock ("**Warrant**") is issued in connection with that certain Loan and Security Agreement of even date herewith between Silicon Valley Bank and the Company (as amended and/or modified and in effect from time to time, the "**Loan Agreement**").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase the number of fully paid and non-assessable shares (the "**Shares**") of the above-stated Type/Series of Stock (the "**Class**" or "**Common Stock**") of the above-named company (the "**Company**") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant. Reference is made to Section 5.4 of this Warrant whereby Silicon Valley Bank shall transfer this Warrant to its parent company, SVB Financial Group.

SECTION 1. EXERCISE.

1.1 Method of Exercise. Holder may at any time and from time to time exercise this Warrant, in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased. Notwithstanding any contrary provision herein, if this Warrant was originally executed and/or delivered electronically, in no event shall Holder be required to surrender or deliver an ink-signed paper copy of this Warrant in connection with its exercise hereof or of any rights hereunder, nor shall Holder be required to surrender or deliver a paper or other physical copy of this Warrant in connection with any exercise hereof.

1.2 Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

$$X = Y(A-B)/A$$

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the Fair Market Value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3 Fair Market Value. If shares of the Class are then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**"), the fair market value of a Share shall be the closing price or last sale price of a share of the Class reported for the Business Day immediately before the date on which Holder delivers its Notice of Exercise to the Company. If shares of the Class are not then traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5 Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within a reasonable time, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount.

1.6 Treatment of Warrant Upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company; (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected exclusively to change the Company's domicile), or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization (or, if such Company stockholders

beneficially own a majority of the outstanding voting power of the surviving or successor entity as of immediately after such merger, consolidation or reorganization, such surviving or successor entity is not the Company); or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), and the fair market value of one Share as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date immediately prior to such Cash/Public Acquisition, and Holder has not exercised this Warrant pursuant to Section 1.1 above as to all Shares, then this Warrant shall automatically be deemed to be Cashless Exercised pursuant to Section 1.2 above as to all Shares effective immediately prior to and contingent upon the consummation of a Cash/Public Acquisition. In connection with such Cashless Exercise, Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as of the date thereof and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon exercise. In the event of a Cash/Public Acquisition where the fair market value of one Share as determined in accordance with Section 1.3 above would be less than the Warrant Price in effect immediately prior to such Cash/Public Acquisition, then this Warrant will expire immediately prior to the consummation of such Cash/Public Acquisition.

(c) Upon the closing of any Acquisition other than a Cash/Public Acquisition, the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and/or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(d) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in a Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition.

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in additional shares of the Class or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification

or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations, substitutions, replacements or other similar events.

2.3 No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Warrant Price.

2.4 Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Executive Officer or Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the fair market value of a share of the Class as determined by the most recently completed valuation, approved or accepted by the Company's Board of Directors, of a share of the Class for purposes of the Company's compliance with Section 409A of the Internal Revenue Code of 1986, as amended (or the corresponding section of any successor statute) (a "**409A Valuation**").

(b) The number of Shares for which this Warrant is exercisable on and as of the Issue Date hereof represents not less than 0.150% of the Company's total issued and outstanding shares of capital stock, calculated on and as of the Issue Date hereof on a fully-diluted, Common Stock-equivalent basis (but without excluding shares of capital stock that are not convertible into shares of Common Stock) assuming (i) the conversion into Common Stock of all outstanding securities and instruments (including, without limitation, securities deemed to be outstanding pursuant to clause (ii) of this Section 3.1(b)) convertible by their terms into shares of Common Stock (regardless of whether such securities or instruments are by their terms now so convertible), (ii) the exercise in full of all outstanding

options, warrants (including, without limitation, this Warrant) and other rights to purchase or acquire shares of Common Stock or securities exercisable for or convertible into shares of Common Stock (regardless of whether such options, warrants or other rights to purchase or acquire are by their terms now exercisable); and (iii) the inclusion of all shares of Common Stock reserved for issuance under all of the Company's incentive stock and stock option plans and not now subject to outstanding grants or options.

(c) All Shares which may be issued upon the exercise of this Warrant shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class and other securities as will be sufficient to permit the exercise in full of this Warrant.

(d) The Company's capitalization table attached hereto as Schedule 1 is true and complete, in all material respects, as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class;

(d) effect an Acquisition or to liquidate, dissolve or wind up; or

(e) effect its initial, underwritten offering and sale of its securities to the public pursuant to an effective registration statement under the Act (the "**IPO**");

then, in connection with each such event, the Company shall give Holder:

(1) in the case of the matters referred to in (a) and (b) above, at least seven (7) Business Days prior written notice of the earlier to occur of the effective date thereof or the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any;

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event and such reasonable information as Holder may reasonably require regarding the treatment of this Warrant in connection with such event giving rise to the notice); and

(3) with respect to the IPO, at least seven (7) Business Days prior written notice of the date on which the Company proposes to publicly file its registration statement in connection therewith.

The Company will also provide information requested by Holder from time to time, within a reasonable time following each such request, that is reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements. Prior to the IPO, such information may include, but shall not be limited to, the Company's then-current summary capitalization table, the price per share for which the Company most recently prior thereto sold or issued shares of its convertible preferred stock to investors for cash in a bona fide equity financing of the Company, and the Company's most recent 409A Valuation. Holder agrees to treat and hold all information provided by the Company pursuant to this Warrant in confidence in accordance with the provisions of Section 12.9 of the Loan Agreement (regardless of whether the Loan Agreement shall then be in effect).

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the Shares to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 No Voting Rights. Holder, as a Holder of this Warrant, will not have any voting rights until the exercise of this Warrant.

SECTION 5. MISCELLANEOUS.

5.1 Term; Automatic Cashless Exercise Upon Expiration.

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before 6:00 PM, Pacific time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares issued upon such exercise to Holder.

5.2 Legends. Each certificate evidencing Shares shall be imprinted with a legend in substantially the following form:

THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO SILICON VALLEY BANK DATED DECEMBER 11, 2020, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issued upon exercise of this Warrant may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

5.4 Transfer Procedure. After receipt by Silicon Valley Bank of the executed Warrant, Silicon Valley Bank will transfer all of this Warrant to its parent company, SVB Financial Group. By its acceptance of this Warrant, SVB Financial Group hereby makes to the Company each of the representations and warranties set forth in Section 4 hereof and agrees to be bound by all of the terms and conditions of this Warrant as if the original Holder hereof. Subject to the provisions of Section 5.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issued upon exercise of this Warrant to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant and/or Shares being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any subsequent transferee other than SVB Financial Group shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant. Notwithstanding any contrary provision herein, at all times prior to the IPO, Holder may not, without the Company's prior written consent, transfer this Warrant or any portion hereof, or any Shares issued upon any exercise hereof, to any person or entity who directly competes with the Company, except in connection with an Acquisition of the Company by such a direct competitor.

5.5 Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by facsimile or electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 5.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group
Attn: Treasury Department
3003 Tasman Drive, HC 215
Santa Clara, CA 95054
Telephone: (408) 654-7400
Facsimile: (408) 988-8317
Email address: svbfgwarrants@svb.com

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Q32 Bio Inc.
Attn: Chief Executive Officer
One Broadway, 11th Floor
Cambridge, MA 02142 Telephone:
Facsimile:
Email:

With a copy (which shall not constitute notice) to:

Goodwin Procter LLP
Attn: Laurie Burlingame
100 Northern Avenue
Boston, MA 02110
Telephone: 617-570-1879 Facsimile:
Email: lburlingame@goodwinlaw.com

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed by one or more of the parties hereto in any number of separate counterparts, all of which together shall constitute one and the same instrument. The Company, Holder and any other party hereto may execute this Warrant by electronic means and each party hereto recognizes and accepts the use of electronic signatures and the keeping of records in electronic form by any other party hereto in connection with the execution and storage hereof. To the extent that this Warrant or any agreement subject to the terms hereof or any amendment hereto is executed, recorded or delivered electronically, it shall be binding to the same extent as though it had been executed on paper with an original ink signature, as provided under applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act. The fact that this Warrant is executed, signed, stored or delivered electronically shall not prevent the transfer by any Holder of this Warrant pursuant to Section or the enforcement of the terms hereof.

5.9 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

5.10 Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which Silicon Valley Bank is closed.

SECTION 6. GOVERNING LAW, VENUE, JURY TRIAL WAIVER, AND JUDICIAL REFERENCE.

6.1 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to its principles regarding conflicts of law.

6.2 Jurisdiction and Venue. The Company and Holder each submit to the exclusive jurisdiction of the State and Federal courts in Suffolk County or Middlesex County, Massachusetts; provided, however, that nothing in this Warrant shall be deemed to operate to preclude Holder from bringing suit or taking other legal action in any other jurisdiction to enforce a judgment or other court order in favor of Holder. The Company expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and the Company hereby waives any objection that it

may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. The Company hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made in accordance with Section 5.5 of this Warrant.

6.3 Jury Trial Waiver. **TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE COMPANY AND HOLDER EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS WARRANT, THE LOAN AGREEMENT OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR THE PARTIES' AGREEMENT TO THIS WARRANT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL**.

6.4 Survival. This Section 6 shall survive the termination of this Warrant.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"

Q32 BIO INC.

By: /s/ Michael Broxson
Name: Michael Broxson
Title: Chief Executive Officer, Secretary

"HOLDER"

SILICON VALLEY BANK

By: /s/ Lauren Cole
Name: Lauren Cole
Title: Director

APPENDIX 1

NOTICE OF EXERCISE

1. The undersigned Holder hereby exercises its right to purchase_____shares of the Common/Series_____Preferred [circle one] Stock_____of (the "**Company**") in accordance with the attached Warrant To Purchase Stock, and tenders payment of the aggregate Warrant Price for such shares as follows:

[ ] check in the amount of $_____ payable to order of the Company enclosed herewith

[ ] Wire transfer of immediately available funds to the Company's account

[ ] Cashless Exercise pursuant to Section 1.2 of the Warrant

[ ] Other [Describe] _____

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Section 4 of the Warrant to Purchase Stock as of the date hereof.

HOLDER:

_____

By: _____

Name: _____

Title: _____

(Date): _____

SCHEDULE 1

Company Capitalization Table

[Omitted]

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 5.3 AND 5.4 BELOW, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: Q32 Bio Inc., a Delaware corporation
Number of Shares: As set forth in Paragraph A below
Type/Series of Stock: Common Stock, $0.0001 par value per share
Warrant Price: $0.36 per Share, subject to adjustment
Issue Date: July 12, 2023
Expiration Date: July 11, 2033 **See also Section 5.1(b).**
Credit Facility: This Warrant to Purchase Stock ("**Warrant**") is issued in connection with that certain Sixth Amendment, of even date herewith, between Silicon Valley Bank, a division of First-Citizens Bank & Trust Company (successor by purchase to the Federal Deposit Insurance Corporation as receiver for Silicon Valley Bridge Bank, N.A. (as successor to Silicon Valley Bank)) and the Company, to that certain Loan and Security Agreement dated December 11, 2020, between Silicon Valley Bank and the Company, as amended (collectively, and as may be further amended and/or modified and in effect from time to time, the "**Loan Agreement**").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK, A DIVISION OF FIRST-CITIZENS BANK & TRUST COMPANY (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase up to the number of fully paid and non-assessable shares of the above-stated Type/Series of Stock (the "**Class**" or "**Common Stock**") of the above-named company (the "**Company**") determined pursuant to Paragraph A below, at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant.

A. Number of Shares. This Warrant shall be exercisable for the Advance Shares, if any, plus the Milestone Shares, if any (collectively, and as may be adjusted from time to time in accordance with the provisions of this Warrant, the "**Shares**").

(1) Advance Shares. Upon the making of each 2023 Term Loan Advance (as defined in the Loan Agreement) to the Company, this Warrant automatically shall become exercisable for such number of shares of the Class as shall equal (a) the Advance Shares Pool, multiplied by (b) a fraction, the numerator of which shall equal the amount of such 2023 Term Loan Advance and the denominator of which shall equal $25,000,000, subject to adjustment thereafter from time to time in accordance with the provisions of this Warrant. All shares, if any, for which this Warrant becomes exercisable pursuant to this Paragraph A(1) are referred to herein cumulatively and collectively, and as may be adjusted from time to time in accordance with the provisions of this Warrant, as the "**Advance Shares**." As used herein, "**Advance Shares Pool**" means 105,764 shares of the Class, as such number may be adjusted from time to time in accordance with the provisions of this Warrant (as if the Advance Shares Pool constituted "Shares" hereunder for such purpose at all times from the Issue Date).

(2) Milestone Shares. Upon the occurrence, if any, of the 2023 Term B Milestone Event (as defined in the Loan Agreement) to the Company, this Warrant automatically shall become exercisable for an additional 105,764 shares of the Class, as such number may be adjusted from time to time in accordance with the provisions of this Warrant (the "**Milestone Shares**"), including, without limitation, adjustments in respect of events occurring prior to the date, if any, on which this Warrant becomes exercisable for such shares as if they constituted "Shares" hereunder for such purpose at all times from the Issue Date.

SECTION 1. EXERCISE.

1.1 Method of Exercise. Holder may at any time and from time to time exercise this Warrant, in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased. Notwithstanding any contrary provision herein, if this Warrant was originally executed and/or delivered electronically, in no event shall Holder be required to surrender or deliver an ink-signed paper copy of this Warrant in connection with its exercise hereof or of any rights hereunder, nor shall Holder be required to surrender or deliver a paper or other physical copy of this Warrant in connection with any exercise hereof.

1.2 Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

$$X = Y(A-B)/A$$

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the Fair Market Value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3 Fair Market Value. If shares of the Class are then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**"), the fair market value of a Share shall be the closing price or last sale price of a share of the Class reported for the Business Day immediately before the date on which Holder delivers its Notice of Exercise to the Company. If shares of the Class are not then traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5 Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within a reasonable time, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount.

1.6 Treatment of Warrant Upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company; (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected exclusively to change the Company's domicile), or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization (or, if such Company stockholders beneficially own a majority of the outstanding voting power of the surviving or successor entity as of immediately after such merger, consolidation or reorganization, such surviving or successor entity is not the Company); or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), and the fair market value of one Share as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date immediately prior to such Cash/Public Acquisition, and Holder has not exercised this Warrant pursuant to Section 1.1 above as to all Shares, then this Warrant shall automatically be deemed to be Cashless Exercised pursuant to Section 1.2 above as to all Shares effective immediately prior to and contingent upon the consummation of a Cash/Public Acquisition. In connection with such Cashless Exercise, Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as of the date thereof and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon exercise. In the event of a Cash/Public Acquisition where the fair market value of one Share as determined in accordance with Section 1.3 above would be less than the Warrant Price in effect immediately prior to such Cash/Public Acquisition, then this Warrant will expire immediately prior to the consummation of such Cash/Public Acquisition.

(c) Upon the closing of any Acquisition other than a Cash/Public Acquisition, the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and/or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(d) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in a Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition.

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in additional shares of the Class or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations, substitutions, replacements or other similar events.

2.3 No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Warrant Price.

2.4 Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Executive Officer or Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the fair market value of a share of the Class as determined by the most recently completed valuation, approved or accepted by the Company's Board of Directors, of a share of the Class for purposes of the Company's compliance with Section 409A of the Internal Revenue Code of 1986, as amended (or the corresponding section of any successor statute) (a "**409A Valuation**").

(b) The number of shares constituting the Advance Shares Pool first set forth above plus the number of Milestone Shares first set forth above collectively represent not less than 0.150% of the Company's total issued and outstanding shares of capital stock, calculated on and as of the Issue Date hereof on a fully-diluted, Common Stock-equivalent basis (but without excluding shares of capital stock that are not convertible into shares of Common Stock) assuming (i) the conversion into Common Stock of all outstanding securities and instruments (including, without limitation, securities deemed to be outstanding pursuant to clause (ii) of this Section 3.1(b)) convertible by their terms into shares of Common Stock (regardless of whether such securities or instruments are by their terms now so convertible), (ii) the exercise in full of all outstanding options, warrants (including, without limitation, this Warrant) and other rights to purchase or acquire shares of Common Stock or securities exercisable for or convertible into shares of Common Stock (regardless of whether such options, warrants or other rights to purchase or acquire are by their terms now exercisable); and (iii) the inclusion of all shares of Common Stock reserved for issuance under all of the Company's incentive stock and stock option plans and not now subject to outstanding grants or options.

(c) All Shares which may be issued upon the exercise of this Warrant shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class and other securities as will be sufficient to permit the exercise in full of this Warrant.

(d) The Company's capitalization table attached hereto as Schedule 1 is true and complete, in all material respects, as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class;

(d) effect an Acquisition or to liquidate, dissolve or wind up; or

(e) effect its initial, underwritten offering and sale of its securities to the public pursuant to an effective registration statement under the Act (the "**IPO**");

then, in connection with each such event, the Company shall give Holder:

(1) in the case of the matters referred to in (a) and (b) above, at least seven (7) Business Days prior written notice of the earlier to occur of the effective date thereof or the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any;

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event and such reasonable information as Holder may reasonably require regarding the treatment of this Warrant in connection with such event giving rise to the notice); and

(3) with respect to the IPO, at least seven (7) Business Days prior written notice of the date on which the Company proposes to publicly file its registration statement in connection therewith.

The Company will also provide information requested by Holder from time to time, within a reasonable time following each such request, that is reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements. Prior to the IPO, such information may include, but shall not be limited to, the Company's then-current summary capitalization table, the price per share for which the Company most recently prior thereto sold or issued shares of its convertible preferred stock to investors for cash in a bona fide equity financing of the Company, and the Company's most recent 409A Valuation. Holder agrees to treat and hold all information provided by the Company pursuant to this Warrant in confidence in accordance with the provisions of Section 12.9 of the Loan Agreement (regardless of whether the Loan Agreement shall then be in effect).

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the Shares to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 No Voting Rights. Holder, as a Holder of this Warrant, will not have any voting rights until the exercise of this Warrant.

SECTION 5. MISCELLANEOUS.

5.1 Term; Automatic Cashless Exercise Upon Expiration.

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before 6:00 PM, Pacific time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares issued upon such exercise to Holder.

5.2 Legends. Each certificate evidencing Shares shall be imprinted with a legend in substantially the following form:

THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO SILICON VALLEY BANK, A DIVISION OF FIRST-CITIZENS BANK & TRUST COMPANY DATED JULY 12, 2023, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issued upon exercise of this Warrant may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to an affiliate of Holder, provided that such affiliate is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

5.4 Transfer Procedure. Subject to the provisions of Section 5.3 and upon providing the Company with written notice, Holder may transfer all or part of this Warrant or the Shares issued upon exercise of this Warrant to any transferee, provided, however, in connection with any such transfer, Holder will give the Company notice of the portion of the Warrant and/or Shares being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any transferee shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant. Notwithstanding any contrary provision herein, at all times prior to the IPO, Holder may not, without the Company's prior written consent, transfer this Warrant or any portion hereof, or any Shares issued upon any exercise hereof, to any person or entity who directly competes with the Company, except in connection with an Acquisition of the Company by such a direct competitor.

5.5 Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by facsimile or electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 5.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

Silicon Valley Bank, a division of First-Citizens Bank & Trust Company
Attn: Warrants
80 East Rio Salado Parkway, Suite 101
Tempe, AZ 85281
Telephone: (480) 557-4900
Email: SVBFGWarrants@svb.com

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Q32 Bio Inc.
Attn: Chief Executive Officer
830 Winter Street
Waltham, MA 02451
Telephone:
Facsimile:
Email:

With a copy (which shall not constitute notice) to:

Goodwin Procter LLP
Attn: Jacqueline Mercier
100 Northern Avenue
Boston, MA 02110
Telephone: 617-570-1762
Email: jmercier@goodwinlaw.com

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed by one or more of the parties hereto in any number of separate counterparts, all of which together shall constitute one and the same instrument. The Company, Holder and any other party hereto may execute this Warrant by electronic means and each party hereto recognizes and accepts the use of electronic signatures and the keeping of records in electronic form by any other party hereto in connection with the execution and storage hereof. To the extent that this Warrant or any agreement subject to the terms hereof or any amendment hereto is executed, recorded or delivered electronically, it shall be binding to the same extent as though it had been executed on paper with an original ink signature, as provided under applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act. The fact that this Warrant is executed, signed, stored or delivered electronically shall not prevent the transfer by any Holder of this Warrant pursuant to Section 5.4 or the enforcement of the terms hereof.

5.9 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

5.10 Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which Silicon Valley Bank is closed.

SECTION 6. GOVERNING LAW, VENUE, JURY TRIAL WAIVER.

6.1 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to its principles regarding conflicts of law.

6.2 Jurisdiction and Venue. The Company and Holder each submit to the exclusive jurisdiction of the State and Federal courts in Suffolk County or Middlesex County, Massachusetts; provided, however, that nothing in this Warrant shall be deemed to operate to preclude Holder from bringing suit or taking other legal action in any other jurisdiction to enforce a judgment or other court order in favor of Holder. The Company expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and the Company hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. The Company hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made in accordance with Section 5.5 of this Warrant.

6.3 Jury Trial Waiver. **TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE COMPANY AND HOLDER EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS WARRANT, THE LOAN AGREEMENT OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR THE PARTIES' AGREEMENT TO THIS WARRANT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL**.

6.4 Survival. This Section 6 shall survive the termination of this Warrant.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"
Q32 BIO INC.

By: /s/ Adam Cutler
Name: Adam Cutler
Title: CFO & Treasurer

"HOLDER"

FIRST-CITIZENS BANK & TRUST COMPANY

By: /s/ John Sansone
Name: John Sansone
Title: Vice President

APPENDIX 1

NOTICE OF EXERCISE

1. The undersigned Holder hereby exercises its right to purchase_____ shares of the Common/Series_____ Preferred [circle one] Stock of_____ (the "**Company**") in accordance with the attached Warrant To Purchase Stock, and tenders payment of the aggregate Warrant Price for such shares as follows:

[ ] check in the amount of $_____ payable to order of the Company enclosed herewith

[ ] Wire transfer of immediately available funds to the Company's account

[ ] Cashless Exercise pursuant to Section 1.2 of the Warrant

[ ] Other [Describe] _____

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Section 4 of the Warrant to Purchase Stock as of the date hereof.

HOLDER:

_____

By: _____

Name: _____

Title: _____

(Date): _____

SCHEDULE 1

Company Capitalization Table

[Omitted]

Exhibit 10.15

EMPLOYMENT AGREEMENT

This Employment Agreement ("Agreement") is made between Q32 Bio Inc., a Delaware corporation (the "Company"), and you, Jodie Morrison and is effective as of, and conditioned on the closing of, the transactions contemplated by that certain Agreement and Plan of Merger, dated as of November 16, 2023, by and among the Company, Homology Medicines, Inc., and the other parties thereto (the "Effective Date"). For the avoidance of doubt, if the closing of such transactions does not occur, this Agreement shall be null and void *ab initio*. Except with respect to the Equity Documents (each as defined below), this Agreement supersedes in all respects all prior agreements between you and the Company regarding the subject matter herein, including without limitation (i) the Employment Agreement between you and the Company dated September 8, 2022 (as amended, the "Prior Agreement"), and (ii) any other offer letter, employment agreement or severance agreement between you and the Company.

WHEREAS, the Company desires to continue to employ you and you desire to continue to be employed by the Company on the new terms and conditions contained herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Employment.

(a) Term. The Company shall continue employ you and you shall continue to be employed by the Company pursuant to this Agreement commencing as of the Effective Date and continuing until such employment is terminated in accordance with the provisions hereof (the "Term"). Your employment with the Company will continue to be "at will," meaning that your employment may be terminated by the Company or you at any time and for any reason subject to the terms of this Agreement.

(b) Position and Duties. You shall continue to serve as the Chief Executive Officer of the Company and shall have such powers and duties as may from time to time be prescribed by the Board of Directors (the "Board"). You shall devote your full working time and efforts to the business and affairs of the Company. Notwithstanding the foregoing, you may continue to serve as a director on the three (3) other boards of directors that the Board has previously approved, and on such other boards as the Board may in the future approve, with the approval of the Board, or engage in religious, charitable or other community activities as long as such services and activities are disclosed to the Board and do not interfere with your performance of your duties to the Company. To the extent applicable, you shall be deemed to have resigned from all officer and board member positions that you hold with the Company or any of its respective subsidiaries and affiliates upon the termination of your employment for any reason. You shall execute any documents in reasonable form as may be requested to confirm or effectuate any such resignations.

2. Compensation and Related Matters.

(a) Base Salary. Effective as of March 25, 2024, your initial base salary under this Agreement shall be paid at the rate of $645,600 per year. Your base salary shall be subject to periodic review by the Board or the Compensation Committee of the Board (the "Compensation Committee"). The base salary in effect at any given time is referred to herein as "Base Salary." The Base Salary shall be payable in a manner that is consistent with the Company's usual payroll practices for executive officers.

(b) Incentive Compensation. You shall be eligible to receive cash incentive compensation as determined by the Board or the Compensation Committee from time to time. Your initial target annual incentive compensation under this Agreement shall be 55% of the Base Salary. The target annual incentive compensation in effect at any given time is referred to herein as "Target Bonus." The actual amount of your annual incentive compensation, if any, shall be determined in the sole discretion of the Board or the Compensation Committee, subject to the terms of any applicable incentive compensation plan that may be in effect from time to time. Except as otherwise provided herein, to earn incentive compensation, you must be employed by the Company on the day such incentive compensation is paid.

(c) Expenses. You shall be entitled to receive prompt reimbursement for all reasonable expenses incurred by you during the Term in performing services hereunder, in accordance with the policies and procedures then in effect and established by the Company for its executive officers.

(d) Other Benefits. You shall be eligible to participate in or receive benefits under the Company's employee benefit plans in effect from time to time, subject to the terms of such plans.

(e) Paid Time Off. You shall be entitled to take paid time off in accordance with the Company's applicable paid time off policy for executives, as may be in effect from time to time.

(f) Equity. Subject to the approval of the Board or the Compensation Committee, you will be granted an option to purchase 7,100,000 shares of the Company's common stock (the "Option"), subject in all respects to the Company's stock plan and the associated stock option agreement required to be entered into by you and the Company (the "Equity Documents"). Without limiting the foregoing, the Option will, among other terms, be subject to a four year vesting schedule, with 25% of the Option vesting on the first anniversary of the vesting date set forth in the Equity Documents, and the remaining portion vesting monthly in substantially equal installments after such first anniversary until the fourth anniversary of the vesting date, provided that you remain continuously employed with the Company through each applicable vesting date.

(g) Indemnification and D & O Insurance. The Company shall provide the you with indemnification and D & O insurance coverage customary for executives of employers similarly situated to the Company.

3. Termination. Your employment hereunder may be terminated without any breach of this Agreement under the following circumstances:

(a) Death. Your employment hereunder shall terminate upon death.

(b) Disability. The Company may terminate your employment if you are disabled and unable to perform or expected to be unable to perform the essential functions of your then existing position or positions under this Agreement with or without reasonable accommodation for a period of 180 days (which need not be consecutive) in any 12-month period. If any question shall arise as to whether during any period you are disabled so as to be unable to perform the essential functions of your then existing position or positions with or without reasonable accommodation, you may, and at the request of the Company shall, submit to the Company a certification in reasonable detail by a physician selected by the Company to whom you or your guardian has no reasonable objection as to whether you are disabled or how long such disability is expected to continue, and such certification shall for the purposes of this Agreement be conclusive of the issue. You shall cooperate with any reasonable request of the physician in connection with such certification. If such question shall arise and you shall fail to submit such certification, the Company's determination of such issue shall be binding on you. Nothing in this Section 3(b) shall be construed to waive your rights, if any, under existing law including, without limitation, the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 *et seq*. and the Americans with Disabilities Act, 42 U.S.C. §12101 *et seq.*

(c) Termination by Company for Cause. The Company may terminate your employment hereunder for Cause. For purposes of this Agreement, "Cause" shall mean any of the following:

(i) your indictment for, or plea of nolo contendere to, any crime constituting a felony, or a misdemeanor which involves your fraud, theft, embezzlement, dishonest acts or similar matters involving moral turpitude;

(ii) any material and willful act of theft, dishonesty, embezzlement or misappropriation by you in connection with the performance of your duties as an executive of the Company;

(iii) any willful failure or refusal by you to substantially perform your duties under this Agreement or to obey the lawful directives of the CEO or the Board or breach by you of your representations, warranties, covenants or obligations under this Agreement (including the Restrictive Covenant Agreement) or any other agreement you have with the Company; provided that Company may terminate your employment pursuant to this subsection only if you fail to cure such willful failure or refusal, disobedience or breach within thirty (30) days after receiving written notice from Company describing such failure or refusal, disobedience or breach in reasonable detail;

(iv) your gross negligence, willful misconduct or willful malfeasance in connection with your services to the Company; provided, if such conduct by you is curable, the Company may terminate your employment pursuant to this subsection (iv) only if you fail to cure such conduct within thirty (30) days after receiving written notice from the Company describing such gross negligence, willful misconduct or willful malfeasance in reasonable detail;

(v) any material and willful violation of any written policy of the Company relating to equal employment opportunity, discrimination, harassment or retaliation; provided that the Company may terminate your employment pursuant to this subsection only if you fail to cure such violation within thirty (30) days after receiving written notice from Company describing such violation in reasonable detail; or

(vi) your use of illegal drugs, or excessive use of alcohol or any controlled substance during work hours.

(d) Termination by the Company without Cause. The Company may terminate your employment hereunder at any time without Cause. Any termination by the Company of your employment under this Agreement which does not constitute a termination for Cause under Section 3(c) and does not result from the death or disability of you under Section 3(a) or (b) shall be deemed a termination without Cause.

(e) Termination by You. You may terminate employment hereunder at any time for any reason, including but not limited to, Good Reason. For purposes of this Agreement, "Good Reason" shall mean that you have completed all steps of the Good Reason Process (hereinafter defined) following the occurrence of any of the following events without your consent (each, a "Good Reason Condition"):

(i) a any diminution in your responsibilities, authority or duties;);

(ii) any diminution in your Base Salary;

(iii) a material change in the geographic location of the Company's physical office at which you provide services to the Company, such that there is an increase of at least thirty (30) miles of driving distance to such location from your principal residence as of such change; or

(iv) a material breach of this Agreement by the Company.

The "Good Reason Process" consists of the following steps:

(i) you reasonably determine in good faith that a Good Reason Condition has occurred;

(ii) you notify the Company in writing of the first occurrence of the Good Reason Condition within 60 days of the first occurrence of such condition;

(iii) you cooperate in good faith with the Company's efforts, for a period of not less than 30 days following such notice (the "Cure Period"), to remedy the Good Reason Condition;

(iv) notwithstanding such efforts, the Good Reason Condition continues to exist; and

(v) you terminate employment within 30 days after the end of the Cure Period.

If the Company cures the Good Reason Condition during the Cure Period, Good Reason shall be deemed not to have occurred.

If your employment with the Company is terminated for any reason, the Company shall pay or provide to you (or your authorized representative or estate) (i) any Base Salary earned through the Date of Termination; (ii) unpaid expense reimbursements (subject to, and in accordance with, Section 2(c) of this Agreement); and (iii) any vested benefits you may have under any employee benefit plan of the Company through the Date of Termination, which vested benefits shall be paid and/or provided in accordance with the terms of such employee benefit plans (collectively, the "Accrued Obligations").

4. Notice and Date of Termination.

(a) Notice of Termination. Except for termination as specified in Section 3(a), any termination of your employment by the Company or any such termination by you shall be communicated by written Notice of Termination to the other party hereto. For purposes of this Agreement, a "Notice of Termination" shall mean a notice which shall indicate the specific termination provision in this Agreement relied upon.

(b) Date of Termination. "Date of Termination" shall mean: (i) if your employment is terminated by death, the date of death; (ii) if your employment is terminated on account of disability under Section 3(b) or by the Company for Cause under Section 3(c), the date on which Notice of Termination is given; (iii) if your employment is terminated by the Company without Cause under Section 3(d), the date on which a Notice of Termination is given or the date otherwise specified by the Company in the Notice of Termination; (iv) if your employment is terminated by you under Section 3(e) other than for Good Reason, 30 days after the date on which a Notice of Termination is given, and (v) if your employment is terminated by you under Section 3(e) for Good Reason, the date on which a Notice of Termination is given after the end of the Cure Period. Notwithstanding the foregoing, in the event that you give a Notice of Termination to the Company, the Company may unilaterally accelerate the Date of Termination and such acceleration shall not result in a termination by the Company for purposes of this Agreement.

5. Severance Pay and Benefits Upon Termination by the Company without Cause or by You for Good Reason Outside the Change in Control Period. If your employment is terminated by the Company without Cause as provided in Section 3(d), or you terminate employment for Good Reason as provided in Section 3(e), each outside of the Change in Control Period (as defined below), then, in addition to the Accrued Obligations, and subject to (i) you sign a separation agreement and release in a form and manner satisfactory to the Company, which shall include, without limitation, a general release of claims against the Company and all related persons and entities, a reaffirmation of all of your Continuing Obligations (as defined below**),** and, in the Company's sole discretion, a one-year post-employment noncompetition agreement and shall provide that if you breach any of the Continuing Obligations, all payments of the Severance Amount shall immediately cease (the "Separation Agreement and Release"), and (ii) the Separation Agreement and Release becoming irrevocable, all within 60 days after the Date of

Termination (or such shorter period as set forth in the Separation Agreement and Release), which shall include a seven (7) business day revocation period:

(a) the Company shall pay you an amount equal to twelve (12) months of your Base Salary (the "Severance Amount"); provided in the event you are entitled to any payments pursuant to the Restrictive Covenants Agreement, the Severance Amount received in any calendar year will be reduced by the amount you are paid in the same such calendar year pursuant to the Restrictive Covenants Agreement (the "Restrictive Covenants Agreement Setoff"); and

(b) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the twelve (12) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under Section 5, to the extent taxable, shall be paid out in substantially equal installments in accordance with the Company's payroll practice over twelve (12) months commencing within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, the Severance Amount, to the extent it qualifies as "non-qualified deferred compensation" within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), shall begin to be paid in the second calendar year by the last day of such 60-day period; provided, further, that the initial payment shall include a catch-up payment to cover amounts retroactive to the day immediately following the Date of Termination. Each payment pursuant to this Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2).

6. Severance Pay and Benefits Upon Termination by the Company without Cause or by the You for Good Reason within the Change in Control Period. The provisions of this Section 6 shall apply in lieu of, and expressly supersede, the provisions of Section 5 if (i) your employment is terminated either (a) by the Company without Cause as provided in Section 3(d), or (b) by you for Good Reason as provided in Section 3(e), and (ii) the Date of Termination is within 12 months after the occurrence of the first event constituting a Change in Control (such period, the "Change in Control Period"). These provisions shall terminate and be of no further force or effect after a Change in Control Period.

(a) If your employment is terminated by the Company without Cause as provided in Section 3(d) or you terminate employment for Good Reason as provided in Section 3(e) and in each case the Date of Termination occurs during the Change in Control Period, then,

in addition to the Accrued Obligations, and subject to the signing of the Separation Agreement and Release by you and the Separation Agreement and Release becoming fully effective, all within the time frame set forth in the Separation Agreement and Release but in no event more than 60 days after the Date of Termination:

(i) the Company shall pay you a lump sum in cash in an amount equal to 1.5 times the sum of (A) twelve (12) months of your then current Base Salary (or your Base Salary in effect immediately prior to the Change in Control, if higher) plus (B) your Target Bonus for the then-current year (the "Change in Control Payment"); provided the Change in Control Payment shall be reduced by the amount of the Restrictive Covenants Agreement Setoff, if applicable; and

(ii) notwithstanding anything to the contrary in any applicable option agreement or other stock-based award agreement, all time-based stock options and other stock-based awards subject to time-based vesting held by you (the "Time-Based Equity Awards") shall immediately accelerate and become fully exercisable or nonforfeitable as of the later of (i) the Date of Termination or (ii) the effective date of the Separation Agreement and Release (the "Accelerated Vesting Date"); *provided* that any termination or forfeiture of the unvested portion of such Time-Based Equity Awards that would otherwise occur on the Date of Termination in the absence of this Agreement will be delayed until the effective date of the Separation Agreement and Release and will only occur if the vesting pursuant to this subsection does not occur due to the absence of the Separation Agreement and Release becoming fully effective within the time period set forth therein. Notwithstanding the foregoing, no additional vesting of the Time-Based Equity Awards shall occur during the period between your Date of Termination and the Accelerated Vesting Date; and

(iii) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under COBRA, the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the eighteen (18) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under this Section 6(a), to the extent taxable, shall be paid or commence to be paid within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, such payments to the extent they qualify as "non-qualified deferred compensation" within the meaning of Section 409A of the Code, shall be paid or commence to be paid in the second calendar year by the last day of such 60-day period.

(b) Additional Limitation.

(i) Anything in this Agreement to the contrary notwithstanding, in the event that the amount of any compensation, payment or distribution by the Company to or for the benefit of you, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise, calculated in a manner consistent with Section 280G of the Code, and the applicable regulations thereunder (the "Aggregate Payments"), would be subject to the excise tax imposed by Section 4999 of the Code, then the Aggregate Payments shall be reduced (but not below zero) so that the sum of all of the Aggregate Payments shall be $1.00 less than the amount at which you became the subject to the excise tax imposed by Section 4999 of the Code; provided that such reduction shall only occur if it would result in you receiving a higher After Tax Amount (as defined below) than you would receive if the Aggregate Payments were not subject to such reduction. In such event, the Aggregate Payments shall be reduced in the following order, in each case, in reverse chronological order beginning with the Aggregate Payments that are to be paid the furthest in time from consummation of the transaction that is subject to Section 280G of the Code: (1) cash payments not subject to Section 409A of the Code; (2) cash payments subject to Section 409A of the Code; (3) equity-based payments and acceleration; and (4) non-cash forms of benefits; provided that in the case of all the foregoing Aggregate Payments all amounts or payments that are not subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c) shall be reduced before any amounts that are subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c).

(ii) For purposes of this Section 6(b), the "After Tax Amount" means the amount of the Aggregate Payments less all federal, state, and local income, excise and employment taxes imposed on you as a result of your receipt of the Aggregate Payments. For purposes of determining the After Tax Amount, you shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation applicable to individuals for the calendar year in which the determination is to be made, and state and local income taxes at the highest marginal rates of individual taxation in each applicable state and locality, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes.

(iii) The determination as to whether a reduction in the Aggregate Payments shall be made pursuant to Section 6(b)(i) shall be made by a nationally recognized accounting firm selected by the Company (the "Accounting Firm"), which shall provide detailed supporting calculations both to the Company and you within 15 business days of the Date of Termination, if applicable, or at such earlier time as is reasonably requested by the Company or you. Any determination by the Accounting Firm shall be binding upon the Company and you.

(c) Definitions. For purposes of this Section 6, the following terms shall have the following meanings:

"Change in Control" shall mean the consummation of any of the following:

(i) the dissolution or liquidation of the Company;

(ii) the sale or exclusive out-license (even as to the Company) of all or substantially all of the assets of the Company (i.e., >50% of the value) on a consolidated basis to an unrelated person or entity;

(iii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the surviving or resulting entity (or its ultimate parent, if applicable);

(iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons;

(v) any other transaction in which the (i) the executive management team of the Company departs from the Company in connection with a sale, merger, reorganization or consolidation; or

(vi) any other acquisition of the business of the Company, as determined by the Board.

Notwithstanding the foregoing, a "Change in Control" shall not be deemed to have occurred: (A) as a result of the consummation of the first firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale by the Company of its equity securities, as a result of or following which the Company's common stock shall be publicly held, or any subsequent public offering or another capital raising event; or (B) as a result of the consummation of a merger effected solely to change the Company's domicile.

7. Section 409A.

(a) Anything in this Agreement to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to under this Agreement or otherwise on account of your separation from service would be considered deferred compensation otherwise subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule.

(b) All in-kind benefits provided and expenses eligible for reimbursement under this Agreement shall be provided by the Company or incurred by you during the time periods set forth in this Agreement. All reimbursements shall be paid as soon as administratively practicable, but in no event shall any reimbursement be paid after the last day of the taxable year following the taxable year in which the expense was incurred. The amount of in-kind benefits provided or reimbursable expenses incurred in one taxable year shall not affect the in-kind benefits to be provided or the expenses eligible for reimbursement in any other taxable year (except for any lifetime or other aggregate limitation applicable to medical expenses). Such right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit.

(c) To the extent that any payment or benefit described in this Agreement constitutes "non-qualified deferred compensation" under Section 409A of the Code, and to the extent that such payment or benefit is payable upon your termination of employment, then such payments or benefits shall be payable only upon your "separation from service." The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

(d) The parties intend that this Agreement will be administered in accordance with Section 409A of the Code. To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision shall be read in such a manner so that all payments hereunder comply with Section 409A of the Code. Each payment pursuant to this Agreement or the Restrictive Covenants Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2). The parties agree that this Agreement may be amended, as reasonably requested by either party, and as may be necessary to fully comply with Section 409A of the Code and all related rules and regulations in order to preserve the payments and benefits provided hereunder without additional cost to either party.

(e) The Company makes no representation or warranty and shall have no liability to you or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

8. Continuing Obligations.

(a) Restrictive Covenants Agreement. You agree to comply with the terms of the Employee Confidentiality, Assignment, Nonsolicitation and Noncompetition Agreement, (the "Restrictive Covenants Agreement") attached hereto as Exhibit A. You agree that the enhanced compensation and benefits contained in this Agreement, including without limitation your eligibility for an additional equity grant and cash incentive compensation, constitute mutually agreed-upon, fair and reasonable consideration for the Restrictive Covenant Agreement that is independent of your employment with the Company. For purposes of this Agreement, the obligations in this Section 8 and those that arise in the Restrictive Covenants Agreement and any other agreement relating to confidentiality, assignment of inventions, or other restrictive covenants shall collectively be referred to as the "Continuing Obligations." You agree that you have been advised to consult with counsel with respect to this Agreement and the Restrictive Covenant Agreement and Continuing Obligations.

(b) Third-Party Agreements and Rights. You hereby confirm that you are not bound by the terms of any agreement with any previous employer or other party which restricts in any way your use or disclosure of information, other than confidentiality restrictions (if any), or your engagement in any business. You represent to the Company that your execution of this Agreement, your employment with the Company and the performance of your proposed duties for the Company will not violate any obligations you may have to any such previous employer or other party. In your work for the Company, you will not disclose or make use of any information in violation of any agreements with or rights of any such previous employer or other party, and you will not bring to the premises of the Company any copies or other tangible embodiments of non-public information belonging to or obtained from any such previous employment or other party.

(c) Litigation and Regulatory Cooperation. During and after your employment, you shall cooperate fully with the Company in (i) the defense or prosecution of any claims or actions now in existence or which may be brought in the future against or on behalf of the Company which relate to events or occurrences that transpired while you were employed by the Company, and (ii) the investigation, whether internal or external, of any matters about which the Company believes you may have knowledge or information. Your full cooperation in connection with such claims, actions or investigations shall include, but not be limited to, being available to meet with counsel to answer questions or to prepare for discovery or trial and to act as a witness on behalf of the Company at mutually convenient times. During and after your employment, you also shall cooperate fully with the Company in connection with any investigation or review of any federal, state or local regulatory authority as any such investigation or review relates to events or occurrences that transpired while you were employed by the Company. The Company shall reimburse you for any reasonable out-of-pocket expenses incurred in connection with your performance of obligations pursuant to this Section 8(c).

(d) Relief. You agree that it would be difficult to measure any damages caused to the Company which might result from any breach by you of the Continuing Obligations, and that in any event money damages would be an inadequate remedy for any such breach. Accordingly**,** you agree that if you breach, or propose to breach, any portion of the Continuing Obligations, the Company shall be entitled, in addition to all other remedies that it may have, to an injunction or other appropriate equitable relief to restrain any such breach without showing or proving any actual damage to the Company.

(e) Protected Disclosures and Other Protected Action. Nothing contained in this Agreement, any other agreement with the Company, or any Company policy, limits your ability, with or without notice to the Company, to: (i) file a charge or complaint with any federal, state or local governmental agency or commission (a "Government Agency"), including without limitation, the Equal Employment Opportunity Commission, the National Labor Relations Board or the Securities and Exchange Commission; (ii) communicate with any Government Agency or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including by providing non-privileged documents or information; (iii) exercise any rights under Section 7 of the National Labor Relations Act, which are available to non-supervisory employees, including assisting co-workers with or discussing any employment issue as part of engaging in concerted activities for the purpose of mutual aid or protection; (iv) share compensation information concerning yourself or others (provided that this does not permit you to

disclose compensation information concerning others that you obtain because your job responsibilities require or allow access to such information); (v) discuss or disclose information about unlawful acts in the workplace, such as harassment or discrimination or any other conduct that you have reason to believe is unlawful; or (vi) testify truthfully in a legal proceeding. Any such communications and disclosures must not violate applicable law and the information disclosed must not have been obtained through a communication that was subject to the attorney-client privilege (unless disclosure of that information would otherwise be permitted consistent with such privilege or applicable law).. In addition, for the avoidance of doubt, pursuant to the federal Defend Trade Secrets Act of 2016, you shall not be held criminally or civilly liable under any federal or state trade secret law or under this Agreement or the Restrictive Covenants Agreement for the disclosure of a trade secret that (A) is made (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

9. Arbitration of Disputes.

(a) Arbitration Generally. Any controversy or claim arising out of or relating to this Agreement or the breach thereof or otherwise arising out of your employment or the termination of that employment (including, without limitation, any claims of unlawful employment discrimination or retaliation, whether based on race, religion, national origin, sex, gender, age, disability, sexual orientation, or any other protected class under applicable law, including without limitation Massachusetts General Laws Chapter 151B) shall, to the fullest extent permitted by law, be settled by arbitration in any forum and form agreed upon by the parties or, in the absence of such an agreement, under the auspices of JAMS in Boston, Massachusetts in accordance with the JAMS Employment Arbitration Rules, including, but not limited to, the rules and procedures applicable to the selection of arbitrators. You understand that you may only bring such claims in your individual capacity, and not as a plaintiff or class member in any purported class proceeding or any purported representative proceeding. You further understand that, by signing this Agreement, the Company and you are giving up any right they may have to a jury trial on all claims they may have against each other. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. This Section 9 shall be specifically enforceable. Notwithstanding the foregoing, this Section 9 shall not preclude either party from pursuing a court action for the sole purpose of obtaining a temporary restraining order or a preliminary injunction in circumstances in which such relief is appropriate, including without limitation relief sought under the Restrictive Covenants Agreement; provided that any other relief shall be pursued through an arbitration proceeding pursuant to this Section 9.

(b) Arbitration Fees and Costs. You shall be required to pay an arbitration fee to initiate any arbitration equal to what you would be charged as a first appearance fee in court. The Company shall advance the remaining fees and costs of the arbitrator. However, to the extent permissible under the law, and following the arbitrator's ruling on the matter, the arbitrator may rule that the arbitrator's fees and costs be distributed in an alternative manner. Each party shall pay its own costs and attorneys' fees, if any. If, however, any party prevails on a statutory or contractual claim that affords the prevailing party attorneys' fees (including pursuant to this Agreement), the arbitrator may award attorneys' fees to the prevailing party to the extent permitted by law.

10. Consent to Jurisdiction. To the extent that any court action is permitted consistent with or to enforce Section 9 of this Agreement, the parties hereby consent to the jurisdiction of the state and federal courts of the Commonwealth of Massachusetts. Accordingly, with respect to any such court action, you (a) submit to the exclusive personal jurisdiction of such courts; (b) consent to service of process; and (c) waive any other requirement (whether imposed by statute, rule of court, or otherwise) with respect to personal jurisdiction or service of process.

11. Waiver of Jury Trial. You and the Company irrevocably and unconditionally WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY PROCEEDING (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR YOUR EMPLOYMENT BY THE COMPANY OR ANY AFFILIATE OF THE COMPANY, INCLUDING WITHOUT LIMITATION YOURS OR THE COMPANY'S PERFORMANCE UNDER, OR THE ENFORCEMENT OF, THIS AGREEMENT.

12. Integration. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements between the parties concerning such subject matter**,** including the Prior Agreement, provided that the Equity Documents remain in full force and effect.

13. Withholding; Tax Effect. All payments made by the Company to you under this Agreement shall be net of any tax or other amounts required to be withheld by the Company under applicable law. Nothing in this Agreement shall be construed to require the Company to make any payments to compensate you for any adverse tax effect associated with any payments or benefits or for any deduction or withholding from any payment or benefit.

14. Assignment. Neither you nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; provided, however, that the Company may assign its rights and obligations under this Agreement (including the Restrictive Covenants Agreement) without your consent to any affiliate or to any person or entity with whom the Company shall hereafter effect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets; provided further that if you remain employed or become employed by the Company, the purchaser or any of their affiliates in connection with any such transaction, then you shall not be entitled to any payments, benefits or vesting pursuant to Section 5 or pursuant to Section 6 of this Agreement. This Agreement shall inure to the benefit of and be binding upon you and the Company, and each of yours and the Company's respective successors, executors, administrators, heirs and permitted assigns.

15. Enforceability. If any portion or provision of this Agreement (including, without limitation, any portion or provision of any section of this Agreement) shall to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

16. Survival. The provisions of this Agreement shall survive the termination of this Agreement and/or the termination of your employment to the extent necessary to effectuate the terms contained herein.

17. Waiver. No waiver of any provision hereof shall be effective unless made in writing and signed by the waiving party. The failure of any party to require the performance of any term or obligation of this Agreement, or the waiver by any party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

18. Notices. Any notices, requests, demands and other communications provided for by this Agreement shall be sufficient if in writing and delivered in person or sent by a nationally recognized overnight courier service or by registered or certified mail, postage prepaid, return receipt requested, to you at the last address you has filed in writing with the Company or, in the case of the Company, at its main offices, attention of the Board.

19. Amendment. This Agreement may be amended or modified only by a written instrument signed by you and by a duly authorized representative of the Company.

20. Effect on Other Plans and Agreements. An election by you to resign for Good Reason under the provisions of this Agreement shall not be deemed a voluntary termination of employment by you for the purpose of interpreting the provisions of any of the Company's benefit plans, programs or policies. Nothing in this Agreement shall be construed to limit the rights of you under the Company's benefit plans, programs or policies except as otherwise provided in Section 8 hereof, and except that you shall have no rights to any severance benefits under any Company severance pay plan, offer letter or otherwise. Except for the Restrictive Covenants Agreement, in the event that you are a party to an agreement with the Company providing for payments or benefits under such plan or agreement and under this Agreement, the terms of this Agreement shall govern and you may receive payment under this Agreement only and not both. Further, Section 5 and Section 6 of this Agreement are mutually exclusive and in no event shall you be entitled to payments or benefits pursuant to both Section 5 and Section 6 of this Agreement.

21. Governing Law. This is a Massachusetts contract and shall be construed under and be governed in all respects by the laws of the Commonwealth of Massachusetts, without giving effect to the conflict of laws principles thereof.

22. Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be taken to be an original; but such counterparts shall together constitute one and the same document.

[*Signature page follows*]

IN WITNESS WHEREOF, the parties have executed this Agreement effective on the Effective Date.

COMPANY

Q32 Bio Inc.

By: /s/ Marck Iwicki
Name: Mark Iwicki
Its: Director

EXECUTIVE

/s/ Jodie Morrison
Jodie Morrison

Signature page to Employment Agreement

Exhibit A

Restrictive Covenants Agreement

Exhibit 10.16

EMPLOYMENT AGREEMENT

This Employment Agreement ("Agreement") is made between Q32 Bio Inc., a Delaware corporation (the "Company"), and you, Lee Kalowski, and is effective as of, and conditioned on the closing of, the transactions contemplated by that certain Agreement and Plan of Merger, dated as of November 16, 2023, by and among the Company, Homology Medicines, Inc., and the other parties thereto (the "Effective Date"). For the avoidance of doubt, if the closing of such transactions does not occur, this Agreement shall be null and void *ab initio*.

WHEREAS, the Company desires to employ you and you desire to be employed by the Company on the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Employment.

(a) Term. The Company shall employ you and you shall be employed by the Company pursuant to this Agreement, commencing as of the Effective Date and continuing until such employment is terminated in accordance with the provisions hereof (the "Term"). Your employment with the Company will be "at will," meaning that your employment may be terminated by the Company or you at any time and for any reason subject to the terms of this Agreement.

(b) Position and Duties. You shall serve as the Chief Financial Officer & President of the Company and shall have such powers and duties as may from time to time be prescribed by the Chief Executive Officer (the "CEO") and/or the Board of Directors of the Company (the "Board"). You shall devote your full working time and efforts to the business and affairs of the Company. Notwithstanding the foregoing, the Board approves your service on the board of directors of Aro Biotherapeutics and you may serve on other boards of directors, with the approval of the Board, or engage in religious, charitable or other community activities as long as such services and activities are disclosed to the Board and do not interfere with your performance of your duties to the Company. To the extent applicable, you shall be deemed to have resigned from all officer and board member positions that you hold with the Company or any of its respective subsidiaries and affiliates upon the termination of your employment for any reason. You shall execute any documents in reasonable form as may be requested to confirm or effectuate any such resignations.

2. Compensation and Related Matters.

(a) Base Salary. Your initial base salary under this Agreement shall be paid at the rate of $565,000 per year. Your base salary shall be subject to periodic review by the Board or the Compensation Committee of the Board (the "Compensation Committee"). The base salary in effect at any given time is referred to herein as "Base Salary." The Base Salary shall be payable in a manner that is consistent with the Company's usual payroll practices for executive officers.

(b) Incentive Compensation. You shall be eligible to receive cash incentive compensation as determined by the Board or the Compensation Committee from time to time. Your initial target annual incentive compensation under this Agreement shall be 40% of the Base Salary. The target annual incentive compensation in effect at any given time is referred to herein as "Target Bonus." The actual amount of your annual incentive compensation, if any, shall be determined in the sole discretion of the Board or the Compensation Committee, subject to the terms of any applicable incentive compensation plan that may be in effect from time to time. Except as otherwise provided herein, to earn incentive compensation, you must be employed by the Company on the day such incentive compensation is paid. To avoid doubt, any bonus you receive with respect to 2024 shall not be prorated based on the Effective Date.

(c) Expenses. You shall be entitled to receive prompt reimbursement for all reasonable expenses incurred by you during the Term in performing services hereunder, in accordance with the policies and procedures then in effect and established by the Company for its executive officers.

(d) Other Benefits. You shall be eligible to participate in or receive benefits under the Company's employee benefit plans in effect from time to time, subject to the terms of such plans.

(e) Paid Time Off. You shall be entitled to take paid time off in accordance with the Company's applicable paid time off policy for executives, as may be in effect from time to time.

(f) Equity. Subject to the approval of the Board or the Compensation Committee in its or their discretion, you will be granted an option to purchase 2,903,800 shares of the Company's common stock (the "Option"), representing approximately 1.335% of the Company's outstanding common stock as of March 22, 2024, using the pre-split price as of the close of market on March 22, 2024, subject in all respects to the Company's stock plan and the associated stock option agreement required to be entered into by you and the Company (the "Equity Documents"). The vesting commencement date of the Option shall be October 13, 2023 (the "Vesting Commencement Date"), to coincide with the start date of your consulting relationship with the Company. The Option will be subject to a four year vesting schedule, with 25% of the Option vesting on the first anniversary of the Vesting Commencement Date (the "First Anniversary"), and the remaining 75% of the Option vesting monthly in substantially equal installments beginning one month after the First Anniversary until the fourth anniversary of the Vesting Commencement Date, provided that you remain continuously employed with the Company through each applicable vesting date. In the event of any conflict between this Agreement and the Equity Documents, the Equity Documents shall control.

(g) Indemnification and D & O Insurance. The Company shall provide you with indemnification and D & O insurance coverage customary for executives of employers similarly situated to the Company.

3. Termination. Your employment hereunder may be terminated without any breach of this Agreement under the following circumstances:

(a) Death. Your employment hereunder shall terminate upon death.

(b) Disability. The Company may terminate your employment if you are disabled and unable to perform or expected to be unable to perform the essential functions of your then existing position or positions under this Agreement with or without reasonable accommodation for a period of 180 days (which need not be consecutive) in any 12-month period. If any question shall arise as to whether during any period you are disabled so as to be unable to perform the essential functions of your then existing position or positions with or without reasonable accommodation, you may, and at the request of the Company shall, submit to the Company a certification in reasonable detail by a physician selected by the Company to whom you or your guardian has no reasonable objection as to whether you are disabled or how long such disability is expected to continue, and such certification shall for the purposes of this Agreement be conclusive of the issue. You shall cooperate with any reasonable request of the physician in connection with such certification. If such question shall arise and you shall fail to submit such certification, the Company's determination of such issue shall be binding on you. Nothing in this Section 3(b) shall be construed to waive your rights, if any, under existing law including, without limitation, the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 *et seq*. and the Americans with Disabilities Act, 42 U.S.C. §12101 *et seq.*

(c) Termination by Company for Cause. The Company may terminate your employment hereunder for Cause. For purposes of this Agreement, "Cause" shall mean any of the following:

(i) your indictment for, or plea of nolo contendere to, any crime constituting a felony, or a misdemeanor which involves your fraud, theft, embezzlement, dishonest acts or similar matters involving moral turpitude;

(ii) any material and willful act of theft, dishonesty, embezzlement or misappropriation by you in connection with the performance of your duties as an executive of the Company;

(iii) any willful failure or refusal by you to substantially perform your duties under this Agreement or to obey the lawful directives of the CEO or the Board or breach by you of your representations, warranties, covenants or obligations under this Agreement (including the Restrictive Covenant Agreement) or any other agreement you have with the Company; provided that Company may terminate your employment pursuant to this subsection only if you fail to cure such willful failure or refusal, disobedience or breach within thirty (30) days after receiving written notice from Company describing such failure or refusal, disobedience or breach in reasonable detail;

(iv) your gross negligence, willful misconduct or willful malfeasance in connection with your services to the Company; provided, if such conduct by you is curable, the Company may terminate your employment pursuant to this subsection (iv) only if you fail to cure such conduct within thirty (30) days after receiving written notice from the Company describing such gross negligence, willful misconduct or willful malfeasance in reasonable detail;

(v) any material and willful violation of any written policy of the Company relating to equal employment opportunity, discrimination, harassment or retaliation; provided that the Company may terminate your employment pursuant to this subsection only if you fail to cure such violation within thirty (30) days after receiving written notice from Company describing such violation in reasonable detail; or

(vi) your use of illegal drugs, or excessive use of alcohol or any controlled substance during work hours.

(d) Termination by the Company without Cause. The Company may terminate your employment hereunder at any time without Cause. Any termination by the Company of your employment under this Agreement which does not constitute a termination for Cause under Section 3(c) and does not result from the death or disability of you under Section 3(a) or (b) shall be deemed a termination without Cause.

(e) Termination by You. You may terminate employment hereunder at any time for any reason, including but not limited to, Good Reason. For purposes of this Agreement, "Good Reason" shall mean that you have completed all steps of the Good Reason Process (hereinafter defined) following the occurrence of any of the following events without your consent (each, a "Good Reason Condition"):

(i) any diminution in your responsibilities, authority or duties;

(ii) any diminution in your Base Salary;

(iii) a material change in the geographic location of the Company's physical office at which you provide services to the Company, such that there is an increase of at least fifty (50) miles of driving distance to such location from your principal residence as of such change; or

(iv) a material breach of this Agreement by the Company.

The "Good Reason Process" consists of the following steps:

(i) you reasonably determine in good faith that a Good Reason Condition has occurred;

(ii) you notify the Company in writing of the first occurrence of the Good Reason Condition within 60 days of the first occurrence of such condition;

(iii) you cooperate in good faith with the Company's efforts, for a period of not less than 30 days following such notice (the "Cure Period"), to remedy the Good Reason Condition;

(iv) notwithstanding such efforts, the Good Reason Condition continues to exist; and

(v) you terminate employment within 30 days after the end of the Cure Period.

If the Company cures the Good Reason Condition during the Cure Period, Good Reason shall be deemed not to have occurred.

If your employment with the Company is terminated for any reason, the Company shall pay or provide to you (or your authorized representative or estate) (i) any Base Salary earned through the Date of Termination; (ii) unpaid expense reimbursements (subject to, and in accordance with, Section 2(c) of this Agreement); and (iii) any vested benefits you may have under any employee benefit plan of the Company through the Date of Termination, which vested benefits shall be paid and/or provided in accordance with the terms of such employee benefit plans (collectively, the "Accrued Obligations").

4. Notice and Date of Termination.

(a) Notice of Termination. Except for termination as specified in Section 3(a), any termination of your employment by the Company or any such termination by you shall be communicated by written Notice of Termination to the other party hereto. For purposes of this Agreement, a "Notice of Termination" shall mean a notice which shall indicate the specific termination provision in this Agreement relied upon.

(b) Date of Termination. "Date of Termination" shall mean: (i) if your employment is terminated by death, the date of death; (ii) if your employment is terminated on account of disability under Section 3(b) or by the Company for Cause under Section 3(c), the date on which Notice of Termination is given; (iii) if your employment is terminated by the Company without Cause under Section 3(d), the date on which a Notice of Termination is given or the date otherwise specified by the Company in the Notice of Termination; (iv) if your employment is terminated by you under Section 3(e) other than for Good Reason, 30 days after the date on which a Notice of Termination is given, and (v) if your employment is terminated by you under Section 3(e) for Good Reason, the date on which a Notice of Termination is given after the end of the Cure Period. Notwithstanding the foregoing, in the event that you give a Notice of Termination to the Company, the Company may unilaterally accelerate the Date of Termination and such acceleration shall not result in a termination by the Company for purposes of this Agreement.

5. Severance Pay and Benefits Upon Termination by the Company without Cause or by You for Good Reason Outside the Change in Control Period. If your employment is terminated by the Company without Cause as provided in Section 3(d), or you terminate employment for Good Reason as provided in Section 3(e), each outside of the Change in Control Period (as defined below), then, in addition to the Accrued Obligations, and subject to (i) you sign a separation agreement and release in a form and manner satisfactory to the Company, which shall include, without limitation, a general release of claims against the Company and all related persons and entities, a reaffirmation of all of your Continuing Obligations (as defined below), and, in the Company's sole discretion, a one-year post-employment noncompetition agreement, and shall

provide that if you breach any of the Continuing Obligations, all payments of the Severance Amount shall immediately cease (the "Separation Agreement and Release"), and (ii) the Separation Agreement and Release becoming irrevocable, all within 60 days after the Date of Termination (or such shorter period as set forth in the Separation Agreement and Release), which shall include a seven (7) business day revocation period:

(a) the Company shall pay you an amount equal to twelve (12) months of your Base Salary (the "Severance Amount"); provided in the event you are entitled to any payments pursuant to the Restrictive Covenants Agreement, the Severance Amount received in any calendar year will be reduced by the amount you are paid in the same such calendar year pursuant to the Restrictive Covenants Agreement (the "Restrictive Covenants Agreement Setoff"); and

(b) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the twelve (12) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under Section 5, to the extent taxable, shall be paid out in substantially equal installments in accordance with the Company's payroll practice over twelve (12) months commencing within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, the Severance Amount, to the extent it qualifies as "non-qualified deferred compensation" within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), shall begin to be paid in the second calendar year by the last day of such 60-day period; provided, further, that the initial payment shall include a catch-up payment to cover amounts retroactive to the day immediately following the Date of Termination. Each payment pursuant to this Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2).

6. Severance Pay and Benefits Upon Termination by the Company without Cause or by the You for Good Reason within the Change in Control Period. The provisions of this Section 6 shall apply in lieu of, and expressly supersede, the provisions of Section 5 if (i) your employment is terminated either (a) by the Company without Cause as provided in Section 3(d), or (b) by you for Good Reason as provided in Section 3(e), and (ii) the Date of Termination is within 12 months after the occurrence of the first event constituting a Change in Control (such period, the "Change in Control Period"). These provisions shall terminate and be of no further force or effect after a Change in Control Period.

(a) If your employment is terminated by the Company without Cause as provided in Section 3(d) or you terminate employment for Good Reason as provided in Section 3(e) and in each case the Date of Termination occurs during the Change in Control Period, then, in addition to the Accrued Obligations, and subject to the signing of the Separation Agreement and Release by you and the Separation Agreement and Release becoming fully effective, all within the time frame set forth in the Separation Agreement and Release but in no event more than 60 days after the Date of Termination:

(i) the Company shall pay you a lump sum in cash in an amount equal the sum of (A) twelve (12) months of your then current Base Salary (or your Base Salary in effect immediately prior to the Change in Control, if higher) plus (B) your Target Bonus for the then-current year **(**the "Change in Control Payment"); provided the Change in Control Payment shall be reduced by the amount of the Restrictive Covenants Agreement Setoff, if applicable; and

(ii) notwithstanding anything to the contrary in any applicable option agreement or other stock-based award agreement, all time-based stock options and other stock-based awards subject to time-based vesting held by you (the "Time-Based Equity Awards") shall immediately accelerate and become fully exercisable or nonforfeitable as of the later of (i) the Date of Termination or (ii) the effective date of the Separation Agreement and Release (the "Accelerated Vesting Date"); *provided* that any termination or forfeiture of the unvested portion of such Time-Based Equity Awards that would otherwise occur on the Date of Termination in the absence of this Agreement will be delayed until the effective date of the Separation Agreement and Release and will only occur if the vesting pursuant to this subsection does not occur due to the absence of the Separation Agreement and Release becoming fully effective within the time period set forth therein. Notwithstanding the foregoing, no additional vesting of the Time-Based Equity Awards shall occur during the period between your Date of Termination and the Accelerated Vesting Date; and

(iii) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under COBRA, the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the twelve (12) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under this Section 6(a), to the extent taxable, shall be paid or commence to be paid within 60 days after the Date of Termination; provided, however, that if the 60-day period

begins in one calendar year and ends in a second calendar year, such payments to the extent they qualify as "non-qualified deferred compensation" within the meaning of Section 409A of the Code, shall be paid or commence to be paid in the second calendar year by the last day of such 60-day period.

(b) Additional Limitation.

(i) Anything in this Agreement to the contrary notwithstanding, in the event that the amount of any compensation, payment or distribution by the Company to or for the benefit of you, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise, calculated in a manner consistent with Section 280G of the Code, and the applicable regulations thereunder (the "Aggregate Payments"), would be subject to the excise tax imposed by Section 4999 of the Code, then the Aggregate Payments shall be reduced (but not below zero) so that the sum of all of the Aggregate Payments shall be $1.00 less than the amount at which you became the subject to the excise tax imposed by Section 4999 of the Code; provided that such reduction shall only occur if it would result in you receiving a higher After Tax Amount (as defined below) than you would receive if the Aggregate Payments were not subject to such reduction. In such event, the Aggregate Payments shall be reduced in the following order, in each case, in reverse chronological order beginning with the Aggregate Payments that are to be paid the furthest in time from consummation of the transaction that is subject to Section 280G of the Code: (1) cash payments not subject to Section 409A of the Code; (2) cash payments subject to Section 409A of the Code; (3) equity-based payments and acceleration; and (4) non-cash forms of benefits; provided that in the case of all the foregoing Aggregate Payments all amounts or payments that are not subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c) shall be reduced before any amounts that are subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c).

(ii) For purposes of this Section 6(b), the "After Tax Amount" means the amount of the Aggregate Payments less all federal, state, and local income, excise and employment taxes imposed on you as a result of your receipt of the Aggregate Payments. For purposes of determining the After Tax Amount, you shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation applicable to individuals for the calendar year in which the determination is to be made, and state and local income taxes at the highest marginal rates of individual taxation in each applicable state and locality, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes.

(iii) The determination as to whether a reduction in the Aggregate Payments shall be made pursuant to Section 6(b)(i) shall be made by a nationally recognized accounting firm selected by the Company (the "Accounting Firm"), which shall provide detailed supporting calculations both to the Company and you within 15 business days of the Date of Termination, if applicable, or at such earlier time as is reasonably requested by the Company or you. Any determination by the Accounting Firm shall be binding upon the Company and you.

(c) Definitions. For purposes of this Section 6, the following terms shall have the following meanings:

"Change in Control" shall mean the consummation of any of the following:

(i) the dissolution or liquidation of the Company;

(ii) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity;

(iii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the surviving or resulting entity (or its ultimate parent, if applicable);

(iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons; or

(v) any other acquisition of the business of the Company, as determined by the Board.

Notwithstanding the foregoing, a "Change in Control" shall not be deemed to have occurred: (A) as a result of the consummation of the first firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale by the Company of its equity securities, as a result of or following which the Company's common stock shall be publicly held, or any subsequent public offering or another capital raising event; or (B) as a result of the consummation of a merger effected solely to change the Company's domicile.

7. Section 409A.

(a) Anything in this Agreement to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to under this Agreement or otherwise on account of your separation from service would be considered deferred compensation otherwise subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule.

(b) All in-kind benefits provided and expenses eligible for reimbursement under this Agreement shall be provided by the Company or incurred by you during the time periods

set forth in this Agreement. All reimbursements shall be paid as soon as administratively practicable, but in no event shall any reimbursement be paid after the last day of the taxable year following the taxable year in which the expense was incurred. The amount of in-kind benefits provided or reimbursable expenses incurred in one taxable year shall not affect the in-kind benefits to be provided or the expenses eligible for reimbursement in any other taxable year (except for any lifetime or other aggregate limitation applicable to medical expenses). Such right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit.

(c) To the extent that any payment or benefit described in this Agreement constitutes "non-qualified deferred compensation" under Section 409A of the Code, and to the extent that such payment or benefit is payable upon your termination of employment, then such payments or benefits shall be payable only upon your "separation from service." The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

(d) The parties intend that this Agreement will be administered in accordance with Section 409A of the Code. To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision shall be read in such a manner so that all payments hereunder comply with Section 409A of the Code. Each payment pursuant to this Agreement or the Restrictive Covenants Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2). The parties agree that this Agreement may be amended, as reasonably requested by either party, and as may be necessary to fully comply with Section 409A of the Code and all related rules and regulations in order to preserve the payments and benefits provided hereunder without additional cost to either party.

(e) The Company makes no representation or warranty and shall have no liability to you or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

8. Continuing Obligations.

(a) Restrictive Covenants Agreement. As a condition of your employment, you are required to enter into the Employee Confidentiality, Assignment, Nonsolicitation and Noncompetition Agreement attached hereto as Exhibit A (the "Restrictive Covenants Agreement"). To the extent additional consideration for the Restrictive Covenant Agreement is deemed required, you agree that the enhanced compensation and benefits contained in this Agreement constitute mutually agreed-upon, fair and reasonable consideration for the Restrictive Covenant Agreement that is independent of your employment with the Company. For purposes of this Agreement, the obligations in this Section 8 and those that arise in the Restrictive Covenants Agreement and any other agreement relating to confidentiality, assignment of inventions, or other restrictive covenants shall collectively be referred to as the "Continuing Obligations." You agree that you have been advised to consult with counsel with respect to this Agreement and the Restrictive Covenant Agreement and Continuing Obligations.

(b) Third-Party Agreements and Rights. You hereby confirm that you are not bound by the terms of any agreement with any previous employer or other party which restricts in

any way your use or disclosure of information, other than confidentiality restrictions (if any), or your engagement in any business. You represent to the Company that your execution of this Agreement, your employment with the Company and the performance of your proposed duties for the Company will not violate any obligations you may have to any such previous employer or other party. In your work for the Company, you will not disclose or make use of any information in violation of any agreements with or rights of any such previous employer or other party, and you will not bring to the premises of the Company any copies or other tangible embodiments of non-public information belonging to or obtained from any such previous employment or other party.

(c) Litigation and Regulatory Cooperation. During and after your employment, you shall cooperate fully with the Company in (i) the defense or prosecution of any claims or actions now in existence or which may be brought in the future against or on behalf of the Company which relate to events or occurrences that transpired while you were employed by the Company, and (ii) the investigation, whether internal or external, of any matters about which the Company believes you may have knowledge or information. Your full cooperation in connection with such claims, actions or investigations shall include, but not be limited to, being available to meet with counsel to answer questions or to prepare for discovery or trial and to act as a witness on behalf of the Company at mutually convenient times. During and after your employment, you also shall cooperate fully with the Company in connection with any investigation or review of any federal, state or local regulatory authority as any such investigation or review relates to events or occurrences that transpired while you were employed by the Company. The Company shall reimburse you for any reasonable out-of-pocket expenses incurred in connection with your performance of obligations pursuant to this Section 8(c).

(d) Relief. You agree that it would be difficult to measure any damages caused to the Company which might result from any breach by you of the Continuing Obligations, and that in any event money damages would be an inadequate remedy for any such breach. Accordingly**,** you agree that if you breach, or propose to breach, any portion of the Continuing Obligations, the Company shall be entitled, in addition to all other remedies that it may have, to an injunction or other appropriate equitable relief to restrain any such breach without showing or proving any actual damage to the Company.

(e) Protected Disclosures and Other Protected Action. Nothing contained in this Agreement, any other agreement with the Company, or any Company policy, limits your ability, with or without notice to the Company, to: (i) file a charge or complaint with any federal, state or local governmental agency or commission (a "Government Agency"), including without limitation, the Equal Employment Opportunity Commission, the National Labor Relations Board or the Securities and Exchange Commission; (ii) communicate with any Government Agency or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including by providing non-privileged documents or information; (iii) exercise any rights under Section 7 of the National Labor Relations Act, which are available to non-supervisory employees, including assisting co-workers with or discussing any employment issue as part of engaging in concerted activities for the purpose of mutual aid or protection; (iv) share compensation information concerning yourself or others (provided that this does not permit you to disclose compensation information concerning others that you obtain because your job responsibilities require or allow access to such information); (v) discuss or disclose information

about unlawful acts in the workplace, such as harassment or discrimination or any other conduct that you have reason to believe is unlawful; or (vi) testify truthfully in a legal proceeding. Any such communications and disclosures must not violate applicable law and the information disclosed must not have been obtained through a communication that was subject to the attorney-client privilege (unless disclosure of that information would otherwise be permitted consistent with such privilege or applicable law). In addition, for the avoidance of doubt, pursuant to the federal Defend Trade Secrets Act of 2016, you shall not be held criminally or civilly liable under any federal or state trade secret law or under this Agreement or the Restrictive Covenants Agreement for the disclosure of a trade secret that (A) is made (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

9. Arbitration of Disputes.

(a) Arbitration Generally. Any controversy or claim arising out of or relating to this Agreement or the breach thereof or otherwise arising out of your employment or the termination of that employment (including, without limitation, any claims of unlawful employment discrimination or retaliation, whether based on race, religion, national origin, sex, gender, age, disability, sexual orientation, or any other protected class under applicable law, including without limitation Massachusetts General Laws Chapter 151B) shall, to the fullest extent permitted by law, be settled by arbitration in any forum and form agreed upon by the parties or, in the absence of such an agreement, under the auspices of JAMS in Boston, Massachusetts in accordance with the JAMS Employment Arbitration Rules, including, but not limited to, the rules and procedures applicable to the selection of arbitrators. You understand that you may only bring such claims in your individual capacity, and not as a plaintiff or class member in any purported class proceeding or any purported representative proceeding. You further understand that, by signing this Agreement, the Company and you are giving up any right they may have to a jury trial on all claims they may have against each other. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. This Section 9 shall be specifically enforceable. Notwithstanding the foregoing, this Section 9 shall not preclude either party from pursuing a court action for the sole purpose of obtaining a temporary restraining order or a preliminary injunction in circumstances in which such relief is appropriate, including without limitation relief sought under the Restrictive Covenants Agreement; provided that any other relief shall be pursued through an arbitration proceeding pursuant to this Section 9.

(b) Arbitration Fees and Costs. You shall be required to pay an arbitration fee to initiate any arbitration equal to what you would be charged as a first appearance fee in court. The Company shall advance the remaining fees and costs of the arbitrator. However, to the extent permissible under the law, and following the arbitrator's ruling on the matter, the arbitrator may rule that the arbitrator's fees and costs be distributed in an alternative manner. Each party shall pay its own costs and attorneys' fees, if any. If, however, any party prevails on a statutory or contractual claim that affords the prevailing party attorneys' fees (including pursuant to this Agreement), the arbitrator may award attorneys' fees to the prevailing party to the extent permitted by law.

10. Consent to Jurisdiction. To the extent that any court action is permitted consistent with or to enforce Section 9 of this Agreement, the parties hereby consent to the jurisdiction of the state and federal courts of the Commonwealth of Massachusetts. Accordingly, with respect to any such court action, you (a) submit to the exclusive personal jurisdiction of such courts; (b) consent to service of process; and (c) waive any other requirement (whether imposed by statute, rule of court, or otherwise) with respect to personal jurisdiction or service of process.

11. Waiver of Jury Trial. You and the Company irrevocably and unconditionally WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY PROCEEDING (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR YOUR EMPLOYMENT BY THE COMPANY OR ANY AFFILIATE OF THE COMPANY, INCLUDING WITHOUT LIMITATION YOURS OR THE COMPANY'S PERFORMANCE UNDER, OR THE ENFORCEMENT OF, THIS AGREEMENT.

12. Integration. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements between the parties concerning such subject matter.

13. Withholding; Tax Effect. All payments made by the Company to you under this Agreement shall be net of any tax or other amounts required to be withheld by the Company under applicable law. Nothing in this Agreement shall be construed to require the Company to make any payments to compensate you for any adverse tax effect associated with any payments or benefits or for any deduction or withholding from any payment or benefit.

14. Assignment. Neither you nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; provided, however, that the Company may assign its rights and obligations under this Agreement (including the Restrictive Covenants Agreement) without your consent to any affiliate or to any person or entity with whom the Company shall hereafter effect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets; provided further that if you remain employed or become employed by the Company, the purchaser or any of their affiliates in connection with any such transaction, then you shall not be entitled to any payments, benefits or vesting pursuant to Section 5 or pursuant to Section 6 of this Agreement. This Agreement shall inure to the benefit of and be binding upon you and the Company, and each of yours and the Company's respective successors, executors, administrators, heirs and permitted assigns.

15. Enforceability. If any portion or provision of this Agreement (including, without limitation, any portion or provision of any section of this Agreement) shall to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

16. Survival. The provisions of this Agreement shall survive the termination of this Agreement and/or the termination of your employment to the extent necessary to effectuate the terms contained herein.

17. Waiver. No waiver of any provision hereof shall be effective unless made in writing and signed by the waiving party. The failure of any party to require the performance of any term or obligation of this Agreement, or the waiver by any party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

18. Notices. Any notices, requests, demands and other communications provided for by this Agreement shall be sufficient if in writing and delivered in person or sent by a nationally recognized overnight courier service or by registered or certified mail, postage prepaid, return receipt requested, to you at the last address you has filed in writing with the Company or, in the case of the Company, at its main offices, attention of the Board.

19. Amendment. This Agreement may be amended or modified only by a written instrument signed by you and by a duly authorized representative of the Company.

20. Effect on Other Plans and Agreements. An election by you to resign for Good Reason under the provisions of this Agreement shall not be deemed a voluntary termination of employment by you for the purpose of interpreting the provisions of any of the Company's benefit plans, programs or policies. Nothing in this Agreement shall be construed to limit the rights of you under the Company's benefit plans, programs or policies except as otherwise provided in Section 8 hereof, and except that you shall have no rights to any severance benefits under any Company severance pay plan, offer letter or otherwise. Except for the Restrictive Covenants Agreement, in the event that you are a party to an agreement with the Company providing for payments or benefits under such plan or agreement and under this Agreement, the terms of this Agreement shall govern and you may receive payment under this Agreement only and not both. Further, Section 5 and Section 6 of this Agreement are mutually exclusive and in no event shall you be entitled to payments or benefits pursuant to both Section 5 and Section 6 of this Agreement.

21. Governing Law. This is a Massachusetts contract and shall be construed under and be governed in all respects by the laws of the Commonwealth of Massachusetts, without giving effect to the conflict of laws principles thereof.

22. Other Conditions. Notwithstanding anything to the contrary herein, the effectiveness of this Agreement shall be conditioned on (i) your satisfactory completion of reference and background checks, if so requested by the Company, and (ii) your submission to the Company of satisfactory proof of your legal authorization to work in the United States.

23. Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be taken to be an original; but such counterparts shall together constitute one and the same document.

[*Signature page follows*]

IN WITNESS WHEREOF, the parties have executed this Agreement effective on the Effective Date.

COMPANY

Q32 Bio Inc.

By: /s/ Jodie Morrison
Name: Jodie Morrison
Its: Chief Executive Officer

EXECUTIVE

/s/ Lee Kalowski
Lee Kalowski

Signature page to Employment Agreement

Exhibit A

Restrictive Covenants Agreement

Exhibit 10.17

EMPLOYMENT AGREEMENT

This Employment Agreement ("Agreement") is made between Q32 Bio Inc., a Delaware corporation (the "Company"), and you, Jason Campagna, and is effective as of, and conditioned on the closing of, the transactions contemplated by that certain Agreement and Plan of Merger, dated as of November 16, 2023, by and among the Company, Homology Medicines, Inc., and the other parties thereto (the "Effective Date"). For the avoidance of doubt, if the closing of such transactions does not occur, this Agreement shall be null and void *ab initio*. Except with respect to the Equity Documents (each as defined below), this Agreement supersedes in all respects all prior agreements between you and the Company regarding the subject matter herein, including without limitation (i) the Employment Agreement between you and the Company dated February 11, 2021 (the "Prior Agreement"), and (ii) any other offer letter, employment agreement or severance agreement between you and the Company.

WHEREAS, the Company desires to continue to employ you and you desire to continue to be employed by the Company on the new terms and conditions contained herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Employment.

(a) Term. The Company shall continue employ you and you shall continue to be employed by the Company pursuant to this Agreement commencing as of the Effective Date and continuing until such employment is terminated in accordance with the provisions hereof (the "Term"). Your employment with the Company will continue to be "at will," meaning that your employment may be terminated by the Company or you at any time and for any reason subject to the terms of this Agreement.

(b) Position and Duties. You shall continue to serve as the Chief Medical Officer of the Company and shall have such powers and duties as may from time to time be prescribed by the Chief Executive Officer (the "CEO") or other duly authorized executive. You shall devote your full working time and efforts to the business and affairs of the Company. Notwithstanding the foregoing, you may serve on other boards of directors, with the approval of the Board of Directors of the Company (the "Board"), or engage in religious, charitable or other community activities as long as such services and activities are disclosed to the Board and do not interfere with your performance of your duties to the Company. To the extent applicable, you shall be deemed to have resigned from all officer and board member positions that you hold with the Company or any of its respective subsidiaries and affiliates upon the termination of your employment for any reason. You shall execute any documents in reasonable form as may be requested to confirm or effectuate any such resignations.

2. Compensation and Related Matters.

(a) Base Salary. Effective as of March 25, 2024, your initial base salary under this Agreement shall be paid at the rate of $500,000 per year. Your base salary shall be subject to periodic review by the Board or the Compensation Committee of the Board (the "Compensation Committee"). The base salary in effect at any given time is referred to herein as "Base Salary." The Base Salary shall be payable in a manner that is consistent with the Company's usual payroll practices for executive officers.

(b) Incentive Compensation. You shall be eligible to receive cash incentive compensation as determined by the Board or the Compensation Committee from time to time. Your initial target annual incentive compensation under this Agreement shall be 40% of the Base Salary. The target

annual incentive compensation in effect at any given time is referred to herein as "Target Bonus." The actual amount of your annual incentive compensation, if any, shall be determined in the sole discretion of the Board or the Compensation Committee, subject to the terms of any applicable incentive compensation plan that may be in effect from time to time. Except as otherwise provided herein, to earn incentive compensation, you must be employed by the Company on the day such incentive compensation is paid.

(c) Expenses. You shall be entitled to receive prompt reimbursement for all reasonable expenses incurred by you during the Term in performing services hereunder, in accordance with the policies and procedures then in effect and established by the Company for its executive officers.

(d) Other Benefits. You shall be eligible to participate in or receive benefits under the Company's employee benefit plans in effect from time to time, subject to the terms of such plans.

(e) Paid Time Off. You shall be entitled to take paid time off in accordance with the Company's applicable paid time off policy for executives, as may be in effect from time to time.

(f) Equity. Subject to the approval of the Board or the Compensation Committee, you will be granted an option to purchase 1,272,361 shares of the Company's common stock (the "Option"), subject in all respects to the Company's stock plan and the associated stock option agreement required to be entered into by you and the Company (the "Equity Documents"). Without limiting the foregoing, the Option will, among other terms, be subject to a four year vesting schedule, with 25% of the Option vesting on the first anniversary of the vesting date set forth in the Equity Documents, and the remaining portion vesting monthly in substantially equal installments after such first anniversary until the fourth anniversary of the vesting date, provided that you remain continuously employed with the Company through each applicable vesting date.

(g) Indemnification and D & O Insurance. The Company shall provide you with indemnification and D & O insurance coverage customary for executives of employers similarly situated to the Company.

3. Termination. Your employment hereunder may be terminated without any breach of this Agreement under the following circumstances:

(a) Death. Your employment hereunder shall terminate upon death.

(b) Disability. The Company may terminate your employment if you are disabled and unable to perform or expected to be unable to perform the essential functions of your then existing position or positions under this Agreement with or without reasonable accommodation for a period of 180 days (which need not be consecutive) in any 12-month period. If any question shall arise as to whether during any period you are disabled so as to be unable to perform the essential functions of your then existing position or positions with or without reasonable accommodation, you may, and at the request of the Company shall, submit to the Company a certification in reasonable detail by a physician selected by the Company to whom you or your guardian has no reasonable objection as to whether you are disabled or how long such disability is expected to continue, and such certification shall for the purposes of this Agreement be conclusive of the issue. You shall cooperate with any reasonable request of the physician in connection with such certification. If such question shall arise and you shall fail to submit such certification, the Company's determination of such issue shall be binding on you. Nothing in this Section 3(b) shall be construed to waive your rights, if any, under existing law including, without limitation, the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 *et seq*. and the Americans with Disabilities Act, 42 U.S.C. §12101 *et seq.*

(c) Termination by Company for Cause. The Company may terminate your employment hereunder for Cause. For purposes of this Agreement, "Cause" shall mean any of the following:

(i) your indictment for, or plea of nolo contendere to, any crime constituting a felony, or a misdemeanor which involves your fraud, theft, embezzlement, dishonest acts or similar matters involving moral turpitude;

(ii) any material and willful act of theft, dishonesty, embezzlement or misappropriation by you in connection with the performance of your duties as an executive of the Company;

(iii) any willful failure or refusal by you to substantially perform your duties under this Agreement or to obey the lawful directives of the CEO or the Board or breach by you of your representations, warranties, covenants or obligations under this Agreement (including the Restrictive Covenant Agreement) or any other agreement you have with the Company; provided that Company may terminate your employment pursuant to this subsection only if you fail to cure such willful failure or refusal, disobedience or breach within thirty (30) days after receiving written notice from Company describing such failure or refusal, disobedience or breach in reasonable detail;

(iv) your gross negligence, willful misconduct or willful malfeasance in connection with your services to the Company; provided, if such conduct by you is curable, the Company may terminate your employment pursuant to this subsection (iv) only if you fail to cure such conduct within thirty (30) days after receiving written notice from the Company describing such gross negligence, willful misconduct or willful malfeasance in reasonable detail;

(v) any material and willful violation of any written policy of the Company relating to equal employment opportunity, discrimination, harassment or

retaliation; provided that the Company may terminate your employment pursuant to this subsection only if you fail to cure such violation within thirty (30) days after receiving written notice from Company describing such violation in reasonable detail; or

(vi) your use of illegal drugs, or excessive use of alcohol or any controlled substance during work hours.

(d) Termination by the Company without Cause. The Company may terminate your employment hereunder at any time without Cause. Any termination by the Company of your employment under this Agreement which does not constitute a termination for Cause under Section 3(c) and does not result from the death or disability of you under Section 3(a) or (b) shall be deemed a termination without Cause.

(e) Termination by You. You may terminate employment hereunder at any time for any reason, including but not limited to, Good Reason. For purposes of this Agreement, "Good Reason" shall mean that you have completed all steps of the Good Reason Process (hereinafter defined) following the occurrence of any of the following events without your consent (each, a "Good Reason Condition"):

(i) a diminution in your responsibilities, authority or duties (it being understood that the hiring of other C-level executives, such as a CFO, CBO, COO, etc., will not give rise to a diminution);

(ii) any diminution in your Base Salary;

(iii) a material change in the geographic location of the Company's physical office at which you provide services to the Company, such that there is an increase of at least fifty (50) miles of driving distance to such location from your principal residence as of such change; or

(iv) a material breach of this Agreement by the Company.

The "Good Reason Process" consists of the following steps:

(i) you reasonably determine in good faith that a Good Reason Condition has occurred;

(ii) you notify the Company in writing of the first occurrence of the Good Reason Condition within 60 days of the first occurrence of such condition;

(iii) you cooperate in good faith with the Company's efforts, for a period of not less than 30 days following such notice (the "Cure Period"), to remedy the Good Reason Condition;

(iv) notwithstanding such efforts, the Good Reason Condition continues to exist; and

(v) you terminate employment within 30 days after the end of the Cure Period.

If the Company cures the Good Reason Condition during the Cure Period, Good Reason shall be deemed not to have occurred.

If your employment with the Company is terminated for any reason, the Company shall pay or provide to you (or your authorized representative or estate) (i) any Base Salary earned through the Date of Termination;

(ii) unpaid expense reimbursements (subject to, and in accordance with, Section 2(c) of this Agreement); and (iii) any vested benefits you may have under any employee benefit plan of the Company through the Date of Termination, which vested benefits shall be paid and/or provided in accordance with the terms of such employee benefit plans (collectively, the "Accrued Obligations").

4. Notice and Date of Termination.

(a) Notice of Termination. Except for termination as specified in Section 3(a), any termination of your employment by the Company or any such termination by you shall be communicated by written Notice of Termination to the other party hereto. For purposes of this Agreement, a "Notice of Termination" shall mean a notice which shall indicate the specific termination provision in this Agreement relied upon.

(b) Date of Termination. "Date of Termination" shall mean: (i) if your employment is terminated by death, the date of death; (ii) if your employment is terminated on account of disability under Section 3(b) or by the Company for Cause under Section 3(c), the date on which Notice of Termination is given; (iii) if your employment is terminated by the Company without Cause under Section 3(d), the date on which a Notice of Termination is given or the date otherwise specified by the Company in the Notice of Termination; (iv) if your employment is terminated by you under Section 3(e) other than for Good Reason, 30 days after the date on which a Notice of Termination is given, and (v) if your employment is terminated by you under Section 3(e) for Good Reason, the date on which a Notice of Termination is given after the end of the Cure Period. Notwithstanding the foregoing, in the event that you give a Notice of Termination to the Company, the Company may unilaterally accelerate the Date of Termination and such acceleration shall not result in a termination by the Company for purposes of this Agreement.

5. Severance Pay and Benefits Upon Termination by the Company without Cause or by You for Good Reason Outside the Change in Control Period. If your employment is terminated by the Company without Cause as provided in Section 3(d), or you terminate employment for Good Reason as provided in Section 3(e), each outside of the Change in Control Period (as defined below), then, in addition to the Accrued Obligations, and subject to (i) you sign a separation agreement and release in a form and manner satisfactory to the Company, which shall include, without limitation, a general release of claims against the Company and all related persons and entities, a reaffirmation of all of your Continuing Obligations (as defined below**),** and, in the Company's sole discretion, a one-year post-employment noncompetition agreement and shall provide that if you breach any of the Continuing Obligations, all payments of the Severance Amount shall immediately cease (the "Separation Agreement and Release"), and (ii) the Separation Agreement and Release becoming irrevocable, all within 60 days after the Date of

Termination (or such shorter period as set forth in the Separation Agreement and Release), which shall include a seven (7) business day revocation period:

(a) the Company shall pay you an amount equal to nine (9) months of your Base Salary (the "Severance Amount"); provided in the event you are entitled to any payments pursuant to the Restrictive Covenants Agreement, the Severance Amount received in any calendar year will be reduced by the amount you are paid in the same such calendar year pursuant to the Restrictive Covenants Agreement (the "Restrictive Covenants Agreement Setoff"); and

(b) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the nine (9) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under Section 5, to the extent taxable, shall be paid out in substantially equal installments in accordance with the Company's payroll practice over nine (9) months commencing within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, the Severance Amount, to the extent it qualifies as "non-qualified deferred compensation" within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), shall begin to be paid in the second calendar year by the last day of such 60-day period; provided, further, that the initial payment shall include a catch-up payment to cover amounts retroactive to the day immediately following the Date of Termination. Each payment pursuant to this Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2).

6. Severance Pay and Benefits Upon Termination by the Company without Cause or by the You for Good Reason within the Change in Control Period. The provisions of this Section 6 shall apply in lieu of, and expressly supersede, the provisions of Section 5 if (i) your employment is terminated either (a) by the Company without Cause as provided in Section 3(d), or (b) by you for Good Reason as provided in Section 3(e), and (ii) the Date of Termination is within 12 months after the occurrence of the first event constituting a Change in Control (such period, the "Change in Control Period"). These provisions shall terminate and be of no further force or effect after a Change in Control Period.

(a) If your employment is terminated by the Company without Cause as provided in Section 3(d) or you terminate employment for Good Reason as provided in Section 3(e) and in each case the Date of Termination occurs during the Change in Control Period, then,

in addition to the Accrued Obligations, and subject to the signing of the Separation Agreement and Release by you and the Separation Agreement and Release becoming fully effective, all within the time frame set forth in the Separation Agreement and Release but in no event more than 60 days after the Date of Termination:

(i) the Company shall pay you a lump sum in cash in an amount equal to the sum of (A) twelve (12) months of your then current Base Salary (or your Base Salary in effect immediately prior to the Change in Control, if higher) plus (B) your Target Bonus for the then-current year (the "Change in Control Payment"); provided the Change in Control Payment shall be reduced by the amount of the Restrictive Covenants Agreement Setoff, if applicable; and

(ii) notwithstanding anything to the contrary in any applicable option agreement or other stock-based award agreement, all time-based stock options and other stock-based awards subject to time-based vesting held by you (the "Time-Based Equity Awards") shall immediately accelerate and become fully exercisable or nonforfeitable as of the later of (i) the Date of Termination or (ii) the effective date of the Separation Agreement and Release (the "Accelerated Vesting Date"); *provided* that any termination or forfeiture of the unvested portion of such Time-Based Equity Awards that would otherwise occur on the Date of Termination in the absence of this Agreement will be delayed until the effective date of the Separation Agreement and Release and will only occur if the vesting pursuant to this subsection does not occur due to the absence of the Separation Agreement and Release becoming fully effective within the time period set forth therein. Notwithstanding the foregoing, no additional vesting of the Time-Based Equity Awards shall occur during the period between your Date of Termination and the Accelerated Vesting Date; and

(iii) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under COBRA, the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the twelve (12) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under this Section 6(a), to the extent taxable, shall be paid or commence to be paid within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, such payments to the extent they qualify as "non-qualified deferred compensation" within the meaning of Section 409A of the Code,shall be paid or commence to be paid in the second calendar year by the last day of such 60-day period.

(b) Additional Limitation.

(i) Anything in this Agreement to the contrary notwithstanding, in the event that the amount of any compensation, payment or distribution by the Company to or for the benefit of you, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise, calculated in a manner consistent with Section 280G of the Code, and the applicable regulations thereunder (the "Aggregate Payments"), would be subject to the excise tax imposed by Section 4999 of the Code, then the Aggregate Payments shall be reduced (but not below zero) so that the sum of all of the Aggregate Payments shall be $1.00 less than the amount at which you became the subject to the excise tax imposed by Section 4999 of the Code; provided that such reduction shall only occur if it would result in you receiving a higher After Tax Amount (as defined below) than you would receive if the Aggregate Payments were not subject to such reduction. In such event, the Aggregate Payments shall be reduced in the following order, in each case, in reverse chronological order beginning with the Aggregate Payments that are to be paid the furthest in time from consummation of the transaction that is subject to Section 280G of the Code: (1) cash payments not subject to Section 409A of the Code; (2) cash payments subject to Section 409A of the Code; (3) equity-based payments and acceleration; and (4) non-cash forms of benefits; provided that in the case of all the foregoing Aggregate Payments all amounts or payments that are not subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c) shall be reduced before any amounts that are subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c).

(ii) For purposes of this Section 6(b), the "After Tax Amount" means the amount of the Aggregate Payments less all federal, state, and local income, excise and employment taxes imposed on you as a result of your receipt of the Aggregate Payments. For purposes of determining the After Tax Amount, you shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation applicable to individuals for the calendar year in which the determination is to be made, and state and local income taxes at the highest marginal rates of individual taxation in each applicable state and locality, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes.

(iii) The determination as to whether a reduction in the Aggregate Payments shall be made pursuant to Section 6(b)(i) shall be made by a nationally recognized accounting firm selected by the Company (the "Accounting Firm"), which shall provide detailed supporting calculations both to the Company and you within 15 business days of the Date of Termination, if applicable, or at such earlier time as is reasonably requested by the Company or you. Any determination by the Accounting Firm shall be binding upon the Company and you.

(c) Definitions. For purposes of this Section 6, the following terms shall have the following meanings:

"Change in Control" shall mean the consummation of any of the following:

(i) the dissolution or liquidation of the Company;

(ii) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity;

(iii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the surviving or resulting entity (or its ultimate parent, if applicable);

(iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons; or

(v) any other acquisition of the business of the Company, as determined by the Board.

Notwithstanding the foregoing, a "Change in Control" shall not be deemed to have occurred: (A) as a result of the consummation of the first firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale by the Company of its equity securities, as a result of or following which the Company's common stock shall be publicly held, or any subsequent public offering or another capital raising event; or (B) as a result of the consummation of a merger effected solely to change the Company's domicile.

7. Section 409A.

(a) Anything in this Agreement to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to under this Agreement or otherwise on account of your separation from service would be considered deferred compensation otherwise subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule.

(b) All in-kind benefits provided and expenses eligible for reimbursement under this Agreement shall be provided by the Company or incurred by you during the time periods set forth in this Agreement. All reimbursements shall be paid as soon as administratively practicable, but in no event shall any reimbursement be paid after the last day of the taxable year following the taxable year in which the expense was incurred. The amount of in-kind benefits

provided or reimbursable expenses incurred in one taxable year shall not affect the in-kind benefits to be provided or the expenses eligible for reimbursement in any other taxable year (except for any lifetime or other aggregate limitation applicable to medical expenses). Such right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit.

(c) To the extent that any payment or benefit described in this Agreement constitutes "non-qualified deferred compensation" under Section 409A of the Code, and to the extent that such payment or benefit is payable upon your termination of employment, then such payments or benefits shall be payable only upon your "separation from service." The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

(d) The parties intend that this Agreement will be administered in accordance with Section 409A of the Code. To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision shall be read in such a manner so that all payments hereunder comply with Section 409A of the Code. Each payment pursuant to this Agreement or the Restrictive Covenants Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2). The parties agree that this Agreement may be amended, as reasonably requested by either party, and as may be necessary to fully comply with Section 409A of the Code and all related rules and regulations in order to preserve the payments and benefits provided hereunder without additional cost to either party.

(e) The Company makes no representation or warranty and shall have no liability to you or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

8. Continuing Obligations.

(a) Restrictive Covenants Agreement. You agree to comply with the terms of the Employee Confidentiality, Assignment, Nonsolicitation and Noncompetition Agreement, (the "Restrictive Covenants Agreement") attached hereto as Exhibit A, you agree that the enhanced compensation and benefits contained in this Agreement, including without limitation your eligibility for an additional equity grant and cash incentive compensation, constitute mutually agreed-upon, fair and reasonable consideration for the Restrictive Covenant Agreement that is independent of your employment with the Company. For purposes of this Agreement, the obligations in this Section 8 and those that arise in the Restrictive Covenants Agreement and any other agreement relating to confidentiality, assignment of inventions, or other restrictive covenants shall collectively be referred to as the "Continuing Obligations." You agree that you have been advised to consult with counsel with respect to this Agreement and the Restrictive Covenant Agreement and Continuing Obligations.

(b) Third-Party Agreements and Rights. You hereby confirm that you are not bound by the terms of any agreement with any previous employer or other party which restricts in any way your use or disclosure of information, other than confidentiality restrictions (if any), or your engagement in any business. You represent to the Company that your execution of this Agreement, your employment with the Company and the performance of your proposed duties for

the Company will not violate any obligations you may have to any such previous employer or other party. In your work for the Company, you will not disclose or make use of any information in violation of any agreements with or rights of any such previous employer or other party, and you will not bring to the premises of the Company any copies or other tangible embodiments of non-public information belonging to or obtained from any such previous employment or other party.

(c) Litigation and Regulatory Cooperation. During and after your employment, you shall cooperate fully with the Company in (i) the defense or prosecution of any claims or actions now in existence or which may be brought in the future against or on behalf of the Company which relate to events or occurrences that transpired while you were employed by the Company, and (ii) the investigation, whether internal or external, of any matters about which the Company believes you may have knowledge or information. Your full cooperation in connection with such claims, actions or investigations shall include, but not be limited to, being available to meet with counsel to answer questions or to prepare for discovery or trial and to act as a witness on behalf of the Company at mutually convenient times. During and after your employment, you also shall cooperate fully with the Company in connection with any investigation or review of any federal, state or local regulatory authority as any such investigation or review relates to events or occurrences that transpired while you were employed by the Company. The Company shall reimburse you for any reasonable out-of-pocket expenses incurred in connection with your performance of obligations pursuant to this Section 8(c).

(d) Relief. You agree that it would be difficult to measure any damages caused to the Company which might result from any breach by you of the Continuing Obligations, and that in any event money damages would be an inadequate remedy for any such breach. Accordingly**,** you agree that if you breach, or propose to breach, any portion of the Continuing Obligations, the Company shall be entitled, in addition to all other remedies that it may have, to an injunction or other appropriate equitable relief to restrain any such breach without showing or proving any actual damage to the Company.

(e) Protected Disclosures and Other Protected Action. Nothing contained in this Agreement, any other agreement with the Company, or any Company policy, limits your ability, with or without notice to the Company, to: (i) file a charge or complaint with any federal, state or local governmental agency or commission (a "Government Agency"), including without limitation, the Equal Employment Opportunity Commission, the National Labor Relations Board or the Securities and Exchange Commission; (ii) communicate with any Government Agency or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including by providing non-privileged documents or information; (iii) exercise any rights under Section 7 of the National Labor Relations Act, which are available to non-supervisory employees, including assisting co-workers with or discussing any employment issue as part of engaging in concerted activities for the purpose of mutual aid or protection; (iv) share compensation information concerning yourself or others (provided that this does not permit you to disclose compensation information concerning others that you obtain because your job responsibilities require or allow access to such information); (v) discuss or disclose information about unlawful acts in the workplace, such as harassment or discrimination or any other conduct that you have reason to believe is unlawful; or (vi) testify truthfully in a legal proceeding. Any such communications and disclosures must not violate applicable law and the information

disclosed must not have been obtained through a communication that was subject to the attorney- client privilege (unless disclosure of that information would otherwise be permitted consistent with such privilege or applicable law). In addition, for the avoidance of doubt, pursuant to the federal Defend Trade Secrets Act of 2016, you shall not be held criminally or civilly liable under any federal or state trade secret law or under this Agreement or the Restrictive Covenants Agreement for the disclosure of a trade secret that (A) is made (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

9. Arbitration of Disputes.

(a) Arbitration Generally. Any controversy or claim arising out of or relating to this Agreement or the breach thereof or otherwise arising out of your employment or the termination of that employment (including, without limitation, any claims of unlawful employment discrimination or retaliation, whether based on race, religion, national origin, sex, gender, age, disability, sexual orientation, or any other protected class under applicable law, including without limitation Massachusetts General Laws Chapter 151B) shall, to the fullest extent permitted by law, be settled by arbitration in any forum and form agreed upon by the parties or, in the absence of such an agreement, under the auspices of JAMS in Boston, Massachusetts in accordance with the JAMS Employment Arbitration Rules, including, but not limited to, the rules and procedures applicable to the selection of arbitrators. You understand that you may only bring such claims in your individual capacity, and not as a plaintiff or class member in any purported class proceeding or any purported representative proceeding. You further understand that, by signing this Agreement, the Company and you are giving up any right they may have to a jury trial on all claims they may have against each other. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. This Section 9 shall be specifically enforceable. Notwithstanding the foregoing, this Section 9 shall not preclude either party from pursuing a court action for the sole purpose of obtaining a temporary restraining order or a preliminary injunction in circumstances in which such relief is appropriate, including without limitation relief sought under the Restrictive Covenants Agreement; provided that any other relief shall be pursued through an arbitration proceeding pursuant to this Section 9.

(b) Arbitration Fees and Costs. You shall be required to pay an arbitration fee to initiate any arbitration equal to what you would be charged as a first appearance fee in court. The Company shall advance the remaining fees and costs of the arbitrator. However, to the extent permissible under the law, and following the arbitrator's ruling on the matter, the arbitrator may rule that the arbitrator's fees and costs be distributed in an alternative manner. Each party shall pay its own costs and attorneys' fees, if any. If, however, any party prevails on a statutory or contractual claim that affords the prevailing party attorneys' fees (including pursuant to this Agreement), the arbitrator may award attorneys' fees to the prevailing party to the extent permitted by law.

10. Consent to Jurisdiction. To the extent that any court action is permitted consistent with or to enforce Section 9 of this Agreement, the parties hereby consent to the jurisdiction of the state and federal courts of the Commonwealth of Massachusetts. Accordingly, with respect to any such court action, you (a) submit to the exclusive personal jurisdiction of such courts; (b) consent to service of process; and (c) waive any other requirement (whether imposed by statute, rule of court, or otherwise) with respect to personal jurisdiction or service of process.

11. Waiver of Jury Trial. You and the Company irrevocably and unconditionally WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY PROCEEDING (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR YOUR EMPLOYMENT BY THE COMPANY OR ANY AFFILIATE OF THE COMPANY, INCLUDING WITHOUT LIMITATION YOURS OR THE COMPANY'S PERFORMANCE UNDER, OR THE ENFORCEMENT OF, THIS AGREEMENT.

12. Integration. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements between the parties concerning such subject matter**,** including the Prior Agreement, provided that the Equity Documents remain in full force and effect.

13. Withholding; Tax Effect. All payments made by the Company to you under this Agreement shall be net of any tax or other amounts required to be withheld by the Company under applicable law. Nothing in this Agreement shall be construed to require the Company to make any payments to compensate you for any adverse tax effect associated with any payments or benefits or for any deduction or withholding from any payment or benefit.

14. Assignment. Neither you nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; provided, however, that the Company may assign its rights and obligations under this Agreement (including the Restrictive Covenants Agreement) without your consent to any affiliate or to any person or entity with whom the Company shall hereafter effect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets; provided further that if you remain employed or become employed by the Company, the purchaser or any of their affiliates in connection with any such transaction, then you shall not be entitled to any payments, benefits or vesting pursuant to Section 5 or pursuant to Section 6 of this Agreement. This Agreement shall inure to the benefit of and be binding upon you and the Company, and each of yours and the Company's respective successors, executors, administrators, heirs and permitted assigns.

15. Enforceability. If any portion or provision of this Agreement (including, without limitation, any portion or provision of any section of this Agreement) shall to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

16. Survival. The provisions of this Agreement shall survive the termination of this Agreement and/or the termination of your employment to the extent necessary to effectuate the terms contained herein.

17. Waiver. No waiver of any provision hereof shall be effective unless made in writing and signed by the waiving party. The failure of any party to require the performance of any term or obligation of this Agreement, or the waiver by any party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

18. Notices. Any notices, requests, demands and other communications provided for by this Agreement shall be sufficient if in writing and delivered in person or sent by a nationally

recognized overnight courier service or by registered or certified mail, postage prepaid, return receipt requested, to you at the last address you has filed in writing with the Company or, in the case of the Company, at its main offices, attention of the Board.

19. Amendment. This Agreement may be amended or modified only by a written instrument signed by you and by a duly authorized representative of the Company.

20. Effect on Other Plans and Agreements. An election by you to resign for Good Reason under the provisions of this Agreement shall not be deemed a voluntary termination of employment by you for the purpose of interpreting the provisions of any of the Company's benefit plans, programs or policies. Nothing in this Agreement shall be construed to limit the rights of you under the Company's benefit plans, programs or policies except as otherwise provided in Section 8 hereof, and except that you shall have no rights to any severance benefits under any Company severance pay plan, offer letter or otherwise. Except for the Restrictive Covenants Agreement, in the event that you are a party to an agreement with the Company providing for payments or benefits under such plan or agreement and under this Agreement, the terms of this Agreement shall govern and you may receive payment under this Agreement only and not both. Further, Section 5 and Section 6 of this Agreement are mutually exclusive and in no event shall you be entitled to payments or benefits pursuant to both Section 5 and Section 6 of this Agreement.

21. Governing Law. This is a Massachusetts contract and shall be construed under and be governed in all respects by the laws of the Commonwealth of Massachusetts, without giving effect to the conflict of laws principles thereof.

22. Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be taken to be an original; but such counterparts shall together constitute one and the same document.

[*Signature page follows*]

IN WITNESS WHEREOF, the parties have executed this Agreement effective on the Effective Date.

COMPANY

Q32 Bio Inc.

By: /s/ Jodie Morrison
Name: Jodie Morrison
Its: Chief Executive Officer

EXECUTIVE

/s/ Jason Campagna
Jason Campagna

Exhibit A

Restrictive Covenants Agreement

Exhibit 10.18

EMPLOYMENT AGREEMENT

This Employment Agreement ("Agreement") is made between Q32 Bio Inc., a Delaware corporation (the "Company"), and you, Shelia Violette, and is effective as of, and conditioned on the closing of, the transactions contemplated by that certain Agreement and Plan of Merger, dated as of November 16, 2023, by and among the Company, Homology Medicines, Inc., and the other parties thereto (the "Effective Date"). For the avoidance of doubt, if the closing of such transactions does not occur, this Agreement shall be null and void *ab initio*. Except with respect to the Equity Documents (each as defined below), this Agreement supersedes in all respects all prior agreements between you and the Company regarding the subject matter herein, including without limitation (i) the Employment Agreement between you and the Company (f/k/a AdMIRx, Inc.) dated September, 2017 (the "Prior Agreement"), and (ii) any other offer letter, employment agreement or severance agreement between you and the Company.

WHEREAS, the Company desires to continue to employ you and you desire to continue to be employed by the Company on the new terms and conditions contained herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Employment.

(a) Term. The Company shall continue employ you and you shall continue to be employed by the Company pursuant to this Agreement commencing as of the Effective Date and continuing until such employment is terminated in accordance with the provisions hereof (the "Term"). Your employment with the Company will continue to be "at will," meaning that your employment may be terminated by the Company or you at any time and for any reason subject to the terms of this Agreement.

(b) Position and Duties. You shall continue to serve as the Chief Scientific Officer, President of Research of the Company and shall have such powers and duties as may from time to time be prescribed by the Chief Executive Officer (the "CEO") or other duly authorized executive. You shall devote your full working time and efforts to the business and affairs of the Company. Notwithstanding the foregoing, you may serve on other boards of directors, with the approval of the Board of Directors of the Company (the "Board"), or engage in religious, charitable or other community activities as long as such services and activities are disclosed to the Board and do not interfere with your performance of your duties to the Company. To the extent applicable, you shall be deemed to have resigned from all officer and board member positions that you hold with the Company or any of its respective subsidiaries and affiliates upon the termination of your employment for any reason. You shall execute any documents in reasonable form as may be requested to confirm or effectuate any such resignations.

2. Compensation and Related Matters.

(a) Base Salary. Effective as of March 25, 2024, your initial base salary under this Agreement shall be paid at the rate of $455,000 per year. Your base salary shall be subject to

periodic review by the Board or the Compensation Committee of the Board (the "Compensation Committee"). The base salary in effect at any given time is referred to herein as "Base Salary." The Base Salary shall be payable in a manner that is consistent with the Company's usual payroll practices for executive officers.

(b) Incentive Compensation. You shall be eligible to receive cash incentive compensation as determined by the Board or the Compensation Committee from time to time. Your initial target annual incentive compensation under this Agreement shall be 40% of the Base Salary. The target annual incentive compensation in effect at any given time is referred to herein as "Target Bonus." The actual amount of your annual incentive compensation, if any, shall be determined in the sole discretion of the Board or the Compensation Committee, subject to the terms of any applicable incentive compensation plan that may be in effect from time to time. Except as otherwise provided herein, to earn incentive compensation, you must be employed by the Company on the day such incentive compensation is paid.

(c) Expenses. You shall be entitled to receive prompt reimbursement for all reasonable expenses incurred by you during the Term in performing services hereunder, in accordance with the policies and procedures then in effect and established by the Company for its executive officers.

(d) Other Benefits. You shall be eligible to participate in or receive benefits under the Company's employee benefit plans in effect from time to time, subject to the terms of such plans.

(e) Paid Time Off. You shall be entitled to take paid time off in accordance with the Company's applicable paid time off policy for executives, as may be in effect from time to time.

(f) Equity. Subject to the approval of the Board or the Compensation Committee, you will be granted an option to purchase 1,015,424 shares of the Company's common stock (the "Option"), subject in all respects to the Company's stock plan and the associated stock option agreement required to be entered into by you and the Company (the "Equity Documents"). Without limiting the foregoing, the Option will, among other terms, be subject to a four year vesting schedule, with 25% of the Option vesting on the first anniversary of the vesting date set forth in the Equity Documents, and the remaining portion vesting monthly in substantially equal installments after such first anniversary until the fourth anniversary of the vesting date, provided that you remain continuously employed with the Company through each applicable vesting date.

(g) Indemnification and D & O Insurance. The Company shall provide you with indemnification and D & O insurance coverage customary for executives of employers similarly situated to the Company.

3. Termination. Your employment hereunder may be terminated without any breach of this Agreement under the following circumstances:

(a) Death. Your employment hereunder shall terminate upon death.

(b) Disability. The Company may terminate your employment if you are disabled and unable to perform or expected to be unable to perform the essential functions of your then existing position or positions under this Agreement with or without reasonable accommodation for a period of 180 days (which need not be consecutive) in any 12-month period. If any question shall arise as to whether during any period you are disabled so as to be unable to perform the essential functions of your then existing position or positions with or without reasonable accommodation, you may, and at the request of the Company shall, submit to the Company a certification in reasonable detail by a physician selected by the Company to whom you or your guardian has no reasonable objection as to whether you are disabled or how long such disability is expected to continue, and such certification shall for the purposes of this Agreement be conclusive of the issue. You shall cooperate with any reasonable request of the physician in connection with such certification. If such question shall arise and you shall fail to submit such certification, the Company's determination of such issue shall be binding on you. Nothing in this Section 3(b) shall be construed to waive your rights, if any, under existing law including, without limitation, the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 *et seq*. and the Americans with Disabilities Act, 42 U.S.C. §12101 *et seq.*

(c) Termination by Company for Cause. The Company may terminate your employment hereunder for Cause. For purposes of this Agreement, "Cause" shall mean any of the following:

(i) your indictment for, or plea of nolo contendere to, any crime constituting a felony, or a misdemeanor which involves your fraud, theft, embezzlement, dishonest acts or similar matters involving moral turpitude;

(ii) any material and willful act of theft, dishonesty, embezzlement or misappropriation by you in connection with the performance of your duties as an executive of the Company;

(iii) any willful failure or refusal by you to substantially perform your duties under this Agreement or to obey the lawful directives of the CEO or the Board or breach by you of your representations, warranties, covenants or obligations under this Agreement (including the Restrictive Covenant Agreement) or any other agreement you have with the Company; provided that Company may terminate your employment pursuant to this subsection only if you fail to cure such willful failure or refusal, disobedience or breach within thirty (30) days after receiving written notice from Company describing such failure or refusal, disobedience or breach in reasonable detail;

(iv) your gross negligence, willful misconduct or willful malfeasance in connection with your services to the Company; provided, if such conduct by you is curable, the Company may terminate your employment pursuant to this subsection (iv) only if you fail to cure such conduct within thirty (30) days after receiving written notice from the Company describing such gross negligence, willful misconduct or willful malfeasance in reasonable detail;

(v) any material and willful violation of any written policy of the Company relating to equal employment opportunity, discrimination, harassment or

retaliation; provided that the Company may terminate your employment pursuant to this subsection only if you fail to cure such violation within thirty (30) days after receiving written notice from Company describing such violation in reasonable detail; or

(vi) your use of illegal drugs, or excessive use of alcohol or any controlled substance during work hours.

(d) Termination by the Company without Cause. The Company may terminate your employment hereunder at any time without Cause. Any termination by the Company of your employment under this Agreement which does not constitute a termination for Cause under Section 3(c) and does not result from the death or disability of you under Section 3(a) or (b) shall be deemed a termination without Cause.

(e) Termination by You. You may terminate employment hereunder at any time for any reason, including but not limited to, Good Reason. For purposes of this Agreement, "Good Reason" shall mean that you have completed all steps of the Good Reason Process (hereinafter defined) following the occurrence of any of the following events without your consent (each, a "Good Reason Condition"):

(i) a diminution in your responsibilities, authority or duties (it being understood that the hiring of other C-level executives, such as a CFO, CBO, COO, etc., will not give rise to a diminution);

(ii) any diminution in your Base Salary;

(iii) a material change in the geographic location of the Company's physical office at which you provide services to the Company, such that there is an increase of at least fifty (50) miles of driving distance to such location from your principal residence as of such change; or

(iv) a material breach of this Agreement by the Company.

The "Good Reason Process" consists of the following steps:

(i) you reasonably determine in good faith that a Good Reason Condition has occurred;

(ii) you notify the Company in writing of the first occurrence of the Good Reason Condition within 60 days of the first occurrence of such condition;

(iii) you cooperate in good faith with the Company's efforts, for a period of not less than 30 days following such notice (the "Cure Period"), to remedy the Good Reason Condition;

(iv) notwithstanding such efforts, the Good Reason Condition continues to exist; and

(v) you terminate employment within 30 days after the end of the Cure Period.

If the Company cures the Good Reason Condition during the Cure Period, Good Reason shall be deemed not to have occurred.

If your employment with the Company is terminated for any reason, the Company shall pay or provide to you (or your authorized representative or estate) (i) any Base Salary earned through the Date of Termination; (ii) unpaid expense reimbursements (subject to, and in accordance with, Section 2(c) of this Agreement); and (iii) any vested benefits you may have under any employee benefit plan of the Company through the Date of Termination, which vested benefits shall be paid and/or provided in accordance with the terms of such employee benefit plans (collectively, the "Accrued Obligations").

4. Notice and Date of Termination.

(a) Notice of Termination. Except for termination as specified in Section 3(a), any termination of your employment by the Company or any such termination by you shall be communicated by written Notice of Termination to the other party hereto. For purposes of this Agreement, a "Notice of Termination" shall mean a notice which shall indicate the specific termination provision in this Agreement relied upon.

(b) Date of Termination. "Date of Termination" shall mean: (i) if your employment is terminated by death, the date of death; (ii) if your employment is terminated on account of disability under Section 3(b) or by the Company for Cause under Section 3(c), the date on which Notice of Termination is given; (iii) if your employment is terminated by the Company without Cause under Section 3(d), the date on which a Notice of Termination is given or the date otherwise specified by the Company in the Notice of Termination; (iv) if your employment is terminated by you under Section 3(e) other than for Good Reason, 30 days after the date on which a Notice of Termination is given, and (v) if your employment is terminated by you under Section 3(e) for Good Reason, the date on which a Notice of Termination is given after the end of the Cure Period. Notwithstanding the foregoing, in the event that you give a Notice of Termination to the Company, the Company may unilaterally accelerate the Date of Termination and such acceleration shall not result in a termination by the Company for purposes of this Agreement.

5. Severance Pay and Benefits Upon Termination by the Company without Cause or by You for Good Reason Outside the Change in Control Period. If your employment is terminated by the Company without Cause as provided in Section 3(d), or you terminate employment for Good Reason as provided in Section 3(e), each outside of the Change in Control Period (as defined below), then, in addition to the Accrued Obligations, and subject to (i) you sign a separation agreement and release in a form and manner satisfactory to the Company, which shall include, without limitation, a general release of claims against the Company and all related persons and entities, a reaffirmation of all of your Continuing Obligations (as defined below**),** and, in the Company's sole discretion, a one-year post-employment noncompetition agreement and shall provide that if you breach any of the Continuing Obligations, all payments of the Severance Amount shall immediately cease (the "Separation Agreement and Release"), and (ii) the Separation Agreement and Release becoming irrevocable, all within 60 days after the Date of

Termination (or such shorter period as set forth in the Separation Agreement and Release), which shall include a seven (7) business day revocation period:

(a) the Company shall pay you an amount equal to the sum of (i) twelve (12) months of your Base Salary plus (ii) your target bonus for the then-current year (the "Severance Amount"); provided in the event you are entitled to any payments pursuant to the Restrictive Covenants Agreement, the Severance Amount received in any calendar year will be reduced by the amount you are paid in the same such calendar year pursuant to the Restrictive Covenants Agreement (the "Restrictive Covenants Agreement Setoff");

(b) notwithstanding anything to the contrary in any applicable option agreement or other stock-based award agreement, all time-based stock options and other stock-based awards subject to time-based vesting held by you (the "Time-Based Equity Awards") shall immediately have the applicable vesting schedule accelerated by twelve (12) months, and any Time-Based Equity Awards vesting in accordance with the foregoing shall become fully exercisable or nonforfeitable as of the later of (i) the Date of Termination or (ii) the effective date of the Separation Agreement and Release (the "Accelerated Vesting Date"); *provided* that any termination or forfeiture of the unvested portion of such Time-Based Equity Awards that would otherwise occur on the Date of Termination in the absence of this Agreement will be delayed until the effective date of the Separation Agreement and Release and will only occur if the vesting pursuant to this subsection does not occur due to the absence of the Separation Agreement and Release becoming fully effective within the time period set forth therein. Notwithstanding the foregoing, no additional vesting of the Time-Based Equity Awards shall occur during the period between your Date of Termination and the Accelerated Vesting Date; and

(c) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the twelve (12) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under Section 5, to the extent taxable, shall be paid out in substantially equal installments in accordance with the Company's payroll practice over twelve (12) months commencing within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, the Severance Amount, to the extent it qualifies as "non-qualified deferred compensation" within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), shall begin to be paid in the second calendar year by the last day of such 60-day period; provided, further, that the initial

payment shall include a catch-up payment to cover amounts retroactive to the day immediately following the Date of Termination. Each payment pursuant to this Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2).

6. Severance Pay and Benefits Upon Termination by the Company without Cause or by the You for Good Reason within the Change in Control Period. The provisions of this Section 6 shall apply in lieu of, and expressly supersede, the provisions of Section 5 if (i) your employment is terminated either (a) by the Company without Cause as provided in Section 3(d), or (b) by you for Good Reason as provided in Section 3(e), and (ii) the Date of Termination is within 12 months after the occurrence of the first event constituting a Change in Control (such period, the "Change in Control Period"). These provisions shall terminate and be of no further force or effect after a Change in Control Period.

(a) If your employment is terminated by the Company without Cause as provided in Section 3(d) or you terminate employment for Good Reason as provided in Section 3(e) and in each case the Date of Termination occurs during the Change in Control Period, then, in addition to the Accrued Obligations, and subject to the signing of the Separation Agreement and Release by you and the Separation Agreement and Release becoming fully effective, all within the time frame set forth in the Separation Agreement and Release but in no event more than 60 days after the Date of Termination:

(i) the Company shall pay you a lump sum in cash in an amount equal to the sum of (A) twelve (12) months of your then current Base Salary (or your Base Salary in effect immediately prior to the Change in Control, if higher) plus (B) your Target Bonus for the then-current year (the "Change in Control Payment"); provided the Change in Control Payment shall be reduced by the amount of the Restrictive Covenants Agreement Setoff, if applicable; and

(ii) notwithstanding anything to the contrary in any applicable option agreement or other stock-based award agreement, all Time-Based Equity Awards shall immediately accelerate and become fully exercisable or nonforfeitable as of the Accelerated Vesting Date; *provided* that any termination or forfeiture of the unvested portion of such Time-Based Equity Awards that would otherwise occur on the Date of Termination in the absence of this Agreement will be delayed until the effective date of the Separation Agreement and Release and will only occur if the vesting pursuant to this subsection does not occur due to the absence of the Separation Agreement and Release becoming fully effective within the time period set forth therein. Notwithstanding the foregoing, no additional vesting of the Time-Based Equity Awards shall occur during the period between your Date of Termination and the Accelerated Vesting Date; and

(iii) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under COBRA, the Company shall pay to the group health plan provider, the COBRA provider or you a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the twelve (12) month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other

employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates.

The amounts payable under this Section 6(a), to the extent taxable, shall be paid or commence to be paid within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, such payments to the extent they qualify as "non-qualified deferred compensation" within the meaning of Section 409A of the Code, shall be paid or commence to be paid in the second calendar year by the last day of such 60-day period.

(b) Additional Limitation.

(i) Anything in this Agreement to the contrary notwithstanding, in the event that the amount of any compensation, payment or distribution by the Company to or for the benefit of you, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise, calculated in a manner consistent with Section 280G of the Code, and the applicable regulations thereunder (the "Aggregate Payments"), would be subject to the excise tax imposed by Section 4999 of the Code, then the Aggregate Payments shall be reduced (but not below zero) so that the sum of all of the Aggregate Payments shall be $1.00 less than the amount at which you became the subject to the excise tax imposed by Section 4999 of the Code; provided that such reduction shall only occur if it would result in you receiving a higher After Tax Amount (as defined below) than you would receive if the Aggregate Payments were not subject to such reduction. In such event, the Aggregate Payments shall be reduced in the following order, in each case, in reverse chronological order beginning with the Aggregate Payments that are to be paid the furthest in time from consummation of the transaction that is subject to Section 280G of the Code: (1) cash payments not subject to Section 409A of the Code; (2) cash payments subject to Section 409A of the Code; (3) equity-based payments and acceleration; and (4) non-cash forms of benefits; provided that in the case of all the foregoing Aggregate Payments all amounts or payments that are not subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c) shall be reduced before any amounts that are subject to calculation under Treas. Reg. §1.280G-1, Q&A-24(b) or (c).

(ii) For purposes of this Section 6(b), the "After Tax Amount" means the amount of the Aggregate Payments less all federal, state, and local income, excise and employment taxes imposed on you as a result of your receipt of the Aggregate Payments. For purposes of determining the After Tax Amount, you shall be deemed to pay federal income taxes at the highest marginal rate of federal income taxation applicable to individuals for the calendar year in which the determination is to be made, and state and local income taxes at the highest marginal rates of individual taxation in each applicable state and locality, net of the maximum reduction in federal income taxes which could be obtained from deduction of such state and local taxes.

(iii) The determination as to whether a reduction in the Aggregate Payments shall be made pursuant to Section 6(b)(i) shall be made by a nationally recognized accounting firm selected by the Company (the "Accounting Firm"), which shall provide detailed supporting calculations both to the Company and you within 15 business days of the Date of Termination, if applicable, or at such earlier time as is reasonably requested by the Company or you. Any determination by the Accounting Firm shall be binding upon the Company and you.

(c) Definitions. For purposes of this Section 6, the following terms shall have the following meanings:

"Change in Control" shall mean the consummation of any of the following:

(i) the dissolution or liquidation of the Company;

(ii) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity;

(iii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the surviving or resulting entity (or its ultimate parent, if applicable);

(iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons; or

(v) any other acquisition of the business of the Company, as determined by the Board.

Notwithstanding the foregoing, a "Change in Control" shall not be deemed to have occurred: (A) as a result of the consummation of the first firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale by the Company of its equity securities, as a result of or following which the Company's common stock shall be publicly held, or any subsequent public offering or another capital raising event; or (B) as a result of the consummation of a merger effected solely to change the Company's domicile.

7. Section 409A.

(a) Anything in this Agreement to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to under this Agreement or otherwise on account of your separation from service would be considered deferred compensation otherwise subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier

of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule.

(b) All in-kind benefits provided and expenses eligible for reimbursement under this Agreement shall be provided by the Company or incurred by you during the time periods set forth in this Agreement. All reimbursements shall be paid as soon as administratively practicable, but in no event shall any reimbursement be paid after the last day of the taxable year following the taxable year in which the expense was incurred. The amount of in-kind benefits provided or reimbursable expenses incurred in one taxable year shall not affect the in-kind benefits to be provided or the expenses eligible for reimbursement in any other taxable year (except for any lifetime or other aggregate limitation applicable to medical expenses). Such right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit.

(c) To the extent that any payment or benefit described in this Agreement constitutes "non-qualified deferred compensation" under Section 409A of the Code, and to the extent that such payment or benefit is payable upon your termination of employment, then such payments or benefits shall be payable only upon your "separation from service." The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

(d) The parties intend that this Agreement will be administered in accordance with Section 409A of the Code. To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision shall be read in such a manner so that all payments hereunder comply with Section 409A of the Code. Each payment pursuant to this Agreement or the Restrictive Covenants Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2). The parties agree that this Agreement may be amended, as reasonably requested by either party, and as may be necessary to fully comply with Section 409A of the Code and all related rules and regulations in order to preserve the payments and benefits provided hereunder without additional cost to either party.

(e) The Company makes no representation or warranty and shall have no liability to you or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

8. Continuing Obligations.

(a) Restrictive Covenants Agreement. You agree to comply with the terms of the Employee Confidentiality, Assignment, Nonsolicitation and Noncompetition Agreement, (the "Restrictive Covenants Agreement") attached hereto as Exhibit A, you agree that the enhanced compensation and benefits contained in this Agreement, including without limitation your eligibility for an additional equity grant and cash incentive compensation, constitute mutually agreed-upon, fair and reasonable consideration for the Restrictive Covenant Agreement that is independent of your employment with the Company. For purposes of this Agreement, the

obligations in this Section 8 and those that arise in the Restrictive Covenants Agreement and any other agreement relating to confidentiality, assignment of inventions, or other restrictive covenants shall collectively be referred to as the "Continuing Obligations." You agree that you have been advised to consult with counsel with respect to this Agreement and the Restrictive Covenant Agreement and Continuing Obligations.

(b) Third-Party Agreements and Rights. You hereby confirm that you are not bound by the terms of any agreement with any previous employer or other party which restricts in any way your use or disclosure of information, other than confidentiality restrictions (if any), or your engagement in any business. You represent to the Company that your execution of this Agreement, your employment with the Company and the performance of your proposed duties for the Company will not violate any obligations you may have to any such previous employer or other party. In your work for the Company, you will not disclose or make use of any information in violation of any agreements with or rights of any such previous employer or other party, and you will not bring to the premises of the Company any copies or other tangible embodiments of non-public information belonging to or obtained from any such previous employment or other party.

(c) Litigation and Regulatory Cooperation. During and after your employment, you shall cooperate fully with the Company in (i) the defense or prosecution of any claims or actions now in existence or which may be brought in the future against or on behalf of the Company which relate to events or occurrences that transpired while you were employed by the Company, and (ii) the investigation, whether internal or external, of any matters about which the Company believes you may have knowledge or information. Your full cooperation in connection with such claims, actions or investigations shall include, but not be limited to, being available to meet with counsel to answer questions or to prepare for discovery or trial and to act as a witness on behalf of the Company at mutually convenient times. During and after your employment, you also shall cooperate fully with the Company in connection with any investigation or review of any federal, state or local regulatory authority as any such investigation or review relates to events or occurrences that transpired while you were employed by the Company. The Company shall reimburse you for any reasonable out-of-pocket expenses incurred in connection with your performance of obligations pursuant to this Section 8(c).

(d) Relief. You agree that it would be difficult to measure any damages caused to the Company which might result from any breach by you of the Continuing Obligations, and that in any event money damages would be an inadequate remedy for any such breach. Accordingly**,** you agree that if you breach, or propose to breach, any portion of the Continuing Obligations, the Company shall be entitled, in addition to all other remedies that it may have, to an injunction or other appropriate equitable relief to restrain any such breach without showing or proving any actual damage to the Company.

(e) Protected Disclosures and Other Protected Action. Nothing contained in this Agreement, any other agreement with the Company, or any Company policy, limits your ability, with or without notice to the Company, to: (i) file a charge or complaint with any federal, state or local governmental agency or commission (a "Government Agency"), including without limitation, the Equal Employment Opportunity Commission, the National Labor Relations Board or the Securities and Exchange Commission; (ii) communicate with any Government Agency or

otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including by providing non-privileged documents or information; (iii) exercise any rights under Section 7 of the National Labor Relations Act, which are available to non-supervisory employees, including assisting co-workers with or discussing any employment issue as part of engaging in concerted activities for the purpose of mutual aid or protection; (iv) share compensation information concerning yourself or others (provided that this does not permit you to disclose compensation information concerning others that you obtain because your job responsibilities require or allow access to such information); (v) discuss or disclose information about unlawful acts in the workplace, such as harassment or discrimination or any other conduct that you have reason to believe is unlawful; or (vi) testify truthfully in a legal proceeding. Any such communications and disclosures must not violate applicable law and the information disclosed must not have been obtained through a communication that was subject to the attorney-client privilege (unless disclosure of that information would otherwise be permitted consistent with such privilege or applicable law). In addition, for the avoidance of doubt, pursuant to the federal Defend Trade Secrets Act of 2016, you shall not be held criminally or civilly liable under any federal or state trade secret law or under this Agreement or the Restrictive Covenants Agreement for the disclosure of a trade secret that (A) is made (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

9. Arbitration of Disputes.

(a) Arbitration Generally. Any controversy or claim arising out of or relating to this Agreement or the breach thereof or otherwise arising out of your employment or the termination of that employment (including, without limitation, any claims of unlawful employment discrimination or retaliation, whether based on race, religion, national origin, sex, gender, age, disability, sexual orientation, or any other protected class under applicable law, including without limitation Massachusetts General Laws Chapter 151B) shall, to the fullest extent permitted by law, be settled by arbitration in any forum and form agreed upon by the parties or, in the absence of such an agreement, under the auspices of JAMS in Boston, Massachusetts in accordance with the JAMS Employment Arbitration Rules, including, but not limited to, the rules and procedures applicable to the selection of arbitrators. You understand that you may only bring such claims in your individual capacity, and not as a plaintiff or class member in any purported class proceeding or any purported representative proceeding. You further understand that, by signing this Agreement, the Company and you are giving up any right they may have to a jury trial on all claims they may have against each other. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. This Section 9 shall be specifically enforceable. Notwithstanding the foregoing, this Section 9 shall not preclude either party from pursuing a court action for the sole purpose of obtaining a temporary restraining order or a preliminary injunction in circumstances in which such relief is appropriate, including without limitation relief sought under the Restrictive Covenants Agreement; provided that any other relief shall be pursued through an arbitration proceeding pursuant to this Section 9.

(b) Arbitration Fees and Costs. You shall be required to pay an arbitration fee to initiate any arbitration equal to what you would be charged as a first appearance fee in court. The Company shall advance the remaining fees and costs of the arbitrator. However, to the extent

permissible under the law, and following the arbitrator's ruling on the matter, the arbitrator may rule that the arbitrator's fees and costs be distributed in an alternative manner. Each party shall pay its own costs and attorneys' fees, if any. If, however, any party prevails on a statutory or contractual claim that affords the prevailing party attorneys' fees (including pursuant to this Agreement), the arbitrator may award attorneys' fees to the prevailing party to the extent permitted by law.

10. Consent to Jurisdiction. To the extent that any court action is permitted consistent with or to enforce Section 9 of this Agreement, the parties hereby consent to the jurisdiction of the state and federal courts of the Commonwealth of Massachusetts. Accordingly, with respect to any such court action, you (a) submit to the exclusive personal jurisdiction of such courts; (b) consent to service of process; and (c) waive any other requirement (whether imposed by statute, rule of court, or otherwise) with respect to personal jurisdiction or service of process.

11. Waiver of Jury Trial. You and the Company irrevocably and unconditionally WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY PROCEEDING (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR YOUR EMPLOYMENT BY THE COMPANY OR ANY AFFILIATE OF THE COMPANY, INCLUDING WITHOUT LIMITATION YOURS OR THE COMPANY'S PERFORMANCE UNDER, OR THE ENFORCEMENT OF, THIS AGREEMENT.

12. Integration. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements between the parties concerning such subject matter**,** including the Prior Agreement, provided that the Equity Documents remain in full force and effect.

13. Withholding; Tax Effect. All payments made by the Company to you under this Agreement shall be net of any tax or other amounts required to be withheld by the Company under applicable law. Nothing in this Agreement shall be construed to require the Company to make any payments to compensate you for any adverse tax effect associated with any payments or benefits or for any deduction or withholding from any payment or benefit.

14. Assignment. Neither you nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; provided, however, that the Company may assign its rights and obligations under this Agreement (including the Restrictive Covenants Agreement) without your consent to any affiliate or to any person or entity with whom the Company shall hereafter effect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets; provided further that if you remain employed or become employed by the Company, the purchaser or any of their affiliates in connection with any such transaction, then you shall not be entitled to any payments, benefits or vesting pursuant to Section 5 or pursuant to Section 6 of this Agreement. This Agreement shall inure to the benefit of and be binding upon you and the Company, and each of yours and the Company's respective successors, executors, administrators, heirs and permitted assigns.

15. Enforceability. If any portion or provision of this Agreement (including, without limitation, any portion or provision of any section of this Agreement) shall to any extent be

declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

16. Survival. The provisions of this Agreement shall survive the termination of this Agreement and/or the termination of your employment to the extent necessary to effectuate the terms contained herein.

17. Waiver. No waiver of any provision hereof shall be effective unless made in writing and signed by the waiving party. The failure of any party to require the performance of any term or obligation of this Agreement, or the waiver by any party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

18. Notices. Any notices, requests, demands and other communications provided for by this Agreement shall be sufficient if in writing and delivered in person or sent by a nationally recognized overnight courier service or by registered or certified mail, postage prepaid, return receipt requested, to you at the last address you has filed in writing with the Company or, in the case of the Company, at its main offices, attention of the Board.

19. Amendment. This Agreement may be amended or modified only by a written instrument signed by you and by a duly authorized representative of the Company.

20. Effect on Other Plans and Agreements. An election by you to resign for Good Reason under the provisions of this Agreement shall not be deemed a voluntary termination of employment by you for the purpose of interpreting the provisions of any of the Company's benefit plans, programs or policies. Nothing in this Agreement shall be construed to limit the rights of you under the Company's benefit plans, programs or policies except as otherwise provided in Section 8 hereof, and except that you shall have no rights to any severance benefits under any Company severance pay plan, offer letter or otherwise. Except for the Restrictive Covenants Agreement, in the event that you are a party to an agreement with the Company providing for payments or benefits under such plan or agreement and under this Agreement, the terms of this Agreement shall govern and you may receive payment under this Agreement only and not both. Further, Section 5 and Section 6 of this Agreement are mutually exclusive and in no event shall you be entitled to payments or benefits pursuant to both Section 5 and Section 6 of this Agreement.

21. Governing Law. This is a Massachusetts contract and shall be construed under and be governed in all respects by the laws of the Commonwealth of Massachusetts, without giving effect to the conflict of laws principles thereof.

22. Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be taken to be an original; but such counterparts shall together constitute one and the same document.

[*Signature page follows*]

IN WITNESS WHEREOF, the parties have executed this Agreement effective on the Effective Date.

COMPANY

Q32 Bio Inc.

By: /s/ Jodie Morrison
Name: Jodie Morrison
Its: Chief Executive Officer

EXECUTIVE

/s/ Shelia Violette
Shelia Violette

Signature page to Employment Agreement

Exhibit A

Restrictive Covenants Agreement

Exhibit 16.1

March 26, 2024

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-7561

Dear Sirs/Madams:

We have read Item 4.01 of Q32 Bio Inc.'s (formerly known as Homology Medicines, Inc.) Form 8-K dated March 26, 2024, and have the following comments:

1. We are in agreement with the statements made in part (a) Dismissal of Independent Registered Public Accounting Firm.
2. We have no basis on which to agree or disagree with the statements made in part (b) Appointment of New Independent Registered Public Accounting Firm.

Yours truly,

/s/ Deloitte & Touche LLP

Boston, Massachusetts

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statements (Form S-3 Nos. 333-270414 and 333-237131) of Homology Medicines, Inc.,

(2) Registration Statement (Form S-8 No. 333-270398) pertaining to the Homology Medicines, Inc. 2018 Incentive Award Plan and Homology Medicines, Inc. 2018 Employee Stock Purchase Plan, and

(3) Registration Statement (Form S-8 No. 333-224030) pertaining to the Homology Medicines, Inc. 2015 Stock Incentive Plan, as amended, Homology Medicines, Inc. 2018 Incentive Award Plan and Homology Medicines, Inc. 2018 Employee Stock Purchase Plan;

of our report dated March 26, 2024, relating to the consolidated financial statements of Q32 Bio, Inc. as of and for the years ended December 31, 2023 and 2022 appearing in this Current Report (Form 8-K) of Homology Medicines, Inc. filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 26, 2024

CONFIDENTIAL

Q32 Bio Announces Closing of Merger with Homology Medicines and Concurrent Private Placement of $42 Million

— Q32 Bio to focus on advancement of bempikibart (ADX-914) in ongoing atopic dermatitis (AD) and alopecia areata (AA) Phase 2 clinical trials and commencement of ADX-097 Phase 2 renal basket clinical trial in patients with complement disorders —

— Post-transaction cash, cash equivalents and investments of approximately $130 million expected to fund operations to mid-2026, including key Phase 2 readouts for bempikibart in 2H'24 and ADX-097 Phase 2 topline results in 2H'25 —

— Shares to trade on Nasdaq under the new ticker symbol "QTTB" commencing on March 26, 2024 —

WALTHAM, Mass.—Mar. 25, 2024 – Q32 Bio Inc. (NASDAQ: QTTB) ("Q32 Bio"), a clinical stage biotechnology company focused on developing biologic therapeutics to restore immune homeostasis, today announced the completion of its previously announced merger with Homology Medicines, Inc. ("Homology"). The combined company will operate under the name Q32 Bio, and its shares are expected to begin trading on the Nasdaq Global Market on March 25, 2024, under the ticker symbol "QTTB".

Concurrent with the closing of the merger, Q32 Bio completed a $42 million private placement with a syndicate of existing and new investors including OrbiMed, Atlas Venture, Abingworth, Bristol Myers Squibb, Acorn Bioventures, Osage University Partners, CU Healthcare Innovation Fund, Sanofi Ventures, Agent Capital and other undisclosed investors. Following the transactions, Q32 Bio's cash, cash equivalents and investments of approximately $130 million, before payment of final transaction-related expenses, are expected to fund operations through mid-2026.

"It's an exciting time to be transitioning into a publicly traded company as we prepare to complete and release results from two bempikibart placebo-controlled Phase 2 trials later this year and initiate the first Phase 2 trial for our lead tissue-targeted complement inhibitor ADX-097, and prepare to initiate a second ADX-097 trial in early 2025 with topline results expected for both by year-end 2025," said Jodie Morrison, Chief Executive Officer of Q32 Bio. "With a solid financial foundation and investor syndicate, a world-class leadership team, and near-term data readouts in autoimmune and inflammatory diseases with significant unmet needs, we believe we are strongly positioned to enter the public markets, setting the stage for multiple potential opportunities for meaningful value creation. We are thrilled to be completing this transformative transaction that propels Q32 into its next stage of growth."

Bempikibart, Q32 Bio's most advanced product candidate, is a fully human anti-IL-7Rα antibody designed to re-regulate adaptive immune function by blocking signaling mediated by both IL-7 and TSLP and is currently being evaluated in two double-blind, placebo-controlled Phase 2 trials evaluating the use in AD and AA. Q32 Bio remains on track to report topline Phase 2 results from both trials in the second half of 2024.

ADX-097 is based on a novel platform enabling tissue-targeted regulation of the complement system without long-term systemic blockade, a key differentiator from current complement therapeutics. Q32 Bio has completed a first-in-human, Phase 1 ascending dose clinical trial of ADX-097 in healthy volunteers. Results from the Phase 1 trial demonstrated a favorable tolerability and immunogenicity profile across all single and multiple dose cohorts and weekly subcutaneous dosing met exposures for predicted complete complement inhibition in the tissue with no systemic inhibition. Q32 Bio is currently initiating an open-label Phase 2 renal basket trial and will initiate a Phase 2 trial in ANCA-Associated Vasculitis (AAV) in the first half of 2025. Results from both trials are expected in the second half of 2025.

Transaction Details

In connection with the closing of the merger, Homology enacted a 1-for-18 reverse stock split of its common stock and issued a non-transferable contingent value right (a "CVR") to Homology shareholders of record as of March 21, 2024, which does not include the former holders of shares of Q32 Bio or the private placement investors. Holders of the CVR will be entitled to receive certain cash payments from proceeds received by the Company, if any, related to the dispositions of Homology's pre-transaction legacy assets. Following the reverse stock split and based on the final exchange ratio of 0.8676 shares of Homology common stock for each share of Q32 Bio common stock, at the closing of the merger there are approximately 12,002,933 shares of the combined company's common stock outstanding, with prior Homology stockholders owning approximately 25.6% and prior Q32 Bio stockholders (including investors in the private placement) holding approximately 74.4% of the combined company's outstanding common stock.

Leerink Partners served as the exclusive financial advisor to Q32 Bio. Leerink Partners, Piper Sandler, Guggenheim Securities, and Oppenheimer & Co. served as placement agents for Q32 Bio's private placement. Goodwin Procter LLP is serving as legal counsel to Q32 Bio. TD Cowen served as the exclusive financial advisor and Latham & Watkins LLP served as legal counsel to Homology.

About Q32 Bio

Q32 Bio is a clinical stage biotechnology company developing biologic therapeutics targeting potent regulators of the innate and adaptive immune systems to re-balance immunity in autoimmune and inflammatory diseases. Q32 Bio's lead programs, focused on the IL-7 / TSLP receptor pathways and complement system, address immune dysregulation to help patients take back control of their lives.

Q32 Bio's program for adaptive immunity, bempikibart (ADX-914), is a fully human anti-IL-7Rα antibody that re-regulates adaptive immune function for the treatment of autoimmune diseases. It is being evaluated in two Phase 2 trials for the treatment of atopic dermatitis and alopecia areata. The IL-7 and TSLP pathways have been genetically and biologically implicated in driving several T cell-mediated pathological processes in numerous autoimmune diseases. Q32 Bio's program for innate immunity, ADX-097, is based on a novel platform enabling tissue-targeted regulation of the complement system without long-term systemic blockade – a key differentiator versus current complement therapeutics. Q32 Bio has completed a first-in-human, Phase 1 ascending dose clinical study of ADX-097 in healthy volunteers.

For more information, visit www.Q32Bio.com.

Forward-Looking Statements

This communication contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, including statements regarding the transaction involving Homology and Q32 Bio, the intended use of net proceeds from the private placement financing, the contingent payments contemplated by the CVR, the combined company's expected cash and the sufficiency of the combined company's cash, cash equivalents and short-term investments to fund operations into mid-2026, the listing of the combined company's shares on Nasdaq, the expectations surrounding the potential, safety, efficacy, and regulatory and clinical progress of Q32 Bio's product candidates, including bempikibart and ADX-097, and anticipated milestones and timing, among others.

Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "would," "expect," "anticipate," "plan," "likely," "believe," "estimate," "project," "intend," and other similar expressions among others. Statements that are not historical facts are forward-looking statements. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Actual results could differ materially from those contained in any forward-looking statement as a result of various factors, including, without limitation: (i) the ability of Homology and Q32 Bio to integrate their businesses successfully and to achieve anticipated synergies; (ii) the possibility that other anticipated benefits of the proposed transaction will not be realized, including without limitation, anticipated revenues, expenses, earnings and other financial results, and growth and expansion of the combined company's operations, and the anticipated tax treatment of the combination; (iii) potential litigation relating to the transaction that could be instituted against Homology , Q32 Bio or their respective directors; (iv) the ability of Homology and Q32 Bio to retain, attract and hire key personnel; (v) potential adverse reactions or changes to relationships with customers, employees, suppliers or other parties resulting from the completion of the transaction; (vi) potential business uncertainty, including changes to

existing business relationships that could affect Q32 Bio's financial performance; (vii) the combined company's need for additional funding, which may not be available; (viii) failure to identify additional product candidates and develop or commercialize marketable products; (ix) the early stage of the combined company's development efforts; (x) potential unforeseen events during clinical trials could cause delays or other adverse consequences; (xi) risks relating to the regulatory approval process; (xii) interim, topline and preliminary data may change as more patient data become available, and are subject to audit and verification procedures that could result in material changes in the final data; (xvii) Q32 Bio's product candidates may cause serious adverse side effects; (xiii) inability to maintain our collaborations, or the failure of these collaborations; (xiv) the combined company's reliance on third parties, including for the manufacture of materials for our research programs, preclinical and clinical studies; (xv) failure to obtain U.S.or international marketing approval; (xvi) ongoing regulatory obligations; effects of significant competition; (xvii) unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives; (xviii) product liability lawsuits; (xix) securities class action litigation; (xx) the impact of the COVID-19 pandemic and general economic conditions on our business and operations, including the combined company's preclinical studies and clinical trials; (xxi) the possibility of system failures or security breaches; risks relating to intellectual property; (xxii) significant costs incurred as a result of operating as a public company; and (xxiii) such other factors as are set forth in Q32 Bio's periodic public filings with the SEC, including but not limited to those described under the heading "Risk Factors" in Homology's Form 10-K for the period ended December 31, 2023. Except as required by applicable law, Q32 Bio undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise.

Contacts:

Investors: Brendan Burns
Media: Sarah Sutton
Argot Partners
212.600.1902
Q32Bio@argotpartners.com

RISK FACTORS

On March 25, 2024, we completed the business combination with the privately held Delaware corporation, Q32 Bio, Inc., or Legacy Q32, in accordance with the terms of the Agreement and Plan of Merger dated as of November 16, 2023, or the Merger Agreement, among Legacy Q32, Homology Medicines, Inc., or Homology, and its wholly-owned merger subsidiary. We refer to this business combination throughout these Risk Factors as the Merger. Immediately after the Merger, the former Legacy 25.6% securityholders owned approximately 74.4% of our fully diluted common stock, and our pre-Merger securityholders owned the remaining approximately. As a result of the Merger, our business is now comprised of the business of Legacy Q32, and[although we are considered the legal acquiror of Legacy Q32, for accounting purposes, Legacy Q32 is considered to have acquired our company in the Merger. Consequently, the Merger is accounted for as a reverse recapitalization. Upon completion of the Merger, we changed our name from "Homology Medicines, Inc." to "Q32 Bio, Inc.," our common stock began trading on the Nasdaq Global Market under a new ticker symbol "QTTB" on March 26, 2024 and our financial statements became those of Legacy Q32.

As used in these Risk Factors filed as Exhibit 99.2 to our Current Report on Form 8-K, the words "we," "us," "our," the "Company," and "Q32" refer to Q32 Bio, Inc. and its consolidated subsidiaries following completion of the Merger.

You should consider carefully the risks and uncertainties described below, together with all of the other information in the Current Report on Form 8-K of which this Exhibit 99.2 is a part and in our other filings with the Securities and Exchange Commission, or SEC. We operate in a dynamic and rapidly changing industry that involves numerous risks and uncertainties. The risks and uncertainties described below are not the only ones we face. Other risks and uncertainties, including those that we do not currently consider material, may impair our business. If any of the risks discussed below actually occur, our business, financial condition, operating results or cash flows could be materially adversely affected. The Current Report on Form 8-K of which this Exhibit 99.2 forms a part also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks we face as described below and elsewhere in this Current Report on Form 8-K of which this Exhibit 99.2 forms a part.

Risks Related to Our Business

Risks Related to Our Limited Operating History, Financial Position and Need for Capital

We have incurred significant losses since inception, expects to incur significant losses for the foreseeable future and may not be able to achieve or sustain profitability in the future. We have no products for sale, has not generated any product revenue and may never generate product revenue or become profitable.

Investment in biotechnology product development is a highly speculative undertaking and entails substantial upfront expenditures and significant risks that any program will fail to demonstrate adequate efficacy or an acceptable safety profile, gain regulatory approval and become commercially viable. We have no products approved for commercial sale nor have we generated any revenue from product sales to date and we continue to incur significant research and development and other expenses related to our ongoing operations. We do not expect to generate product revenue unless or until it successfully completes clinical development and obtains regulatory approval of, and then successfully commercializes, at least one product candidate. We may never succeed in these activities and, even if it does, may never generate product revenue or revenues that are significant or large enough to achieve profitability. If we are unable to generate sufficient revenue through the sale of any approved products, it may be unable to continue operations without additional funding.

Legacy Q32 has incurred significant net losses in each period since Legacy Q32 commenced operations in 2017. Legacy Q32's net losses were $53.7 million and $42.8 million for the years ended December 31, 2023 and 2022, respectively. As of December 31, 2023 and December 31, 2022, Legacy Q32 had an accumulated deficit of $187.1 million and $133.3 million, respectively. We expect to continue to incur significant losses for the foreseeable future. Our operating expenses and net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially if and as we:

- advance our existing and future programs through preclinical and clinical development, including expansion into additional indications;

- seek to identify additional programs and additional product candidates;
- maintain, expand, enforce, defend and protect our intellectual property portfolio;
- seek regulatory and marketing approvals for product candidates;
- seek to identify, establish and maintain additional collaborations and license agreements;
- ultimately establish a sales, marketing and distribution infrastructure to commercialize any drug products for which we may obtain marketing approval, either by ourselves or in collaboration with others;
- commence commercial sales of products for which we receive marketing approval;
- hire additional personnel including research and development, clinical and commercial;
- add operational, financial and management information systems and personnel, including personnel to support product development;
- acquire or in-licenses products, intellectual property and technologies; and
- establish commercial-scale current good manufacturing practices, or cGMP, capabilities through a third-party or our own manufacturing facility.

In addition, our expenses will increase if, among other things, we are required by the U.S. Food and Drug Administration, or the FDA, or other regulatory authorities to perform trials or studies in addition to, or different than, those that we currently anticipate, there are any delays in completing our clinical trials or the development of any product candidates, or there are any third-party challenges to our intellectual property or we need to defend against any intellectual property-related claim.

Even if we obtain marketing approval for, and are successful in commercializing, one or more product candidates, we expect to incur substantial additional research and development and other expenditures to develop and market additional programs and/or to expand the approved indications of any marketed product. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue.

Our failure to become profitable would decrease our value and could impair our ability to raise capital, maintain our research and development efforts, expand our business and/or continue our operations. A decline in our value could also cause you to lose all or part of your investment.

We will require substantial additional capital to finance our operations in the future. If we are unable to raise such capital when needed, or on acceptable terms, we may be forced to delay, reduce or eliminate clinical trials, product development programs or future commercialization efforts.

Developing biotechnology products is a very long, time-consuming, expensive and uncertain process that takes years to complete. Since Q32's inception, we have funded our operations primarily through private equity and debt financings and have incurred significant recurring losses. We expect our expenses to increase in connection with our ongoing activities, particularly as we conduct our clinical trials for bempikibart (ADX-914) and ADX-097, initiate additional clinical trials, and continue to research, develop and conduct preclinical studies of our other potential product candidates, and begin to operate as a public company. In addition, if we obtain regulatory approval for any product candidate for commercial sale, including bempikibart or ADX-097, we anticipate incurring significant commercialization expenses related to product manufacturing, marketing, sales and distribution activities to launch

any such product. Our expenses could increase beyond expectations if we are required by the FDA or other regulatory agencies to perform preclinical studies or clinical trials in addition to those that we currently anticipate. Because the design and outcome of our current, planned and anticipated clinical trials are highly uncertain, and many of our near-term plans are subject to regulatory feedback, we cannot reasonably estimate the actual amount of funding that will be necessary to successfully complete the development and commercialization of any product candidate we develop. Our future capital requirements depend on many factors, including factors that are not within our control.

We will also incur additional costs associated with operating as a public company. We will require substantial additional funding to continue our operations. Based on our current operating plan, we believe that our existing cash, cash equivalents and short-term investments should be sufficient to fund our operations to mid-2026. This estimate is based on assumptions that may prove to be materially wrong, and we could use our available capital resources sooner than we currently expect. Our future capital requirements will depend on many factors, including:

- the timing and progress of preclinical and clinical development activities, including our ongoing Phase 2 clinical trials for bempikibart in atopic dermatitis, or AD, and alopecia areata, or AA, our planned renal basket program in lupus nephritis, or LN, immunoglobulin A, or IgA, nephropathy, or IgAN and complement component 3 glomerulopathy, or C3G, and our planned Phase 2 clinical trial for ADX-097 in anti-neutrophil cytoplasmic antibody, or ANCA, -associated vasculitis, or AAV;
- the number and scope of preclinical and clinical programs we pursue;
- our ability to establish an acceptable safety profile with IND-enabling toxicology studies to enable clinical trials;
- successful patient enrollment in, and the initiation and completion of, larger and later-stage clinical trials;
- per subject trial costs;
- the number and extent of trials required for regulatory approval;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible subjects in clinical trials;
- the number of subjects that participate in the trials;
- the drop-out and discontinuation rate of subjects;
- potential additional safety monitoring requested by regulatory agencies;
- the duration of subject participation in the trials and follow-up;
- the extent to which we encounter any serious adverse events in our clinical trials;
- the timing of receipt of regulatory approvals from applicable regulatory authorities;
- the timing, receipt and terms of any marketing approvals and post-marketing approval commitments from applicable regulatory authorities;
- the extent to which we establish or maintain collaborations, strategic partnerships, or other strategic arrangements with third parties, if any, and the performance of any such third parties in connection therewith;
- hiring and retaining research and development personnel;
- our arrangements with our contract development and manufacturing organizations and contract research organizations, or CROs;

- development and timely delivery of clinical and commercial-grade drug formulations that can be used in our planned clinical trials and for commercial launch, respectfully;
- the impact of any business interruptions to our operations or to those of the third parties with whom we work; and
- obtaining, maintaining, defending and enforcing patent claims and other intellectual property rights.

Adequate additional financing may not be available to us on acceptable terms, or at all, and we may be required to seek additional funds sooner than planned through public equity offerings, debt financings, collaborations and licensing arrangements or other sources. Such financing may dilute our stockholders or the failure to obtain such financing may restrict our operating activities. Any additional fundraising efforts may divert our management from our day-to-day activities, which may adversely affect our business. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences and anti-dilution protections that adversely affect your rights as a stockholder. Debt financing or refinancing may result in imposition of debt covenants, increased fixed payment obligations or other restrictions that may affect our business. If we raise additional funds through upfront payments or milestone payments pursuant to future collaborations with third parties, we may have to relinquish valuable rights to product development programs, or grant licenses on terms that are not favorable to us. Our ability to raise additional capital may be adversely impacted by global macroeconomic conditions and volatility in the credit and financial markets in the U.S. and worldwide, over which we may have no or little control. Our failure to raise capital as and when needed or on acceptable terms would have a negative impact on our financial condition and ability to pursue our business strategy, and we may have to delay, reduce the scope of, suspend or eliminate clinical trials, product development programs or future commercialization efforts.

We have a limited operating history and has no products approved for commercial sale, which may make it difficult for you to evaluate our current business and likelihood of success and viability.

We are a clinical-stage biotechnology company with limited operating history. Since Legacy Q32's inception in 2017, it has incurred significant operating losses and has utilized substantially all of its resources to conduct research and development activities (including with respect to its bempikibart and ADX-097 programs) and undertake preclinical studies of product candidates, as well as for conducting clinical trials of its most advanced product candidates and the manufacturing of such product candidates, business planning, developing and maintaining its intellectual property portfolio, hiring personnel, raising capital, and providing general and administrative support for these activities. We have limited significant experience as a company in initiating, conducting or completing clinical trials. In part because of this lack of experience, we cannot be certain that our current and planned clinical trials will begin or be completed on time, if at all. We have not yet demonstrated our ability to successfully complete Phase 3 or other pivotal clinical trials, obtain regulatory or marketing approvals, manufacture a commercial-scale product or arrange for a third party to do so on our behalf, or conduct sales, marketing and distribution activities necessary for successful product commercialization. Additionally, we expect our financial condition and operating results to continue to fluctuate significantly from period to period due to a variety of factors, many of which are beyond our control. Consequently, any predictions made about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, as our business grows, we may encounter unforeseen expenses, restrictions, difficulties, complications, delays and other known and unknown factors. We will need to transition at some point from a company with an early research and development focus to a company capable of supporting larger scale clinical trials and eventually commercial activities. We may not be successful in such a transition.

Risks Related to Discovery, Development and Commercialization

We face competition from entities that have developed or may develop programs for the diseases it plans to address with bempikibart, ADX-097 or other product candidates.

The development and commercialization of drugs and biologics is highly competitive. Our product candidates may compete with other product candidates in development for similar indications, and if approved, bempikibart, ADX-097 or other product candidates will face significant competition and our failure to effectively compete may prevent us from achieving significant market penetration. We compete with a variety of multinational biopharmaceutical companies, specialized biotechnology companies and emerging biotechnology companies, as well as academic institutions, governmental agencies, and public and private research institutions, among others. Many of the companies with which we are currently competing or will compete against in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industry may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites, patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, bempikibart, ADX-097 or other product candidates.

Our competitors have developed, are developing or may develop programs and processes competitive with bempikibart, ADX-097 or other product candidates and processes. Competitive therapeutic treatments include those that have already been approved and accepted by the medical community and any new treatments. Our success will depend partially on our ability to develop and commercialize products that have a competitive safety, efficacy, dosing and/or presentation profile. Our commercial opportunity and success will be reduced or eliminated if competing products are safer, more effective, have a more attractive dosing profile or presentation or are less expensive than any products we may develop, if any, or if competitors develop competing products or if generic products or biosimilars enter the market more quickly than we are able to, if at all, and are able to gain market acceptance.

Bempikibart, ADX-097 and our pipeline are in early stages of development and may fail in development or suffer delays that materially and adversely affect their commercial viability. If we or our current or future collaborators are unable to complete development of, or commercialize, our product candidates, or experience significant delays in doing so, our business will be materially harmed.

We have no products on the market and bempikibart, ADX-097 and our pipeline are in the early stages of development. As a result, we expect it will be many years before we commercialize any product candidate, if any. Our ability to achieve and sustain profitability depends on obtaining regulatory approvals for, and successfully commercializing, bempikibart, ADX-097 or other product candidates either alone or with third parties, and we cannot guarantee that we will ever obtain regulatory approval for any product candidates. We have limited experience as a company in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA or comparable foreign regulatory authorities. We have also not yet demonstrated our ability to obtain regulatory approvals, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Before obtaining regulatory approval for the commercial distribution of product candidates, we or an existing or future collaborator must conduct extensive preclinical tests and clinical trials to demonstrate the safety and efficacy in humans of such product candidates.

We or our collaborators may experience delays in initiating or completing clinical trials. We or our collaborators also may experience numerous unforeseen events during, or as a result of, any current or future clinical trials that could delay or prevent our ability to receive marketing approval or commercialize bempikibart, ADX-097 or any other product candidates, including:

- regulators or Institutional Review Board, or IRBs, the FDA or ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

- clinical trial sites deviating from trial protocol or dropping out of a trial;
- clinical trials of any product candidates may fail to show safety or efficacy, produce negative or inconclusive results and we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials or we may decide to abandon product development programs;
- the number of subjects required for clinical trials of any our product candidates may be larger than we anticipate, especially if regulatory bodies require completion of non-inferiority or superiority trials compared to approved products, enrollment in these clinical trials may be slower than we anticipate or subjects may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, or may deviate from the clinical trial protocol or drop out of the trial, which may require that we add new clinical trial sites or investigators;
- we may elect to, or regulators, IRBs or ethics committees may require that we or our investigators, suspend or terminate clinical research or trials for various reasons, including noncompliance with regulatory requirements or a finding that the participants in our trials are being exposed to unacceptable health risks;
- the cost of clinical trials of any of our product candidates may be greater than we anticipate;
- the quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be inadequate to initiate or complete a given clinical trial;
- our inability to manufacture sufficient quantities of our product candidates for use in clinical trials;
- reports from clinical testing of other therapies may raise safety or efficacy concerns about our product candidates;
- our failure to establish an appropriate safety profile for a product candidate based on clinical or preclinical data for such product candidate as well as data emerging from other therapies in the same class as our product candidates; and
- the FDA or other regulatory authorities may require us to submit additional data such as long-term toxicology studies or impose other requirements before permitting us to initiate a clinical trial.

Commencing clinical trials in the U.S. is subject to the FDA allowing an Investigational New Drug Application, or IND, to proceed after an evaluation of the proposed clinical trial design. In the event that the FDA requires us to complete additional preclinical studies or we are required to satisfy other FDA requests prior to commencing clinical trials, the start of our clinical trials may be delayed. Even after we receive and incorporate guidance from the FDA, the FDA could disagree that we have satisfied their requirements to commence any clinical trial or change their position on the acceptability of our trial design or the clinical endpoints selected, which may require us to complete additional preclinical studies or clinical trials, delay the enrollment of our clinical trials or impose stricter approval conditions than we currently expect. There are comparable processes and risks applicable to clinical trial applications needed to initiate clinical trials in other countries, including countries in the European Union, or EU.

We may not have the financial resources to continue development of, or to modify existing or enter into new collaborations for, a product candidate if we experience any issues that delay or prevent regulatory approval of, or our ability to commercialize, bempikibart, ADX-097 or any other product candidates. We or our current or future collaborators' inability to complete development of, or commercialize, bempikibart, ADX-097 or any other product candidates or significant delays in doing so, could have a material and adverse effect on our business, financial condition, results of operations and prospects.

We are substantially dependent on the success of our most advanced product candidates, bempikibart and ADX-097, and our clinical trials of such candidates may not be successful.

Our future success is substantially dependent on our, or our current or future strategic partners', ability to timely obtain marketing approval for, and then successfully commercialize, our most advanced product candidates, bempikibart and ADX-097. We are investing a majority of our efforts and financial resources into the research and development of these candidates. We are developing bempikibart to treat autoimmune and inflammatory diseases, with the aim of achieving the optimal balance of efficacy, tolerability and convenience for patients via infrequently administered subcutaneous doses. We have completed a Phase 1 double-blind, placebo-controlled, single ascending dose and multiple dose study to assess the safety, pharmacokinetic, or PK, and pharmacodynamic, or PD, of bempikibart after subcutaneous administration in healthy subjects. This study supported further evaluation of bempikibart, including through demonstration of a PK/PD profile supporting evaluation of every two-week subcutaneous dosing in clinical trials. Subsequent to this study, we advanced bempikibart into two Phase 2 clinical trials in atopic dermatitis and alopecia areata. Both trials are currently in the dosing phase, and we expect to complete both studies in the second half of 2024. The success of bempikibart may depend on having a comparable safety and efficacy profile and a more favorable dosing schedule (i.e., less frequent dosing) with patient-friendly administration (i.e., S.C. self-administration) to products currently approved or in development for the indications we plan to pursue.

We have completed a Phase 1 clinical trial of ADX-097 in healthy volunteers and, pending clearance of any regulatory approvals, we anticipate initiating a renal basket program in LN, IgAN, C3G in the first half of 2024 and a Phase 2 clinical trial in AAV in the first quarter of 2025. The success of ADX-097 may depend on having a comparable safety and efficacy profile and a more convenient dosing schedule (i.e., less frequent dosing) with patient-friendly administration (i.e., SC self-administration) to products currently approved or in development for the indications we plan to pursue.

Bempikibart and ADX-097 will require additional clinical development, evaluation of clinical and manufacturing activities, marketing approval in multiple jurisdictions, substantial investment and significant marketing efforts before we generate any revenues from product sales, if any. We are not permitted to market or promote these product candidates, or any other product candidates, before we receive marketing approval from the FDA and/or comparable foreign regulatory authorities, and we may never receive such marketing approvals.

The success of bempikibart and ADX-097 will depend on a variety of factors. We do not have complete control over many of these factors, including certain aspects of clinical development and the regulatory submission process, potential threats to our intellectual property rights and the manufacturing, marketing, distribution and sales efforts of any current or future collaborator or other third party. Accordingly, we cannot guarantee that we will ever be able to generate revenue through the sale of these candidates, even if approved. If we are not successful in commercializing bempikibart or ADX-097, or are significantly delayed in doing so, our business will be materially harmed.

If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of bempikibart, ADX-097 or any other product candidates may be delayed.

From time to time, we estimate the timing of the anticipated accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refers to as milestones. These milestones may include the commencement or completion of scientific studies, preclinical studies and clinical trials and the submission of regulatory filings. From time to time, we may publicly announce the expected timing of some of these milestones. All of these milestones are and will be based on numerous assumptions. The actual timing of these milestones can vary dramatically compared to our estimates, in some cases for reasons beyond our control. If we do not meet these milestones as publicly announced, or at all, the commercialization of bempikibart, ADX-097 or any other product candidates may be delayed or never achieved.

Our approach to the discovery and development of product candidates is unproven, and we may not be successful in our efforts to build a pipeline of product candidates with commercial value.

Our approach to the discovery and/or development of bempikibart and ADX-097 leverages the understanding of complement and cytokine biology in diverse tissues and indications. Bempikibart is directed at target pathways, IL-7 and thymic stromal lymphopoietin, or TSLP, signaling, that have been implicated in several inflammatory and autoimmune diseases. ADX-097 is purposefully designed to improve upon currently approved complement inhibiting products by providing inhibition of complement in a tissue-targeted manner. However, the scientific research that forms the basis of efforts to develop bempikibart and ADX-097 is ongoing and has not been successfully proven in clinical trials. The long-term safety and exposure profile of bempikibart and ADX-097 is also unknown.

We may ultimately discover that our technologies for our specific targets and indications and bempikibart, ADX-097 or any product candidates resulting therefrom do not possess certain properties required for therapeutic effectiveness we currently has only data from our Phase 1 clinical trial and blinded data from our Phase 2 Part A AD clinical trial related to bempikibart, and only data from our Phase 1 clinical trial regarding properties of ADX-097, and the same data or results may not be seen in larger, later-stage clinical trials. In addition, product candidates using investigational technologies and approaches may demonstrate different chemical and pharmacological properties in patients than they do in laboratory studies and bempikibart and ADX-097 may interact with human biological systems in unforeseen, ineffective or possibly harmful ways.

In addition, we may in the future seek to discover and develop product candidates that are based on novel targets and technologies that are unproven. If our discovery activities fail to identify novel targets or technologies for drug discovery, or such targets prove to be unsuitable for treating human disease, we may not be able to develop viable additional product candidates. We and our existing or future collaborators may never receive approval to market and commercialize bempikibart, ADX-097 or future product candidates. Even if we or an existing or future collaborator obtains regulatory approval, the approval may be for targets, disease indications or patient populations that are not as broad as we intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. If the products resulting from bempikibart, ADX-097 or any other product candidates prove to be ineffective, unsafe or commercially unviable, our product candidates and pipeline may have little, if any, value, which may have a material and adverse effect on our business, financial condition, results of operations and prospects.

Preclinical and clinical development involves a lengthy and expensive process that is subject to delays and with uncertain outcomes, and results of earlier studies and trials may not be predictive of future clinical trial results. If our preclinical studies and clinical trials are not sufficient to support regulatory approval of any of our product candidates, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development of such product candidate.

Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical studies and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidate in humans. Our clinical trials may not be conducted as planned or completed on schedule, if at all, and failure can occur at any time during the preclinical study or clinical trial process. For example, we depend on the availability of non-human primates, or NHPs, to conduct certain preclinical studies that we are required to complete prior to submitting an IND and initiating clinical development. There is currently a global shortage of certain types of NHPs available for Good Laboratory Practice, or GLP, testing for drug development. This could cause the cost of obtaining NHPs for our future preclinical studies to increase significantly, and if the shortage continues, and could result in delays to our development timelines. Furthermore, a failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical studies and early-stage clinical trials may not be predictive of the success of later clinical trials. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their product candidates. In addition, we expect to rely on patients to provide feedback on measures, which are subjective and inherently difficult to evaluate. These measures can be influenced by factors outside of our control, and can vary widely from day to day for a particular patient, and from patient to patient and from site to site within a clinical trial.

Although we plan to seek regulatory guidance in designing and conducting our development plans, we cannot be sure, that the FDA or comparable foreign regulatory authorities will agree with these plans. If the FDA or comparable regulatory authorities requires us to revise or amend a clinical study, generate additional pre-clinical data in support of clinical conduct (e.g., toxicology studies), conduct additional trials or enroll additional patients, our development timelines may be delayed. We cannot be sure that submission of an IND, clinical trial application, or CTA, or similar application will result in the FDA or comparable foreign regulatory authorities, as applicable, allowing clinical trials to begin in a timely manner, if at all. Moreover, even if these trials begin, issues may arise that could cause regulatory authorities to suspend or terminate such clinical trials. Events that may prevent successful or timely initiation or completion of clinical trials include:

- inability to generate sufficient preclinical, toxicology or other *in vivo* or *in vitro* data to support the initiation or continuation of clinical trials;

- delays in reaching a consensus with regulatory authorities on study design or implementation of the clinical trials;
- delays or failure in obtaining regulatory authorization to commence a trial;
- delays in reaching agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- delays in identifying, recruiting and training suitable clinical investigators;
- delays in obtaining required IRB or ethics committee approval at each clinical trial site;
- difficulties in patient enrollment in our clinical trials for a variety of reasons;
- delays in manufacturing, testing, releasing, validating or importing/exporting sufficient stable quantities of our product candidates for use in clinical trials or the inability to do any of the foregoing;
- failure by our CROs, other third parties or us to adhere to clinical trial protocols;
- failure to perform in accordance with the FDA's or any other regulatory authority's Good Clinical Practices, or GCPs, or regulations or applicable regulations or regulatory guidelines in other countries;
- changes to the clinical trial protocols;
- clinical sites deviating from trial protocol or dropping out of a trial;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- selection of clinical endpoints that require prolonged periods of observation or analyses of resulting data;
- transfer of manufacturing processes to larger-scale facilities operated by a contract development and manufacturing organization, or CMO, and delays or failure by our CMOs or us to make any necessary changes to such manufacturing process; and
- third parties being unwilling or unable to satisfy their contractual obligations to us.

We could also encounter delays if a clinical trial is placed on clinical hold, suspended or terminated by us, the FDA, the competent authorities of the EU Member States or other regulatory authorities or the IRBs or ethics committees of the institutions in which such trials are being conducted, if a clinical trial is recommended for suspension or termination by the data safety monitoring board, or DSMB, or equivalent body for such trial, or on account of changes to federal, state, or local laws. If we are required to conduct additional clinical trials or other testing of bempikibart, ADX-097 or any other product candidates beyond those that we contemplate, if we are unable to successfully complete clinical trials of bempikibart, ADX-097 or any other product candidates, if the results of these trials are not positive or are only moderately positive or if there are safety concerns, our business and results of operations may be adversely affected and we may incur significant additional costs.

We may not be successful in our efforts to identify or discover additional product candidates in the future.

A key part of our long-term business strategy is to identify and develop additional product candidates. Our preclinical research and clinical trials may initially show promise in identifying potential product candidates yet fail to yield product candidates for clinical development for a number of reasons. For example, we may be unable to

identify or design additional product candidates with the pharmacological and pharmacokinetic drug properties that we desire, including, but not limited to, adequate tissue targeting, acceptable safety profile or the potential for the product candidate to be delivered in a convenient formulation. Research programs to identify new product candidates require substantial technical, financial, and human resources. If we are unable to identify suitable complement targeting strategies for preclinical and clinical development, we may not be able to successfully implement our business strategy, and may have to delay, reduce the scope of, suspend or eliminate one or more of our product candidates, clinical trials or future commercialization efforts, which would negatively impact our financial condition.

If we encounter difficulties enrolling patients in our future clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may experience difficulties in patient enrollment in our future clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on the ability to enroll a sufficient number of patients who remain in the trial until its conclusion. The enrollment of patients in future trials for bempikibart, ADX-097 or any other product candidates will depend on many factors, including if patients choose to enroll in clinical trials, rather than using approved products, or if our competitors have ongoing clinical trials for product candidates that are under development for the same indications as our product candidates, and patients instead enroll in such clinical trials. Additionally, the number of patients required for clinical trials of bempikibart, ADX-097 or any other product candidates may be larger than we anticipate, especially if regulatory bodies require the completion of non-inferiority or superiority trials compared to approved products. Even if we are able to enroll a sufficient number of patients for our future clinical trials, we may have difficulty maintaining patients in our clinical trials. Our inability to enroll or maintain a sufficient number of patients would result in significant delays in completing clinical trials or receipt of marketing approvals and increased development costs or may require us to abandon one or more clinical trials altogether.

Preliminary, "topline" or interim data from our clinical trials that we announce or publish from time to time may change as more patient data becomes available and are subject to audit and verification procedures.

From time to time, we may publicly disclose preliminary or topline data from our preclinical studies and clinical trials, which are based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data. We also make assumptions, estimations, calculations and conclusions as part of our analyses of these data without the opportunity to fully and carefully evaluate complete data. As a result, the preliminary or topline results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated or subsequently made subject to audit and verification procedures. Any preliminary or topline data should be viewed with caution until the final data is available. From time to time, we may also disclose interim data from our preclinical studies and clinical trials. Interim data are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available or as patients from our clinical trials continue other treatments.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular product candidate, the approvability or commercialization of a particular product candidate and us in general. In addition, the information we choose to publicly disclose regarding a particular preclinical study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is material or otherwise appropriate information to include in our disclosure. If the preliminary, topline or interim data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, bempikibart, ADX-097 or any other product candidate may be harmed, which could harm our business, operating results, prospects or financial condition.

Our current or future clinical trials or those of our future collaborators may reveal significant adverse events or undesirable side effects not seen in our preclinical and/or early clinical studies and may result in a safety profile that could halt clinical development, inhibit regulatory approval or limit commercial potential or market acceptance of any of bempikibart, ADX-097 or any other product candidates or result in potential product liability claims.

Results of our clinical trials could reveal a high and unacceptable severity and prevalence of side effects, adverse events or unexpected characteristics. While our completed preclinical studies and our completed and ongoing clinical trials in humans have not shown any such characteristics to date, significant further evaluation must be done of each of our product candidates. If significant adverse events or other side effects are observed in any of our current or future clinical trials, we may have difficulty recruiting patients to such trials, patients may drop out of our trials, patients may be harmed, or we may be required to abandon the trials or our development efforts of one or more product candidates altogether, including bempikibart or ADX-097. We, the FDA, the European Medicines Agency, or the EMA, or other applicable regulatory authorities, or an IRB or ethics committee, may suspend any clinical trials of bempikibart, ADX-097 or any other product candidates at any time for various reasons, including a belief that subjects or patients in such trials are being exposed to unacceptable health risks or adverse side effects. Some potential products developed in the biotechnology industry that initially showed therapeutic promise in early-stage trials have later been found to cause side effects that prevented their further development. Even if the side effects do not preclude a product candidate from obtaining or maintaining marketing approval, undesirable side effects may inhibit market acceptance of an approved product due to its tolerability versus other therapies. Treatment-emergent adverse events could also affect patient recruitment or the ability of enrolled subjects to complete our clinical trials or could result in potential product liability claims. Potential side effects associated with bempikibart, ADX-097 or any other product candidates may not be appropriately recognized or managed by the treating medical staff, as toxicities resulting from bempikibart, ADX-097 or any other product candidates may not be normally encountered in the general patient population and by medical personnel. Any of these occurrences could harm our business, financial condition, results of operations and prospects significantly.

In addition, even if we successfully advance bempikibart, ADX-097 or any other product candidates through clinical trials, such trials will only include a limited number of patients and limited duration of exposure to such product candidates. As a result, we cannot be assured that adverse effects of bempikibart, ADX-097 or any other product candidates will not be uncovered when a significantly larger number of patients are exposed to such product candidate after approval. Further, any clinical trials may not be sufficient to determine the effect and safety consequences of using our product candidate over a multi-year period.

If any of the foregoing events occur or if bempikibart, ADX-097 or any other product candidates prove to be unsafe, our entire pipeline could be affected, which would have a material adverse effect on our business, financial condition, results of operations and prospects.

We may expend our limited resources to pursue a particular product candidate, such as bempikibart or ADX-097, and fail to capitalize on candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we intend to focus our research and development efforts on certain selected product candidates. For example, we are initially focused on our most advanced product candidates, bempikibart and ADX-097. As a result, we may forgo or delay pursuit of opportunities with other potential candidates that may later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs for specific indications may not yield any commercially viable product candidates. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such candidate.

Even if regulatory approval is obtained, any approved products resulting from bempikibart, ADX-097 or any other product candidate may not achieve adequate market acceptance among clinicians, patients, healthcare third-party payors and others in the medical community necessary for commercial success and we may not generate any future revenue from the sale or licensing of such products.

Even if regulatory approval is obtained for bempikibart, ADX-097 or any other product candidates, they may not gain market acceptance among physicians, patients, healthcare payors or the medical community. We may not generate or sustain revenue from sales of the product due to factors such as whether the product can be sold at a competitive cost and whether it will otherwise be accepted in the market. There are several approved products and product candidates in later stages of development for the treatment of LN, IgAN, C3G, AAV, AD and AA. Market

participants with significant influence over acceptance of new treatments, such as clinicians and third-party payors, may not adopt a drug or biologic with a target product profile such as that of bempikibart or ADX-097 for its targeted indications, and we may not be able to convince the medical community and third-party payors to accept and use, or to provide favorable reimbursement for, any product candidates developed by is or our existing or future collaborators. Market acceptance of bempikibart, ADX-097 or any other product candidates will depend on many factors, including factors that are not within the control of us.

Sales of products also depend on the willingness of clinicians to prescribe the treatment. We cannot predict whether clinicians, clinicians' organizations, hospitals, other healthcare providers, government agencies or private insurers will determine that any of our approved products are safe, therapeutically effective, cost effective or less burdensome as compared with competing treatments. If bempikibart, ADX-097 or any other product candidate is approved but does not achieve an adequate level of acceptance by such parties, we may not generate or derive sufficient revenue from that product and may not become or remain profitable.

We have never commercialized a product candidate and may lack the necessary expertise, personnel and resources to successfully commercialize a product candidate on our own or together with suitable collaborators.

We have never commercialized a product candidate, and we currently have no sales force, marketing or distribution capabilities. To achieve commercial success for a product candidate, which we may license to others, we may rely on the assistance and guidance of those collaborators. For a product candidate for which we retain commercialization rights and marketing approval, we will have to develop our own sales, marketing and supply organization or outsource these activities to a third party. Factors that may affect our ability to commercialize a product candidate, if approved, on our own include recruiting and retaining adequate numbers of effective sales and marketing personnel, developing adequate educational and marketing programs to increase public acceptance of our approved product candidate, ensuring regulatory compliance of us, employees and third parties under applicable healthcare laws and other unforeseen costs associated with creating an independent sales and marketing organization. Developing a sales and marketing organization will be expensive and time-consuming and could delay the launch of a product candidate upon approval. We may not be able to build an effective sales and marketing organization. If we are unable to build our own distribution and marketing capabilities or to find suitable partners for the commercialization of an approved product candidate, we may not generate revenues from them or be able to reach or sustain profitability.

We have never completed any late-stage clinical trials and we may not be able to submit applications for regulatory authorizations to commence additional clinical trials on the timelines we expect, and, even if we are able to, the FDA, EMA or comparable foreign regulatory authorities may not permit us to proceed and could also suspend/terminate the trial after it has been initiated.

We are early in our development efforts and will need to successfully complete later-stage and pivotal clinical trials in order to obtain FDA, EMA or comparable foreign regulatory approval to market our product candidates. Carrying out clinical trials and the submission of a successful IND or CTA is a complicated process. As an organization, we have limited experience as a company in preparing, submitting and prosecuting regulatory filings. Assuming regulatory authorities allow our proposed clinical trials for ADX-097 to proceed after review of our IND or CTA submissions, we intend to initiate a renal basket program in LN, IgAN and C3G and a Phase 2 clinical trial in AAV. However, we may not be able to initiate our planned clinical trials for ADX-097 in accordance with our desired timelines. For example, we may experience manufacturing delays or other delays with IND-or CTA-enabling studies, including with suppliers, study sites, or third-party contractors and vendors on whom we depend. Moreover, we cannot be sure that submission of an IND or a CTA or submission of a trial to an IND or a CTA will result in the FDA or EMA or comparable foreign regulatory authorities allowing further clinical trials to begin, or that, once begun, issues will not arise that lead us to suspend or terminate clinical trials. For example, upon submission of our IND or CTA for our planned clinical trials for ADX-097, the FDA or EMA may recommend changes to the proposed study designs, which may impact the number and size of registrational clinical trials required to be conducted in such development programs and may change our predicted timeline for clinical development. Consequently, we may be unable to successfully and efficiently execute and complete necessary clinical trials in a way that leads to regulatory submission and approval of our product candidates. Additionally, even if regulatory authorities agree with the design and implementation of the clinical trials set forth in an IND or a CTA, such regulatory authorities may change their requirements in the future. The FDA, EMA or comparable foreign regulatory authorities may require the analysis of data from trials assessing different doses of the product candidate alone or in combination with other therapies to

justify the selected dose prior to the initiation of large trials in a specific indication. Any delays or failure to file INDs or CTAs, initiate clinical trials, or obtain regulatory authorizations for our trials may prevent us from completing our clinical trials or commercializing our products on a timely basis, if at all. We are subject to similar risks related to the review and authorization of our protocols and amendments by comparable foreign regulatory authorities.

Risks Related to our Intellectual Property

Our ability to protect our patents and other proprietary rights is uncertain, exposing it to the possible loss of competitive advantage.

We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to our product candidates and to prevent third parties from infringing on our patents and trademarks or misappropriating or violating our other intellectual property rights, thus eroding our competitive position in our market. Our success depends in large part on our ability to obtain and maintain patent protection for our product candidates and their uses, components, formulations, methods of manufacturing and methods of treatment, as well as our ability to operate without infringing on or violating the proprietary rights of others. We have licensed know-how and patent families that pertain to, among other things, composition of matter and certain methods of use relating to our leading product candidates bempikibart and ADX-097. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our product candidates and novel discoveries that are important to our business. Our intellectual property strategy is, where appropriate, to file new patent applications on inventions, including improvements to existing products candidates and processes to improve our competitive edge or to improve business opportunities. We continue to assess and refine our intellectual property strategy to ensure appropriate protection and rights are secured. However, our pending and future patent applications may not result in patents being issued. We cannot assure you that issued patents will afford sufficient protection of our product candidates or their intended uses against competitors, nor can there be any assurance that the patents issued will not be infringed, designed around, invalidated by third parties, or effectively prevent others from commercializing competitive products or product candidates.

Obtaining and enforcing patents is expensive and time-consuming, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patent applications or maintain and/or enforce patents that may issue based on our patent applications, at a reasonable cost or in a timely manner. We may not be able to obtain or maintain patent applications and patents due to the subject matter claimed in such patent applications and patents being in disclosures in the public domain. It is also possible that we will fail to identify patentable aspects of our research and development results before it is too late to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, CROs, CMOs, consultants, advisors and other third parties, any of these parties may breach these agreements and disclose such results before a patent application is filed, thereby jeopardizing our ability to seek patent protection. Consequently, we may not be able to prevent any third parties from using any of our technology that is in the public domain to compete with our product candidates.

Composition of matter patents for biotechnology and pharmaceutical product candidates often provide a strong form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of use. However, we cannot be certain that the claims in our pending patent applications directed to the composition of matter of our product candidates will be considered patentable by the United States Patent and Trademark Office, or USPTO, or by patent offices in foreign jurisdictions, or that the claims in any of our issued patents will be considered valid and enforceable by courts in the United States or foreign jurisdictions. Method of use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our product candidates for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for our targeted indications, clinicians may prescribe these products “off-label.” Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our current or future patent applications may not result in patents being issued which protect our technology or drug candidates or which do not effectively prevent others from commercializing competitive technologies and drug candidates. The patent examination process may require us or our licensors to narrow the scope of the our claims or our licensors' pending and future patent applications, which may limit the scope of patent protection that may be obtained. We cannot assure you that all of the potentially relevant prior art relating to our patents and patent applications has been found. If such prior art exists, it can invalidate a patent or prevent a patent application from being issued as a patent.

The issuance of a patent does not ensure that it is valid or enforceable, nor does it give us the right to practice the patented invention. Issued patents may be challenged, narrowed, invalidated or circumvented and third parties may have blocking patents that could prevent us from commercializing our product candidates or technologies. While we endeavor to identify and circumvent third-party patents and patent applications which may block our product candidates or technologies to minimize this risk, relevant documents may be overlooked or missed, which may in turn impact our ability to commercialize the relevant asset. In addition, court decisions may introduce uncertainty in the enforceability or scope of patents owned by pharmaceutical and biotechnology companies. Thus, any of our issued patents, including patents that we may rely on to protect our market for approved drugs, may be held invalid or unenforceable by a court of final jurisdiction.

A third party may also claim that our patent rights are invalid or unenforceable in a litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. An adverse result in any legal proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly and could allow third parties to commercialize our products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize our technology, products or product candidates without infringing third-party patent rights.

Because patent applications in the U.S., Europe and many other jurisdictions are typically not published until 18 months after filing, and because publications of discoveries in scientific literature lag behind actual discoveries, we cannot be certain that we were the first to make the inventions claimed in our issued patents or future patent applications, or that we were the first to file for protection of the inventions set forth in our patents or patent applications. As a result, we may not be able to obtain or maintain protection for certain inventions. Therefore, the enforceability and scope of our future patents in the U.S., Europe and in many other jurisdictions cannot be predicted with certainty and, as a result, any future patents that we own, or license may not provide sufficient protection against competitors. We may not be able to obtain or maintain patent protection from our patent applications that we may file in the future, or from those we may license from third parties. Moreover, even if we are able to obtain patent protection, such patent protection may be of insufficient scope to achieve our business objectives.

In addition, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such candidates are commercialized. The degree of future protection for our proprietary rights is uncertain. Only limited protection may be available and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Any failure to obtain or maintain patent protection with respect to our product candidates or their uses could adversely affect our business, financial condition, results of operations and prospects.

Our rights to develop and commercialize our product candidates are and in the future may be subject to the terms and conditions of licenses granted to us by others. If we fail to comply with our obligations in the agreements under which we license intellectual property rights from third parties, or these agreements are terminated, or we otherwise experience disruptions to our business relationships with our licensors, we could lose license rights that are important to our business.

We are dependent on patents rights, know-how and proprietary technology licensed from third parties. In particular, we depend substantially on our license agreement with Bristol Myers Squibb Company, or BMS, under which we in-license patent rights and know-how that cover bempikibart, or BMS Agreement, and The Regents of the University of Colorado, or Colorado Agreement, under which we in-license patent rights and know-how relating to ADX-097. For more information regarding the BMS Agreement and Colorado Agreement, please see the section titled "*Business–Collaboration and License Agreements.*" we may also enter into additional agreements with third parties in the future.

Our current and future license agreements may impose diligence, development and commercialization timelines, milestone payments, royalties, indemnification, insurance, or other obligations on us. For example, under both the BMS License Agreement and Colorado Agreement, the counterparties may terminate the agreements if we fail to meet our diligence obligations, including using commercially reasonable efforts to meet diligence milestones by specified dates. If we fail to comply with our obligations to our licensors or collaborators, our counterparties may have the right to terminate these agreements. Termination of these agreements or reduction or elimination of our rights under these agreements may result in us having to negotiate new or reinstated agreements with less favorable terms, or cause us to lose our rights under these agreements, including our rights to important intellectual property or technology that are necessary for our business.

Certain patent filings relating to our product candidates may be subject to step-in rights of certain of our licensors. We may have limited control over our licensor's activities or use or licensing of any other intellectual property that may be related to our in-licensed intellectual property. If any of our licensors or licensees having rights to file, prosecute, maintain, and defend our patent rights fail to conduct these activities for patents or patent applications covering any of our product candidates, our ability to develop and commercialize those product candidates may be adversely affected and we may not be able to prevent competitors or other third parties from making, using or selling competing products. We cannot be certain that such activities by our licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents or other intellectual property rights. Pursuant to the terms of the license agreements with our licensors, such licensors may have the right to control enforcement of our licensed patents or defense of any claims asserting the invalidity of such patents and, even if we are permitted to pursue such enforcement or defense, we cannot ensure the cooperation of our licensors or, in some cases, other necessary parties, such as any co-owners of patents or other intellectual property from which we have not yet obtained a license. We cannot be certain that our licensors, and in some cases, their co-owners, will allocate sufficient resources or prioritize their or our enforcement of such patents or defense of such claims to protect our interests in the licensed patents. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent us from continuing to license intellectual property that we may need to operate our business. In addition, even when we have the right to control patent prosecution of licensed patents and patent applications, enforcement of licensed patents, or defense of claims asserting the invalidity of those patents, we may still be adversely affected or prejudiced by actions or inactions of our licensors and their counsel that took place prior to or after assuming control.

Our current or future license agreements may not provide exclusive or sufficient rights to use such intellectual property and technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our product candidates in the future. Some licenses granted to we may be subject to certain preexisting rights held by the licensors or certain third parties. As a result, we may not be able to prevent third parties from developing and commercializing competitive products in certain territories or fields.

In the event that our third party licensors determine that, in spite of our efforts, we have materially breached a license agreement or have failed to meet certain obligations thereunder, it may elect to terminate the license agreement or, in some cases, one or more license(s) under the applicable license agreement. Such termination could result in us losing the ability to develop and commercialize product candidates and technology covered by the licensed intellectual property. In the event of such termination of a third-party in-license, or if the underlying patent rights under a third-party in-license fail to provide the intended exclusivity, third parties may be able to seek regulatory approval of, and to market, products identical to our. Moreover, our licensors may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing or otherwise violating the licensor's rights. Any of these events could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

If our current or future license agreements are terminated, or if the underlying patent rights fail to provide the intended exclusivity, competitors or other third parties may be able to seek regulatory approval of, and to market, products identical to our and we may be required to cease the development and commercialization of our product candidates. Any of the foregoing could have a material adverse effect on our competitive position, business, financial condition, results of operations and prospects. Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;

- the extent to which our technology and processes infringe, misappropriate or violate intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent rights to third parties under our license agreements or collaborative development relationships;
- our diligence obligations under the license agreement with respect to the use of the licensed technology in relation to the development and commercialization of our product candidates and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensor and us and our partners; or
- the priority of invention of patented technology.

Our current or future license agreements may be subject to certain rights retained by third parties.

Our current or future licensors may retain certain rights under the relevant agreements with us, including the right to use the underlying product candidates for academic and research use, to publish general scientific findings from research related to the product candidates, to make customary scientific and scholarly disclosures of information relating to the product candidates, or to develop or commercialize the licensed product candidates in certain regions. In addition, the United States federal government retains certain rights in inventions produced with its financial assistance under the Patent and Trademark Law Amendments Act, or Bayh-Dole Act, including a "nonexclusive, nontransferable, irrevocable, paid-up license" for its own benefit. We may at times choose to collaborate with academic institutions to accelerate our preclinical research or development that are subject to the Bayh-Dole Act. The Bayh-Dole Act also provides federal agencies with "march-in rights." March-in rights allow the government, in specified circumstances, to require the contractor or successors in title to the patent to grant a "nonexclusive, partially exclusive, or exclusive license" to a "responsible applicant or applicants." If the patent owner refuses to do so, the government may grant the license itself.

In addition, the United States government requires that any products embodying the subject invention or produced through the use of the subject invention be manufactured substantially in the United States. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for United States manufacturers may limit our ability to contract with non-United States product manufacturers for products covered by such intellectual property. Any exercise by the government of any of the foregoing rights could harm our competitive position, business, financial condition, results of operations and prospects.

We cannot ensure that patent rights relating to inventions described and claimed in our current or future licensors pending patent applications will issue or that patents based on us or any of our current future licensors patent applications will not be challenged and rendered invalid and/or unenforceable.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or any potential future licensors or collaborators will be successful in protecting our product candidates by obtaining and defending patents. We have several pending United States and foreign patent applications in our portfolio. We cannot predict:

- if and when patents may issue based on our patent applications;
- the scope of protection of any patent issuing based on our patent applications;

- whether the claims of any patent issuing based on our patent applications will provide protection against competitors;
- whether or not third parties will find ways to invalidate or circumvent our patent rights;
- whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications;
- whether we will need to initiate litigation or administrative proceedings to enforce and/or defend our patent rights which will be costly whether we win or lose; and
- whether the patent applications that we own will result in issued patents with claims that cover our product candidates or uses thereof in the United States or in other foreign countries.

We cannot be certain that the claims in our or any future licensors' pending patent applications directed to our product candidates will be considered patentable by the USPTO or by patent offices in foreign countries. There can be no assurance that any such patent applications will issue as granted patents. One aspect of the determination of patentability of our or any future licensors' inventions depends on the scope and content of the "prior art," information that was or is deemed available to a person of skill in the relevant art prior to the priority date of the claimed invention. There may be prior art of which we are not aware that may affect the patentability of our or any future licensors' patent claims or, if issued, affect the validity or enforceability of a patent claim. Even if the patents do issue based on our or any future licensors' patent applications, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, patents in our or any future licensors' portfolio may not adequately exclude third parties from practicing relevant technology or prevent others from designing around our claims. If the breadth or strength of our intellectual property position with respect to our product candidates is threatened, it could dissuade companies from collaborating with us to develop and threaten our ability to commercialize our product candidates. In the event of litigation or administrative proceedings, we cannot be certain that the claims in any of our issued patents will be considered valid by courts in the United States or foreign countries.

We enjoy only limited geographical protection with respect to our patents and licensed patents and may not be able to protect our intellectual property rights throughout the world.

We may not be able to protect our intellectual property rights throughout the world and the legal systems in certain countries may not favor enforcement or protection of patents, trade secrets and other intellectual property. Patents are of national or regional effect, and although we currently has issued patents and pending applications in the United States, filing, prosecuting and defending patents on all of our research programs and product candidates in all countries throughout the world would be prohibitively expensive. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States, even in jurisdictions where we do pursue patent protection. Consequently, we may not be able to prevent third parties from practicing our or any of our licensors' inventions in all countries outside the United States, even in jurisdictions where we or any of our current or future licensors do pursue patent protection, or from selling or importing products made using our or any of our licensors' inventions in and into the United States or other jurisdictions. Competitors may use our or any of our licensors' technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we or any future licensors have patent protection, but enforcement is not as strong as that in the United States. These competitor products may compete with our product candidates, and our or any of our licensors' patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Various companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of many countries do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and pharmaceutical products, which could make it difficult for us to stop the infringement of our or our licensors' patents or marketing of competing products in violation of our proprietary rights.

In addition, some countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. Many countries also limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business and financial condition may be adversely affected. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Certain countries outside the United States have laws that may impact a patent owner's right to claim priority or require a patent applicant to obtain a foreign filing license or first file patent applications in a foreign jurisdiction to the extent that foreign nationals are involved in the development of the claimed subject matter of the resulting patent. our pending and future patent applications may not result in patents being issued that comply with the law of each foreign jurisdiction. Pending applications and issued patents may be challenged in various jurisdictions for failure to comply with local foreign laws, which could result in the rejection of pending applications or invalidation of issued patents. Further, the standards applied by the USPTO and foreign patent offices in granting patents are not always applied uniformly or predictably. As such, we do not know the degree of future protection that we will have on our product candidates. While we will endeavor to try to protect our product candidates with intellectual property rights, such as patents, as appropriate, the process of obtaining patents is time consuming, expensive and unpredictable.

In addition, geo-political actions in the United States and in foreign countries could increase the uncertainties and costs surrounding the prosecution or maintenance of our patent applications or those of any current or future licensors and the maintenance, enforcement or defense of our issued patents or those of any current or future licensors. For example, the United States and foreign government actions related to Russia's conflict in Ukraine may limit or prevent filing, prosecution, and maintenance of patent applications in Russia. Government actions may also prevent maintenance of issued patents in Russia. These actions could result in abandonment or lapse of our patents or patent applications, resulting in partial or complete loss of patent rights in Russia. If such an event were to occur, it could have a material adverse effect on our business. In addition, a decree was adopted by the Russian government in March 2022, allowing Russian companies and individuals to exploit inventions owned by patentees from the United States without consent or compensation. Consequently, we would not be able to prevent third parties from practicing our inventions in Russia or from selling or importing products made using our inventions in and into Russia. Accordingly, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated if we fail to comply with these requirements.

Periodic maintenance and annuity fees on any issued patent are due to be paid to the U.S. Patent and Trademark Office, or USPTO, and foreign patent agencies over the lifetime of a patent. In addition, the USPTO and other foreign patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. While an inadvertent failure to make payment of such fees or to comply with such provisions can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which such non-compliance will result in the abandonment or lapse of the patent or patent application, and the partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, and non-payment of fees and failure to properly legalize and submit formal documents within prescribed time limits. If we or our licensors fail to maintain the patents and patent applications covering our drug candidates or if we or our licensors otherwise allow our patents or patent applications to be abandoned or lapse, our competitors might be able to enter the market, which would hurt our competitive position and could impair our ability to successfully commercialize our drug candidates in any indication for which they are approved.

Issued patents covering one or more of our product candidates could be found invalid or unenforceable.

Any issued patents that we may license or own covering our product candidates could be narrowed or found invalid or unenforceable if challenged in court or before administrative bodies in the U.S. or abroad, including the USPTO. Patent terms, including any extensions or adjustments that may or may not be available to us, may be inadequate to protect our competitive position with respect to our product candidates for an adequate amount of time, and we may be subject to claims challenging the inventorship, validity, enforceability of our patents and/or other intellectual property. Further, if we encounter delays in our clinical trials or delays in obtaining regulatory approval, the period of time during which we could market our product candidates under patent protection would be reduced. Thus, the patents that we own and license may not afford us any meaningful competitive advantage.

Moreover, we or our licensors may be subject to a third-party pre-issuance submission of prior art to the USPTO or the European Patent Office or become involved in opposition, derivation, revocation, reexamination, inter partes review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our product candidates and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize drugs without infringing third-party patent rights. If the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license, develop or commercialize our product candidates.

Patent terms may be inadequate to protect our competitive position with respect to our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the U.S., if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Once patents covering our product candidates have expired, we may be open to competition from competitive products, including generics or biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

If we do not obtain patent term extension in the U.S. under the Hatch-Waxman Act and in foreign countries under similar legislation, thereby potentially extending the term of our marketing exclusivity for our product candidates, if approved, our business may be materially harmed.

In the U.S., the patent term of a patent that covers an FDA-approved drug may be eligible for limited patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Act, permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. However, a patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent applicable to an approved drug may be extended and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar provisions are available in Europe and certain other non-U.S. jurisdictions to extend the term of a patent that covers an approved drug. While, in the future, if and when our product candidates receive FDA approval, we expect to apply for patent term extension on patents covering such product candidates, there is no guarantee that the applicable authorities will agree with our assessment of whether such extension should be granted, and even if granted, the length of such extension. we may not be granted patent term extension either in the U.S. or in any foreign country because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the term of extension, as well as the scope of patent protection during any such extension, afforded by the governmental authority could be less than we request. If we are unable to obtain any patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following the expiration of our patent rights, and our business, financial condition, results of operations and prospects could be materially harmed.

Also, there are detailed rules and requirements regarding the patents that may be submitted to the FDA for listing in the Licensed Biological Products with Reference Product Exclusivity and Biosimilarity or Interchangeability Evaluations, or the Purple Book, a searchable, online database that contains information about biological products, including biosimilar and interchangeable biological products, licensed (approved) by the FDA under the Public Health Service Act). We may be unable to obtain patents covering our product candidates that contain one or more claims that satisfy the requirements for listing in the Purple Book. Even if we submit a patent for listing in the Purple Book, the FDA may decline to list the patent, or a manufacturer of generic drugs may challenge the listing. If any of our product candidates are approved and patents covering such product candidates not listed in the Purple Book, a manufacturer of generic drugs would not have to provide advance notice to us of any abbreviated new drug application filed with the FDA to obtain permission to sell a generic version of such product candidates.

Changes to patent laws in the U.S. and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our intellectual property.

Changes in either the patent laws or interpretation of patent laws in the U.S., including patent reform legislation such as the Leahy-Smith America Invents Act, or the Leahy-Smith Act, could increase the uncertainties and costs surrounding the prosecution of our future owned and in-licensed patent applications and the maintenance, enforcement or defense of our owned and in-licensed issued patents. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These changes include provisions that affect the way patent applications are prosecuted, redefine prior art, provide more efficient and cost-effective avenues for competitors to challenge the validity of patents, and enable third-party submission of prior art to the USPTO during patent prosecution and additional procedures to challenge the validity of a patent at USPTO-administered post-grant proceedings, including post-grant review, inter partes review, and derivation proceedings. Assuming that other requirements for patentability are met, prior to March 2013, in the U.S., the first to invent the claimed invention was entitled to the patent, while outside the U.S., the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith Act, the U.S. transitioned to a first-to-file system in which, assuming that the other statutory requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. As such, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and altered the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents once obtained. Depending on future legislation by the U.S. Congress, decisions by the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our patent rights and our ability to protect, defend and enforce our patent rights in the future. For example, in the case Amgen v. Sanofi, the Supreme Court held broad functional antibody claims invalid for lack of enablement. Similarly, in the case Juno v. Kite, the Federal Circuit held genus claims directed to CAR-T cells invalid for lack of written description for failing to provide disclosure commensurate with the scope of the claims. While we do not believe that any of the patents licensed or owned by us will be found invalid based on these decisions, we cannot predict how future decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patents. Similarly, changes in the patent laws of other jurisdictions could adversely affect our ability to obtain and effectively enforce our patent rights, which would have a material adverse effect on our business and financial condition.

Moreover, in 2012, the European Union Patent Package, or EU Patent Package, regulations were passed with the goal of providing a single pan-European Unitary Patent, or UP, covering all participating European Union member states, and a new European Unified Patent Court, UPC, for litigation involving European patents including all UPs. The EU Patent Package was implemented on June 1, 2023. As a result, all European patents, including those issued prior to ratification of the EU Patent Package, now by default automatically fall under the jurisdiction of the UPC. It is uncertain how the UPC will impact granted European patents in the biotechnology and pharmaceutical industries. Our European patent applications, if issued, could be challenged in the UPC if not opted out. During the first seven years of the UPC's existence, the UPC legislation allows a patent owner to opt its European patents out of the jurisdiction of the UPC. We may decide to opt out our future European patents from the UPC, but doing so may

preclude us from realizing the benefits of the UPC. Moreover, if we do not meet all of the formalities and requirements for opt-out under the UPC before the prescribed deadlines, our future European patents could remain under the jurisdiction of the UPC. The UPC will provide our competitors with a new forum to centrally revoke its European patents that have not been opted out, and allow for the possibility of a competitor to obtain pan-European injunction. Such a loss of patent protection could have a material adverse impact on our business and our ability to commercialize our technology and product candidates and, resultantly, on our business, financial condition, prospects and results of operations.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might adversely affect our ability to develop and market our product candidates, if approved.

We cannot guarantee that any of our patent searches or analyses, including the identification of relevant third party patents, the scope of said patent claims or the expiration of relevant patents, are complete, accurate or thorough, nor can we be certain that we have identified each and every third-party patent and pending application in the U.S. and abroad that is relevant to or necessary for the commercialization of our product candidates, if approved, in any jurisdiction. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect. Our determination of the expiration date of any patent in the U.S. or abroad that we consider relevant may be incorrect. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our product candidates.

In addition, because some patent applications in the U.S. may be maintained in secrecy until the patents are issued, patent applications in the U.S. and many foreign jurisdictions are typically not published until 18 months after filing, and publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our issued patents or our pending applications, or that we were the first to invent the technology. Our competitors may have filed, and may in the future file, patent applications covering our product candidates or technology similar to ours. Any such patent application may have priority over our patent applications or patents, which could require us to obtain rights to issued patents covering such product candidates or technologies.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We may be subject to claims that former employees, collaborators or other third parties have an interest in our or any future licensors' patents or other intellectual property as an inventor or co-inventor. The failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our product candidates or as a result of questions regarding co-ownership of potential joint inventions. Litigation may be necessary to resolve these and other claims challenging inventorship or ownership. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could adversely affect our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Our current or future licensors may have relied on third-party consultants or collaborators or on funds from third parties, such as the United States government, such that these licensors are not the sole and exclusive owners of the patents we in-licensed. If other third parties have ownership rights or other rights to our in-licensed patents, they may be able to license such patents to our competitors, and our competitors could market competing products and technology. This could adversely affect our competitive position, business, financial condition, results of operations, and prospects.

In addition, while it is our policy to require our employees, consultants, and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, it may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops

intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached or challenged, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could adversely affect our business, financial condition, results of operations, and prospects.

We may be subject to claims asserting that our employees, consultants or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property.

Certain of our employees, consultants or advisors have in the past and may in the future be employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, it may be subject to claims that these individuals or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. An inability to incorporate such technologies or features would harm our business and may prevent us from successfully commercializing our technologies or product candidates. In addition, we may lose personnel as a result of such claims and any such litigation, or the threat thereof, may adversely affect our ability to hire employees or contract with independent contractors. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our technologies, or product candidates, which could adversely affect our business, financial condition, results of operations and prospects. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

In addition, we may in the future be subject to claims by former employees, consultants or other third parties asserting an ownership right in our patents or patent applications. An adverse determination in any such submission or proceeding may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar technology and therapeutics, without payment to us, or could limit the duration of the patent protection covering our technologies and product candidates. Such challenges may also result in our inability to develop, manufacture or commercialize our technologies and product candidates without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future technologies and product candidates. Any of the foregoing could adversely affect our business, financial condition, results of operations and prospects.

We may be involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time-consuming and unsuccessful.

Competitors or other third parties may infringe our patents or trademarks or misappropriate or violate our other intellectual property rights. To counter infringement, misappropriation or unauthorized use, we or any future licensors may be required to file infringement or misappropriation claims, which can be expensive and time consuming and divert the time and attention of our management and scientific personnel. We or any future licensors' pending patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringed their patents, in addition to counterclaims asserting that our patents or any future licensors' patents are invalid or unenforceable, or both. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, non-enablement, insufficient written description, obviousness-type double patenting, or failure to claim patent-eligible subject matter. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. The outcome following legal assertions of invalidity and unenforceability is unpredictable. In any patent infringement proceeding, there is a risk that a court will decide that a patent of our or any future licensors is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other

party from using the invention at issue. There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that our or any future licensors' patent claims do not cover the invention, or decide that the other party's use of our or any future licensors' patented technology falls under the safe harbor to patent infringement under 35 U.S.C. §271(e)(1). An adverse outcome in a litigation or proceeding involving our or any future licensors' patents could limit our ability to assert our or any future licensors' patents against those parties or other competitors and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Any of these occurrences could adversely affect our competitive position, and our business, financial condition, results of operations and prospects. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

Even if we establish infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could adversely affect the price of shares of our common stock. Moreover, we cannot assure you that it will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Even if we ultimately prevails in such claims, the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings.

We may become involved in third-party claims of intellectual property infringement, misappropriation or violation, which may prevent or delay our product discovery and development efforts.

Our commercial success depends in part on us avoiding infringement of the patents or trademarks and misappropriation or violation of other proprietary rights of third parties. There is a substantial amount of litigation involving the infringement of patents or trademarks and misappropriation or violation of other intellectual property rights in the biotechnology and pharmaceutical industries. We may be exposed to, or threatened with, future litigation by third parties having patent, trademark or other intellectual property rights and who allege that our product candidates, uses and/or other proprietary technologies infringe their patents or trademarks or misappropriate or violate their other intellectual property rights. Numerous United States and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk that our product candidates may give rise to claims of infringement of the patent rights of others increases. Moreover, it is not always clear to industry participants, including us, which patents exist which may be found to cover various types of drugs, products or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications currently pending in our fields, there may be a risk that third parties may allege they have patent rights which are infringed by our product candidates, technologies or methods.

If a third party alleges that we infringed its patents or trademarks or misappropriate or violate its other intellectual property rights, we may face a number of issues, including, but not limited to:

- patent and trademark infringement and other intellectual property misappropriation or violation which, regardless of merit, may be expensive and time-consuming to litigate and may divert our management's attention from our core business;
- substantial damages for infringement, misappropriation or violation, which we may have to pay if a court decides that the product candidate or technology at issue infringes on, misappropriates or violates the third-party's rights;
- an injunction prohibiting us from manufacturing, marketing or selling our product candidates, or from using our proprietary technologies, unless the third party agrees to license its patent rights to us;

- even if a license is available from a third party, we may have to pay substantial royalties, upfront fees and other amounts, and/or grant cross-licenses to intellectual property rights protecting our product candidates or processes; and
- we may be forced to try to redesign our product candidates or processes so they do not infringe third-party patents or trademarks or misappropriate or violate other third party intellectual property rights, an undertaking
- which may not be possible or which may require substantial monetary expenditures and time.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, results of operations, financial condition and prospects.

Third parties may assert that we are employing their proprietary technology without authorization. Generally, conducting preclinical and clinical trials and other development activities in the United States is not considered an act of infringement. While we may believe that patent claims or other intellectual property rights of a third party would not have a materially adverse effect on the commercialization of our product candidates, we may be incorrect in this belief, or we may not be able to prove it in litigation. In this regard, patents issued in the United States by law enjoy a presumption of validity that can be rebutted only with evidence that is "clear and convincing," a heightened standard of proof. There may be issued third-party patents of which we are currently unaware with claims to compositions, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Patent applications can take many years to issue. There may be currently pending patent applications which may later result in issued patents that may be infringed by our product candidates. Moreover, we may fail to identify relevant patents or incorrectly conclude that a patent is invalid, not enforceable, exhausted, or not infringed by its activities. If any third-party patents, held now or obtained in the future by a third party, were found by a court of competent jurisdiction to cover the manufacturing process of our product candidates, the holders of any such patents may be able to block our ability to commercialize the product candidate unless we obtain a license under the applicable patents, or until such patents expire or they are finally determined to be held invalid or unenforceable. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover any aspect of our formulations, any combination therapies or patient selection methods, the holders of any such patent may be able to block our ability to develop and commercialize the product candidate unless we obtain a license or until such patent expires or is finally determined to be held invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms or at all. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, our ability to commercialize our product candidates may be impaired or delayed, which could in turn significantly harm our business. Even if we obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Parties making claims against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates. Defense of these claims, regardless of their merit, could involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need or may choose to obtain licenses from third parties to advance our research or allow commercialization of our product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize our product candidates, which could harm our business significantly.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or which we elect not to patent, processes for which patents are difficult to enforce and any other elements of our discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. We may also rely on trade secret protection as temporary protection for concepts that may be included in a future patent filing. However, trade secret protection will not protect us from innovations that a competitor develops independently of its proprietary know-how. If a competitor independently develops a technology that we protect as a trade secret and files a patent application on that technology, then we may not be able to patent that technology in the future, may require a license from the competitor to use its own know-how, and if the license is not available on commercially viable terms, then we may not be able to launch our product candidate. Additionally, trade secrets can be difficult to protect and some courts inside and outside the United States are less willing or unwilling to protect trade secrets. The laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws within the United States. We may need to share our trade secrets and proprietary know-how with current or future partners, collaborators, contractors and others located in countries at heightened risk of theft of trade secrets, including through direct intrusion by private parties or foreign actors, and those affiliated with or controlled by state actors. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, operating results and financial condition.

Monitoring unauthorized disclosure and detection of unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time-consuming, and the outcome would be unpredictable. These lawsuits may consume our time and other resources even if we are successful. For example, significant elements of our products, including confidential aspects of sample preparation, methods of manufacturing, cell culturing conditions, computational-biological algorithms, and related processes and software, are based on unpatented trade secrets. Although we require all of our employees to assign their inventions to us, and require all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information or technology to enter into confidentiality agreements, we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets. If our trade secrets are not adequately protected, our business, financial condition, results of operations and prospects could be adversely affected.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed confidential information of our competitors or are in breach of non-competition or non-solicitation agreements with our competitors.

As is common in the biotechnology and pharmaceutical industries, we employ individuals and engage the services of consultants who previously or concurrently worked for other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we has inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers, or that our consultants have used or disclosed trade secrets or other proprietary information of their former or current clients. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and, if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. This type of litigation or proceeding could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can. Uncertainties resulting from the initiation and continuation of patent litigation or other intellectual property related proceedings could adversely affect our ability to compete in the marketplace.

We may not be able to effectively secure first-tier technologies when competing against other companies or investors.

Our future success may require that it acquire patent rights and know-how to new or complementary technologies. However, we compete with a substantial number of other companies that may also compete for technologies we desire. In addition, many venture capital firms and other institutional investors, as well as other biotechnology companies, invest in companies seeking to commercialize various types of emerging technologies. Many of these companies have greater financial, scientific and commercial resources than us. Therefore, we may not be able to secure the technologies we desire. Furthermore, should any commercial undertaking by us prove to be successful, there can be no assurance competitors with greater financial resources will not offer competitive products and/or technologies.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our future registered or unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. During trademark registration proceedings, we may receive rejections of our applications by the USPTO or in other foreign jurisdictions. Although we are given an opportunity to respond to such rejections, we may be unable to overcome them. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, which may not survive such proceedings. Moreover, any name we have proposed to use with our product candidate in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. Similar requirements exist in Europe. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA or an equivalent administrative body in a foreign jurisdiction objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. Furthermore, in many countries, owning and maintaining a trademark registration may not provide an adequate defense against a subsequent infringement claim asserted by the owner of a senior trademark.

We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively, and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, domain name or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, financial condition, results of operations and prospects.

Numerous factors may limit any potential competitive advantage provided by our intellectual property rights.

The degree of future protection afforded by our intellectual property rights, whether owned or in-licensed, is uncertain because intellectual property rights have limitations, and may not adequately protect our business, provide a barrier to entry against our competitors or potential competitors, or permit us to maintain our competitive advantage. Moreover, if a third party has intellectual property rights that cover the practice of our technology, we may not be able to fully exercise or extract value from our intellectual property rights. The factors that may limit any potential competitive advantage provided by our intellectual property rights include:

- pending patent applications that we may file or license may not lead to issued patents;
- patents, should they issue, that we own or license, may not provide us with any competitive advantages, or may be challenged and held invalid or unenforceable

- others may be able to develop and/or practice technology that is similar to our technology or aspects of our technology but that is not covered by the claims of any of our owned or in-licensed patents, should any such patents issue;
- third parties may compete with us in jurisdictions where we do not pursue and obtain patent protection;
- we (or our licensors) might not have been the first to make the inventions covered by a pending patent application that we own or license;
- we (or our licensors) might not have been the first to file patent applications covering a particular invention;
- others may independently develop similar or alternative technologies without infringing our intellectual property rights;
- we may not be able to obtain and/or maintain necessary licenses on reasonable terms or at all;
- third parties may assert an ownership interest in our intellectual property and, if successful, such disputes may preclude us from exercising exclusive rights, or any rights at all, over that intellectual property;
- we may not be able to maintain the confidentiality of our trade secrets or other proprietary information;
- we may not develop or in-license additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business and results of operation.

Risks Related to Government Regulation

The regulatory approval processes of the FDA and other comparable foreign regulatory authorities are lengthy, time-consuming and inherently unpredictable. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals for our product candidates, we will not be able to commercialize, or will be delayed in commercializing, such product candidates, and our ability to generate revenue will be materially impaired.

The process of obtaining regulatory approvals, both in the U.S. and abroad, is unpredictable, expensive and typically takes many years following commencement of clinical trials, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. We cannot commercialize product candidates in the U.S. without first obtaining regulatory approval from the FDA. Similarly, we cannot commercialize product candidates outside of the U.S. without obtaining regulatory approval from comparable foreign regulatory authorities. Before obtaining regulatory approvals for the commercial sale of our product candidates, including our most advanced product candidates, bempikibart and ADX-097, we must demonstrate through lengthy, complex and expensive preclinical and clinical trials that such product candidates are both safe and effective for each targeted indication. Securing regulatory approval also requires the submission of information about the drug manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. Further, a product candidate may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval. The FDA and comparable foreign regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other data. A product candidate could be delayed in receiving, or fail to receive, regulatory approval for many reasons, including:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;

- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for our proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- serious and unexpected drug-related side effects may be experienced by participants in our clinical trials or by individuals using drugs similar to a product candidate, which may result in inquiries from or actions by regulatory authorities to address such events;
- we may be unable to demonstrate that a candidate's clinical and other benefits outweigh our safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of a product candidate may not be acceptable or sufficient to support the submission of a Biologics License Application, or BLA, a new drug application, or NDA, or similar marketing application to obtain regulatory approval in the U.S. or elsewhere, and we may be required to conduct additional clinical trials;
- the FDA or the applicable foreign regulatory authority may disagree regarding the formulation, labeling and/or the specifications of a product candidate;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we may contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

Of the large number of drugs in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized. The lengthy approval process as well as the unpredictability of future clinical trial results may result in us failing to obtain regulatory approval to market bempikibart, ADX-097 or other product candidates, which would significantly harm our business, results of operations and prospects.

If we were to obtain approval, regulatory authorities may approve any such product candidate for fewer or more limited indications than we request, including failing to approve the most commercially promising indications, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals for a product candidate, we will not be able to commercialize, or will be delayed in commercializing, such product candidate and our ability to generate revenue may be materially impaired.

Inadequate funding for the FDA, the SEC and other government agencies, including from government shutdowns, or other disruptions to these agencies' operations, could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve regulatory submissions can be affected by a variety of factors, including government budget and funding levels, the ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process regulatory submissions, which could have a material adverse effect on our business. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital to properly capitalize and continue our operations.

We may not be able to meet requirements for the chemistry, manufacturing and control of our product candidates.

In order to receive approval of our products by the FDA and comparable foreign regulatory authorities, we must show that we and our contract manufacturing partners are able to characterize, control and manufacture our drug and biologic products safely and in accordance with regulatory requirements. This includes synthesizing the active ingredient, developing an acceptable formulation, performing tests to adequately characterize the formulated product, documenting a repeatable manufacturing process and demonstrating that our products meet stability requirements. Meeting these chemistry, manufacturing and control, or CMC, requirements is a complex task that requires specialized expertise. If we are not able to meet the CMC requirements, we may not be successful in advancing our clinical studies or obtaining regulatory approvals for our product candidates.

We have and may in the future conduct clinical trials for our product candidates at sites outside the U.S., and the FDA may not accept data from trials conducted in such locations.

We have and may in the future choose to conduct clinical trials for ADX-097 or other product candidates outside the U.S. Although the FDA may accept data from clinical trials conducted outside the U.S., acceptance of this data is subject to conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted and performed by qualified investigators in accordance with ethical principles. The trial population must also adequately represent the U.S. population, and the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful. In addition, while these clinical trials are subject to the applicable local laws, FDA acceptance of the data will depend on its determination that the trials also complied with all applicable U.S. laws and regulations. If the FDA does not accept the data from any trial that we conduct outside the U.S., it would likely result in the need for additional trials, which would be costly and time-consuming and would delay or permanently halt our development of the applicable product candidates. Even if the FDA accepted such data, it could require us to modify our planned clinical trials to receive clearance to initiate such trials in the U.S. or to continue such trials once initiated.

Other risks inherent in conducting international clinical trials include:

- the need to comply with foreign regulatory requirements, differences in healthcare services, and differences in cultural customs that could restrict or limit our ability to conduct our clinical trials;
- administrative burdens of conducting clinical trials under multiple sets of foreign regulations;
- foreign exchange fluctuations;
- diminished protection of intellectual property in some countries; and
- political and economic risks relevant to foreign countries.

Our product candidates for which it intends to seek approval as biologics may face competition sooner than anticipated.

The Biologics Price Competition and Innovation Act of 2009, or BPCIA, was enacted as part of the ACA to establish an abbreviated pathway for the approval of biosimilar and interchangeable biological products. The regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as “interchangeable” based on its similarity to an approved biologic. Under the

BPCIA, an application for a highly similar or "biosimilar" product may not be submitted to the FDA until four years following the date that the reference product was first approved by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first approved. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product.

Our investigational biological products, if approved, could be considered reference products entitled to the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider a product candidate to be reference products for competing products, potentially creating the opportunity for competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of litigation. Moreover, the extent to which a biosimilar, once approved, will be substituted for any reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing. The approval of a biosimilar of any of our product candidates could have a material adverse impact on our business due to increased competition and pricing pressure.

Even if we receive regulatory approval of bempikibart, ADX-097 or other product candidates, we will be subject to extensive ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates.

Any regulatory approvals that we may receive for bempikibart, ADX-097 or other product candidates will require the submission of reports to regulatory authorities and surveillance to monitor the safety and efficacy of such product candidates, may contain significant limitations related to use restrictions for specified age groups, warnings, precautions or contraindications, and may include burdensome post-approval study or risk management requirements. For example, the FDA may require a risk evaluation and mitigation strategy in order to approve a product candidate, which could entail requirements for a medication guide, physician training and communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or comparable foreign regulatory authorities approve a product candidate, the products and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, distribution, import and export will be subject to comprehensive regulation by the FDA and other regulatory agencies in the U.S. and by comparable foreign regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as ongoing compliance with cGMPs and GCPs for any clinical trials that we conduct following approval. In addition, manufacturers of drug products and their facilities are subject to continual review and periodic, unannounced inspections by the FDA and other regulatory authorities for compliance with cGMPs.

If we or a regulatory authority discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facilities where the product is manufactured, a regulatory authority may impose restrictions on that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing, restrictions on our ability to conduct clinical trials, including full or partial clinical holds on ongoing or planned trials, restrictions on the manufacturing process, warning or untitled letters, civil and criminal penalties, injunctions, product seizures, detentions or import bans, voluntary or mandatory publicity requirements and imposition of restrictions on operations, including costly new manufacturing requirements. The occurrence of any event or penalty described above may inhibit our ability to commercialize bempikibart, ADX-097 or other product candidates and generate revenue and could require us to expend significant time and resources in response and could generate negative publicity.

We may face difficulties from healthcare legislative reform measures.

Existing regulatory policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of bempikibart, ADX-097 or other product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative

action, either in the U.S. or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability. See the section titled "Our Business-Government Regulation-Healthcare Reform" elsewhere in this prospectus for a more detailed description of healthcare reforms measures that may prevent us from being able to generate revenue, attain profitability, or commercialize product candidates.

The continuing efforts of the government, insurance companies, managed care organizations and other payers of healthcare services to contain or reduce costs of healthcare may adversely affect:

- the demand for any of our product candidates, if approved;
- the ability to set a price that we believe is fair for any of our product candidates, if approved;
- our ability to generate revenues and achieve or maintain profitability;
- the level of taxes that we are required to pay; and
- the availability of capital.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical and biologic products. We cannot be sure whether additional legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

We expect that the healthcare reform measures that have been adopted and may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product and could seriously harm our future revenues. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our products.

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers will be subject to applicable healthcare regulatory laws, which could expose us to penalties.

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers may expose us to fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell and distribute our product candidates, if approved. See the section titled "*Our Business-Government Regulation-Other Healthcare Laws and Compliance Requirements*" elsewhere in this prospectus for a more detailed description of the laws that may affect our ability to operate.

Ensuring that our internal operations and future business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. If our operations are found to be in violation of any of these laws or any other governmental laws and regulations that may apply to it, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, exclusion from government-funded healthcare programs, integrity oversight and reporting obligations to resolve allegations of non-compliance, disgorgement, individual imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations. Further, defending against any such actions can be costly and time-consuming and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired.

Even if we are able to commercialize bempikibart, ADX-097 or other product candidates, due to unfavorable pricing regulations and/or third-party coverage and reimbursement policies, we may not be able to offer such products at competitive prices which would seriously harm our business.

We intend to seek approval to market bempikibart, ADX-097 and other product candidates in both the U.S. and in selected foreign jurisdictions. If we obtain approval in one or more foreign jurisdictions for such product candidates, we will be subject to rules and regulations in those jurisdictions. Our ability to successfully commercialize any product candidates that we may develop will depend in part on the extent to which reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and other third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for medications. These entities may create preferential access policies for a competitor's product, including a branded or generic/biosimilar product, over our products in an attempt to reduce their costs, which may reduce our commercial opportunity. Additionally, if any of our product candidates are approved and we are found to have improperly promoted off-label uses of those programs, we may become subject to significant liability, which would materially adversely affect our business and financial condition. See the sections titled "*Business-Government Regulation-Coverage and Reimbursement*" and "*-Regulation in the EU*" elsewhere in this prospectus for a more detailed description of the government regulations and third-party payor practices that may affect our ability to commercialize our product candidates.

We are subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws, and anti-money laundering laws and regulations. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls, the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors, and other collaborators from authorizing, promising, offering, or providing, directly or indirectly, improper payments or anything else of value to or from recipients in the public or private sector. We may engage third parties to sell products outside the U.S., to conduct clinical trials, and/or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors, and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

Governments outside the U.S. tend to impose strict price controls, which may adversely affect our revenue, if any.

In some countries, particularly Member States of the EU, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a therapeutic. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various EU Member States and parallel distribution, or arbitrage between low-priced and high-priced Member States, can further reduce prices. To obtain coverage and reimbursement or pricing approvals in some countries, we or current or future collaborators may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of a product to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of any product approved for marketing is unavailable

or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business, financial condition, results of operations or prospects could be materially and adversely affected.

We may seek one or more designations or expedited programs for our product candidates, but may not receive such designations or be allowed to proceed on expedited program pathways, and even if we do receive such designations and proceed on such expedited program pathways in the future, such designations or expedited programs may not lead to a faster development or regulatory review or approval process, and each designation does not increase the likelihood that any of our product candidates will receive regulatory approval in the U.S.

We may seek fast track designation for some of our product candidates. If a drug is intended for the treatment of a serious or life-threatening condition and nonclinical or clinical data for the drug demonstrates the potential to address an unmet medical need for such a condition, the drug sponsor may apply for fast track designation. The FDA has broad discretion whether to grant this designation, so even we believe a particular product candidate is eligible for this designation, we cannot provide assurance that the FDA would decide to grant this designation. Even if our candidates receive fast track designation, these candidates may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from the clinical development program. Fast track designation alone does not guarantee qualification for the FDA's priority review procedures.

We may seek a breakthrough therapy designation for some of our product candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA may also be eligible for priority review and accelerated approval. Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a breakthrough therapy designation for a product candidate may not result in a faster development process, review or approval compared to therapies considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that such product candidates no longer meet the conditions for qualification or decide that the time for FDA review or approval will not be shortened.

In the future, we may also seek approval of product candidates under the FDA's accelerated approval pathway. A product may be eligible for accelerated approval if it is designed to treat a serious or life-threatening disease or condition and generally provides a meaningful advantage over available therapies upon a determination that the product candidate has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit. The accelerated approval pathway may be used in cases in which the advantage of a new drug over available therapy may not be a direct therapeutic advantage but is a clinically important improvement from a patient and public health perspective. If granted, accelerated approval is usually contingent on the sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the drug's clinical benefit. Under the Food and Drug Omnibus Reform Act of 2022, or the FDORA, the FDA is permitted to require, as appropriate, that a post-approval confirmatory study or studies be underway prior to approval or within a specified time after the date of accelerated approval was granted. FDORA also requires sponsors to send updates to the FDA every 180 days on the status of such studies, including progress toward enrollment targets, and the FDA must promptly post this information publicly. FDORA also gives the FDA increased authority to withdraw approval of a drug or biologic granted accelerated approval on an expedited basis if the sponsor fails to conduct such studies in a timely

manner, send the necessary updates to the FDA, or if such post-approval studies fail to verify the drug's predicted clinical benefit. Under FDORA, the FDA is empowered to act, such as issuing fines, against companies that fail to conduct with due diligence any post-approval confirmatory study or submit timely reports to the agency on their progress. In addition, for products being considered for accelerated approval, the FDA generally requires, unless otherwise informed by the Agency, that all advertising and promotional materials intended for dissemination or publication within 120 days of regulatory approval be submitted to the Agency for review during the pre-approval review period. There can be no assurance that the FDA would allow any of the product candidates we may develop to proceed on an accelerated approval pathway, and even if the FDA did allow such pathway, there can be no assurance that such submission or application will be accepted or that any expedited development, review or approval will be granted on a timely basis, or at all. Moreover, even if we received accelerated approval, any post-approval studies required to confirm and verify clinical benefit may not show such benefit, which could lead to withdrawal of any approvals we have obtained. Receiving accelerated approval does not assure that the product's accelerated approval will eventually be converted to a traditional approval.

If the FDA determines that a product candidate offers a treatment for a serious condition and, if approved, the product would provide a significant improvement in safety or effectiveness, the FDA may designate the product candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months. We may request priority review for our product candidates. The FDA has broad discretion with respect to whether to grant priority review status to a product candidate, so even if we believe a particular product candidate is eligible for such designation or status, the FDA may decide not to grant it. Moreover, a priority review designation does not necessarily result in an expedited regulatory review or approval process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. Receiving priority review from the FDA does not guarantee approval within the six-month review cycle or at all.

We may pursue orphan drug designation for certain of our product candidates, but may not be able to obtain such designation, or obtain or maintain the benefits of such designation including orphan drug exclusivity, and even if we do obtain orphan designation for our product candidates, any orphan drug exclusivity it receives may not prevent regulatory authorities from approving other competing products.

We may seek orphan drug designation for some of our product candidates; however, we may never receive such designation. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug or biologic intended to treat a rare disease or condition, defined as a patient population of fewer than 200,000 in the U.S., or a patient population of 200,000 or more in the U.S. where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the U.S. Orphan drug designation must be requested before submitting an NDA or a BLA. A similar regulatory scheme governs orphan products in the EU.

Orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and application fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. In addition, if a product candidate with an orphan drug designation subsequently receives the first regulatory approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA from approving another marketing application for the same product for the same therapeutic indication for seven years.

Even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different products can be approved for the same condition. In addition, even after an orphan drug is approved, the FDA can subsequently approve the same product for the same condition if the FDA concludes that the later product is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity may also be lost if the FDA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the product to meet the needs of the patients with the rare disease or condition. Further, even if we obtain orphan drug designation, we may not be the first to obtain regulatory approval for any indication due to the uncertainties associated with developing pharmaceutical products.

The FDA may further reevaluate the Orphan Drug Act and its regulations and policies. Additionally, legislation has been proposed by the European Commission that, if implemented, has the potential in some cases to shorten the

ten-year period of orphan marketing exclusivity. It is unclear if, when, or how the FDA or other regulatory authorities may change the orphan drug regulations and policies in the future, and it is uncertain how any changes might affect our business. Depending on what changes the FDA or other regulatory authorities may make to their orphan drug regulations and policies, our business could be adversely impacted.

We may be subject to claims that we or our employees or consultants have wrongfully used or disclosed alleged trade secrets of employees' or consultants' former employers or their clients. These claims may be costly to defend and if we does not successfully do so, it may be required to pay monetary damages and may lose valuable intellectual property rights or personnel.

Many of our employees were previously employed at universities or biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper our ability to develop and commercialize, or prevent us from developing and commercializing, our product candidates, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Our Third Party Relationships

We currently rely and expect to rely on third parties in the future to conduct our clinical trials and some aspects of our research, as well as some aspects of our delivery methods, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, research or testing.

We currently, and expect to continue to, rely on third parties, such as but not limited to CROs, clinical data management organizations, medical institutions, preclinical laboratories and clinical investigators, to conduct some aspects of our research. For example, we may rely on a third party to supply components of our product candidates, or to conduct some of our preclinical animal experiments. Any of these third parties may terminate their engagements with us at any time under certain criteria. If we need to enter into alternative arrangements, it may delay our product research and development activities.

Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we will remain responsible for ensuring that each of our preclinical studies and clinical trials is conducted in accordance with the general investigational plan and protocols. Moreover, the FDA, the EMA and other regulatory authorities require us and the study sites and investigators we work with to comply with standards, commonly referred to as GLPs and GCPs for conducting, recording and reporting the results of preclinical studies and clinical trials to assure, amongst other things, that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected.

We have collaborations and license agreements with third parties, including our existing license agreements with BMS and Colorado and expects to collaborate with third parties in the future. We may not be successful in finding strategic collaborators for continuing development of certain of our future product candidates or successfully commercializing or competing in the market for certain indications.

We currently collaborate with third-parties with respect to bempikibart and ADX-097. If any of our collaborators, licensors or licensees experience delays in performance of, or fail to perform their obligations under, their applicable agreements with us, disagree with our interpretation of the terms of such agreement or terminate their agreement with us, our pipeline of product candidates would be adversely affected. If we fail to comply with any of the obligations under our collaborations or license agreements, including payment terms and diligence terms, our collaborators, licensors or licensees may have the right to terminate our agreements, in which event we may lose intellectual property rights, market or sell the products covered by such agreements or may face other penalties under such agreements. Our collaborators, licensors or licensees may also fail to properly maintain or defend the intellectual property we have licensed from them, or infringe upon other third party intellectual property rights, leading to the potential invalidation

of such third party's intellectual property or subjecting us to litigation or arbitration, any of which would be time-consuming and expensive and could harm our ability to develop or commercialize our product candidates. Further, any of these relationships may require us to increase our near and long-term expenditures, issue securities that dilute our existing stockholders or disrupt our management and business. In addition, collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates and products if the collaborators believe that the competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than under the agreements with us.

In the future, we may decide to collaborate with entities such as, but not limited to, non-profit organizations, universities, pharmaceutical and biotechnology companies for the development and potential commercialization of existing and new product candidates. We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of several factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the U.S., the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing drugs, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. The terms of any additional collaborations or other arrangements that we may establish may not be favorable to us. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, it may have to curtail the development of the product candidate for which we are seeking to collaborate, reduce or delay our development program or one or more of our other development programs, delay our potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to the market and generate product revenue.

The success of any potential collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations. Disagreements between parties to a collaboration arrangement regarding clinical development and commercialization matters can lead to delays in the development process or commercializing the applicable product candidate and, in some cases, termination of such collaboration arrangements. These disagreements can be difficult to resolve if neither of the parties has final decision-making authority. Collaborations with pharmaceutical or biotechnology companies and other third parties often are terminated or allowed to expire by the other party. Any such termination or expiration would adversely affect us financially and could harm our business reputation.

Future acquisitions or strategic alliances could disrupt our business and harm our financial condition and results of operations.

We may acquire additional businesses or drugs, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire businesses with promising markets or technologies, we may not be able to realize the benefit of acquiring such businesses if we are unable to successfully integrate them with our existing operations and company culture. We may encounter numerous difficulties in developing, manufacturing and marketing any new drugs resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, we will achieve the expected synergies to justify the transaction. The risks we face in connection with acquisitions, include:

- diversion of management time and focus from operating our business to addressing acquisition integration challenges;

- coordination of research and development efforts;
- retention of key employees from the acquired company;
- changes in relationships with strategic partners because of product acquisitions or strategic positioning resulting from the acquisition;
- cultural challenges associated with integrating employees from the acquired company into our company;
- the need to implement or improve controls, procedures, and policies at a business that prior to the acquisition may have lacked sufficiently effective controls, procedures and policies;
- liability for activities of the acquired company before the acquisition, including intellectual property infringement claims, violation of laws, commercial disputes, tax liabilities, and other known liabilities;
- unanticipated write-offs or charges; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, customers, former stockholders or other third parties.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions or strategic alliances could cause us to fail to realize the anticipated benefits of these transactions, cause us to incur unanticipated liabilities and harm the business generally. There is also a risk that future acquisitions will result in the incurrence of debt, contingent liabilities, amortization expenses or incremental operating expenses, any of which could harm our financial condition or results of operations.

We rely, and anticipate that we will rely, on third parties to assist in designing, conducting, supervising and monitoring our preclinical studies and clinical trials, and if those third parties perform in an unsatisfactory manner, it may harm our business.

We rely, and anticipate that we will rely, on third party clinical investigators, CROs, clinical data management organizations and consultants to help design, conduct, supervise and monitor preclinical studies and clinical trials of our product candidates. Because we rely on third parties and do not have the ability to conduct preclinical studies or clinical trials independently, we have less control over the timing, quality and other aspects of preclinical studies and clinical trials than we would if we conducted them on our own, including our inability to control whether sufficient resources are applied to our programs. If any of our CROs are acquired or consolidated, these concerns are likely to be exacerbated and our preclinical studies or clinical trials may be further impacted due to potential integration, streamlining, staffing and logistical changes. These investigators, CROs and consultants are not our employees and we have limited control over the amount of time and resources that they dedicate to our programs. These third parties may have contractual relationships with other entities, some of which may be our competitors, which may draw time and resources from our programs. Further, these third parties may not be diligent, careful or timely in conducting our preclinical studies or clinical trials, resulting in the preclinical studies or clinical trials being delayed or unsuccessful.

If we cannot contract with acceptable third parties on commercially reasonable terms, or at all, or if these third parties do not carry out their contractual duties, satisfy legal and regulatory requirements for the conduct of preclinical studies or clinical trials or meet expected deadlines, our preclinical and clinical development programs could be delayed and otherwise adversely affected. In all events, we are responsible for ensuring that each of our preclinical studies and clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. The FDA and other health authorities require certain preclinical studies to be conducted in accordance with GLP, and clinical trials to be conducted in accordance with GCP, including conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. If we or our CROs fail to comply with these requirements,

the data generated in our clinical trials may be deemed unreliable or uninterpretable and the FDA and other health authorities may require us to perform additional clinical trials. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. In the U.S., we are also required to register certain clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions. Any such event could adversely affect our business, financial condition, results of operations and prospects.

We rely on third parties in the supply and manufacture of our product candidates for our research, preclinical and clinical activities, and may do the same for commercial supplies of our product candidates.

We have not yet manufactured our product candidates on a commercial scale and may not be able to do so for any of our product candidates. We currently rely on third parties in the supply and manufacture of materials for our research, preclinical and clinical activities and may continue to do so for the foreseeable future, including if we received regulatory approval for any product candidate. We may do the same for the commercial supply of our drug product, if any. We use third parties to perform additional steps in the manufacturing process, such as the filling, finishing and labeling of vials and storage and shipping of our product candidates and we expect to do so for the foreseeable future. There can be no assurance that our supply of research, preclinical and clinical development drug candidates and other materials will not be limited, interrupted or restricted or will be of satisfactory quality or continue to be available at acceptable prices. Replacement of any of the third parties we may engage could require significant effort and expertise because there may be a limited number of qualified replacements. In addition, raw materials, reagents, and components used in the manufacturing process, particularly those for which we have no other source or supplier, may not be available, may not be suitable or acceptable for use due to material or component defects, or may introduce variability into the supply of our product candidates. Furthermore, with the increase of companies developing fusion protein based antibodies and/or monoclonal antibodies, there may be increased competition for the supply of the raw materials that are necessary to make our fusion protein based antibodies and/or monoclonal antibodies, which could severely impact the manufacturing of our product candidates.

We may be unable to identify manufacturers on acceptable terms or at all because the number of potential manufacturers is limited, and they must be acceptable to the FDA or approved by foreign regulatory authorities. Suppliers and manufacturers, including us, must meet applicable manufacturing requirements, including compliance with cGMP regulations, and undergo rigorous facility and process validation tests required by regulatory authorities to comply with regulatory standards. In the event that any of our suppliers or manufacturers fail to comply with such requirements or to perform their obligations to us in relation to quality, timing or otherwise, some of which may be out of their or our control, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to increase the manufacturing of the materials ourselves, for which we currently have limited capabilities and resources, or enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all. Any interruption of the development or operation of the manufacturing of our product candidates, such as order delays for equipment or materials, equipment malfunction, quality control and quality assurance issues, regulatory delays and possible negative effects of such delays on supply chains and expected timelines for product availability, production yield issues, shortages of qualified personnel, discontinuation of a facility or business or failure or damage to a facility resulting from natural disasters, could result in the cancellation of shipments, loss of product in the manufacturing process or a shortfall in available product candidates or materials. In some cases, the technical skills or technology required to manufacture our product candidates may be unique or proprietary to the original manufacturer and we may have difficulty, or there may be contractual restrictions prohibiting us from, transferring such skills or technology to another third party and a feasible alternative may not exist. These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to have another third-party manufacture our product candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop product candidates in a timely manner or within budget.

In addition, we currently rely on foreign CROs and CDMOs, including WuXi Biologics, and will likely continue to rely on foreign CROs and CDMOs in the future. Foreign CDMOs may be subject to U.S. legislation, including the proposed BIOSECURE Act, sanctions, trade restrictions and other foreign regulatory requirements which could increase the cost or reduce the supply of material available to us, delay the procurement or supply of such material or have an adverse effect on our ability to manufacture our product candidates.

We may also be required to enter into long-term manufacturing agreements that contain exclusivity provisions and/or substantial termination penalties which could have a material adverse effect on our business prior to or after commercialization of any of our product candidates. If we are unable to obtain or maintain third-party manufacturing for product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our product candidates successfully. Failure to execute our manufacturing requirements, either by us or by one of our third-party vendors, could adversely affect our business.

Our relationships with healthcare providers, physicians, and third-party payors will be subject to applicable anti-kickback, fraud and abuse, anti-bribery and other healthcare laws and regulations, which could expose it to criminal sanctions, civil penalties, contractual damages, reputational harm, and diminished profits and future earnings.

Healthcare providers, physicians, and third-party payors play a primary role in the recommendation and prescription of any product candidates that we may develop for which it obtains marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell, and distribute our medicines for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations listed in the section above titled "Risk Factors—Risks Related to Government Regulation," including certain laws and regulations applicable only if we have marketed products.

Some state laws also require pharmaceutical companies to comply with specific compliance standards, restrict financial interactions between pharmaceutical companies and healthcare providers or require pharmaceutical companies to report information related to payments to health care providers or marketing expenditures.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. Given the breadth of the laws and regulations, limited guidance for certain laws and regulations and evolving government interpretations of the laws and regulations, governmental authorities may possibly conclude that our business practices may not comply with healthcare laws and regulations. If our operations are found to be in violation of any of the laws described above or any other government regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in government health care programs, such as Medicare and Medicaid, imprisonment, and the curtailment or restructuring of our operations, any of which could adversely affect our business, financial condition, results of operations, and prospects.

The provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order, or use of medicinal products is prohibited in the EU. The provision of benefits or advantages to physicians is also governed by the national anti-bribery laws of EU Member States, such as the U.K. Bribery Act 2010. Infringement of these laws could result in substantial fines and imprisonment.

Payments made to physicians in certain EU Member States must be publicly disclosed. Moreover, agreements with physicians often must be the subject of prior notification and approval by the physician's employer, his or her competent professional organization, and/or the regulatory authorities of the individual EU Member States. These requirements are provided in the national laws, industry codes, or professional codes of conduct applicable in the EU Member States. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

Risks Related to Our Business, Personnel and Operations

Our future growth may depend, in part, on our ability to operate in foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future growth may depend, in part, on our ability to develop and commercialize bempikibart, ADX-097 or other product candidates in foreign markets for which we may rely on collaboration with third parties. We are not permitted to market or promote any product candidates before we receive regulatory approval from the applicable foreign regulatory authority and may never receive such regulatory approval for any product candidates. To obtain separate regulatory approval in many other countries, we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy and governing, among other things, clinical trials and commercial sales, pricing and distribution of bempikibart, ADX-097 or other product candidates, and we cannot predict success in these jurisdictions. If we fail to comply with the regulatory requirements in international markets or to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of bempikibart, ADX-097 or other product candidates will be harmed, and our business will be adversely affected. Moreover, even if we obtain approval of bempikibart, ADX-097 or other product candidates and ultimately commercialize such product candidates in foreign markets, we would be subject to the risks and uncertainties, including the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements and reduced protection of intellectual property rights in some foreign countries.

Our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs, CMOs, suppliers and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs, CMOs, suppliers and vendors acting for or on our behalf may engage in misconduct or other improper activities. It is not always possible to identify and deter misconduct by these parties and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations.

Our internal computer systems, or those of any of our CROs, manufacturers, other contractors, third party service providers or consultants or potential future collaborators, may fail or suffer security or data privacy breaches or other unauthorized or improper access to, use of, or destruction of our proprietary or confidential data, employee data or personal data, which could result in additional costs, loss of revenue, significant liabilities, harm to our brand and material disruption of our operations.

Despite the implementation of security measures in an effort to protect systems that store our information, given their size and complexity and the increasing amounts of information maintained on our internal information technology systems and those of our third-party CROs, other contractors (including sites performing our clinical trials), third party service providers and supply chain companies, and consultants, as well as other partners, these systems are potentially vulnerable to breakdown or other damage or interruption from service interruptions, system malfunction, natural disasters, terrorism, war and telecommunication and electrical failures, as well as security breaches from inadvertent or intentional actions by our employees, contractors, consultants, business partners and/or other third parties, or from cyber-attacks by malicious third parties, which may compromise our system infrastructure or lead to the loss, destruction, alteration or dissemination of, or damage to, our data. To the extent that any disruption or security breach were to result in a loss, destruction, unavailability, alteration or dissemination of, or damage to, our data or applications, or for us to be believed or reported that any of these occurred, we could incur liability and reputational damage and the development and commercialization of bempikibart, ADX-097 or other product candidates could be delayed.

As our employees work remotely and utilize network connections, computers, and devices outside our premises or network, including working at home, while in transit and in public locations, there are risks to our information technology systems and data. Additionally, business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies.

While we have implemented security measures designed to protect against security incidents, there can be no assurance that these measures will be effective. We may be unable in the future to detect vulnerabilities in our information technology systems because such threats and techniques change frequently, are often sophisticated in nature, and may not be detected until after a security incident has occurred. Further, we may experience delays in

developing and deploying remedial measures designed to address any such identified vulnerabilities. Applicable data privacy and security obligations may require us to notify relevant stakeholders of security incidents. Such disclosures are costly, and the disclosure or the failure to comply with such requirements could lead to adverse consequences.

We rely on third-party service providers and technologies to operate critical business systems to process sensitive information in a variety of contexts. Our ability to monitor these third parties' information security practices is limited, and these third parties may not have adequate information security measures in place. If our third-party service providers experience a security incident or other interruption, we could experience adverse consequences. While we may be entitled to damages if our third-party service providers fail to satisfy their privacy or security-related obligations to us, any award may be insufficient to cover our damages, or we may be unable to recover such award. In addition, supply-chain attacks have increased in frequency and severity, and we cannot guarantee that third parties' infrastructure in our supply chain or our third-party partners' supply chains have not been compromised.

If we (or a third party upon whom we rely) experience a security incident or are perceived to have experienced a security incident, we may experience adverse consequences, such as government enforcement actions (for example, investigations, fines, penalties, audits, and inspections); additional reporting requirements and/or oversight; restrictions on processing sensitive information (including personal data); litigation (including class claims); indemnification obligations; negative publicity; reputational harm; monetary fund diversions; interruptions in our operations (including availability of data); increased investigation and compliance costs; financial loss; and other similar harms. Security incidents and attendant consequences may cause stakeholders (including investors and potential customers) to stop supporting our research and development activities, deter new customers from products, and negatively impact our ability to grow and operate our business.

Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our data privacy and security obligations. We cannot be sure that our insurance coverage will be adequate or sufficient to protect us from or to mitigate liabilities arising out of our privacy and security practices or from disruptions in, or failure or security breach of, our systems or third-party systems where information important to our business operations or commercial development is stored, or that such coverage will continue to be available on commercially reasonable terms or at all, or that such coverage will pay future claims.

We are subject to stringent and changing laws, regulations and standards, and contractual obligations relating to privacy, data protection, and data security. The actual or perceived failure to comply with such obligations could lead to government enforcement actions (which could include civil or criminal penalties), fines and sanctions, private litigation and/or adverse publicity and could negatively affect our operating results and business.

We, and third parties with whom we work, are or may become subject to numerous domestic and foreign laws, regulations, and standards relating to privacy, data protection, and data security, the scope of which are changing, subject to differing applications and interpretations, and may be inconsistent among countries, or conflict with other rules. We are or may become subject to the terms of contractual obligations related to privacy, data protection, and data security. Our obligations may also change or expand as our business grows. The actual or perceived failure by us or third parties related to us to comply with such laws, regulations and obligations could increase our compliance and operational costs, expose us to regulatory scrutiny, actions, fines and penalties, result in reputational harm, lead to a loss of customers, result in litigation and liability, and otherwise cause a material adverse effect on our business, financial condition, and results of operations. See the sections titled "Our Business-Government Regulation-Data Privacy and Security" and "Other Regulatory Matters" in this prospectus for a more detailed description of the laws that may affect our ability to operate.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations may involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or commercialization efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

If we are unable to attract and retain qualified key management and scientists, staff, consultants and advisors, our ability to implement our business plan may be adversely affected.

We are highly dependent upon our senior management and our scientific, clinical and medical staff and advisors. The loss of the service of any of the members of our senior management or other key employees could delay our research and development programs and materially harm our business, financial condition, results of operations and prospects. In addition, we expect that we will continue to have an increased need to recruit and hire qualified personnel as we advance our programs and expands operations. Failure to successfully recruit and retain personnel could impact our anticipated development plans and timelines. We are dependent on the continued service of our technical personnel because of the highly technical and novel nature of our product candidates, platform and technologies and the specialized nature of the regulatory approval process. Replacing such personnel may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully execute our business strategy, and we cannot assure you that we will be able to identify or employ qualified personnel for any such position on acceptable terms, if at all. Many of the biotechnology and pharmaceutical companies with whom we compete for qualified personnel have greater financial and other resources, different risk profiles and longer histories in the industry than we do. Because our management team and key employees are not obligated to provide us with continued service, they could terminate their employment with us at any time without penalty. we do not maintain key person life insurance policies on any of our management team members or key employees. Our future success will depend in large part on our continued ability to attract and retain highly qualified scientific, technical and management personnel, as well as personnel with expertise in preclinical and clinical testing, manufacturing, governmental regulation and commercialization. In order to do so, we may need to pay higher compensation or fees to our employees or consultants than we currently expect, and such higher compensation payments may have a negative effect on our operating results. We face increased competition for personnel from other companies, universities, public and private research institutions, government entities and other organizations. If we are unable to attract and retain qualified personnel, the rate and success at which we may be able to discover and develop our product candidates and implement our business plan will be limited.

We expect to expand our research, development, delivery, manufacturing, commercialization, regulatory and future sales and marketing capabilities over time, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

As of March 25, 2024, we had 37 full-time employees, including 4 who hold Ph.D. degrees and 3 who hold M.D. degrees, and no part-time employees; 27 employees are engaged in research and development and 10 employees in management or general and administrative activities. In connection with the growth and advancement of our pipeline and becoming a public company, we expect to increase the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and sales and marketing. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities, and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expected expansion of our operations or recruit and train additional qualified personnel. Moreover, our current physical laboratory space may be insufficient for our near-term research and development hiring plans, and the expected physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

As a growing biotechnology company, we are actively pursuing new platforms and product candidates in many therapeutic areas and across a wide range of diseases. Successfully developing product candidates for and fully understanding the regulatory and manufacturing pathways to all of these therapeutic areas and disease states requires a significant depth of talent, resources and corporate processes in order to allow simultaneous execution across multiple areas. Due to our limited resources, we may not be able to effectively manage this simultaneous execution and the expansion of our operations or recruit and train additional qualified personnel. This may result in weaknesses in our infrastructure, give rise to operational mistakes, legal or regulatory compliance failures, loss of business opportunities, loss of employees and reduced productivity among remaining employees. The physical expansion of

our operations may lead to significant costs and may divert financial resources from other projects, such as the development of our potential product candidates. If our management is unable to effectively manage the expected development and expansion, our expenses may increase more than expected, our ability to generate or increase our revenue could be reduced and we may not be able to implement our business strategy. Our future financial performance and our ability to compete effectively and commercialize any product candidates it may develop will depend in part on our ability to effectively manage the future development and our expansion.

General Risk Factors

Our estimates of market opportunity and forecasts of market growth may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, our business may not grow at similar rates, or at all.

Our market opportunity estimates and growth forecasts are subject to significant uncertainty and are based on assumptions and estimates which may not prove to be accurate. Our estimates and forecasts relating to size and expected growth of our target market may prove to be inaccurate. Even if the markets in which we compete meet our size estimates and growth forecasts, our business may not grow at similar rates, or at all. Our growth is subject to many factors, including our success in implementing our business strategy, which is subject to many risks and uncertainties.

Our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to obtain coverage and reimbursement and whether we own the commercial rights for that territory. If the number of our addressable patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect or the treatment population is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales of such products, even if approved.

We may become exposed to costly and damaging liability claims, either when testing a product candidate in the clinical or at the commercial stage, and our product liability insurance may not cover all damages from such claims.

We are exposed to potential product liability and professional indemnity risks that are inherent in the research, development, manufacturing, marketing, and use of pharmaceutical products. While we currently have no products that have been approved for commercial sale, the current and future use of a product candidate in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims may be made by patients that use the product, healthcare providers, pharmaceutical companies, or others selling such product. Any claims against us, regardless of their merit, could be difficult and costly to defend and could materially and adversely affect the market for our products or any prospects for commercialization of our products. Although we believe we currently maintain adequate product liability insurance for our product candidates, it is possible that our liabilities could exceed our insurance coverage or that in the future we may not be able to maintain insurance coverage at a reasonable cost or obtain insurance coverage that will be adequate to satisfy any liability that may arise. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Litigation costs and the outcome of litigation could have a material adverse effect on our business.

From time to time, we may be subject to litigation claims through the ordinary course of our business operations regarding, but not limited to, employment matters, security of patient and employee personal information, contractual relations with collaborators and intellectual property rights. Litigation to defend itself against claims by third parties, or to enforce any rights that we may have against third parties, may continue to be necessary, which could result in substantial costs and diversion of our resources, causing a material adverse effect on our business, financial condition, results of operations or cash flows.

Our business could be adversely affected by economic downturns, inflation, increases in interest rates, natural disasters, public health crises such as the COVID-19 pandemic, political crises, geopolitical events, such as conflict between Russia and Ukraine and the conflict in Israel and Gaza, or other macroeconomic conditions, which could have a material and adverse effect on our results of operations and financial condition.

The global economy, including credit and financial markets, has experienced extreme volatility and disruptions, including, among other things, diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, supply chain shortages, increases in inflation rates, higher interest rates, and uncertainty about economic stability. For example, the COVID-19 pandemic resulted in widespread unemployment, economic slowdown and extreme volatility in the capital markets. The Federal Reserve has raised interest rates multiple times in response to concerns about inflation and it may raise them again. Higher interest rates, coupled with reduced government spending and volatility in financial markets, may increase economic uncertainty and affect consumer spending. Similarly, the ongoing military conflict between Russia and Ukraine, the conflict in Israel and Gaza and U.S.'s rising tensions with China have created extreme volatility in the global capital markets and may have further global economic consequences, including disruptions of the global supply chain. Any such volatility and disruptions may adversely affect our business or the third parties on whom we rely. If the equity and credit markets deteriorate, including as a result of political unrest or war, it may make any necessary debt or equity financing more costly, more dilutive, or more difficult to obtain in a timely manner or on favorable terms, if at all. Increased inflation rates can adversely affect us by increasing our costs, including labor and employee benefit costs.

We may in the future experience disruptions as a result of such macroeconomic conditions, including delays or difficulties in initiating or expanding clinical trials and manufacturing sufficient quantities of materials. Any one or a combination of these events could have a material and adverse effect on our results of operations and financial condition.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

Since Legacy Q32's inception, it has incurred losses and it may never achieve profitability. As of December 31, 2023 and December 31, 2022, Legacy Q32 had federal and state NOLs of $63.9 million and $91.1 million, respectively. Under current law, Legacy Q32's federal NOLs generated in taxable years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs is limited to 80% of its taxable income annually for tax years beginning after December 31, 2020. Federal NOLs generated in taxable years beginning before January 1, 2018, however, have a 20-year carryforward period, but are not subject to the 80% limitation. Legacy Q32's state NOLs expire at various dates from 2040 through 2042. As of December 31, 2023, Legacy Q32 had federal research and development tax credit carryforwards of $4.3 million that expire at various dates from 2041 through 2043. In addition, as of December 31, 2023, Legacy Q32 had state research and development tax credit carryforwards of $1.8 million that expire at various dates from 2038 through 2043.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, or the Code, if a corporation undergoes an "ownership change," generally defined as one or more shareholders or groups of shareholders who own at least 5 percent of the corporation's equity increasing their equity ownership in the aggregate by more than 50 percentage points (by value) over a rolling three-year period, the corporation's ability to use our pre-change NOLs and other pre-change tax attributes (such as research and development tax credits) to offset our post-change income or taxes may be limited. Similar rules may apply under state tax laws. Our prior equity offerings and other changes in our stock ownership may have resulted in such ownership changes in the past. We have not conducted a formal study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since our inception. In addition, we may experience ownership changes in the future as a result of future securities offering or subsequent shifts in our stock ownership, some of which are outside of our control. As a result, even if we earn net taxable income in the future, our ability to use our pre-change NOLs or other pre-change tax attributes to offset U.S. federal taxable income or income taxes may be subject to limitations, which could potentially result in increased future tax liability to us. There is a risk that due to changes under the tax law, regulatory changes or other unforeseen reasons, our existing NOLs or business tax credits could expire or otherwise be unavailable to offset future income tax liabilities. At the state level, there may also be periods during which the use of NOLs or business tax credits is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed by us. For these reasons, we may not be able to realize a tax benefit from the use of our NOLs or tax credits, even if we attain profitability.

Changes in tax laws or in their implementation or interpretation may adversely affect our business and financial condition.

The rules dealing with U.S. federal, state and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect our business and financial condition. In recent years, many such changes have been made and changes are likely to continue to occur in the future. We cannot predict whether, when, in what form or with what effective dates, tax laws, regulations and rulings may be enacted, promulgated or decided or whether they could increase our tax liability or require changes in the manner in which we operate in order to minimize increases in our tax liability.

Adverse developments affecting the financial services industry could adversely affect our current and projected business operations and our financial condition and results of operations.

Adverse developments that affect financial institutions, such as events involving liquidity that are rumored or actual, have in the past and may in the future lead to bank failures and market-wide liquidity problems. For example, on March 10, 2023, Silicon Valley Bank, or SVB, was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation, or FDIC, as receiver. Similarly, on March 12, 2023, Signature Bank was also swept into receivership. The U.S. Department of Treasury, the Federal Reserve Board, or the Federal Reserve, and the FDIC released a statement that indicated that all depositors of SVB would have access to all of their funds, including funds held in uninsured deposit accounts, after only one business day of closure. The U.S. Department of Treasury, FDIC and Federal Reserve have announced a program to provide up to $25 billion of loans to financial institutions secured by certain government securities held by financial institutions to mitigate the risk of potential losses on the sale of such instruments and help address liquidity pressures that may arise. There is no guarantee, however, that the U.S. Department of Treasury, FDIC and Federal Reserve will provide access to uninsured funds in the future in the event of the closure of other banks or financial institutions, or that they would do so in a timely fashion.

At this time, we hold substantially all of our cash on deposit at SVB (which has been assumed by First Citizens) and we have not experienced any adverse impact to our current and projected business operations, financial condition or results of operations as a result of the closure of SVB or any other banks. We plan to diversify our cash deposit holdings between multiple financial institutions. However, uncertainty remains over liquidity concerns in the broader financial services industry, and our business, business partners, or industry as a whole may be adversely impacted in ways that we cannot predict at this time. If, for example, other banks and financial institutions enter receivership or become insolvent in the future in response to financial conditions affecting the banking system and financial markets, our ability to access our existing cash, cash equivalents and investments may be threatened.

Although we expect to assess our banking relationships as we believe necessary or appropriate, our access to cash in amounts adequate to finance or capitalize our current and projected future business operations could be significantly impaired by factors that affect the financial institutions with which we have banking relationships, and in turn, us. These factors could include, among others, events such as liquidity constraints or failures, the ability to perform obligations under various types of financial, credit or liquidity agreements or arrangements, disruptions or instability in the financial services industry or financial markets, or concerns or negative expectations about the prospects for companies in the financial services industry. These factors could also include factors involving financial markets or the financial services industry generally. The results of events or concerns that involve one or more of these factors could include a variety of material and adverse impacts on our current and projected business operations and our financial condition and results of operations. These could include, but may not be limited to, delayed access to deposits or other financial assets or the uninsured loss of deposits or other financial assets; or termination of cash management arrangements and/or delays in accessing or actual loss of funds subject to cash management arrangements.

In addition, widespread investor concerns regarding the U.S. or international financial systems could result in less favorable commercial financing terms, including higher interest rates or costs and tighter financial and operating covenants, or systemic limitations on access to credit and liquidity sources, thereby making it more difficult for us to acquire financing on acceptable terms or at all. Any decline in available funding or access to our cash and liquidity resources could, among other risks, adversely impact our ability to meet our operating expenses, financial obligations or fulfill our other obligations, result in breaches of our financial and/or contractual obligations or result in violations of federal or state wage and hour laws. Any of these impacts, or any other impacts resulting from the factors described above or other related or similar factors not described above, could have material adverse impacts on our liquidity and our current and/or projected business operations and financial condition and results of operations.

In addition, one or more of our critical vendors, third party manufacturers, or other business partners could be adversely affected by any of the liquidity or other risks that are described above, which in turn, could have a material adverse effect on our current and/or projected business operations and results of operations and financial condition. Any business partner bankruptcy or insolvency, or any breach or default by a business partner, or the loss of any significant supplier relationships, could result in material adverse impacts on our current and/or projected business operations and financial condition.

We do not anticipate that we will pay any cash dividends in the foreseeable future.

The current expectation is that we will retain our future earnings, if any, to fund the growth of our business as opposed to paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain, if any, for the foreseeable future.

An active trading market for our common stock may not develop and our stockholders may not be able to resell their shares of common stock for a profit, if at all.

Prior to the Merger, there had been no public market for shares of Legacy Q32 capital stock. An active trading market for our shares of common stock may never develop or be sustained. If an active market for our common stock does not develop or is not sustained, it may be difficult for our stockholders to sell their shares at an attractive price or at all.

Future sales of shares by existing stockholders could cause our stock price to decline.

If existing securityholders of Homology and Legacy Q32 sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after legal restrictions on resale discussed in this proxy statement/prospectus lapse, the trading price of our common stock could decline. Based on shares outstanding as of March 25, 2024, after giving effect to the Pre-Closing Financing (as defined in the Merger Agreement), shares issued upon completion of the Merger and the Reverse Stock Split, we have a total of approximately 11.9 million shares of common stock outstanding. Certain of these shares are subject to lock-up agreements between Homology and Legacy Q32 on the one hand and certain securityholders of Homology and Legacy Q32 on the other hand. Following the expiration of these lock-up agreements, the relevant stockholders will not be restricted from selling shares our common stock held by them, other than by applicable securities laws. Stockholders not subject to these lock-up agreements will not be restricted from selling shares of our common stock held by them, other than by applicable securities laws. In addition, shares of common stock that are subject to outstanding options or warrants of Legacy Q32 will become eligible for sale in the public market to the extent permitted by the provisions of various vesting agreements and Rules 144 and 701 under the Securities Act. If these shares are sold, the trading price of our common stock could decline.

Our executive officers, directors and principal stockholders have the ability to control or significantly influence all matters submitted to our stockholders for approval.

Upon the completion of the Merger, and giving effect to the issuance of the Pre-Closing Financing, it is anticipated that our executive officers, directors and principal stockholders will, in the aggregate, beneficially own approximately 39.16% of our outstanding shares of common stock, subject to certain assumptions, including, but not limited to, Homology's net cash as of closing being equal to $61.3 million and Legacy Q32 issuing approximately $42.0 million of Legacy Q32 common stock in the Pre-Closing Financing. As a result, if these stockholders were to choose to act together, they would be able to control or significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these stockholders, if they choose to act together, would control or significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about us, our business or our market, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that equity research analysts publish about us and our business. Equity research analysts may elect to not provide research coverage of our common stock and such lack of research coverage may adversely affect the market price of our common stock. In the event we do have equity research analyst coverage, we will not have any control over the analysts or the content and opinions included in their reports. The price of our common stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of us or fails to publish reports on us regularly, demand for our common stock could decrease, which in turn could cause our stock price or trading volume to decline.

We have broad discretion in the use of our cash and cash equivalents and the proceeds from the Pre-Closing Financing and may invest or spend the proceeds in ways with which you do not agree and in ways that may not increase the value of your investment.

We have broad discretion over the use of our cash and cash equivalents and the proceeds from the Pre-Closing Financing. You may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. Our failure to apply these resources effectively could compromise our ability to pursue our growth strategy and we might not be able to yield a significant return, if any, on our investment of these net proceeds. You will not have the opportunity to influence our decisions on how to our cash resources.

Changes in tax laws or in their implementation or interpretation may adversely affect tour business and financial condition.

The rules dealing with U.S. federal, state and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect our business and financial condition. In recent years, many such changes have been made and changes are likely to continue to occur in the future. We cannot predict whether, when, in what form or with what effective dates, tax laws, regulations and rulings may be enacted, promulgated or decided or whether they could increase our tax liability or require changes in the manner in which we operate in order to minimize increases in our tax liability.

Unfavorable global economic conditions could adversely affect our business, financial condition, results of operations or cash flows.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. A severe or prolonged economic downturn could result in a variety of risks to our business, including, weakened demand for our product candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Our certificate of incorporation and bylaws and the provisions under Delaware law could make an acquisition of our company more difficult and may prevent attempts by our stockholders to replace or remove out management.

Provisions in our certificate of incorporation and bylaws may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which our common stockholders might otherwise receive a premium price for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors will be responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions:

- establish a classified board of directors such that all members of the board are not elected at one time;
- do not provide for cumulative voting in the election of directors;

- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- provide that only the board of directors may fill vacancies on the board of directors created by the expansion of the board of directors or the resignation, death or removal of a director;
- limit the manner in which stockholders can remove directors from the board;
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted on at stockholder meetings;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call a special meeting of stockholders;
- authorize our board of directors to issue preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and
- require the approval of the holders of at least 66.67% of the votes that all our stockholders would be entitled to cast to amend or repeal certain provisions of our charter or bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the DGCL, which prohibits stockholders owning in excess of 15% of the outstanding voting stock from merging or combining with us. Although Homology and Legacy Q32 believe these provisions collectively will provide for an opportunity to receive higher bids by requiring potential acquirors to negotiate with our board of directors, they would apply even if the offer may be considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove then current management by making it more difficult for stockholders to replace members of the board of directors, which is responsible for appointing the members of management.

Our certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, certain designated courts will be the sole and exclusive forum for certain legal actions between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.

Our certificate of incorporation provides that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for state law claims for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of or based on a breach of a fiduciary duty owed by any of our current or former directors, officers, or other employees of the company or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, our certificate of incorporation or our bylaws, or (iv) any action asserting a claim that is governed by the internal affairs doctrine, in each case subject to the Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein, which for purposes of this risk factor refers to herein as the "Delaware Forum Provision." The Delaware Forum Provision will not apply to any causes of action arising under the Securities Act and the Exchange Act. Our bylaws further provide that, unless we consent in writing to an alternative forum, federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, which for purposes of this risk factor is referred to herein as the "Federal Forum Provision." In addition, our certificate of incorporation and bylaws that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the foregoing Delaware Forum Provision and Federal Forum Provision; provided, however, that stockholders cannot and will not be deemed to have waived its compliance with the U.S. federal securities laws and the rules and regulations thereunder.

The Delaware Forum Provision and the Federal Forum Provision may impose additional litigation costs on stockholders in pursuing any such claims, particularly if the stockholders do not reside in or near the State of Delaware. Additionally, the forum selection clauses in our bylaws may limit our stockholders' ability to bring a claim in a judicial forum that they find favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees even though an action, if successful, might benefit our stockholders.

Risks Related to Our Operations Following the Merger

If any of the events described in "Risks Related to Our Business" occur, those events could cause potential benefits of the Merger not to be realized. To the extent any of the events in the risks described in that section occurs, the potential benefits of the Merger may not be realized and our results of operations and financial condition could be adversely affected in a material way. This could cause the market price of our common stock to decline.

Following the Merger, we may be unable to successfully integrate Homology's and Legacy Q32's businesses and realize the anticipated benefits of the Merger.

The Merger involved the combination of two companies that operated as independent companies. Following the Merger, we are required to devote significant management attention and resources to integrating our business practices and operations. We may fail to realize some or all of the anticipated benefits of the Merger if the integration process takes longer than expected or is more costly than expected. Potential difficulties we may encounter in the integration process include the following:

- the inability to successfully combine our businesses in a manner that permits us to achieve the anticipated benefits from the Merger, which would result in the anticipated benefits of the Merger not being realized partly or wholly in the time frame currently anticipated or at all;
- creation of uniform standards, controls, procedures, policies and information systems; and
- potential unknown liabilities and unforeseen increased expenses, delays or regulatory conditions associated with the Merger.

In addition, prior to the Merger, we operated independently. It is possible that the integration process also could result in the diversion of our management's attention, the disruption or interruption of, or the loss of momentum in our ongoing businesses or inconsistencies in standards, controls, procedures and policies, any of which could adversely affect our ability to maintain our business relationships or the ability to achieve the anticipated benefits of the Merger, or could otherwise adversely affect our business and financial results.

Stockholders could file lawsuits relating to the merger

As of the date of this proxy statement / prospectus, there are no pending lawsuits challenging the Merger. However, potential plaintiffs may file lawsuits challenging the Merger. The outcome of any future litigation is uncertain. Such litigation, if not resolved, could prevent or delay consummation of the Merger and result in substantial costs to us or Homology, including any costs associated with the indemnification of directors and officers. One of the closing conditions is the absence of any order or legal requirement that restrains, enjoins, or otherwise prevents the consummation of the Merger. Therefore, if a plaintiff were successful in obtaining an injunction prohibiting the consummation of the Merger on the agreed-upon terms, then such injunction may prevent the Merger from being consummated, or from being consummated within the expected time frame.

We will incur additional costs and increased demands upon management as a result of complying with the laws and regulations affecting public companies.

We will incur significant legal, accounting and other expenses as a public company that Legacy Q32 did not incur as a private company, including costs associated with public company reporting obligations under the Exchange Act. Our management team will consist of the executive officers of Legacy Q32 prior to the Merger, some of whom have not previously managed and operated a public company. These executive officers and other personnel will need to devote substantial time to gaining expertise related to public company reporting requirements and compliance with applicable laws and regulations to ensure that we comply with all of such requirements. Any changes we make to comply with these obligations may not be sufficient to allow us to satisfy our obligations as a public company on a timely basis, or at all. These reporting requirements, rules and regulations, coupled with the increase in potential litigation exposure associated with being a public company, could also make it more difficult for us to attract and retain qualified persons to serve on the board of directors or on board committees or to serve as executive officers, or to obtain certain types of insurance, including directors' and officers' insurance, on acceptable terms.

Once we are no longer a smaller reporting company or otherwise no longer qualify for applicable exemptions, we will be subject to additional laws and regulations affecting public companies that will increase our costs and the demands on management and could harm our operating results and cash flows.

We will be subject to the reporting requirements of the Exchange Act, which requires, among other things, that we file with the SEC, annual, quarterly and current reports with respect to our business and financial condition as well as other disclosure and corporate governance requirements. As an emerging growth company, Homology took advantage of exemptions from various requirements such as an exemption from the requirement to have our independent auditors attest to our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002 as well as an exemption from the "say on pay" voting requirements pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Homology ceased to qualify as an emerging growth company effective December 31, 2023. We will qualify as a "smaller reporting company," as such term is defined in Rule 12b-2 under the Exchange Act, which allows the us to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this proxy statement/prospectus and in our periodic reports and proxy statements. Once we are no longer a smaller reporting company or otherwise no longer qualifies for these exemptions, we will be required to comply with these additional legal and regulatory requirements applicable to public companies and will incur significant legal, accounting and other expenses to do so. If we are not able to comply with the requirements in a timely manner or at all, our financial condition or the market price of our common stock may be harmed. For example, if we or our independent auditor identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, we could face additional costs to remedy those deficiencies, the market price of our stock could decline or we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

Provided we continue to be listed on Nasdaq, we will be subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act and the rules and regulations of Nasdaq. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We must perform system and process evaluations and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal controls over financial reporting in our Annual Report on Form 10-K filing for that year, as required by Section 404 of the Sarbanes-Oxley Act. As a private company, Legacy Q32 was never required to test its internal controls within a specified period. This will require that we incur substantial professional fees and internal costs to expand our accounting and finance functions and that we expend significant management efforts. We may experience difficulty in meeting these reporting requirements in a timely manner.

We may discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act, or if we are unable to maintain proper and effective internal controls, we may not be able to produce timely and accurate financial statements. If that were to happen, the market price of our common stock could decline and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities.

Legacy Q32 and its independent registered public accounting firm have identified a material weakness in its internal control over financial reporting. If Legacy Q32 is unable to remediate this material weakness, or we identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, we may not be able to accurately or timely report our financial condition or results of operations, which may adversely affect our business and the market price of our common stock.

In preparation of its consolidated financial statements to meet the requirements applicable to the Merger, Legacy Q32 and its independent registered public accounting firm identified a material weakness in its internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

The material weakness identified related to deficiencies in Legacy Q32's controls over complex accounting topics. Specifically, Legacy Q32's accounting and internal control infrastructure did not allow for adequate review processes over complex accounting topics due to lack of sufficient personnel. Due to this material weakness, material errors were identified and corrected in Legacy Q32's unaudited condensed consolidated financial statements for the nine months ended September 30, 2023.

Legacy Q32 has plans to implement measures designed to improve internal controls over financial reporting to remediate the control deficiencies that led to the material weakness, including strengthening reviews by its finance team, expanding its accounting and finance team to add additional qualified accounting and finance resources, which may include augmenting its finance team with third party consultants that possess the required expertise to assist management with its review.

We cannot assure you that the measures we have taken to date, and actions we may take in the future, will be sufficient to remediate the control deficiencies that led to the material weakness in our internal control over financial reporting or that they will prevent or avoid potential future material weaknesses. In addition, neither our management nor an independent registered public accounting firm has performed an evaluation of our internal control over financial reporting in accordance with the provisions of the Sarbanes-Oxley Act because no such evaluation has been required. Had Legacy Q32 or its independent registered public accounting firm performed an evaluation of its internal control over financial reporting in accordance with the provisions of the Sarbanes-Oxley Act, additional material weaknesses may have been identified. If we are unable to successfully remediate our existing or any future material weaknesses in our internal control over financial reporting, or identify any additional material weaknesses in the future, or otherwise fail to maintain an effective system of internal controls, the accuracy and timing of our financial reporting may be adversely affected, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports in addition to applicable stock exchange listing requirements, investors may lose confidence in our financial reporting, and the market price of our common stock may decline as a result.

Our unaudited pro forma condensed combined financial information included in this prospectus are preliminary, and our actual financial position and operations after the Merger may differ materially from the unaudited pro forma financial information included in this report.

Our unaudited pro forma financial information included herein is presented for illustrative purposes only and is not necessarily indicative of our actual financial condition or results of operations of future periods, or the financial condition or results of operations that would have been realized had the entities been combined during the period presented. Our actual results and financial position after the Merger may differ materially and adversely from the unaudited pro forma financial information included in this report. See "Unaudited Pro Forma Condensed Combined Financial Information" of this report.

BUSINESS

On March 25, 2024, we completed the previously announced business combination with Legacy Q32 in accordance with the terms of the Merger Agreement, pursuant to which, among other matters, Merger Sub merged with and into Legacy Q32, with Legacy Q32 surviving as our wholly owned subsidiary (such business combination, the Merger). In connection with the completion of the Merger, we changed our name from "Homology Medicines, Inc." to "Q32 Bio Inc.," and our business became primarily the business conducted by Legacy Q32. We are now a clinical stage biotechnology company focused on developing novel biologics to effectively and safely restore healthy immune balance in patients with autoimmune and inflammatory diseases driven by pathological immune dysfunction. The Merger is intended to qualify for federal income tax purposes as a tax-free reorganization under the provisions of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code.

As used in this Business Section, the words "Company," "we," "our," "us" and "Q32" refer, collectively to Q32 Bio Inc. and its consolidated subsidiaries following completion of the Merger.

Overview

We are a clinical stage biotechnology company focused on developing novel biologics to effectively and safely restore healthy immune balance in patients with autoimmune and inflammatory diseases driven by pathological immune dysfunction. To achieve the goal of restoring homeostasis to a dysregulated immune system, we are advancing antibody-based therapeutic candidates designed to target two central pathways of adaptive and innate immunity. The adaptive immune system is largely composed of T- and B-cell mediated cellular and antibody responses, while the innate immune system is the body's first line of defense employing such as monocytes, macrophages, neutrophils, dendritic cells and natural killer cells leukocytes that are responsible for clearing pathogens and cellular debris and modulating T- and B-cell function. We believe that targeting these key pathways of immune dysregulation in autoimmune and inflammatory diseases will deliver therapeutics for indications with clear unmet medical need in the near term, while enabling it to build a broad and diverse pipeline in the long term. We have multiple product candidates across a variety of autoimmune and inflammatory diseases with clinical readouts for our two lead programs expected in 2024 and 2025.

Bempikibart (ADX-914), our most advanced product candidate, is a fully human anti–interleukin-7 receptor alpha, or IL-7Rα, antagonist monoclonal antibody designed to re-regulate adaptive immune function by blocking signaling mediated by interleukin-7, or IL-7, and thymic stromal lymphopoietin, or TSLP. Bempikibart is being studied in two double-blind, placebo-controlled Phase 2 clinical trials designed to establish proof of clinical concept and evaluate our selected Phase 2 dose. One trial is evaluating the use of bempikibart for the treatment of atopic dermatitis, or AD, and one is evaluating bempikibart for the treatment of alopecia areata, or AA. Enrollment in both clinical trials remains ongoing and we expect to report topline data from both Phase 2 clinical trials in the second half of 2024.

ADX-097, the lead product candidate from our complement inhibitor platform, is a humanized anti-C3d monoclonal antibody, or mAb, fusion protein. ADX-097 is designed to restore complement regulation—an integral part of the innate immune system—through a tissue-targeted mechanism. ADX-097 is designed to inhibit alternative pathway complement activation locally in diseased tissues where complement-mediated pathology is actively manifest. We believe ADX-097 has the potential to drive improved clinical activity and address the limitations of the currently available systemic approaches to complement inhibition, including infection risk and the need for high drug doses and frequent administration, to achieve therapeutic levels of inhibition. We are developing ADX-097 for the treatment of renal and other complement-mediated diseases of high unmet need, including lupus nephritis, or LN, immunoglobulin A, or IgA, nephropathy, or IgAN, complement component 3 glomerulopathy, or C3G, and anti-neutrophil cytoplasmic antibody, or ANCA-associated vasculitis, or AAV. We have completed a Phase 1 clinical trial of ADX-097 in healthy volunteers. We expect to initiate an open-label Phase 2 renal basket program in the first half of 2024, with initial data expected by year-end 2024, and initiate a Phase 2 clinical trial in AAV, with topline data from both the renal basket and AAV trials anticipated in the second half of 2025.

In addition to ADX-097, we are also engaged in additional pipeline efforts to expand therapeutic opportunities within complement-mediated diseases.

Our development pipeline is shown in the figure below.

Figure 16: Our Development Pipeline

Note: AAV = Anti-Neutrophil Cytoplasmic Autoantibody (ANCA)-Associated Vasculitis; IgAN = IgA Nephropathy; LN = Lupus Nephritis; C3G = C3 Glomerulopathy. (1) Regained full development and commercial rights in November 2023.

Bempikibart (ADX-914)

Our most advanced product candidate, bempikibart, is a fully human antibody anticipated to block IL-7- and TSLP-mediated signaling via their cognate receptors. Increased levels of IL-7 and TSLP are associated with inflammatory and autoimmune diseases.

In October 2023, Amgen Inc., or Amgen, completed the acquisition of Horizon Therapeutics public limited company, or Horizon plc. Following its acquisition of Horizon plc, we agreed with Amgen to mutually terminate the Collaboration and Option Agreement, or the Horizon Collaboration Agreement, and the Asset Purchase Agreement, or the Purchase Agreement, and together with the Horizon Collaboration Agreement, the Horizon Agreements, each between us and Horizon Therapeutics Ireland DAC, or Horizon. In November 2023, we entered into a termination agreement with Horizon, or the Horizon Termination Agreement, pursuant to which Horizon's option to acquire the bempikibart program was terminated. As a result, we retained the initial consideration and development funding received under the Horizon Collaboration Agreement and regained full development and commercial rights to bempikibart. In consideration for the Horizon Termination Agreement, we agreed to pay Horizon regulatory and sales milestones payments of up to an aggregate amount of $75.1 million upon the first achievement of certain regulatory and sales milestones with respect to bempikibart. For more information see the section titled "*Our Business—Collaboration and License Agreements.*"

We have completed a Phase 1 study that showed bempikibart was well tolerated and exhibited a pharmacokinetics, or PK, / pharmacodynamic, or PD, profile supporting dosing of no more frequently than once every two weeks. There were no severe or serious adverse events, or AEs, reported and there was no impact of any observed anti-drug antibodies, or ADAs, on pharmacology or safety. We are currently conducting two Phase 2 clinical trials, one in each of AA and AD, with topline data for both clinical trials expected in the second half of 2024.

T cell pathology has been strongly implicated in AD and AA. Accumulating evidence suggests that multiple pathways are important in the pathogenesis of AD. This emerging view supports the belief that novel therapeutics, such as bempikibart, that more specifically address the underlying immune-phenotypic progression of the disease are needed. TH1 has long been implicated in the pathogenesis of AA supporting the potential for bempikibart to directly address the underlying driver of follicle damage and hair loss. In addition, given that AA is a disease often diagnosed in young adults, there is a critical need for effective novel treatments with a safety profile suitable for long-term, chronic treatment.

We own and have in-licensed various patents, patent applications, know-how and trade secrets relating to the development and commercialization of our IL-7Rα -targeted antagonistic antibody therapy candidates and platform technologies. Patents that have issued or may issue in the future protect composition of the bempikibart product candidate to the beginning of 2040, and protect methods of use to 2044, excluding any patent term adjustments and/or any patent term extensions.

ADX-097

ADX-097 is an anti-C3d antibody linked to two moieties of a fragment of human factor H, or fH. C3d is a ubiquitous marker of complement activation, located adjacent to C3 convertase complexes. Factor H is an important negative regulator of the complement alternative pathway, or AP. While complement can be activated through three pathways, the AP is central to all because it amplifies signaling. This aspect of AP activation is commonly known as the "amplification loop" and is responsible for much of the damage observed in complement-mediated diseases.

We have evaluated ADX-097 in a Phase 1 clinical trial in healthy volunteers where we observed circulating PK/PD consistent with preclinical studies, which established *in vivo* ADX-097 integrity and informed our dosing strategy for next stage clinical testing. In addition, no severe or serious AEs were reported and minimal ADAs were observed in this Phase 1 clinical trial.

These Phase 1 data and our preclinical studies have enabled targeted indication selection for our Phase 2 program as well as informed our key Phase 2 dose. We expect to initiate an open-label Phase 2 renal basket program in the first half of 2024 and a Phase 2 clinical trial in AAV in the first half of 2025.

In complement mediated proteinuric renal diseases (e.g., LN, IgAN and C3G), there remains substantial unmet need for therapeutics that can more effectively mitigate proteinuria and improve long-term kidney outcomes. Additionally, in AAV, even with optimal treatment, successful attainment and long-term maintenance of remission remains challenging and the therapeutics used as part of standard of care, or SOC, treatment are themselves associated with significant infection related morbidity. We believe that the tissue-directed approach to addressing complement dysregulation has the potential to drive improved efficacy and better safety across these indications. This tissue directed AP approach also has the potential to avoid the additive infection risk associated with systemic complement treatments, which is of significant importance to patients where the underlying condition is marked by high mortality due to infection (e.g., LN and AAV).

Complement activation is an essential part of innate and humoral immunity, and uncontrolled and sustained tissue complement activity plays a significant role in the pathogenesis of multiple human inflammatory and autoimmune diseases. The first approved complement inhibitor, eculizumab, targets C5 systemically, one of the effector arms of the complement pathway. The next generation of marketed and development stage complement therapeutics continue to rely on systemic complement blockade. To date, eight complement inhibitors have been approved for various indications with cumulative sales of nearly $6 billion in 2022. While commercial and clinical success provide validation of complement as a therapeutic target, clinical experience reveals the inherent drawbacks of systemic inhibition as a therapeutic approach, including:

- **limited activity** due to reliance on systemic blockade for control of complement dysregulation at the tissue level;
- **high treatment burden**, including high doses and/or frequent administration due to high abundance and rapid turnover of most target complement proteins; and
- **infection risk** due to systemic blockade.

Our aim is to solve for these inherent drawbacks with our proprietary approach designed to generate tissue targeted inhibitors of complement activation, which have the following advantages:

- **enhanced activity** through tissue targeted inactivation of convertases directly at the site of destruction;
- **convenient dosing** with a subcutaneous route and weekly dosing, with potential for every 2 week dosing; and
- **improved risk/benefit profile** by maximizing therapeutic index while maintaining intact systemic immune surveillance.

We own various patents, patent applications, know-how and trade secrets relating to the development and commercialization of our targeted complement inhibitor candidates and platform technologies. Patents that have issued or may issue in the future protect composition of the ADX-097 complement product candidate to the end of 2039, and protect methods of use to the end of 2044, excluding any patent term adjustments and/or any patent term extensions.

Our Team

We have assembled a team of industry-leading research, drug development, and operational experts, who have deep experience in advancing drug candidates in autoimmune and inflammatory diseases. The team is led by Jodie Morrison, our Chief Executive Officer, who brings extensive biopharma leadership experience from early stage through mid-size public biotech and pharmaceutical companies; Shelia Violette, Ph.D., Founder, Chief Scientific Officer and President of Research, has more than 30 years of biotech experience in inflammatory and autoimmune diseases and served as an Entrepreneur in Residence at Atlas Venture; Jason Campagna, M.D., Ph.D., Chief Medical Officer, has more than 15 years of experience advancing all stages of clinical development pipelines; Lee Kalowski, interim Chief Financial Officer, has 20 years of life science industry experience and has previously served as CFO at multiple biotech companies and in equity research; and Saul Fink, Ph.D., Chief Technical Officer, has extensive experience in leading manufacturing and nonclinical development of small molecules and biologics.

Our company was built upon the discoveries and findings from renowned researchers in immunology: Michael Holers, M.D. and Joshua Thurman, M.D., from the University of Colorado and Stephen Tomlinson, Ph.D. from the Medical University of South Carolina. They are pioneers in the field of tissue targeted regulation of complement system.

We are supported by leading biotechnology investors and pharmaceutical companies including OrbiMed, Atlas Venture, Abingworth, BMS, Acorn Bioventures, Osage University Partners, CU Healthcare Innovation Fund and Sanofi Ventures.

Our Strategy

Our mission is to develop therapeutics that restore healthy immune regulation for patients with severe autoimmune and inflammatory diseases. Our strategic initiatives are to:

- ***Complete our Phase 2 AD trial with bempikibart.*** We plan to complete the ongoing Phase 2 clinical trial for bempikibart in AD with topline results expected in the second half of 2024;
- ***Complete our Phase 2 AA trial with bempikibart.*** We plan to complete the ongoing Phase 2 clinical trial for bempikibart in AA with topline results expected in the second half of 2024;
- ***Complete a renal basket program with ADX-097.*** We plan to initiate a renal basket program in the first half of 2024 with initial data expected by year-end 2024;
- ***Complete Part A of our Phase 2 AAV trial with ADX-097.*** We plan to initiate Part A of our Phase 2 AAV trial in the first half of 2025 with topline results expected in the second half of 2025; and
- ***Leverage our deep expertise in tissue targeted complement therapeutic development to build a broad portfolio.*** We are engaged in research activities to advance our pipeline of additional candidates targeting complement inhibition.

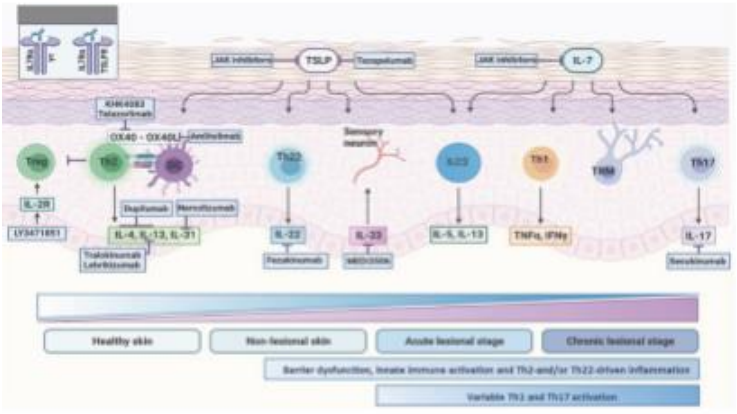
Our Programs

Bempikibart in AD and AA

Bempikibart blocks both IL-7 and TSLP cytokine signaling pathways. IL-7 lowers the threshold needed for T cells to respond in low antigen microenvironments promoting pathogenic T-effector cell function, induces TH2 cell-mediated antibody production, and inhibits the immunosuppressive properties of T regulatory cells. When uncontrolled, IL-7 can promote inflammation and autoimmune disease. By blocking IL-7 signaling, we believe bempikibart has the potential to re-regulate immunity by rebalancing the T-effector / T-regulatory ratio to inhibit inflammation and invoke tolerance, and mitigating T-cell dependent autoantibody responses. TSLP is a cytokine that

promotes TH2 cell differentiation and production of TH2 cytokines, such as IL-4, IL-5, and IL-13, and promotes inflammation, particularly at the epidermis, in response to environmental stimuli. IL-7 and TSLP signaling have been biologically linked to numerous inflammatory and autoimmune diseases including our initial target diseases of AD and AA. The figures below illustrate the mechanistic rationale for bempikibart in AD and AA.

Figure 17: Bempikibart Has the Potential to Modulate Immune Cells Important in Both Acute and Chronic AD Pathogenesis



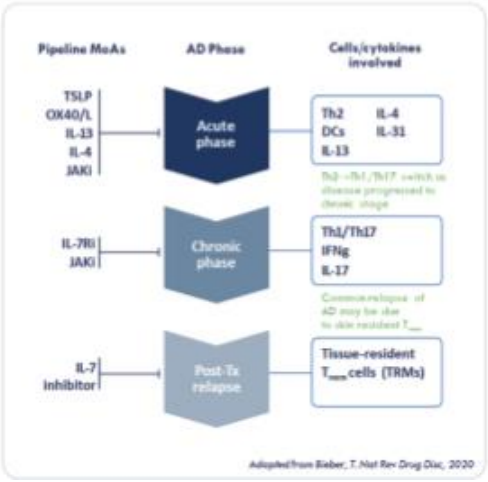
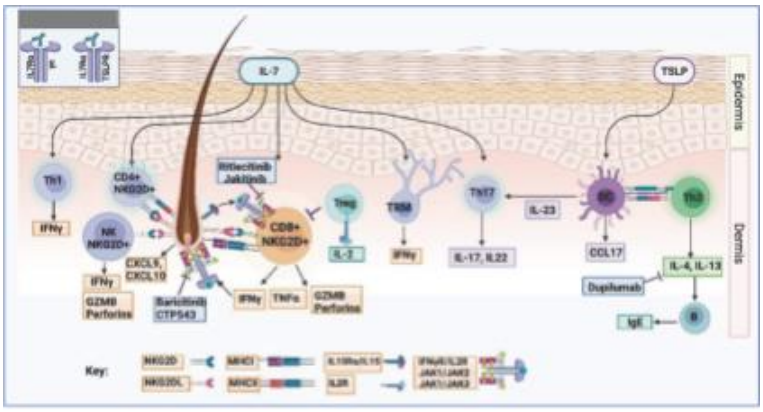
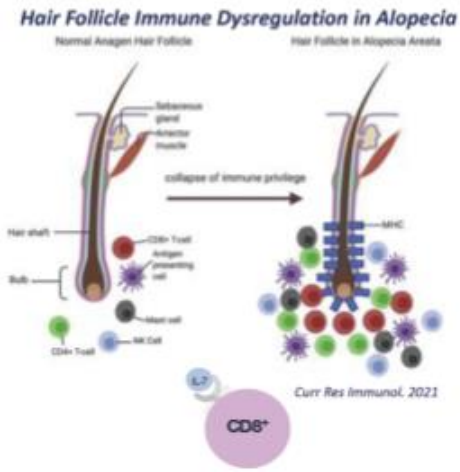


Figure 18: Bempikibart Has the Potential to Block TH1-and TH2-Driven Disease Pathology in AA





In October 2023, Amgen Inc., or Amgen, completed the acquisition of Horizon plc. Following its acquisition of Horizon plc, we agreed with Amgen to mutually terminate the Horizon Agreements. In November 2023, we entered into the Horizon Termination Agreement with Horizon pursuant to which Horizon's option to acquire the bempikibart program was terminated. As a result, we retained the initial consideration and development funding received under the Horizon Collaboration Agreement and regained full development and commercial rights to bempikibart. In consideration for the Horizon Termination Agreement, we agreed to pay Horizon regulatory and sales milestones payments of up to an aggregate amount of $75.1 million upon the first achievement of certain regulatory and sales milestones with respect to bempikibart. For more information, see the section titled "*Our Business—Collaboration and License Agreements*."

Bempikibart Preclinical and Clinical Data

Bempikibart was evaluated in a series of *in vitro* assays and demonstrated potent inhibition of IL-7-and TSLP-mediated intracellular signaling.

Bempikibart, or a mouse surrogate, SB14, was evaluated *in vivo* in animal models of inflammation and autoimmunity. Activity was observed as determined by various endpoints, including disease activity measures, body weight, inflammatory cytokine production and tissue damage.

Preclinical studies evaluating bempikibart PK, PD and toxicology were carried out in non-Good Laboratory Practice, or GLP, single dose and GLP repeat dose studies of 6 weeks, 3-months, and 6-months duration in cynomolgus monkeys. Bempikibart exposure was maintained above the desired PK threshold throughout the dosing phase in most animals despite detectable ADAs. PD evaluations included T cell receptor occupancy, or RO, inhibition of IL-7–induced phosphorylation of STAT5, or pSTAT5, an immediate proximal marker of IL-7R intracellular signaling, and keyhole limpet hemocyanin, or KLH-induced T cell dependent antibody response. There was a favorable PK/PD relationship, with bempikibart demonstrating >95% RO, ≥90% inhibition of pSTAT5 and up to 80% suppression of a KLH-induced IgG response.

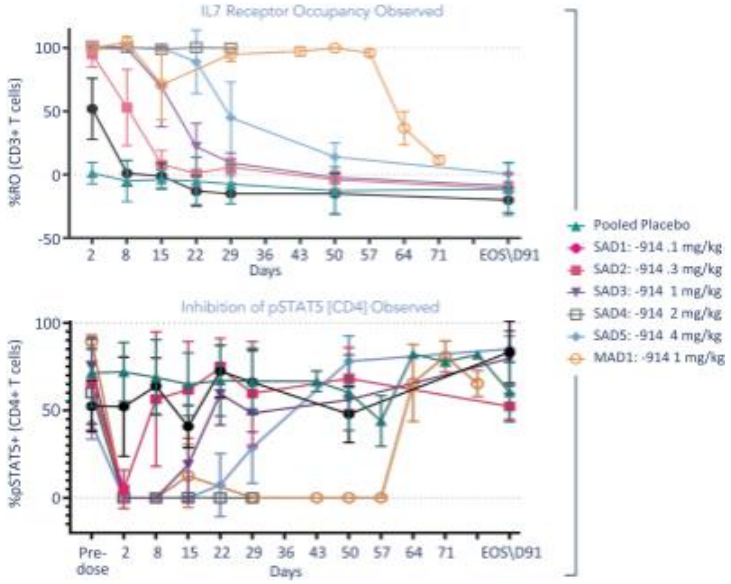
Bempikibart was generally well tolerated in all preclinical studies described above. The no-observed-adverse-effect level, or NOAEL, in the 6-month GLP study was 150 mg/kg, the highest dose tested, with exposure >50x the anticipated area under the curve at the dose presently being utilized for the ongoing Phase 2 studies.

Phase 1 Clinical Trial Results

We have completed a Phase 1 study, ADX-914-001, to assess the safety, PK, and PD of bempikibart after subcutaneous, or SC, administration in healthy volunteers. As seen in Figure 19 below, pharmacodynamic analyses showed bempikibart treatment at SC doses achieving ≥95% RO demonstrated >90% inhibition of IL-7 mediated intracellular signaling, as demonstrated by phosphorylation of STAT5, or pSTAT5, in T-cells. Figure 19 also shows doses of bempikibart as low as 0.3mg/kg achieved full RO and pSTAT5 inhibition over a period of up to 48 hours; doses greater than 1 mg/kg demonstrated sustained full RO for at least 2 weeks. In addition, a separate analysis of overall numbers of lymphocytes and lymphocyte subsets demonstrated modest, dose-dependent effects consistent with the expected and desired bempikibart pharmacology.

Safety data showed that bempikibart demonstrated a favorable safety profile at single doses up to 4 mg/kg and repeat doses of 1 mg/kg every 2 weeks in healthy subjects. There were no safety-related treatment discontinuations, no serious or severe AEs reported, and no deaths.

Figure 19: Bempikibart Phase 1 Clinical Data Support Clinical Development

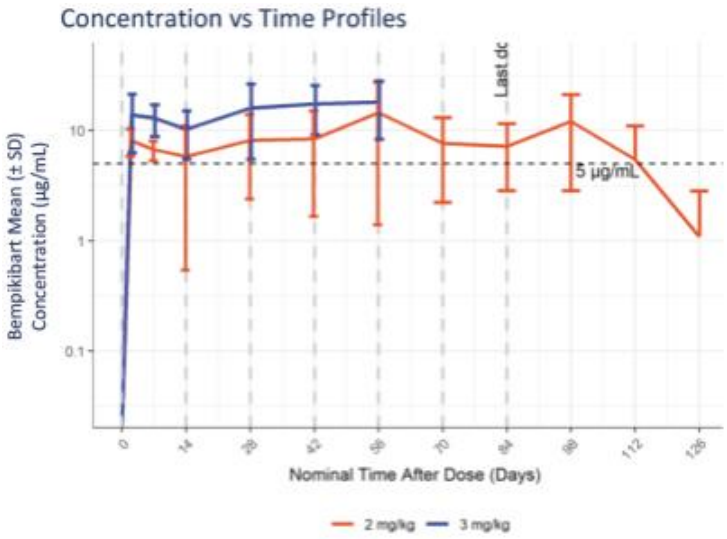


RO: Receptor occupancy; pSTAT5: phosphorylated STAT5; MAD: multiple ascending dose (note: MAD1 cohort dosed once every 2 weeks); SAD: single ascending dose; EOS: end of study

Pharmacology Sub-study in Patients with AD

Study ADX-914-202 is an ongoing, two-part, Phase 2, randomized, double-blind, placebo-controlled, proof-of-concept study in adult subjects with persistent moderate to severe AD, consisting of Part A and Part B. Part A evaluated PK/PD, as well as preliminary efficacy and tolerability, to support dose selection for Part B, which is evaluating the efficacy of bempikibart in AD, as well as for ADX-914-203, a trial evaluating the safety, efficacy, and dose selection of bempikibart in AA. To date, bempikibart has been generally well tolerated, with no notable safety findings (see figure below for a summary of this interim blinded data from Part A). Based on data from both ADX-914-001 and Part A of ADX-914-202, a dose of 200 mg administered subcutaneously every two weeks has been selected as the Phase 2 dose for both Part B of ADX-914-202 and for ADX-914-203 and enrollment in both trials is ongoing. Figure 20 shows PK data from Part A of ADX-914-202, which supports the ongoing development program.

Figure 20: Bempikibart Phase 2 AD Part A PK Data



The Role of IL-7 and TSLP in AD and AA

AD

There is evidence for the involvement of IL-7 and its actions on T cells in the pathobiology underlying AD. IL-7–overexpressing mice spontaneously develop chronic dermatitis and show an increased number of lymphocytes in skin. There is a growing body of evidence from mouse, non-human primates, or NHPs, and man on the importance of tissue-resident memory cells, or TRMs, in skin inflammatory disorders, including AD.

TSLP is also strongly implicated in the pathogenesis of AD and this cytokine is highly expressed in AD skin lesions. TSLP plays a role in activating group 2 innate lymphoid cells, which are enriched in the skin of patients with AD. In rodent models of disease, attenuation of TSLP signaling leads to improvement in keratosis, acanthosis, and dermal mononuclear cell infiltration.

Rationale for Dual IL7-R/TSLP-R Inhibition in AD

Early AD is characterized by activation of the skin innate immune response alongside a core Th2-T helper cell adaptive response. Later in the disease, a widening of the adaptive immunity is evident with Th1, Th17, and Th22 responses becoming more relevant. Within this framework, TSLP and IL-7 may act as sequential mediators of AD initiation (via Th2 pathways) and progression (via Th1 and/or Th17), respectively (see figure 17 above).

Dual IL-7/TSLP blockade with bempikibart could represent an important therapeutic modality considering the evolving understanding of the immunopathology underlying AD in humans.

AA

AA is an immune-mediated disorder that results in hair loss and shares some similarity in pathophysiology with AD. Studies have indicated that multiple immunomodulators are involved in the development of AA, with hair follicle immune privilege collapse being a key marker in the course of the disease. Immune system activation in lesional skin contributes to the progression of disease.

IL-7 has been shown to be involved in the pathogenesis of AA. IL-7 expression is upregulated at the site of AA lesions and animal studies demonstrated IL-7–dependent acceleration of disease progression and beneficial effects with IL-7Rα inhibition. Cumulatively, substantial evidence suggests that inhibition of IL-7Rα may be an effective modulator of the T-cell response that could act to reverse alopecia.

Current Treatment Landscape and Unmet Need in AD and AA

AD is the most common chronic inflammatory skin disease. The majority of AD starts in infancy or childhood, with the remaining disease burden developing during adulthood. The prevalence in children varies from 2.7% to 20.1% by geography and ranges from 2.1% to 4.9% in adults. The disease is heterogeneous in its natural history, and individual trajectories are variable.

Historically, the main therapeutic approaches have included avoidance of triggers, paired with the use of topical agents that are intended to exert local control of skin lesions and/or itch, and broad-spectrum immunosuppressive agents for more severe or high surface area disease. Many of these commonly used treatments have provided limited improvements in affected total body surface, severity of disease for any given body area involvement and/or resolution in itch varying among treated populations, and potentially not all have been achieved in the same patient. Approved topical therapeutics have also been associated with substantial safety concerns. For example, topical calcineurin inhibitors including tacrolimus and pimecrolimus, both of which carry boxed warnings for potential safety risks, including skin cancers and lymphomas.

More recently, systemic, targeted, immunomodulating biologics have been approved for use in AD. The anti–IL-4Rα antibody dupilumab, which inhibits IL-4 and IL-13 signaling (and obtained U.S. approval in 2016 and European Union, or EU, approval in 2017), was the first systemic biologic to become available for the treatment of patients with AD. The small-molecule Janus kinase, or JAK, inhibitors baricitinib (EU 2020 approval date), upadacitinib and abrocitinib (US 2021 approval dates) and the anti–IL-13 antibody tralokinumab (US 2021 approval date) have also been approved for use in AD. Despite these recent approvals, these therapeutics either narrowly address only partial elements of the disease biology or are associated with potential serious, long-term safety concerns, thus there remains a continued unmet medical need. Ideally, disease management evolves to account for the clinical, and likely biologic, heterogeneity characteristic of the disease.

AA is an autoimmune condition that affects hair follicles and leads to hair loss. This condition may develop at any age and in both sexes, and the incidence of this disease has been estimated to be 2% of the population worldwide. The disease most commonly affects scalp and facial hair and although some patients recover spontaneously, many patients progress to alopecia totalis (total scalp hair loss) or alopecia universalis (total body hair loss). The disease is associated with significant quality of life impairment and is associated with a high burden of psychosocial comorbidities, such as depression. Although pathophysiology has not been fully delineated, development of the condition is mediated by inflammatory mechanisms, and it is thought to have genetic and environmental components. IL-7 upregulation has been shown to be involved in the pathogenesis of AA, and evidence suggests that inhibition of IL-7Rα may be an effective modulator of the T-cell response driving injury in the disease.

Baricitinib and ritlecitinib, both JAK inhibitors, are the only current FDA-approved treatments for AA. Although JAK inhibitors have demonstrated hair regrowth in patients with severe disease (≥50% hair loss), increased risk of serious side effects may preclude this option for some patient populations. Other standard-of-care approaches for alopecia include topical corticosteroids, immunotherapy, and light therapy. Because hair loss can affect such disparate body locations, these treatments often have limited usefulness across the patient population.

Further Clinical Development of Bempikibart: Clinical Trial Plan

For patients with a wide range of autoimmune diseases, including AD and AA, we believe the blockade of IL-7 and/or TSLP signaling may offer a new therapeutic approach to modulate the autoimmune response. A high unmet medical need exists for more broadly effective therapies in these conditions, and we are developing bempikibart with the goal of addressing this need. Based on the totality of data to date, bempikibart has shown a favorable safety profile and has not been associated with clinically meaningful ADA. At exposures that can be achieved via SC administration, bempikibart has shown full receptor occupancy and signaling inhibition.

Overall, the available clinical and nonclinical data for bempikibart support the continued clinical development of bempikibart. To this end, we have advanced bempikibart into two ongoing Phase 2 studies, ADX-914-202 (AD) and ADX-914-203 (AA).

Study ADX-914-202

This is an ongoing, two-part, Phase 2, proof-of-concept study in adults with persistent moderate to severe disease as defined by the EASI score. Part A is the PK/PD run-in portion of the study and was conducted to inform dose selection for the subsequent Part B portion and for the Phase 2 study in AA. Bempikibart or placebo will be dosed SC every two weeks for 12 weeks, with a follow-up period of 12 weeks.

The study will recruit adults with chronic AD who have moderate to severe disease activity at the time of consent and who, in the opinion of the Investigator, have a history of inadequate response to previous therapy. In total, approximately 110 subjects will be enrolled.

The primary objective of Part A is to identify the recommended bempikibart dose for Part B. We conducted an interim analysis to review the preliminary PK and safety data from Part A, and 200 mg was selected as the recommended Phase 2 dose for Part B.

The primary objective of Part B is to evaluate the efficacy of bempikibart vs placebo. The primary endpoint of Part B is the mean percentage change from Baseline in EASI score at Week 14 for bempikibart (200 mg) vs placebo.

Study ADX-914-203

Study ADX-914-203 is an ongoing Phase 2 proof-of-concept trial to assess the efficacy, safety, and tolerability of bempikibart in participants with severe AA, as defined by the SALT score. In the study, bempikibart or placebo will be dosed SC for 24 weeks, with a follow-up period of 12 weeks.

The study will recruit adults with a current episode of severe hair loss with no spontaneous improvement over the past 6 months, along with the Investigator’s assessment that hair loss has been stable for at least 3 months and regrowth is possible.

Approximately 40 participants will be enrolled and randomly assigned (3:1) to receive 200 mg bempikibart or matching placebo administered SC every two weeks for 24 weeks. The primary efficacy endpoint is the mean relative percent change in SALT score at 24 weeks compared with baseline.

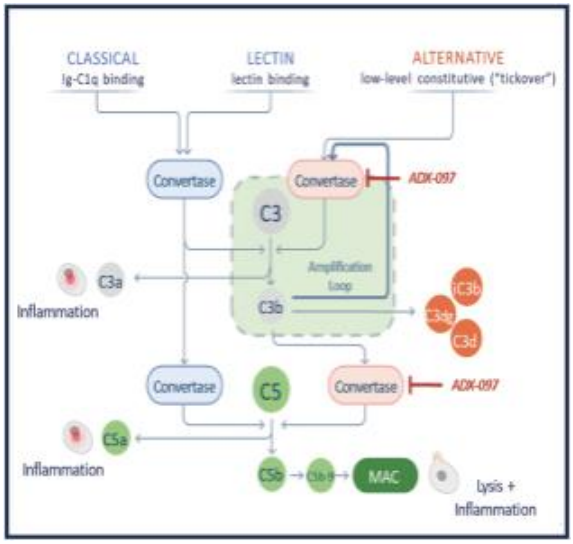
ADX-097 in LN, IgAN, C3G and AAV

Complement is an integral part of the innate immune system used as a first line of defense for removing bacteria and other pathogens, as well as damaged cells, and for modulating an adaptive immune response. In spite of these beneficial functions, when the complement system becomes dysregulated it can be a critical driver of chronic inflammatory and autoimmune diseases.

There are three main branches of the complement system: the classical, or CP, the lectin, or LP, and the AP. These pathways can lead to the generation of cellular/tissue bound protein complexes, called convertases, the gatekeepers that catalyze the cleavage of the complement component 3 and 5 proteins, or C3 and C5, respectively. This cleavage, predominantly happening on the cellular/tissue surface, ultimately leads to the formation of C3a and C5a, chemotactic factors that recruit inflammatory immune cells, and the assembly of C5b-9 forming the membrane attack complex, or MAC, on cell membranes. Uncontrolled and persistent production of these complement activation products ultimately leads to pathological tissue inflammation and cellular damage.

The AP is central to the complement system. It provides for amplification of complement signaling downstream of all 3 complement pathways, commonly referred to as the “amplification loop” (see figure below). Consequently, sustained overactivation of the complement system in many diseases is driven by AP activation.

Figure 21: Schematic of the Complement System Showing Critical Elements of the Three Pathways.



MAC: Membrane attack complex.

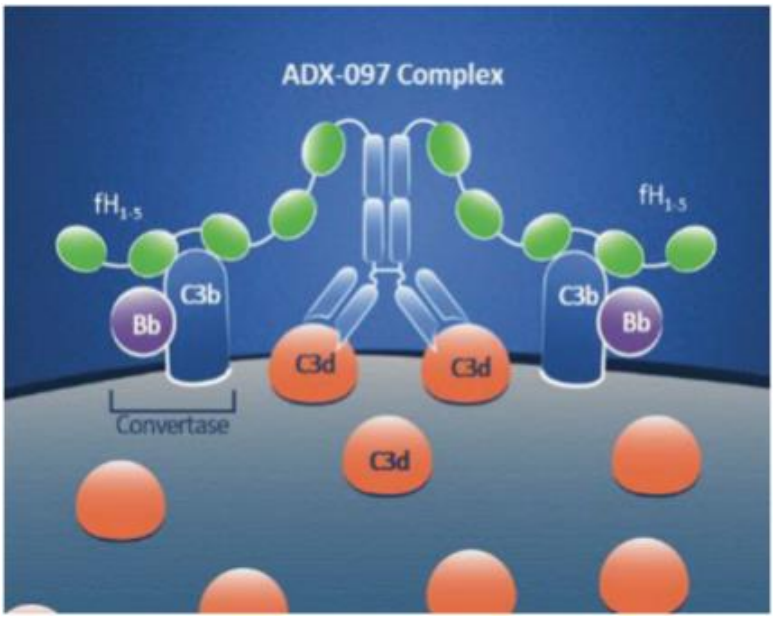
Under normal conditions, inactivation of convertases, to maintain proper balance of the complement system, is endogenously controlled by several complement negative regulatory proteins. Among these is fH, a protein that binds and inactivates AP convertases. Factor H both catalyzes dissociation of AP C3 and C5 convertases and, in combination with Factor I, leads to irreversible catalytic degradation.

Given the central role of the AP in driving complement activity, gaining control of this pathway provides a mechanism to restore proper regulation of the complement system when it becomes dysregulated in disease.

ADX-097

ADX-097 is a C3d mAb recombinantly linked to 2 moieties of human fH1-5. ADX-097 was designed to provide a unique tissue targeted therapeutic approach to restore proper complement regulation on the surfaces of cells in diseased tissue where AP convertase assembly occurs and the amplification loop magnifies complement activation. The fH1-5 component of ADX-097 consists of the first five N-terminal domains of fH, which catalyzes the dissociation and irreversible proteolytic degradation of the AP C3/C5 convertases. When C3 is cleaved as a consequence of complement activation it leads to the generation of high-density surface bound C3d deposits positioned adjacent to the AP C3/C5 convertases. Our preclinical studies demonstrate that the binding of the antibody portion of ADX-097 to C3d brings the human fH1-5 protein into proximity with surface-bound C3/C5 AP convertases, allowing fH1-5 to interrupt complement activation. Thus, we believe, based on preclinical studies, that ADX-097 has the potential to durably restore control of the complement system at specific sites of ongoing injury and at doses where complement surveillance is maintained in circulation. See Figure 22 for a depiction of ADX-097's targeted mechanism of action.

Figure 22: Schematic of ADX-097 Targeted Mechanism of Action



fH1-5: first 5 N-terminal short consensus repeats of human factor H; mAb: monoclonal antibody

Given the ubiquitous nature of C3d deposition in tissue where complement is activated, and the importance of the AP in maintaining complement activation, we believe ADX-097 has therapeutic potential for multiple diseases. We also believe that by inhibiting complement in a tissue-directed manner, a greater potential for clinical activity is possible, particularly in our renal basket program and AAV Phase 2 clinical trial.

We have completed a robust preclinical and translational package and has also completed a Phase 1 clinical trial in healthy volunteers. We plan to initiate our clinical program in patients with ADX-097 in the first half of 2024.

We intend to further evaluate ADX-097's efficacy and safety profile using biomarkers and functional endpoints in our planned clinical studies. AAV and other renal diseases have established biomarkers and defined clinical trial endpoints. Current standard of care allows for the possibility of attaining biopsies and, therefore, detailed examination of ADX-097 binding to its target and impact on the relevant complement fragments. Together with urinary markers of complement activation, this data set is expected to provide supportive proof of mechanism and demonstration of target engagement in the diseased tissue.

ADX-097 Preclinical and Clinical Data

Preclinical pharmacology, PD, PK, and toxicology of ADX-097 were assessed in a wide range of *in vitro* experiments and *in vivo* nonclinical studies in mice, rats and NHPs. Three non-GLP and two GLP PK, PD and toxicology studies were completed to support clinical development of ADX-097.

These studies have provided compelling evidence for the therapeutic potential of ADX-097. These studies have demonstrated that ADX-097 or a pharmacologically equivalent mouse homolog, ADX-118, which contains the parent mouse anti-C3d antibody used in ADX-097 recombinantly linked to mouse fH1-5, were able to:

- Bind C3d and inhibit complement in *in vitro* assays;
- Distribute and bind C3d present in rodent kidney, liver, and skin and to NHP skin;
- Provide durable anti-complement activity in rodent and NHP tissue, with limited and transient systemic inhibition: durable (>7 days) tissue PD after 1-3 mg/kg SC dosing;

- Reduce glomerular C3 fragment deposition, proteinuria/albuminuria, and additional biomarkers of renal injury in rodent models of kidney disease; and
- Demonstrate increased functional potency compared to similar non-targeted fH1-5 in a passive Heymann nephritis, or PHN, model of kidney disease.

The ADX-097 preclinical toxicology studies were conducted in pharmacologically relevant species, mice and cynomolgus monkeys. It included a cross-reactivity study using human tissues to identify any potential off-target tissue binding, repeat-dose non-GLP studies of 28-day duration in mice and cynomolgus monkeys by SC or intravenous, or IV, administration, and a 29-day GLP repeat-dose toxicology study in cynomolgus monkeys by SC or IV administration. It also included a non-GLP 28-day study and a GLP 3-month study with ADX-118, a mouse homolog protein of ADX-097 with equivalent pharmacological activity, to minimize immunogenicity with long-term dosing. No ADX-097-mediated pharmacological adverse effects were observed in up to 29-day repeat-dose studies in either mice or monkeys. All adverse effects were attributable to an immune-mediated response to a humanized/human fusion protein in NHPs and mice. Consistent with all ADX-097 adverse events being mediated by an immune response to the humanize/human protein, no ADX-118-mediated adverse effects were observed in the 3-month repeat dose studies in mice. The NOAEL was determined at 250 mg/kg by IV weekly dosing (QW), the highest dose tested in the 3-month mouse study, providing support for chronic administration of ADX-097. Overall, the ADX-097 preclinical toxicology analysis provided a > 40x safety margin that we believe supports our planned dosing for our Phase 2 renal basket program and AAV clinical trial.

Preliminary Phase 1 Clinical Trial Data

ADX-097 has been evaluated in a completed Phase 1 study conducted in healthy volunteers, study ADX-097-101.

This was a randomized, double-blind, placebo-controlled, single ascending dose, or SAD, and multiple dose study to assess the safety, tolerability, PK, and PD of ADX-097. Data from this study provided initial characterization of the safety, PK, PD, and immunogenicity profile of ADX-097 across a wide range of dose levels, using both IV and SC routes of administration.

In total, 56 healthy volunteers were dosed (randomized 2:1; n=4 ADX-097 and n=2 placebo per cohort): 49 volunteers in the SAD portion of the study and 7 participants in the multiple dose portion. The SAD portion of the study included Cohort 1 (0.1 mg/kg IV), Cohort 2 (0.3 mg/kg IV), Cohort 3 (1 mg/kg IV), Cohort 4a (3 mg/kg IV), Cohort 4b (3 m/kg [actual: 3.75 mg/kg] SC), Cohort 6a (10 mg/kg IV), Cohort 6b (10 mg/kg SC), and Cohort 8 (30 mg/kg IV). The multiple dose portion of the study included multiple ascending dose, or MAD, Cohort 1 (450 mg SC fixed weekly dose).

Blinded safety data indicated that ADX-097 was generally well tolerated across all dose levels with single or repeat dosing with no observed clinically significant drug-related safety findings or trends. All observed treatment-emergent adverse events, or TEAEs, were mild or moderate in severity. There were no observed serious adverse events, no severe TEAEs, no discontinuations due to study drug, and no dose-related trends in TEAEs. Except for one observed TEAE of blood creatine phosphokinase increase in SAD Cohort 1 that was deemed mild by the investigator, there were no observed clinically significant drug-related laboratory findings or trends. In addition, there were no observed clinically significant findings related to vital signs or electrocardiograms, no TEAEs related to immunogenicity, and SC administration was generally well tolerated with only mild injection site reactions observed.

In the PK analysis, ADX-097 demonstrated dose-dependent PK and the minimum drug concentration at a dose of 450 mg SC weekly dosing is estimated to achieve a target threshold associated with tissue pharmacological activity in over 90% of patients. The PD analysis demonstrated increasing inhibition of circulating AP activity and more sustained inhibition with increasing doses. No apparent change in circulating AP activity was observed following 450mg SC weekly dosing. No clinically significant ADA was identified in the ADX-097-101 study, consistent with low immunogenicity potential of ADX-097 in humans. See Figure 23 and Figure 24 for a summary of ADX-0972-101 PK and PD data.

Figure 23: ADX-097-101: Plasma ADX-097 Concentrations and % of Baseline Wieslab AP Activity After Single Dose IV of ADX-097

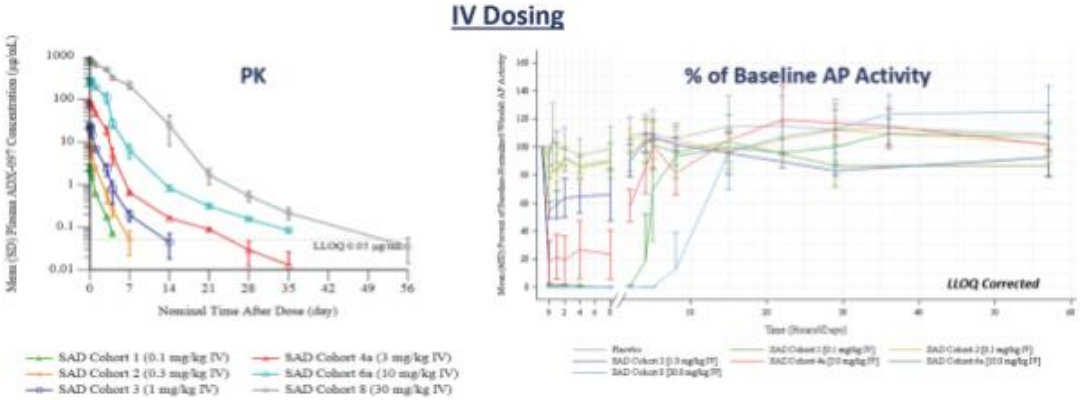
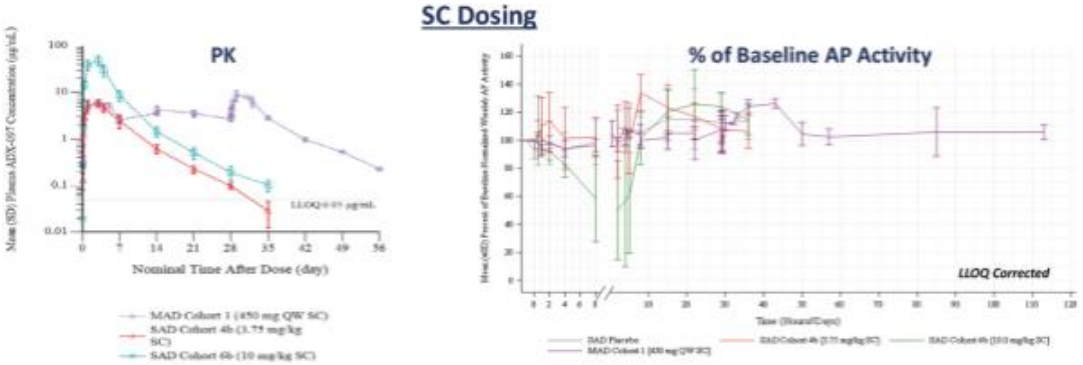


Figure 24: ADX-097-101: Plasma ADX-097 Concentrations and % of Baseline Wieslab AP Activity After Single/Multiple Dose SC of ADX-097



The Role of Complement in LN, IgAN and C3G

LN is an autoimmune disease that occurs in approximately 50% of patients with systemic lupus erythematosus. It is associated with glomerular immune complex, or IC, deposition, derived either from the circulation or formed in situ from autoantibodies directed against nuclear and cellular antigens, that activates complement resulting in intrarenal inflammation. AP activation has been shown to contribute to complement-mediated tissue injury in LN. LN is divided into 6 histopathological classes according to the International Society of Nephrology/Renal Pathology Society system, based on glomerular IC deposit location, the extent of glomerular involvement, and whether the injury pattern reflects active or chronic disease. The use of immunosuppressive medications is common in the treatment of lupus nephritis. While these drugs can help control the autoimmune response that leads to kidney inflammation, they also increase the risk of infectious complications. Treating physicians are seeking to reduce immunosuppressive medications and enhance safety.

IgAN is an IC-mediated glomerulonephritis characterized by mesangial IgA deposition, activation of complement and glomerular inflammation. The role of complement in mediating local tissue injury in IgAN is widely recognized. Kidney biopsies reveal deposition of complement proteins such as fH, properdin, C4d, mannose-binding lectin, active C3 fragments, and C5b-9, supporting involvement of both the AP and LP. Immune complexes formed from immunoglobulin G, or IgG, autoantibodies and the altered galactose-deficient IgA1 molecules to which they are directed, together with C3 products, contribute to mesangial proliferation and glomerular inflammation. C3 fragments are found in the same distribution as IgA in up to 90% of cases, with increasing mesangial C3 fragment deposition adversely affecting kidney survival. In contrast, individuals with the protective complement fH related protein 3, or CFHR3-1, deletion have reduced glomerular C3 fragment deposition, believed to result from the more effective AP regulation.

C3G is a rare kidney disease caused by dysregulation of the complement AP. Comprising 2 major subgroups, dense deposit disease, or DDD, and C3 glomerulonephritis, or C3GN, it is characterized by C3-dominant glomerular staining by immunofluorescence, of at least 2 orders of intensity greater (on a 0 – 3+ scale) than any other immune reactant (e.g., immunoglobulins). Complement dysregulation can result from genetic mutations in both fluid-phase and surface-bound negative regulator protein fH, or activating proteins, and may also be acquired in the setting of autoantibodies (e.g., directed against fH or which stabilize the C3 convertases (C3 nephritic factors)). Such autoantibodies are more commonly reported in DDD than C3GN. The uncontrolled AP activation common to all results in glomerular C3 fragment deposition and MAC formation.

Current Treatment Landscape and Unmet Need in LN, IgAN and C3G

LN affects 10-250 individuals per million and predominantly women of reproductive age. With heterogeneous pathophysiology, to which genetic and environmental factors likely contribute, the incidence of LN in the U.S. is higher in black (34%-51%), Hispanic (31%-43%), and Asian (33%-55%) patients, compared with white (14%-23%) patients.

The presence of LN increases mortality, with death attributable to renal involvement occurring in 5-25% of patients with proliferative disease (class III, IV, or III/IV + V) within 5 years of onset. Progression to end-stage kidney disease, or ESKD, occurs in 10-30% of those affected by LN, in whom those with proliferative disease are most at risk. Patients with persistently low isolated C3 hypocomplementemia also have an increased risk of ESKD and death. Critical to renal survival is the attainment of a complete clinical response, associated with 92% kidney survival at 10 years, compared to only 43% in partial responders and 13% in non-responders. Despite the continuing development of immunomodulatory agents and supportive care, the prognosis associated with LN has not improved substantially in the past decade, with ESKD still developing in 5-30% of patients within 10 years of LN diagnosis. In prior studies, repeat biopsies after approximately 6 months of treatment in patients with a complete clinical response showed significant persistent histologic activity in a number of cases.

Patient management is determined by disease severity, with non-proliferative forms of LN (with sub–nephrotic range proteinuria and normal glomerular filtration rate, or GFR) typically treated conservatively with renin angiotensin aldosterone system, or RAAS, blockade and immunomodulation with antimalarials (e.g., hydroxychloroquine). Immunosuppression is reserved in these classes for extrarenal manifestations only, while proliferative forms of LN (class III, IV, or III/IV+V) and class V LN with nephrotic syndrome are treated with systemic immunosuppression, combined with high-dose corticosteroids, in an induction phase typically lasting 3 to 6 months. Immunosuppression is continued and gradually reduced in an extended maintenance phase (to reduce the risk of flare), potentially lasting several years. While there have been recent approvals for the treatment of LN (with belimumab and voclosporin), unmet therapeutic need remains due to the limited number of treatment options.

IgAN is the most common primary glomerular disease worldwide, with an estimated incidence of 2-28 individuals per million population per year, dependent on geography. Typically occurring in patients aged between 20 and 30 years, up to 50% of patients progress to ESKD within 20 years of clinical presentation. Patients who undergo transplantation are also at risk of disease recurrence, which occurs in approximately 30% of transplant recipients.

Proteinuria is a recognized risk factor for the progression of IgAN, with time-average proteinuria shown to be the most important predictor of rate of kidney function decline. A quantitative estimate determined that each incremental gram of proteinuria above 1g per day was associated with a 10- to 25-fold more rapid rate of kidney function decline. Reducing proteinuria to below 1g/d is therefore regarded as a treatment target in IgAN, with patients achieving this target observed to have a similar rate of disease progression and kidney survival, irrespective of their initial proteinuria and comparable to those whose proteinuria never exceeded 1g/d.

Current SOC for IgAN as described in the Kidney Disease Improving Global Outcomes 2021 guidelines, consists of RAAS inhibition as first line therapy. However, RAAS inhibition does not affect the underlying disease pathology, with less than half of patients achieving sustained proteinuria levels of < 1g/d (partial remission). The long-term clinical benefit of glucocorticoids, or GCs, has not been established and a 6-month course is only suggested with extreme caution in those at high risk of progressive chronic kidney disease. Antibody depleting strategies, such as rituximab, are not recommended due to the paucity of evidence for their efficacy and both treatment approaches carry safety concerns, which are reflected in current treatment guidelines (e.g., KDIGO).

C3G is a rare kidney disease caused by dysregulation of the complement AP. Comprising 2 major subgroups, DDD and C3GN, it is characterized by C3-dominant glomerular staining by immunofluorescence, of at least 2 orders of intensity greater (on a 0–3+ scale) than any other immune reactant (e.g., immunoglobulins).

With an estimated incidence of 1-3 patients per million, C3GN is reportedly more common than DDD in patients with familial C3G. DDD tends to be diagnosed at a younger age, predominantly in children and young adults, but has been reported in older adults. Presentation varies from nephritic syndrome, asymptomatic and low-grade proteinuria to nephrotic syndrome, or rapidly progressive glomerulonephritis, with 50% progressing to ESKD within 10 years. Isolated C3 hypocomplementemia is seen in most patients.

The treatment paradigm for C3G has not been well established. In addition to the standard conservative measures, such as RAAS inhibition and blood pressure control, other tested approaches have included immunosuppression, plasma exchange and complement inhibition with varying degrees of success, and significant therapeutic need remains.

The Role of Complement in AAV

The ANCA-associated vasculitides are a group of autoimmune disorders characterized by severe inflammation of small blood vessels induced by infiltration of neutrophils into vessel walls. Autoimmunity is characterized by the development of autoantibodies to the neutrophil proteins leukocyte proteinase 3 or myeloperoxidase. Patients with AAV typically present with severe organ-threatening or life-threatening disease, although less severe presentations can also occur.

AP complement activation is detected in AAV tissue lesions and is thought to be a major driver of disease pathogenesis. Complement factor B-or C5-deficient mice do not develop glomerulonephritis in an anti-MPO induced model of AAV. Biomarkers of AP activation, including deposits of C3d, Bb fragment of factor B, or Bb, and C5b-9 are detected in glomeruli and extraglomerular small vessels of AAV kidneys, and Bb, C3a, C5a, and C5b-9 are elevated in urine and serum from AAV patients. Furthermore, serum Bb correlates with disease activity and outcome, and serum C3c concentration correlates with severity of AAV lesions in the kidney. In AAV, hypocomplementemia, as a result of complement overactivation, is reported to be associated with more advanced renal involvement, higher likelihood of treatment resistance, and worse prognosis.

Current Treatment Landscape and Unmet Need in AAV

AAV is a rare disease with a historical estimated global prevalence of 46 to 421 cases per million persons, depending on the population studied and the specific subtype of AAV. The annual incidence of AAV ranges from 10 to 20 cases per million population, with wide variation across geographic regions and substantial variation in the relative incidence of granulomatosis with polyangiitis, or GPA, and microscopic polyangiitis, or MPA, among Europe, the U.S., and Asia.

The presentation and natural history of AAV can be highly variable, and the spectrum of disease may range from relatively mild and localized to the upper respiratory tract, to life-threatening involvement of multiple organ systems. Additionally, disease activity can fluctuate, and relapses may occur. In the current era with SOC, 1-year mortality rates range from approximately 5% to 20% and 5-year mortality can be as high as 50% for the MPA subtype. The highest mortality rates are observed in patients with severe renal involvement, pulmonary hemorrhage, or other life-threatening complications. Severe AAV requires intensive treatment, including high-dose GCs immunosuppressive agents, and sometimes plasma exchange. Despite aggressive therapy, managing severe disease can be challenging, and many patients experience treatment-resistant disease or suffer from irreversible organ damage prior to attainment of disease remission. Furthermore, infections are a leading cause of adverse outcomes, including death, in patients with AAV, a risk generally ascribed to immune-suppressive effects of the treatment regimens used to achieve disease remission. In recent years, intense focus has been on the likely role of GCs in conferring this risk, and there is general acceptance that the reduction and/or elimination of GC in the treatment of AAV is a desirable goal. Avacopan, a recently approved complement C5a receptor inhibitor for AAV, supports complement involvement in the disease but labelling language states that it “does not eliminate glucocorticoid use” and includes warning and precaution language guiding around its use “in patients with underlying conditions that may predispose them to infection.”

Further Clinical Development of ADX-097: Clinical Trial Plan

Based on the preliminary data from our Phase 1 clinical trial, we plan to initiate a program in human complement-mediated kidney diseases in 2024 and a Phase 2 clinical trial in AAV in the first half of 2025.

The Renal Basket Program

The planned ADX-097-201 study is designed as a basket program to evaluate the safety, PK, PD, and clinical activity of ADX-097 in patients with LN, IgAN or C3G. The primary objective of the study is to evaluate the safety and tolerability of ADX-097 when administered weekly to patients. Key secondary efficacy and exploratory objectives include clinical markers of disease activity, biomarkers of complement activation and organ injury, and pharmacology.

All disease groups will be open label, with a total of up to 30 participants planned for enrollment. Patients will be dosed with a single SC dose weekly for up to 26 weeks. Participants in each disease group will be open to enroll into the study.

AAV

The planned ADX-097-202 study is a Phase 2 study in adults with AAV, specifically GPA and MPA. The study is composed of 2 parts: an open-label Part A, and a randomized, blinded Part B. Part A of the study will assess the treatment effect of ADX-097 when given as an adjunct to SOC therapy, with the goal of demonstrating initial proof of clinical efficacy. The intent of Part B of the study is to assess the ability of ADX-097 to reduce or eliminate the use of oral glucocorticoids to support induction of remission.

Expanding Our Pipeline of Complement Therapeutics

By leveraging our extensive experience building fusion biologics and our deep understanding of the complement system, we aim to create a sustainable pipeline of novel and localized complement inhibitors that are customized for diverse indications. We expect additional preclinical data in 2024 from our ongoing pipeline efforts in support of advancement of one or more research and development candidates in 2025.

Collaboration and License Agreements

ADX-097—License Agreement – The Regents of the University of Colorado

In August 2017, we entered into an exclusive license agreement, as amended in February 2018, September 2018, and April 2019, or the Colorado License Agreement, with The Regents of the University of Colorado, or Colorado, pursuant to which we obtained worldwide, royalty-bearing, sublicensable licenses under certain patents and know-how owned by Colorado and Medical University of South Carolina, or MUSC, relating to the research, development and commercialization of ADX-097. The licenses granted to us are exclusive with respect to certain patent families and know-how and non-exclusive with certain other patent families and know-how. The licenses granted to us are also subject to certain customary retained rights of Colorado and MUSC and rights of the United States government owing to federal funding giving rise to inventions covered by the licensed patents. We agreed to use commercially reasonable efforts to develop, manufacture and commercialize ADX-097, including by using commercially reasonable efforts to achieve specified development and regulatory milestones by specified dates.

In addition, we agreed to pay Colorado (i) development and sales milestone payments in an aggregate amount of up to $2.2 million per licensed product for the first three products, (ii) tiered royalty rates on cumulative net sales of licensed products in the low single digit percentages, (iii) 15% of sublicense income and (iv) ongoing fees associated with the prosecution, maintenance, or filing of the licensed patents. Our obligation to pay royalties to Colorado commences, on a licensed product-by-licensed product and country-by-country basis, from the first commercial sale of a licensed product in any country and expires on the later of (i) the last to expire valid claim within the licensed patents covering such licensed product in such country, and (ii) 20 years following the effective date of the Colorado License Agreement, or April 2037, or the Royalty Term.

Unless earlier terminated by either party pursuant to its terms, the Colorado License Agreement will expire upon the expiration of the Royalty Term in all countries. We may terminate the Colorado License Agreement for convenience upon providing prior written notice to Colorado. Colorado may terminate the Colorado License Agreement or convert our exclusive license to a non-exclusive license if we breaches certain obligations under the Colorado License Agreement and fails to cure such breach. The Colorado License Agreement will terminate automatically upon our dissolution, insolvency, or bankruptcy.

Bempikibart—License Agreement – Bristol-Myers Squibb Company

In September 2019, we entered into a license agreement, as amended in August 2021 and July 2022, or the BMS License Agreement, with Bristol-Myers Squibb Company, or BMS, pursuant to which we obtained sublicensable licenses from BMS to research, develop and commercialize licensed products, including bempikibart, for any and all uses worldwide. The licenses granted to us are exclusive with respect to BMS's patent rights and know-how relating to certain antibody fragments (including certain fragments of bempikibart) and non-exclusive with respect to BMS's patent rights and know-how relating to the composition of matter and use of a specific region of bempikibart. BMS retained the right for it and its affiliates to use the exclusively licensed patents and know-how for internal, preclinical research purposes. Under the BMS License Agreement, we are prohibited from engaging in certain clinical development or commercialization of any antibody other than a licensed compound with the same mechanism of action until the earlier of the expiration of our obligation to pay BMS royalties or September 2029.

In consideration for the license, we made an upfront payment to BMS of $8 million, issued 6,628,788 Series A preferred shares to BMS and agreed to use commercially reasonable efforts to develop and commercialize at least one licensed product in key geographic markets. In addition, we agreed to pay BMS (i) development and regulatory milestone payments in aggregate amounts ranging from $32 million to $49 million per indication for the first three indications and commercial milestone payments in an aggregate amount of up to $215 million on net sales of licensed products, (ii) tiered royalties ranging from rates in the mid-single digit percentages to up to 10% of net sales, with increasing rates depending on the cumulative net sales, (iii) up to 60% of sublicense income, which percentage decreases based on the development stage of bempikibart at the time of the sublicensing event, and (iv) ongoing fees associated with the prosecution, maintenance, or filing of the licensed patents.

Our obligation to pay BMS royalties under subsection (ii) above commences, on a licensed product-by-licensed product and country-by-country basis, on the first commercial sale of a licensed product in a country and expires on the later of (x) 12 years from the first commercial sale of such Licensed Product in such country, (y) the last to expire licensed patent right covering bempikibart or such licensed product in such country, and (z) the expiration or regulatory or marketing exclusivity for such licensed product in such country, or the Royalty Term. If we undergo a change of control prior to certain specified phase of development, the development and milestone payments are subject to increase by a low double-digit percentage and the royalty rates are subject to increase by a low sub-single-digit percentage.

Unless terminated earlier by either party pursuant to its terms, the BMS License Agreement will expire on a country-by-country and licensed product-by-licensed product basis upon the expiration of the last to expire Royalty Term with respect to such licensed product in such country. Either party may terminate the BMS License Agreement for the other party's material breach, subject to a specified notice and cure period. BMS may terminate the BMS License Agreement if we fail to meet its diligence obligations under the BMS License Agreement, for our insolvency, or if we or our affiliates challenges the validity, scope, enforceability, or patentability of any of the licensed patents. We may terminate the BMS License Agreement for any reason upon prior written notice to BMS, with a longer notice period if a licensed product has received regulatory approval. If the BMS Agreement is terminated for our material breach, BMS will regain rights to bempikibart and we must grant BMS an exclusive license under our patent rights covering bempikibart, subject to a low single-digit percentage royalty on net sales of bempikibart payable to us by BMS.

Bempikibart – Collaboration and Option Agreement, Asset Purchase Agreement and Termination Agreement – Horizon Therapeutics Ireland DAC)

From August 2022 until November 2023, we were a party to the Collaboration and Option Agreement, or the Horizon Collaboration Agreement, and the Asset Purchase Agreement, or the Purchase Agreement, and together with the Horizon Collaboration Agreement, the Horizon Agreements each with Horizon Therapeutics Ireland DAC, or Horizon, pursuant to which we received $55.0 million in initial consideration and staged development funding to complete two ongoing Phase 2 trials for bempikibart, and granted Horizon an option to acquire the bempikibart program at a prespecified price, subject to certain adjustments.

In October 2023, Amgen Inc., or Amgen, completed the acquisition of Horizon Therapeutics public limited company, or Horizon plc. Following its acquisition of Horizon plc, we agreed with Amgen to mutually terminate the Horizon Agreements and in November 2023, we entered into a termination agreement with Horizon, or the Horizon Termination Agreement, pursuant to which Horizon's option to acquire the bempikibart program was terminated. As a result, we retained all initial consideration and development funding received under the Horizon Collaboration Agreement and regained full development and commercial rights to bempikibart. In consideration for the Horizon Termination Agreement, we agreed to pay Horizon regulatory and sales milestones payments of up to an aggregate amount of $75.1 million upon the first achievement of certain regulatory and sales milestones with respect to bempikibart.

Competition

We expect to face intense competition from other biopharmaceutical companies that are developing agents for the treatment of autoimmune and inflammatory diseases. Drug development is highly competitive and subject to rapid and significant technological advancements. Our ability to compete will significantly depend upon our ability to complete necessary clinical trials and regulatory approval processes, and effectively market any drug that we may successfully develop. Our current and potential future competitors include pharmaceutical and biotechnology companies, as well as academic institutions and government agencies. The primary competitive factors that will affect the commercial success of any product candidate for which we may receive marketing approval include efficacy, safety and tolerability profile, dosing convenience, price, coverage, reimbursement and public opinion. Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of product candidates, as well as in obtaining regulatory approvals of those product candidates in the U.S. and in foreign countries. Our current and potential future competitors also have significantly more experience commercializing drugs that have been approved for marketing. Mergers and acquisitions in the biopharmaceutical industry could result in even more resources being concentrated among a small number of our competitors. Accordingly, competitors may be more successful than us in obtaining regulatory approval for therapies and in achieving widespread market acceptance of their drugs. It is also possible that the development of a cure or more effective treatment method for any of our targeted indications by a competitor could render our product candidate non-competitive or obsolete, or reduce the demand for our product candidate before we can recover its development and commercialization expenses.

Manufacturing

We do not currently own or operate facilities for product manufacturing, testing, storage, and distribution. We contract with third parties for the manufacture and distribution of our product candidates. Because we rely on contract manufacturers, our employs and contracts with personnel with extensive technical, manufacturing, analytical and quality experience. Our staff has strong knowledge and understanding of the extensive regulations that govern manufacturing, documentation, quality assurance, and quality control of drug supply that are required to support our regulatory filings.

Intellectual Property

We strive to protect and enhance the proprietary technology, inventions, and improvements that are commercially important to our business, including by seeking, maintaining, and defending patent rights, whether developed internally or licensed from third parties. We also rely on trade secrets and know-how relating to our proprietary technology and product candidates, continuing technological innovation, and in-licensing opportunities to develop, strengthen, and maintain our proprietary position in the field of autoimmune and inflammatory diseases. Our future success depends, in part, on our ability to obtain and maintain patent and other proprietary protection for our commercially important technology, inventions, and know-how, defend and enforce our intellectual property rights (in particular our patent rights), preserve the confidentiality of our trade secrets, and operate without infringing, misappropriating, or violating the valid and enforceable patents and proprietary rights of third parties. Our ability to stop third parties from making, using, selling, offering to sell, or importing products identical or similar to ours may depend on the extent to which we have rights under valid and enforceable patents that cover these activities.

The patent position of biotechnology and pharmaceutical companies are generally uncertain and can involve complex legal, scientific, and factual issues. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. We also cannot ensure that patents will issue with respect to any patent applications that we or our licensors may file in the future, nor can we ensure that any of our owned or licensed patents or future patents will be commercially useful in protecting our product candidates and methods of manufacturing. In addition, the coverage claimed in a patent application may be significantly reduced before a patent is issued, and its scope can be reinterpreted and even challenged after issuance. As a result, we cannot guarantee that any of our products will be protected or remain protectable by valid and enforceable patents. Moreover, any of our patents may be challenged, circumvented, or invalidated by third parties.

Prosecution is a lengthy process, during which the scope of the claims initially submitted for examination by the U.S. Patent and Trademark Office, or USPTO, may be significantly narrowed before issuance, if issued at all. We expect this may be the case with respect to some of our pending patent applications referred to below.

With respect to our ADX-097 program, as of December 31, 2023, we own one patent family relating to ADX-097, other fusion constructs of anti-C3d antibodies and different complement modulators. This family includes two issued U.S. patents, one allowed U.S. patent application, and 24 pending applications in Australia, Canada, China, Europe, Hong Kong, India, Indonesia, Israel, Japan, South Korea, Malaysia, Mexico, New Zealand, Philippines, Russia, Saudi Arabia, Singapore, South Africa, United Arab Emirates, Qatar, Bahrain, Kuwait, and Oman. The issued patent that covers ADX-097, and any patents that issue from these pending patent applications are expected to expire in December 2039, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad.

With respect to bempikibart, as of December 31, 2023, we exclusively licensed from Bristol Myers Squibb, or BMS, one patent family relating to antibodies against the IL-7R alpha subunit and uses thereof comprising one issued U.S. patent, one issued patent in each of Japan, South Korea, and Singapore, one pending U.S. patent application, and 32 pending patent applications in Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Europe, Hong Kong, India, Indonesia, Israel, Japan, South Korea, Malaysia, Mexico, New Zealand, Peru, Philippines, Russia, Saudi Arabia, South Africa, Taiwan, Thailand, United Arab Emirates Qatar, Bahrain, Egypt, Kuwait, and Oman. The issued patent is expected to expire in January 2040 and any patents that issue from these pending patent applications are expected to expire in 2040, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad. We also owns two pending U.S. provisional patent applications related to the use of bempikibart for the treatment of atopic dermatitis and hair loss disorders. Any patents that issue from patent applications that claim priority to this U.S. provisional application are expected to expire in 2044, without accounting for potentially available patent term adjustments or extensions.

We also own one pending U.S. provisional patent application relating to targeted treatment of complement-media disease through local complement inhibition based on detection of a urinary biomarker. Any patents that issue from patent applications that claim priority to this U.S. provisional application are expected to expire in 2044, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad.

We have licensed from various institutions additional patent families that are generally related to C3d targeted complement inhibitors, but that do not specifically cover ADX-097:

- One patent family from the Regents of the University of Colorado, or CU, the MUSC Foundation For Research Development, or MUSC, and the U.S. Department of Veterans Affairs, or USDVA, relating to targeted complement inhibitor constructs based on natural antibodies and uses thereof includes two granted Australian patents and one granted patent in each of Israel and Japan. These patents are expected to expire in 2034, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad;

- Two patent families from CU, the first relating to MAP44 polypeptides and tissue-targeted fusion constructs and uses thereof, and the second relating to modulating the alternative complement pathway;
- The first patent family includes one granted patent in each of Australia and Israel and pending patent applications in the U.S., Canada and Australia. The issued patents and any patents that issue from the pending patent applications are expected to expire in 2035, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad. The second patent family includes three issued U.S. patents, which are expected to expire in 2029, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad;
- Two patent families from MUSC and USDVA, the first relating to compositions and methods for treating central nervous system injury using a targeted complement inhibitor and another agent or therapy and the second relating to compositions and methods for treating and preventing transplant-associated injury. The first patent family includes one issued U.S. patent, one pending U.S. patent application, and one pending patent application in Europe. The issued patent and any patents that issue from the pending patent applications are expected to expire in 2037, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad. The second patent family includes one pending U.S. patent application and one pending patent application in Europe. Any patents that issue from these pending patent applications are expected to expire in 2037, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad; and
- One patent family from CU and MUSC relating to antibodies against the C3d fragment of complement component 3 includes one reissue patent in the U.S. This patent is expected to expire in 2037, without accounting for potentially available patent term adjustments or extensions in the U.S. or abroad.

While we believe that the specific and generic claims contained in our patents provide protection for the claimed compounds, pharmaceutical compositions and methods of use, third parties may nevertheless challenge such claims. If any such claims are invalidated or rendered unenforceable for any reason, we could lose valuable intellectual property rights and our ability to prevent others from competing with our products and technology would be impaired.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we pursue patent protection, the patent term is 20 years from the earliest date of filing a non-provisional patent application. In the United States, the term of a patent covering an FDA-approved drug may, in certain cases, be eligible for a patent term extension under the Hatch-Waxman Act as compensation for the loss of patent term during the FDA regulatory review process. The period of extension may be up to five years, but the remaining term of a patent cannot be extended beyond a total of 14 years from the date of product approval. Only one patent among those eligible for an extension and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar provisions are available in Europe and in certain other jurisdictions to extend the term of a patent that covers an approved drug. We intend to seek patent term extension for patents covering our products if available.

In addition to patent protection, we may also rely, in some circumstances, on trade secrets to protect our technology. To that end, we also enter into confidentiality agreements with those who have access to our confidential information, including our employees, contractors, consultants, collaborators and advisors. We also enter into agreements requiring assignment of inventions with selected consultants, scientific advisors, and collaborators. However, trade secrets are difficult to protect. These agreements may not provide meaningful protection and may be breached without an adequate remedy for any such breach. In addition, our trade secrets and/or confidential information and know-how may become known or be independently developed by a third party, or misused by any collaborator to whom we disclose such information. Despite any measures taken to protect our intellectual property, unauthorized parties may attempt to copy aspects of our products or obtain or use information that we regard as proprietary. Although we takes steps to protect our proprietary information, third parties may independently develop the same or similar proprietary information or may otherwise gain access to our proprietary information. As a result, we may be unable to meaningfully protect our trade secrets and proprietary information.

Our success will also depend in part on not infringing upon the proprietary rights of third parties. It is uncertain whether the issuance of any third-party patent would require us to alter our strategies, obtain licenses, or cease certain activities. Our breach of any license agreements or failure to obtain a license to proprietary rights that we need may have an adverse impact on our business.

For more information and comprehensive risks related to our proprietary technology, inventions, improvements and product candidates, see the section titled "*Risk Factors—Risks Relating to Our Intellectual Property*."

Government Regulation

The U.S. Food and Drug Administration, or the FDA, and other regulatory authorities at federal, state and local levels, as well as in foreign countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, record keeping, approval, advertising, promotion, marketing, post-approval monitoring and post-approval reporting of biologics such as those we are developing. We, along with third-party contractors, will be required to navigate the various preclinical, clinical and commercial approval requirements of the governing regulatory agencies of the countries in which we are currently conducting and in the future may conduct studies or seek approval or licensure of our product candidates. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or post-market may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, untitled or warning letters, product recalls or market withdrawals, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement and civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on our business.

U.S. Biologics Regulation

In the United States, biological products are subject to regulation under the Federal Food, Drug, and Cosmetic Act, or the FDCA, and the Public Health Service Act, or the PHSA, and their implementing regulations, as well as other federal, state, local, and foreign statutes and regulations. The process required by the FDA before biologic product candidates may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies performed in accordance with applicable regulations, including the FDA's Good Laboratory Practices, or GLP;
- submission to the FDA of an investigational new drug application, or IND, which must become effective before clinical trials may begin and must be updated annually or when significant changes are made;
- approval by an independent institutional review board, or IRB, or independent ethics committee at each clinical site before the trial may be commenced;
- manufacture of the proposed biologic candidate in accordance with current Good Manufacturing Practices, or cGMPs;
- performance of adequate and well-controlled human clinical trials in accordance with applicable IND regulations, Good Clinical Practice, or GCP, requirements and other clinical-trial related regulations to establish the safety, purity and potency of the proposed biologic product candidate for its intended purpose;
- preparation of and submission to the FDA of a biologics license application, or BLA, after completion of all pivotal clinical trials;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- a determination by the FDA within 60 days of its receipt of a BLA to file the application for review;

- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the proposed product is produced to assess compliance with cGMPs, and to assure that the facilities, methods and controls are adequate to preserve the biological product's continued safety, purity and potency, and potential audit of selected clinical investigation sites to assess compliance with GCPs;
- payment of user fees for FDA review of the BLA, unless a waiver is applicable; and
- FDA review and approval of a BLA to permit commercial marketing of the product for a particular indication(s) for use in the United States.

Preclinical and Clinical Development

Prior to beginning the first clinical trial with a product candidate, a sponsor must submit an IND to the FDA. An IND is a request for authorization from the FDA to administer an investigational new drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol or protocols for preclinical studies and clinical trials. The IND also includes results of animal and *in vitro* studies assessing the toxicology, pharmacokinetics, pharmacology and pharmacodynamic characteristics of the product, chemistry, manufacturing and controls information, and any available human data or literature to support the use of the investigational product. An IND must become effective before clinical trials may begin. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day period, raises safety concerns or questions about the proposed clinical trial. In such a case, the IND may be placed on clinical hold and the IND sponsor and the FDA must resolve any outstanding concerns or questions before the clinical trial can begin. Submission of an IND therefore may or may not result in FDA authorization to begin a clinical trial.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCPs, which include the requirement that all research participants provide their informed consent for their participation in any clinical study. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A separate submission to the existing IND must be made for each successive clinical trial conducted during product development and for any subsequent protocol amendments. Furthermore, an independent IRB for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial and its informed consent form before the clinical trial begins at that site, and must monitor the study until completed.

Regulatory authorities, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk or that the trial is unlikely to meet its stated objectives. Some studies also include oversight by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board, which provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study and may recommend halting the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy. There are also requirements governing the reporting of ongoing preclinical studies and clinical trials and clinical study results to public registries. Sponsors of clinical trials of FDA-regulated products, including biological products, are required to register and disclose certain clinical trial information, which is publicly available at *www.clinicaltrials.gov.*

A sponsor who wishes to conduct a clinical trial outside of the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. If a foreign clinical trial is not conducted under an IND, the sponsor may submit data from the clinical trial to the FDA in support of a BLA. The FDA will accept a well-designed and well-conducted foreign clinical trial not conducted under an IND if the trial was conducted in accordance with GCP requirements and the FDA is able to validate the data through an onsite inspection if deemed necessary.

For purposes of BLA approval, human clinical trials are typically conducted in three sequential phases that may overlap.

Phase 1. The investigational product is initially introduced into healthy human subjects or patients with the target disease or condition. These studies are designed to test the safety, dosage tolerance, absorption, metabolism and distribution of the investigational product in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness.

Phase 2. The investigational product is administered to a limited patient population with a specified disease or condition to evaluate the preliminary efficacy, optimal dosages and dosing schedule and to identify possible adverse side effects and safety risks. Multiple Phase 2 clinical trials may be conducted to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.

Phase 3. The investigational product is administered to an expanded patient population to further evaluate dosage, to provide statistically significant evidence of clinical efficacy and to further test for safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the investigational product and to provide an adequate basis for product approval.

In some cases, the FDA may require, or companies may voluntarily pursue, additional clinical trials after a product is approved to gain more information about the product. These so-called Phase 4 studies may be made a condition to approval of the BLA. Concurrent with clinical trials, companies may complete additional animal studies and develop additional information about the biological characteristics of the product candidate, and must finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, must develop methods for testing the safety, purity and potency of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data and clinical study investigators. Written IND safety reports must be promptly submitted to the FDA and the investigators for serious and unexpected suspected adverse events, any findings from other studies, tests in laboratory animals or *in vitro* testing that suggest a significant risk for human subjects, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information.

BLA Submission and Review

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, the results of product development, preclinical studies and clinical trials are submitted to the FDA as part of a BLA requesting approval to market the product for one or more indications. FDA approval of a BLA must be obtained before a biologic may be marketed in the United States. The BLA must include all relevant data available from pertinent preclinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls, and proposed labeling, among other things. Data can come from company-sponsored clinical studies intended to test the safety and effectiveness of the product, or from a number of alternative sources, including studies initiated and sponsored by investigators. The submission of a BLA requires payment of a substantial application user fee to the FDA, unless a waiver or exemption applies.

In addition, under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA must contain data to assess the safety and effectiveness of the biological product candidate for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The Food and Drug Administration Safety and Innovation Act requires that a sponsor who is planning to submit a marketing application for a biological product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial pediatric study plan, or PSP, within sixty days after an end-of-Phase 2 meeting or, if there is no such meeting, as early as practicable before the initiation of the Phase 3 or Phase 2/3 study as may be agreed between the sponsor and FDA. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including

such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. The FDA and the sponsor must reach an agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from preclinical studies, early phase clinical trials and/or other clinical development programs. Unless otherwise required by regulation, PREA does not apply to any biological product for an indication for which orphan designation has been granted.

Within 60 days following submission of the application, the FDA reviews the BLA to determine if it is substantially complete before the agency accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. Once a BLA has been accepted for filing, the FDA's goal is to review standard applications within ten months after the filing date, or, if the application qualifies for priority review, six months after the FDA accepts the application for filing. In both standard and priority reviews, the review process may also be extended by FDA requests for additional information or clarification. The FDA reviews a BLA to determine, among other things, whether a product is safe, pure and potent and the facility in which it is manufactured, processed, packed or held meets standards designed to assure the product's continued safety, purity and potency. The FDA may convene an advisory committee to provide clinical insight on application review questions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving a BLA, the FDA will typically inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCPs. If the FDA determines that the application, manufacturing process or manufacturing facilities are not acceptable, it typically will outline the deficiencies in the submission and often will request additional testing or information. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

After the FDA evaluates a BLA and conducts inspections of manufacturing facilities where the investigational product and/or its drug substance will be produced, the FDA may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A Complete Response Letter will describe all of the deficiencies that the FDA has identified in the BLA, except that where the FDA determines that the data supporting the application are inadequate to support approval, the FDA may issue the Complete Response Letter without first conducting required inspections, testing submitted product lots and/or reviewing proposed labeling. In issuing the Complete Response Letter, the FDA may recommend actions that the applicant might take to place the BLA in condition for approval, including requests for additional information or clarification. If a Complete Response Letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application or request an opportunity for a hearing. The FDA may delay or refuse approval of a BLA if applicable regulatory criteria are not satisfied, require additional testing or information and/or require post-marketing testing and surveillance to monitor safety or efficacy of a product.

If regulatory approval of a product is granted, such approval will be granted for particular indications and may entail limitations on the indicated uses for which such product may be marketed. For example, the FDA may approve the BLA with a Risk Evaluation and Mitigation Strategy, or REMS, to ensure the benefits of the product outweigh its risks. A REMS is a safety strategy to manage a known or potential serious risk associated with a product and to enable patients to have continued access to such medicines by managing their safe use, and could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. The FDA also may condition approval on, among other things, changes to proposed labeling or the development of adequate controls and specifications. Once approved, the FDA may withdraw the product approval if compliance with pre-and post-marketing requirements is not maintained or if problems occur after the product reaches the marketplace. The FDA may require one or more Phase 4 post-market studies and surveillance to further assess and monitor the product's safety and effectiveness after commercialization, and may limit further marketing of the product based on the results of these post-marketing studies.

Expedited Development and Review Programs

The FDA offers a number of expedited development and review programs for qualifying product candidates. The fast track program is intended to expedite or facilitate the process for reviewing new products that meet certain criteria. Specifically, new product candidates are eligible for fast track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast track designation applies to the combination of the product candidate and the specific indication for which it is being studied. The sponsor of a fast track product candidate has opportunities for more frequent interactions with the review team during product development and, once a BLA is submitted, the product candidate may be eligible for priority review. A fast track product candidate may also be eligible for rolling review, where the FDA may consider for review sections of the BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the BLA, the FDA agrees to accept sections of the BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the BLA.

A product candidate intended to treat a serious or life-threatening disease or condition may also be eligible for breakthrough therapy designation to expedite its development and review. A product candidate can receive breakthrough therapy designation if preliminary clinical evidence indicates that the product candidate, alone or in combination with one or more other drugs or biologics, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The designation includes all of the fast track program features, as well as more intensive FDA interaction and guidance beginning as early as Phase 1 and an organizational commitment to expedite the development and review of the product, including involvement of senior managers.

Any marketing application for a biologic submitted to the FDA for approval, including a product candidate with a fast track designation and/or breakthrough therapy designation, may be eligible for other types of FDA programs intended to expedite the FDA review and approval process, such as priority review and accelerated approval. A product candidate is eligible for priority review if it has the potential to provide a significant improvement in the treatment, diagnosis or prevention of a serious disease or condition. For original BLAs, priority review designation means the FDA's goal is to take action on the marketing application within six months of the 60-day filing date (as compared to ten months under standard review).

Additionally, product candidates studied for their safety and effectiveness in treating serious or life-threatening diseases or conditions may receive accelerated approval upon a determination that the product candidate has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of accelerated approval, the FDA will generally require the sponsor to perform adequate and well-controlled post-marketing clinical studies with due diligence to verify and describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. Under the Food and Drug Omnibus Reform Act of 2022, or FDORA, the FDA may require, as appropriate, that such studies be underway prior to approval or within a specific time period after the date of approval for a product granted accelerated approval. Under FDORA, the FDA has increased authority for expedited procedures to withdraw approval of a product or indication approved under accelerated approval if the sponsor fails to conduct the required post-marketing studies or if such studies fail to verify the predicted clinical benefit. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

Fast track designation, breakthrough therapy designation and priority review do not change the standards for approval but may expedite the development or approval process. Even if a product candidate qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act of 1983, the FDA may grant orphan drug designation to a product candidate intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or 200,000 or more individuals in the United States for which there is no reasonable expectation that the cost of developing and making available in the United States a drug or biologic for this type of disease or condition will be recovered from sales in the United States for that product candidate. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. The orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review or approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan drug exclusive approval (or exclusivity), which means that the FDA may not approve any other applications, including a full BLA, to market the same product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity by means of greater effectiveness, greater safety or providing a major contribution to patient care or if the holder of the orphan drug exclusivity cannot assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the product was designated. Orphan drug exclusivity does not prevent the FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application fee.

A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan drug designation. In addition, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

Post-Approval Requirements

Any products manufactured or distributed by us pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to record-keeping, reporting of adverse experiences, periodic reporting, product sampling and distribution, and advertising and promotion of the product. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. After a BLA is approved for a biological product, the product also may be subject to official lot release. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. The FDA also may perform certain confirmatory tests on lots of some products before releasing the lots for distribution by the manufacturer. In addition, the FDA conducts laboratory research related to the regulatory standards on the safety, purity, potency and effectiveness of biologics. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing user fee requirements, under which the FDA assesses an annual program fee for each product identified in an approved BLA. Biologic manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMPs, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. Changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMPs and impose reporting requirements upon us and any third-party manufacturers that we may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMPs and other aspects of regulatory compliance.

The FDA may withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety

information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of a product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical studies;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of existing product approvals;
- product seizure or detention, or refusal of the FDA to permit the import or export of products;
- consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs;
- mandated modification of promotional materials and labeling and the issuance of corrective information;
- the issuance of safety alerts, Dear Healthcare Provider letters, press releases and other communications containing warnings or other safety information about the product; or
- injunctions or the imposition of civil or criminal penalties.

The FDA closely regulates the marketing, labeling, advertising and promotion of biologics. A company can make only those claims relating to safety and efficacy, purity and potency that are approved by the FDA and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses. Failure to comply with these requirements can result in, among other things, adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. Physicians may prescribe legally available products for uses that are not described in the product's labeling and that differ from those tested by the sponsor and approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, restrict manufacturer's communications on the subject of off-label use of their products.

Biosimilars and Reference Product Exclusivity

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an abbreviated approval pathway for biological products that are highly similar, or "biosimilar," to or interchangeable with an FDA-approved reference biological product. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars.

Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, is generally shown through analytical studies, animal studies, and a clinical study or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. A product shown to be biosimilar or interchangeable with an FDA-approved reference biological product may rely in part on the FDA's previous determination of safety and effectiveness for the reference product for approval, which can potentially reduce the cost and time required to obtain approval to market the product.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing that applicant's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of its product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. FDA-approved interchangeable biosimilars may be substituted for the reference product without the intervention of the prescribing health care provider, subject to state laws, which differ by state.

A biological product can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for such a study.

The BPCIA is complex and continues to be interpreted and implemented by the FDA. In July 2018, the FDA announced an action plan to encourage the development and efficient review of biosimilars, including the establishment of a new office within the agency that will focus on therapeutic biologics and biosimilars. On December 20, 2020, Congress amended the PHSA as part of the COVID-19 relief bill to further simplify the biosimilar review process by making it optional to show that conditions of use proposed in labeling have been previously approved for the reference product, which used to be a requirement of the application. In addition, government proposals have sought to reduce the 12-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate impact, implementation, and impact of the BPCIA is subject to significant uncertainty.

As discussed below, the Inflation Reduction Act of 2022, or IRA, is a significant new law that intends to foster generic and biosimilar competition and to lower drug and biologic costs.

Other Healthcare Laws and Compliance Requirements

Pharmaceutical companies are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business. Such laws include, without limitation: the federal Anti-Kickback Statute, or AKS; the federal False Claims Act, or FCA; the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and similar foreign, federal and state fraud, abuse and transparency laws.

The AKS prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering or paying remuneration, to induce, or in return for, either the referral of an individual, or the purchase, lease, order, arrangement, or recommendation of an item or service for which payment may be made under any federal healthcare program. The term remuneration has been interpreted broadly to include anything of value. The AKS has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand, and prescribers and purchasers on the other. The government often takes the position that to violate the AKS, only one purpose of the remuneration need be to induce referrals, even if there are other legitimate purposes for the remuneration. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from AKS prosecution, but they are drawn narrowly and practices that involve remuneration, such as consulting agreements, that may be alleged to be intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor. Our practices may not in all cases meet all of the criteria for protection under a statutory exception or regulatory safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the AKS. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from government healthcare programs. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act or federal civil monetary penalties.

Civil and criminal false claims laws, including the FCA, and civil monetary penalty laws, which impose criminal and civil penalties and can be enforced through civil whistleblower or qui tam actions, prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment of federal government funds, including in federal healthcare programs, that are false or fraudulent; knowingly making, using or causing to be made or used, a false statement of record material to a false or fraudulent claim or obligation to pay or transmit money or property to the federal government or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay money to the federal government. Pharmaceutical and other healthcare companies have been prosecuted under these laws for engaging in a variety of different types of conduct that "caused" the submission of false claims to federal healthcare programs. Under the AKS, for example, a claim resulting from a violation of the AKS is deemed to be a false or fraudulent claim for purposes of the FCA. Manufacturers can be held liable under the federal False Claims Act even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. The federal False Claims Act also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the federal False Claims Act and to share in any monetary recovery.

HIPAA created additional federal criminal statutes that prohibit, among other things, executing a scheme to defraud any healthcare benefit program, including private third-party payors, and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements or representations relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH and their respective implementing regulations, including the Final Omnibus Rule published in January 2013, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates, independent contractors or agents of covered entities, that perform services for them that involve the creation, maintenance, receipt, use, or disclosure of, individually identifiable health information relating to the privacy, security and transmission of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, there may be additional federal, state and non-U.S. laws which govern the privacy and security of health and other personal information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

The FDCA addresses, among other things, the design, production, labeling, promotion, manufacturing, and testing of drugs, biologics and medical devices, and prohibits such acts as the introduction into interstate commerce of adulterated or misbranded drugs or devices. The PHSA also prohibits the introduction into interstate commerce of unlicensed or mislabeled biological products.

The U.S. federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to annually report to the Centers for Medicaid & Medicare Services, or CMS, information related to payments or other transfers of value made to various healthcare professionals including physicians, certain other licensed health care practitioners, and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members.

We are also subject to federal price reporting laws and federal consumer protection and unfair competition laws. Federal price reporting laws require manufacturers to calculate and report complex pricing metrics to government programs, where such reported prices may be used in the calculation of reimbursement and/ or discounts on approved products. Federal consumer protection and unfair competition laws broadly regulate marketplace activities and activities that potentially harm consumers.

Further, we are subject to additional similar U.S. state and foreign law equivalents of each of the above federal laws, which, in some cases, differ from each other in significant ways, and may not have the same effect, thus complicating compliance efforts. If our operations are found to be in violation of any of such laws or any other governmental regulations that apply, it may be subject to penalties, including, without limitation, civil, criminal and administrative penalties, damages, fines, exclusion from government-funded healthcare programs, such as Medicare and Medicaid or similar programs in other countries or jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, disgorgement, individual imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of its operations.

Data Privacy and Security

Numerous state, federal and foreign laws govern the collection, dissemination, use, access to, confidentiality and security of personal information, including health-related information. As our operations and business grow, we may become subject to or affected by U.S. federal and state laws and regulations, including the Health Information Portability and Accountability Act of 1996, and its implementing regulations, as amended, or HIPAA, that govern the collection, use, disclosure, and protection of health-related and other personal information. In California the California Consumer Protection Act, or CCPA, which went into effect on January 1, 2020 and was amended effective January 1, 2023, establishes a new privacy framework for covered businesses by creating an expanded definition of personal information, establishing new data privacy rights for consumers in the State of California, imposing special rules on the collection of consumer data from minors, and creating a new and potentially severe statutory damages framework for violations of the CCPA and for businesses that fail to implement reasonable security procedures and practices to prevent data breaches. While clinical trial data and information governed by HIPAA are currently exempt from the current version of the CCPA, other personal information may be applicable and possible changes to the CCPA may broaden its scope. Other states, including Virginia (effective January 1, 2023), Colorado (effective July 1, 2023), Connecticut (effective July 1, 2023), and Utah (effective December 31, 2023) have passed privacy legislation and more states may do so in the future, including Iowa, where the Iowa state legislature passed a comprehensive privacy legislation on March 15, 2023. State and non-U.S. laws, including for example the EU General Data Protection Regulation, also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. Failure to comply with these laws, where applicable, can result in the imposition of significant civil and/or criminal penalties and private litigation. Privacy and security laws, regulations, and other obligations are constantly evolving, may conflict with each other to complicate compliance efforts, and can result in investigations, proceedings, or actions that lead to significant civil and/or criminal penalties and restrictions on data processing.

Coverage and Reimbursement

In the United States and markets in other countries, patients generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Our ability to successfully commercialize our product candidates will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow it to establish or maintain pricing sufficient to realize a sufficient return on its investment. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels.

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical or biological product for which we obtain regulatory approval. Sales of any product, if approved, depend, in part, on the extent to which such product will be covered by third-party payors, such as federal, state, and foreign government healthcare programs, commercial insurance and managed healthcare organizations, and the level of reimbursement, if any, for such product by third-party payors. Decisions regarding whether to cover any of our product candidates, if approved, the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement rates, but also have their own methods and approval process apart from Medicare determinations. As a result, the coverage determination process is often a time-consuming and costly

process that will require it to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Factors payors consider in determining reimbursement are based on whether the product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Third-party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost effectiveness of pharmaceutical or biological products, medical devices and medical services, in addition to questioning safety and efficacy. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit sales of any product that receives approval. Decreases in third-party reimbursement for any product or a decision by a third-party not to cover a product could reduce physician usage and patient demand for the product.

For products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. Additionally, separate reimbursement for the product itself or the treatment or procedure in which the product is used may not be available, which may impact physician utilization. In addition, companion diagnostic tests require coverage and reimbursement separate and apart from the coverage and reimbursement for their companion pharmaceutical or biological products. Similar challenges to obtaining coverage and reimbursement, applicable to pharmaceutical or biological products, will apply to companion diagnostics.

In addition, net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any product candidate that it commercializes and, if reimbursement is available, the level of reimbursement. In addition, many pharmaceutical manufacturers must calculate and report certain price reporting metrics to the government, such as average sales price, or ASP, and best price. Penalties may apply in some cases when such metrics are not submitted accurately and timely. Further, these prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs.

Finally, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union, or EU, provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular product candidate to currently available therapies. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our product candidates. Historically, products launched in the EU do not follow price structures of the U.S. and generally prices tend to be significantly lower.

Healthcare Reform

The United States and some foreign jurisdictions are considering or have enacted a number of reform proposals to change the healthcare system. There is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by federal and state legislative initiatives, including those designed to limit the pricing, coverage, and reimbursement of pharmaceutical and biopharmaceutical products, especially under government-funded health care programs, and increased governmental control of drug pricing.

The ACA, which was enacted in 2010, substantially changed the way healthcare is financed by both governmental and private insurers in the United States, and significantly affected the pharmaceutical industry. The ACA contains a number of provisions of particular import to the pharmaceutical and biotechnology industries, including, but not limited to, those governing enrollment in federal healthcare programs. Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future.

Other legislative changes have been proposed and adopted since the ACA was enacted. For example, on March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminates the statutory Medicaid drug rebate cap, currently set at 100% of a drug's average manufacturer price, for single source and innovator multiple source drugs, beginning January 1, 2024. The Budget Control Act of 2011 and subsequent legislation, among other things, created measures for spending reductions by Congress that include aggregate reductions of Medicare payments to providers of 2% per fiscal year, which remain in effect through 2031. Due to the Statutory Pay-As-You-Go Act of 2010, estimated budget deficit increases resulting from the American Rescue Plan Act of 2021, and subsequent legislation, Medicare payments to providers will be further reduced starting in 2025 absent further legislation. The U.S. American Taxpayer Relief Act of 2012 further reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

In addition, the Bipartisan Budget Act of 2018, among other things, amended the Medicare Act (as amended by the ACA) to increase the point-of-sale discounts that manufacturers must agree to offer under the Medicare Part D coverage discount program to 70% off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs being covered under Medicare Part D. Further, on May 30, 2018, the Right to Try Act, was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a pharmaceutical manufacturer to make its drug products available to eligible patients as a result of the Right to Try Act.

Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed and enacted federal and state measures designed to, among other things, reduce the cost of prescription drugs, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products. For example, in May 2019, CMS adopted a final rule allowing Medicare Advantage Plans the option to use step therapy for Part B drugs, permitting Medicare Part D plans to apply certain utilization controls to new starts of five of the six protected class drugs, and requiring the Explanation of Benefits for Part D beneficiaries to disclose drug price increases and lower cost therapeutic alternatives.

In addition, the U.S. government, state legislatures and foreign governments have continued implementing cost-containment programs, including price controls, restrictions on coverage and reimbursement and requirements for substitution of generic products. The IRA includes several provisions that may impact our business to varying degrees, including provisions that reduce the out-of-pocket spending cap for Medicare Part D beneficiaries from $7,050 to $2,000 starting in 2025, thereby effectively eliminating the coverage gap; impose new manufacturer financial liability on certain drugs under Medicare Part D, allow the U.S. government to negotiate Medicare Part B and Part D price caps for certain high-cost drugs and biologics without generic or biosimilar competition; require companies to pay rebates to Medicare for certain drug prices that increase faster than inflation; and delay until

January 1, 2032 the implementation of the HHS rebate rule that would have limited the fees that pharmacy benefit managers can charge. Further, under the IRA, orphan drugs are exempted from the Medicare drug price negotiation program, but only if they have one rare disease designation and for which the only approved indication is for that disease or condition. If a product receives multiple rare disease designations or has multiple approved indications, it may not qualify for the orphan drug exemption. The implementation of the IRA is currently subject to ongoing litigation challenging the constitutionality of the IRA's Medicare drug price negotiation program. The effects of the IRA on our business and the healthcare industry in general is not yet known.

President Biden has also issued multiple executive orders that have sought to reduce prescription drug costs. In February 2023, HHS also issued a proposal in response to an October 2022 executive order from President Biden that includes a proposed prescription drug pricing model that will test whether targeted Medicare payment adjustments will sufficiently incentivize manufacturers to complete confirmatory trials for drugs approved through FDA's accelerated approval pathway. Although a number of these and other proposed measures may require authorization through additional legislation to become effective, and the Biden administration may reverse or otherwise change these measures, both the Biden administration and Congress have indicated that they will continue to seek new legislative measures to control drug costs.

Notwithstanding the IRA and President Biden's executive orders, continued legislative and enforcement interest exists in the United States with respect to specialty drug pricing practices. Specifically, we expect regulators to continue pushing for transparency to drug pricing, reducing the cost of prescription drugs under Medicare, reviewing the relationship between pricing and manufacturer patient programs, and reforming government program reimbursement methodologies for drugs.

Individual states in the United States have also become increasingly active in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain drug access and marketing cost disclosure and transparency measures, and designed to encourage importation from other countries and bulk purchasing. Legally mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, financial condition, results of operations and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for its drugs or put pressure on its drug pricing, which could negatively affect our business, financial condition, results of operations and prospects.

Other Government Regulation Outside of the United States

Regulation Outside of the United States

EU Drug Development

In addition to regulations in the United States, we are subject to a variety of regulations in other jurisdictions governing clinical studies, commercial sales, and distribution of our products. Most countries outside of the United States require that clinical trial applications be submitted to and approved by the local regulatory authority for each clinical study. In the EU, for example, an application must be submitted to the national competent authority and an independent ethics committee in each country in which we intend to conduct clinical trials, much like the FDA and IRB, respectively. Under the new Clinical Trials Regulation (EU) No 536/2014, which replaced the Clinical Trials Directive 2001/20/EC on January 31, 2022, a single application is now made through the Clinical Trials Information System for clinical trial authorization in up to 30 EU/EEA countries at the same time and with a single set of documentation.

The assessment of applications for clinical trials is divided into two parts (Part I contains scientific and medicinal product documentation and Part II contains the national and patient-level documentation). Part I is assessed by a coordinated review by the competent authorities of all EU Member States in which an application for authorization of a clinical trial has been submitted (Member States Concerned) of a draft report prepared by a Reference Member State. Part II is assessed separately by each Member State Concerned. The role of the relevant ethics committees in the assessment procedure will continue to be governed by the national law of the Member State Concerned, however overall related timelines are defined by the Clinical Trials Regulation. The new Clinical Trials Regulation also provides for simplified reporting procedures for clinical trial sponsors.

EU Drug Review and Approval

In addition, whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of countries outside the United States before we can commence marketing of the product in those countries. The approval process and requirements vary from country to country, so the number and type of nonclinical, clinical, and manufacturing studies needed may differ, and the time may be longer or shorter than that required for FDA approval.

To obtain regulatory approval for our medicinal products under the EU regulatory system, a marketing authorization application, or MAA, needs to be submitted. There are a number of potential routes open to obtain a marketing authorization, or MA. The centralized procedure allows applicants to obtain a MA that is valid throughout the EU, and the additional Member States of the European Economic Area (Iceland, Liechtenstein and Norway), or EEA. It is compulsory for medicinal products manufactured using biotechnological processes, orphan medicinal products, advanced therapy medicinal products (gene-therapy, somatic cell-therapy or tissue-engineered medicines) and human products containing a new active substance which is not authorized in the EU and which is intended for the treatment of HIV, AIDS, cancer, neurodegenerative disorders, auto-immune and other immune dysfunctions, viral diseases or diabetes. The centralized procedure is optional for any other products containing new active substances not authorized in the EU or for products which constitute a significant therapeutic, scientific, or technical innovation or for which a centralized authorization is in the interests of patients at EU level. When a company wishes to place on the market a medicinal product that is eligible for the centralized procedure, it sends an application directly to the European Medicines Agency, or EMA, to be assessed by the Committee for Medicinal Products for Human Use, or CHMP. The CHMP is responsible for conducting the assessment of whether a medicine meets the required quality, safety, and efficacy requirements, and whether the product has a positive risk/benefit profile. The procedure results in a European Commission decision, which is valid in all EU Member States. The centralized procedure is as follows: full copies of the MAA are sent to a rapporteur and a co-rapporteur designated by the competent EMA scientific committee. They coordinate the EMA's scientific assessment of the medicinal product and prepare draft reports. Once the draft reports are prepared (other experts might be called upon for this purpose), they are sent to the CHMP, whose comments or objections are communicated to the applicant. The rapporteur acts as an EMA contact person for the applicant and continues to play this role, even after the MA has been granted.

The rapporteur and co-rapporteur then assess the applicant's replies, submit them for discussion to the CHMP, and taking into account the conclusions of this debate, prepare a final assessment report. Once the evaluation is completed, the CHMP gives a favorable or unfavorable opinion as to whether to grant the authorization. When the opinion is favorable, it shall include the draft summary of product characteristics, or SmPC, the package leaflet, and the texts proposed for the various packaging materials. The time limit for the evaluation procedure is 210 days (excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP). The EMA then has fifteen days to forward its opinion to the European Commission, which will make a binding decision on the grant of an MA within 67 days of the receipt of the CHMP opinion.

There are two other procedures in the EU for the grant of an MA in multiple EU Member States. The decentralized procedure provides for approval by one or more other, or Concerned Member States, of an assessment of an application performed by one Member State, known as the Reference Member State. Under this procedure, an applicant submits an application, or dossier, and related materials including a draft SmPC, and draft labeling and package leaflet, to the Reference Member State and Concerned Member States. The Reference Member State prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the Reference Member State's assessment report, each Concerned Member State must decide whether to approve the assessment report and related materials. If a Member State cannot approve the assessment report and related materials on the grounds of potential serious risk to the public health, the disputed points may eventually be referred to the European Commission, whose decision is binding on all Member States. Where a product has already been authorized for marketing in a EU Member State, this national MA can be recognized in other Member States through the mutual recognition procedure.

EU New Chemical Entity Exclusivity

In the EU, innovative medicinal products approved on the basis of a complete and independent data package qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity. The data exclusivity, if granted, prevents generic or biosimilar applicants from referencing the innovator's preclinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar MA in the EU, during a period of eight years from the date on which the reference product was first authorized in the EU. During the additional two-year period of market exclusivity, a generic or biosimilar MAA can be submitted, and the innovator's data may be referenced, but no generic or biosimilar product can be placed on the EU market until the expiration of the market exclusivity. The overall ten-year period will be extended to a maximum of 11 years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are determined to bring a significant clinical benefit in comparison with currently approved therapies. There is no guarantee that a product will be considered by the EMA to be an innovative medicinal product, and products may not qualify for data exclusivity. Even if a product is considered to be an innovative medicinal product so that the innovator gains the prescribed period of data exclusivity, however, another company could nevertheless also market another version of the product if such company obtained an MA based on an MAA with a complete and independent data package of pharmaceutical tests, preclinical tests and clinical trials.

EU Orphan Designation and Exclusivity

The criteria for designating an "orphan medicinal product" in the EU are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as an orphan medicinal product if it is intended for the diagnosis, prevention, or treatment of a life-threatening or chronically debilitating condition that affects no more than five in 10,000 persons in the EU when the application is made. In addition, orphan designation can be granted if the product is intended for a life threatening, seriously debilitating, or serious and chronic condition in the EU and, without incentives, it is unlikely that sales of the product in the EU would be sufficient to justify the necessary investment in its development. Orphan designation is only available if there is no other satisfactory method approved in the EU of diagnosing, preventing, or treating the applicable orphan condition, or if such a method exists, the proposed orphan medicinal product will be of significant benefit to patients affected by such condition, as defined in Regulation (EC) 847/2000.

Orphan designation provides opportunities for fee reductions, protocol assistance, and access to the centralized procedure. Fee reductions are limited to the first year after an MA, except for small and medium enterprises. In addition, if a product which has an orphan designation subsequently receives a centralized MA for the indication for which it has such designation, the product is entitled to orphan market exclusivity, which means the EMA may not approve any other application to market a similar medicinal product for the same indication for a period of ten years. A "similar medicinal product" is defined as a medicinal product containing a similar active substance or substances as contained in an authorized orphan medicinal product, and which is intended for the same therapeutic indication. The exclusivity period may be reduced to six years if, at the end of the fifth year, it is shown that the designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, an MA may be granted to a similar medicinal product for the same indication at any time if:

- the second applicant can establish that its product, although similar to the authorized product, is safer, more effective or otherwise clinically superior;
- the MA holder of the authorized product consents to a second orphan medicinal product application; or
- the MA holder of the authorized product cannot supply enough orphan medicinal product.

EU Pediatric Investigation Plan

A pediatric investigation plan, or PIP, in the EU is aimed at ensuring that the necessary data are obtained to support the authorization of a medicine for children, through studies in children. All applications for MAs for new medicines have to include the results of studies as described in an agreed PIP, unless the medicine is exempt because of a deferral or waiver. This requirement also applies when an MA holder wants to add a new indication, pharmaceutical

form, or route of administration for a medicine that is already authorized and covered by intellectual property rights. Several rewards and incentives for the development of pediatric medicines for children are available in the EU. Medicines authorized across the EU with the results of studies from a PIP included in the product information are eligible for an extension of their supplementary protection certificate, or SPC, by six months (provided an application for such extension is made at the same time as filing the SPC application for the product, or at any point up to two years before the SPC expires). This is the case even when the studies' results are negative. For orphan medicinal products, the incentive is an additional two years of market exclusivity. Scientific advice and protocol assistance at the EMA are free of charge for questions relating to the development of pediatric medicines. Medicines developed specifically for children that are already authorized but are not protected by a patent or supplementary protection certificate are eligible for a pediatric-use MA, or PUMA. If a PUMA is granted, the product will benefit from ten years of market protection as an incentive.

PRIME Scheme

In March 2016, the EMA launched an initiative, the PRIority Medicines, or PRIME, scheme, to facilitate development of product candidates in indications, often rare, for which few or no therapies currently exist. The PRIME scheme is intended to encourage development of products in areas of unmet medical need and provides accelerated assessment of products representing substantial innovation reviewed under the centralized procedure. Products from small- and medium-sized enterprises may qualify for earlier entry into the PRIME scheme than larger companies on the basis of compelling non-clinical data and tolerability data from initial clinical trials. Many benefits accrue to sponsors of product candidates with PRIME designation, including but not limited to, early and proactive regulatory dialogue with the EMA, frequent discussions on clinical trial designs and other development program elements, and potentially accelerated MAA assessment once a dossier has been submitted. Importantly, once a candidate medicine has been selected for the PRIME scheme, a dedicated contact and rapporteur from the CHMP or from the Committee for Advanced Therapies, or CAT, are appointed early in the PRIME scheme facilitating increased understanding of the product at the EMA's committee level. An initial meeting with the CHMP/CAT rapporteur initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies. PRIME eligibility does not change the standards for product approval, and there is no assurance that any such designation or eligibility will result in expedited review or approval.

The aforementioned EU rules are generally applicable in the EEA.

Reform of the Regulatory Framework in the EU

The European Commission introduced legislative proposals in April 2023, that if implemented, will replace the current regulatory framework in the EU for all medicines (including those for rare diseases and for children). The European Commission has provided the legislative proposals to the European Parliament and the European Council for their review and approval. The European Parliament and the European Council may propose amendments to the proposals. Once the proposals are approved (with or without amendment), they will be adopted into EU law.

Brexit and the Regulatory Framework in the United Kingdom

The United Kingdom left the EU on January 31, 2020, and the United Kingdom and the EU have concluded a trade and cooperation agreement, or TCA, which was provisionally applicable since January 1, 2021 and has been formally applicable since May 1, 2021.

The TCA includes specific provisions concerning pharmaceuticals, which include the mutual recognition of GMP, inspections of manufacturing facilities for medicinal products and GMP documents issued, but does not provide for wholesale mutual recognition of United Kingdom and EU pharmaceutical regulations. At present, Great Britain has implemented EU legislation on the marketing, promotion and sale of medicinal products through the Human Medicines Regulations 2012 (as amended). Except in respect of the new EU Clinical Trials Regulation, the regulatory regime in Great Britain therefore largely aligns with current EU medicines regulations, however it is possible that these regimes will diverge more significantly in future now that Great Britain's regulatory system is independent from the EU and the TCA does not provide for mutual recognition of United Kingdom and EU pharmaceutical legislation. However, notwithstanding that there is no wholesale recognition of EU pharmaceutical legislation under the TCA, under a new framework mentioned below which will be put in place by the Medicines and Healthcare products Regulatory Agency, or MHRA, the United Kingdom's medicines regulator, from January 1, 2024, the MHRA has stated that it will take into account decisions on the approval of MAs from the EMA (and certain other regulators) when considering an application for a Great Britain MA.

On February 27, 2023, the United Kingdom government and the European Commission announced a political agreement in principle to replace the Northern Ireland Protocol with a new set of arrangements, known as the "Windsor Framework". This new framework fundamentally changes the existing system under the Northern Ireland Protocol, including with respect to the regulation of medicinal products in the United Kingdom. In particular, the MHRA will be responsible for approving all medicinal products destined for the United Kingdom market (i.e., Great Britain and Northern Ireland), and the EMA will no longer have any role in approving medicinal products destined for Northern Ireland. A single United Kingdom-wide MA will be granted by the MHRA for all medicinal products to be sold in the United Kingdom, enabling products to be sold in a single pack and under a single authorization throughout the United Kingdom. The Windsor Framework was approved by the EU-United Kingdom Joint Committee on March 24, 2023, so the United Kingdom government and the EU will enact legislative measures to bring it into law. On June 9, 2023, the MHRA announced that the medicines aspects of the Windsor Framework will apply from January 1, 2025.

The MHRA has introduced changes to national licensing procedures, including procedures to prioritize access to new medicines that will benefit patients, an accelerated assessment procedure and new routes of evaluation for novel products and biotechnological products. All existing EU MAs for centrally authorized products were automatically converted (grandfathered) into United Kingdom MAs free of charge on January 1, 2021. For a period of three years from January 1, 2021, the MHRA may rely on a decision taken by the European Commission on the approval of a new MA in the centralized procedure, in order to more quickly grant a new Great Britain MA. A separate application will, however, still be required. On January 24, 2023, the MHRA announced that a new international recognition framework will be put in place from January 1, 2024, which will have regard to decisions on the approval of MAs made by the EMA and certain other regulators when determining an application for a new Great Britain MA. There is now no pre-MA orphan designation in Great Britain. Instead, the MHRA reviews applications for orphan designation in parallel to the corresponding MAA. The criteria are essentially the same, but have been tailored for the Great Britain market, i.e., the prevalence of the condition in Great Britain (rather than the EU) must not be more than five in 10,000. Should an orphan designation be granted, the period of market exclusivity will be set from the date of first approval of the product in Great Britain.

Human Capital

As of March 25, 2024, we had 37 full-time employees, of which 7 have M.D. or Ph.D. degrees. Within our workforce, 27 employees are engaged in research and development and 10 are engaged in general management and administration. None of our employees are represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. The principal purposes of our equity incentive plans are to attract, retain and reward personnel through the granting of equity-based compensation awards in order to increase shareholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Facilities

Our principal office is located at 830 Winter Street, Waltham, Massachusetts 02451, where we lease approximately 15,771 square feet of office space. The lease term began in January 2022 and will end in December 2031. We believe that this facility will be adequate to meet our near-term needs. If required, we believe that suitable additional or substitute space will be available in the future on commercially reasonable terms to accommodate any such expansion our operations.

Legal Proceedings

From time to time, we may become involved in legal proceedings arising from the ordinary course of business. Our records a liability for such matters when it is probable that future losses will be incurred and that such losses can be reasonably estimated.

Q32 MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of Q32's financial condition and results of operations should be read together with Q32's consolidated financial statements and the related notes appearing elsewhere in this Current Report on Form 8-K. This discussion and other parts of this Current Report on Form 8-K contain forward-looking statements that involve risks and uncertainties, such as statements regarding Q32's plans, objectives, expectations, intentions and projections. Q32's actual results could differ materially from those described in or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the "Risk Factors" section of this Current Report on Form 8-K.

Overview

Q32 Bio Inc., or Q32, is a clinical stage biotechnology company focused on developing novel biologics to effectively and safely restore healthy immune balance in patients with autoimmune and inflammatory diseases driven by pathological immune dysfunction. To achieve this goal of restoring homeostasis to a dysregulated immune system, Q32 is advancing antibody-based therapeutic candidates designed to target two central pathways of adaptive and innate immunity. The adaptive immune system is largely composed of T- and B-cell mediated cellular and antibody responses: while the innate immune system is a first line of defense employing leukocytes such as monocytes, macrophages, neutrophils, dendritic cells and natural killer cells that are responsible for clearing pathogens and cellular debris, and modulating T- and B-cell function. Q32 believes that targeting these key pathways of immune dysregulation in autoimmune and inflammatory diseases will deliver therapeutics for indications with clear unmet medical need in the near term, while enabling Q32 to build a broad and diverse pipeline in the long term. Q32 has multiple product candidates across a variety of autoimmune and inflammatory diseases with clinical readouts for Q32's two lead programs expected in 2024 and 2025.

Bempikibart (ADX-914), Q32's most advanced product candidate, is a fully human anti–interleukin-7 receptor alpha, or IL-7Rα, antagonist monoclonal antibody designed to re-regulate adaptive immune function by blocking signaling mediated by interleukin-7, or IL-7, and thymic stromal lymphopoietin, or TSLP. Bempikibart is being studied in two double-blind, placebo-controlled Phase 2 clinical trials designed to establish proof of clinical concept and evaluate Q32's selected Phase 2 dose. One trial is evaluating the use of bempikibart for the treatment of atopic dermatitis, or AD, and one is evaluating bempikibart for the treatment of alopecia areata, or AA. Enrollment in both clinical trials remains ongoing and Q32 remains on track to report topline data from both Phase 2 clinical trials in the second half of 2024.

ADX-097, the lead product candidate from Q32's complement inhibitor platform, is a humanized anti-C3d monoclonal antibody, or mAb, fusion protein. ADX-097 is designed to restore complement regulation – an integral part of the innate immune system – through a tissue targeted mechanism. ADX-097 is designed to inhibit alternative pathway complement activation locally in diseased tissues where complement-mediated pathology is actively manifest. Q32 believes ADX-097 has the potential to drive improved clinical activity and address the limitations of the currently available systemic approaches to complement inhibition, including infection risk and the need for high drug doses and frequent administration, to achieve therapeutic levels of inhibition. Q32 is developing ADX-097 for the treatment of renal and other complement-mediated diseases of high unmet need, including lupus nephritis, or LN, immunoglobulin A, or IgA, nephropathy, or IgAN, complement component 3 glomerulopathy, or C3G, and anti-neutrophil cytoplasmic antibody, or ANCA-associated vasculitis, or AAV. Q32 has completed a Phase 1 clinical trial of ADX-097 in healthy volunteers. Q32 expects to initiate an open-label Phase 2 renal basket program in the first half of 2024, with initial data expected by year-end 2024, and initiate a Phase 2 clinical trial in AAV, with topline data from both the renal basket and AAV trials anticipated in the second half of 2025.

In addition to bempikibart and ADX-097, Q32 is also engaged in additional pipeline efforts to expand therapeutic opportunities within complement mediated diseases.

Recent Developments

Rights to Bempikibart

From August 2022 until November 2023, Q32 was a party to the Collaboration and Option Agreement, or the Horizon Collaboration Agreement, and the Asset Purchase Agreement, or the Purchase Agreement, and together with the Horizon Collaboration Agreement, the Horizon Agreements, each between Q32 and Horizon Therapeutics Ireland DAC, or Horizon, pursuant to which Q32 received $55.0 million in initial consideration and staged development funding for the completion of the two ongoing Phase 2 trials for bempikibart, and Horizon had an option to acquire the bempikibart program at a prespecified price, subject to certain adjustments.

In October 2023, Amgen, Inc., or Amgen, completed the acquisition of Horizon Therapeutics public limited company, or Horizon plc. Following its acquisition of Horizon plc, Q32 agreed with Amgen to mutually terminate the Horizon Agreements and on November 2023, Q32 and Horizon entered into a termination agreement, or the Horizon Termination Agreement, pursuant to which Horizon's option to acquire the bempikibart program was terminated. As a result, Q32 retained the initial consideration and all development funding received under the Horizon Collaboration Agreement and regained full development and commercial rights to bempikibart. In consideration for the Horizon Termination Agreement, Q32 agreed to pay Horizon regulatory and sales milestones payments of up to an aggregate amount of $75.1 million upon the first achievement of certain regulatory and sales milestones with respect to bempikibart.

These potential payments to Horizon are not in exchange for a distinct good or service and, therefore; the Company accounts for consideration payable to a customer as a reduction of the transaction price under ASC 606. The Company concluded that the $55.0 million of arrangement consideration previously recognized should be fully constrained as a result of the contingent consideration payable to the customer, and accordingly, the amounts previously recognized were reversed in the fourth quarter of 2023 and a refund liability was established for the $55.0 million cash received during the term of the collaboration arrangement. No amounts have been recognized related to the remaining potential payment to Horizon (up to $20.1 million) as it is not probable that the respective milestones will be achieved at this time.

Merger with Homology and Pre-Closing Financing

On November 16, 2023, the Company entered into an Agreement and Plan of Merger and Reorganization (the Merger Agreement) with Homology and Kenobi Merger Sub, Inc., a wholly owned subsidiary of Homology (Merger Sub). The Merger was completed on March 25, 2024. Pursuant to the Merger Agreement, Merger Sub merged with and into the Company, with the Company continuing as the surviving company and as a wholly owned subsidiary of Homology (the Merger). Homology changed its name to Q32 Bio, Inc., and the Company which remains as a wholly-owned subsidiary of Q32, changed its name to Q32 Bio Operations Inc. On March 26, 2024, the combined company's common stock began trading on the Nasdaq Capital Market under the ticker symbol "QTTB". The business of the Company will continue as the business of the combined company. The Merger is intended to qualify for federal income tax purposes as a tax-free reorganization under the provisions of Section 368(a) of the Internal Revenue Code of 1986, as amended. In connection with the Merger Agreement, certain parties entered into a subscription agreement with the Company to purchase shares of the Company's common stock for an aggregate purchase price of $42.0 million (the Pre-Closing Financing).

On March 25, 2024 (the Closing Date), following approval by the stockholders of the Company and Homology, the Pre-Closing Financing closed immediately prior to the consummation of the Merger. Shares of the Company's common stock issued pursuant to the Pre-Closing Financing were converted into the right to receive 1,682,045 shares of Homology common stock after taking into account the Reverse Stock Split. On March 25, 2024, in connection with, and prior to the completion of the Merger, Homology effected a one-for-eighteen reverse stock split of its then outstanding common stock. Subject to the terms and conditions of the Merger Agreement, at the effective time of the Merger (the "Effective Time") which was March 25, 2024, all issued and outstanding shares of the Company's common stock (including common stock issued upon the conversion of all the Company's Series A, Series A-1 and Series B preferred stock, conversion of Q32 convertible notes, but excluding the common stock issued in Pre-Closing Financing) converted into the right to receive 7,017,842 shares of Homology's common stock calculated in accordance with the exchange ratio at the Effective Time. Lastly, each option to purchase the Company's shares that was outstanding and unexercised immediately prior to the Effective Time was converted into an option to purchase shares of Homology based on the Exchange Ratio. Immediately following the merger, stockholders of the Company owned approximately 74.4% of the outstanding common stock of the combined company.

The Merger will be accounted for as a reverse recapitalization in accordance with accounting principles generally accepted in the United States of America (GAAP). For accounting purposes, the Company is the accounting acquirer and Homology is the acquired company based on the terms of the Merger agreement and other factors, including: (i) the Company's shareholders own a majority of the voting rights in the combined company; (ii) the Company designated a majority (seven of nine) of the initial members of the board of directors of the combined company; (iii) the Company's executive management team became the management of the combined company; (iv) the pre-combination assets of Homology were primarily cash and cash equivalents, short-term investments, and other non-operating assets (the in-process research and development assets potentially remaining as of the combination are de minimis value); and (v) the combined company was named Q32 Bio, Inc. and is headquartered in the Company's office in Waltham, Massachusetts. Accordingly, the merger was treated as the equivalent of the Company's issuing stock to acquire the net assets of Homology. As a result of the merger, the net assets of Homology will be recorded at their acquisition-date fair value in the financial statements of the combined company and the reported operating results prior to the merger will be those of the Company.

At the Effective Time, each person who as of immediately prior to the Effective Time was a stockholder of record of Homology or had the right to receive Homology's common stock will be entitled to receive a contractual contingent value right (CVR) issued by Homology subject to and in accordance with the terms and conditions of a Contingent Value Rights Agreement between Homology and the rights agent (the CVR Agreement), representing the contractual right to receive cash payments from the combined company upon the receipt of certain proceeds from a disposition of Homology's pre-merger assets, calculated in accordance with the CVR Agreement.

The combined company currently expects to use the approximately $130.0 million in cash, cash equivalents and marketable securities, which includes the approximately $42.0 million from the Pre-Closing Financing, immediately after completion of the Merger and after deducting estimated transaction expenses as follows:

- approximately $27.2 million for continued clinical development of bempikibart including approximately $19.0 million in remaining clinical development expenses to fund the program through Phase 2 completion of its ongoing clinical trials and $8.2 million in CMC costs to support advancing the program through its ongoing clinical trials and to enable of advancing clinical development beyond the current Phase 2 trials;
- approximately $20.2 million for continued development of ADX-097 including approximately $12.2 million to support its planned Phase 2 clinical trials, $3.7 million in CMC related costs to support the ongoing development and $4.4 million in research and other non-clinical ADX-097 related activities;
- approximately $0.9 million for discovery and other platform-related activities; and
- the remainder for other general corporate purposes.

The specific allocation of the expected cash, cash equivalents and marketable securities immediately after completion of the Merger towards specific programs will depend on, among other things, results from the combined company's research and development efforts for each program and the timing and success of its clinical trials. Based on the combined company's current planned use of the cash, cash equivalents and marketable securities immediately after completion of the Merger and after deducting estimated transaction expenses, such funds are estimated to be sufficient to enable the combined company to fund its operating expenses and capital expenditure requirements to mid-2026. This estimate is based on assumptions that may prove to be wrong, and the combined company could use its expected capital resources sooner than currently anticipated.

The combined company does not expect the proceeds from the completion of the Merger, including the approximately $42.0 million from the Pre-Closing Financing, and Q32's existing cash, cash equivalents, and marketable securities, will be sufficient for it to advance any of its programs through regulatory approval, and the combined company will need to raise additional capital to complete the development and potential commercialization of any of its programs. The combined company may also use a portion of its cash, cash equivalents, and marketable securities, to acquire, in-license or invest in products, technologies or businesses that are complementary to its business. The amounts and timing of actual expenditures will depend on numerous factors, including the progress of development efforts, operating costs and other factors described under "Risk Factors" in this Current Report on Form 8-K.

The expected use of proceeds represents current intentions based upon present plans and business condition. As of the date of this Current Report on Form 8-K, the combined company cannot predict with complete certainty all of the particular uses for the expected cash available upon the closing of the Merger or the actual amounts that it will spend on the uses set forth above.

Financial Operations Overview

Revenue

Since its inception, Q32 has not generated any revenue from product sales, and management does not expect Q32 to generate any revenue from the sale of products in the foreseeable future.

Q32 entered into the Horizon Agreements on August 12, 2022. Per the terms of the Horizon Collaboration Agreement, Q32 received a total of $55.0 million upon initiation of certain development activities associated with the planned clinical trials and related activities. Prior to its termination, the Purchase Agreement also provided Horizon the option to purchase bempikibart, which would have triggered a prespecified payment to Q32, if exercised. Q32 was also entitled to receive from Horizon additional payments based on the achievement of future development and regulatory milestones as well as royalty payments on annual net sales.

Prior to the termination agreement, Q32 concluded that the arrangement is within the scope of Topic 606. Specifically, Q32 concluded that the research services required to be performed as part of the Horizon Collaboration Agreement represent an output of Q32's ordinary activities, and this represents a contract with a customer. At the commencement of the collaboration arrangement with Horizon, Q32 identified two performance obligations related to the development activities of bempikibart, one of each of the specified clinical trials in AD and AA, with each composing the services related to the clinical trial and other related development activity. Q32 also identified a material right related to the option for Horizon to purchase bempikibart. The material right was considered a separate performance obligation pursuant to the provisions of Topic 606. Q32 determined the transaction price to be $55.0 million which it allocated to the three performance obligations based on the estimated stand-alone selling price of each performance obligation. Q32 concluded that the consideration allocated to the research service performance obligations should be recognized over time as Horizon received the benefit of the research activities as the activities were performed. Q32 has determined that this method was most appropriate as progress towards

completion of research is largely driven by time and effort spent and costs incurred to perform this research. As of December 31, 2022, Q32 had received $32.5 million of the $55.0 million transaction price from Horizon. Q32 recognized $6.7 million of collaboration agreement revenue for the year ended December 31, 2022. As of December 31, 2023, Q32 had received the full $55.0 million, which Q32 retains. The Termination Agreement is accounted for as a modification because it does not result in the addition of distinct goods or services. Since the two performance obligations and the material right are terminated with no further performance obligations aside from the contingent payments to Horizon of up to $75.1 million, Q32 recognized the remaining deferred revenue in the fourth quarter of 2023.

Upon the execution of the Horizon Termination Agreement, Q32 became obligated to pay Horizon up to $75.1 million contingent on regulatory and sales-based milestones or up to $20.1 million in excess of the cash received. These potential payments to the customer are not in exchange for a distinct good or service; therefore, Q32 accounts for consideration payable to a customer as a reduction of the transaction price under ASC 606. Q32 concluded that the $55.0 million of arrangement consideration previously recognized should be fully constrained as a result of the contingent consideration payable to the customer, and accordingly, all amounts previously recognized as revenue were reversed in the fourth quarter of 2023 and a refund liability was established for the $55.0 million cash received during the term of the collaboration agreement. No amounts have been recognized related to the remaining potential payment to Horizon (up to $20.1 million) as it is not probable that the respective milestones will be achieved at this time.

Research and Development

Research and development expenses account for a significant portion of Q32's operating expenses and consist primarily of external and internal expenses incurred in connection with the discovery and development of its product candidates. External expenses include:

- expenses incurred in connection with Q32's research and development activities, including costs related to agreements with third parties such as consultants, contractors and clinical research organizations, or CROs;
- costs related to contract development and manufacturing organizations, or CDMOs, that are primarily engaged to provide drug substance and product for Q32's preclinical studies, clinical trials and research and development programs, as well as investigative sites and consultants that conduct Q32's clinical trials, preclinical studies and other scientific development services;
- costs related to compliance with quality and regulatory requirements;
- employee-related expenses, including salaries, benefits, and stock-based compensation expense, for personnel engaged in research and development functions; and
- facilities-related expenses, depreciation, supplies, travel expenses and other allocated expenses.

Q32 expenses research and development costs as incurred. Costs are recognized based on an evaluation of the progress to completion of specific tasks using information provided to Q32 by its service providers or its estimate of the level of service that has been performed at each reporting date. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and may be reflected in Q32's consolidated financial statements as prepaid or accrued expenses. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses and expensed as the related goods are delivered or the services are performed or when it is no longer expected that the goods will be delivered or the services rendered.

Q32 does not allocate direct external research and development costs to specific programs or product candidates until there is an internally designated development candidate. Q32 typically uses its employee and infrastructure resources across its product candidates and development programs. Q32 does not allocate personnel costs or other internal costs to research and development programs and product candidates.

Q32 expects that future changes to its research and development expenses will depend significantly on the success of its clinical data. Q32 expects that research and development expenses will increase substantially as Q32 continues to advance its programs into and through clinical development. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. At this time, Q32 cannot accurately estimate or know the nature, timing and costs of the efforts that will be necessary to complete the preclinical and clinical development of any product candidates. A change in the outcome of any number of variables with respect to product candidates Q32 may develop could significantly change the costs and timing associated with the development of that product candidate. Q32 may never succeed in obtaining regulatory approval for any product candidates it may develop. The successful development of any product candidate is highly uncertain. This is due to the numerous risks and uncertainties associated with product development, including the following:

- the timing and progress of preclinical and clinical development activities;
- the number and scope of preclinical and clinical programs Q32 decides to pursue;
- the ability to raise additional funds necessary to complete clinical development of and commercialize of Q32's product candidates;
- the successful initiation, enrollment and completion of clinical trials with safety, tolerability and efficacy profiles that are satisfactory to the FDA or any comparable foreign regulatory authority;
- the receipt and related terms of regulatory approvals from applicable regulatory authorities for any product candidates;
- the availability of raw materials for use in production of Q32's product candidates;
- establishing agreements with third-party manufacturers for supply of product candidate components for Q32's clinical trials;
- Q32's ability to maintain its current research and development programs and to establish new programs;
- significant and changing government regulations;
- Q32's ability to obtain and maintain patents, trade secret protection and regulatory exclusivity, both in the United States and internationally;
- Q32's ability to protect its other rights in its intellectual property portfolio;
- commercializing product candidates, if and when approved, whether alone or in collaboration with others; and
- obtaining and maintaining third-party insurance coverage and adequate reimbursement for any approved products.

General and Administrative Expenses

General and administrative expenses primarily consist of salaries, bonuses, related benefits, and stock-based compensation expense for personnel in executive, finance, and administrative functions; professional fees for corporate legal and patent matters, consulting, accounting, and audit services; and travel expenses, insurance, technology costs and other allocated expenses. General and administrative expenses also include corporate facility costs, including rent, utilities, depreciation, and maintenance, not otherwise included in research and development expense. Q32 recognizes general and administrative expenses in the periods in which they are incurred. General and administrative expenses are expected to increase as a public company.

Change in Fair Value of Convertible Notes

During 2022, Q32 recognized a liability as a result of the issuance of convertible promissory notes, or the Convertible Notes. Q32 accounts for all Convertible Notes issued under the fair value option election of ASC 825, *Financial Instruments* (ASC 825). The financial instrument is initially measured at its issue-date estimated fair value and then subsequently remeasured at estimated fair value on a recurring basis at each reporting period date. The estimated fair value adjustment is recognized within other income (expense) in the accompanying consolidated statements of operations and the portion of the fair value adjustment attributed to a change in the instrument-specific credit risk is recognized as a component of other comprehensive loss, if any.

The change in fair value of the Convertible Notes is expected to vary period over period, based on changes in the estimated fair value of the equity into which the Convertible Notes will be issued, the pending Merger with Homology, or other future financing, and other factors.

Other income (expense), net

Other income (expense), net consists of interest income primarily earned on money market fund accounts and other short-term investments and interest expense related to Q32's debt obligations.

Results of Operations

Comparison of the years ended December 31, 2023 and 2022

The following table summarizes Q32's results of operations for the years ended December 31, 2023 and 2022:

	Years Ended December 31,		
	2023	2022	Change
	(in thousands)		
Collaboration arrangement revenue	$ (6,651)	$ 6,651	$(13,302)
Operating expenses:			
Research and development	31,729	35,814	(4,085)
General and administrative	9,875	10,062	(187)
Total operating expense	41,604	45,876	(4,272)
Loss from operations	(48,255)	(39,225)	(9,030)
Change in fair value of convertible notes	(6,193)	(2,402)	(3,791)
Other income (expense), net	1,023	(1,120)	2,143
Loss before provision for income taxes	(53,425)	(42,747)	(10,678)
Provision for income taxes	(318)	(62)	(256)
Net loss	$(53,743)	$(42,809)	$(10,934)

Collaboration Arrangement Revenue

Q32 recognized negative $6.7 million of collaboration arrangement revenue for the year ended December 31, 2023 compared to $6.7 million for the year ended December 31, 2022. Upon initiation of the Horizon Termination Agreement and pursuant to ASC 606, all previously recognized amounts in 2022 were reversed in 2023. See further discussion under Revenue above.

Research and Development Expenses

The following table summarizes Q32's research and development expenses for the years ended December 31, 2023 and 2022:

	Years Ended December 31,		
	2023	2022	Change
	(in thousands)		
Direct research and development expense by program:			
ADX-097	$ 7,185	$10,109	$(2,924)
Bempikibart	11,722	11,892	(170)
Discovery and other	894	1,270	(376)
Unallocated expenses:			
Personnel-related and consulting (including stock-based compensation)	9,629	9,990	(361)
Indirect research and development expense	2,299	2,553	(254)
Total research and development expenses	$31,729	$35,814	$(4,085)

Research and development expenses were $31.7 million for the year December 31, 2023, compared to $35.8 million for the year ended December 31, 2022. Expenses related to Q32's ADX-097 program decreased as the program was winding down, specifically CMC redevelopment costs decreased by $1.3 million, toxicology and other activities by $0.8 million, and Phase 1 clinical study costs by $0.8 million when compared to the previous year. Expenses related to Q32's bempikibart program decreased due to a reduction in toxicology cost of $2.2 million as the program substantially completed its six-month toxicology study in fiscal year 2022 and a reduction in regulatory costs of $0.3 million offset by an increase of $2.3 million in clinical spend. Q32 completed its Phase 1 clinical trial in the first half of 2022 and subsequently incurred start-up costs related to two planned Phase 2 trials, the first of which was initiated in October 2022, and the second in September 2023, which expenses increased as the Phase 2 trial advanced throughout 2023. Discovery and Other decreased $0.4 million due to the company focusing resources on moving the programs into the clinic.

The decrease in personnel-related and consultant costs were primarily related to a decrease in headcount and use of consultants. Personnel-related and consultant costs for the years ended December 31, 2023 and 2022 included stock-based compensation expense of $0.5 million and $0.4 million, respectively. The decrease in indirect research and development costs related to facility and other costs primarily associated with Q32 incurring additional facility and start-up costs associated with moving into a new office and lab facility during 2022.

General and Administrative Expenses

General and administrative expenses were $9.9 million for the year ended December 31, 2023, compared to $10.1 million for the year ended December 31, 2022. The decrease is due to lower recruiting costs and market research studies.

Change in Fair Value of Convertible Notes

Change in the fair value of the convertible notes was $6.2 million for the year ended December 31, 2023, compared to $2.4 million for the year ended December 31, 2022.

Other Income (Expense), Net

Other income (expense), net was $1.0 million for the year ended December 31, 2023, compared to an expense of $(1.1 million) for the year ended December 31, 2022. Other income (expense), net for the year ended December 31, 2023 is made up primarily of interest expense on Q32's venture debt of $0.5 million offset by interest income of $1.2 million. The increase in other income (expense), net is due to a higher average cash balance resulting in higher interest income in addition to higher yields for the year ended December 31, 2023.

Income taxes

Provision for income taxes was $0.3 million for the year ended December 31, 2023 compared to $62 thousand for the year ended December 31, 2022.

Since inception, Q32 has not recorded any U.S. federal or state income tax benefits for the net losses it has incurred in each year or for its earned research and development tax credits, due to its uncertainty of realizing a benefit from those items. As of December 31, 2023, Q32 had no gross unrecognized tax benefits. During 2022, it amended its prior year tax filings and settled an unrecognized tax benefit recorded in the prior year and primarily driven by transfer pricing reimbursement from the U.S. to Australia including interest and penalties which explains the year-over-year decrease in income tax expenses.

Liquidity and Capital Resources

Sources of Liquidity

Since its inception, Q32 has incurred significant operating losses and negative cash flows from operations. Q32 has not yet commercialized any of its product candidates, which are in various phases of preclinical and clinical development, and it does not expect to generate revenue from sales of any products for several years, if at all. To date, Q32 has funded its operations primarily from proceeds from the sales of its convertible preferred stock, convertible notes, venture debt, and proceeds from the Horizon Collaboration Agreement. From inception through December 31, 2023, Q32 raised $111.4 million in aggregate cash proceeds, net of issuance costs, from the sales of its Series A convertible preferred stock, Series A1 convertible preferred stock and Series B convertible preferred stock and received payments of $55.0 million in connection with its collaboration agreement with Horizon. Q32 also received $30.0 million from the sales of convertible notes and $5.5 million from its venture debt. As of December 31, 2023, Q32 had cash and cash equivalents of $25.6 million.

Going Concern

Q32 has incurred significant operating losses since inception and, as of December 31, 2023, had an accumulated deficit of $187.1 million. Q32 expects negative cash flows from operations and net losses for the foreseeable future as it continues to invest significantly in research and development of its product candidates and platform. Q32 has not yet commercialized any product and does not expect to generate revenue from sales of any products for several years, if at all.

As of December 31, 2023, the Company had cash and cash equivalents of $25.6 million. The Company expects that its cash and cash equivalents as of December 31, 2023, together with the proceeds from the issuance of additional shares of common stock in the Pre-Closing Financing for aggregate proceeds of $42.0 million and Homology's net cash and cash equivalents of $61.3 million on the closing date should be sufficient to fund its operations through mid-2026. Management based its projections of operating capital requirements on Q32's current operating plan, which includes several assumptions that may prove to be incorrect, and Q32 may use all of its available capital resources sooner than management expects. Q32 expects to seek to raise additional capital through private or public equity or debt financings, loans or other capital sources, which could include collaborations, partnerships or other marketing, distribution, licensing or other strategic arrangements with third parties, or from grants, and may be required to seek additional capital sooner than planned. However, there can be no assurances that Q32 will be able to raise additional capital from these sources on favorable terms, or at all.

Cash Flows

The following table summarizes the Q32's cash flows for the periods indicated:

	Years Ended December 31,	
	2023	2022
	(in thousands)	
Net cash used in operating activities	$(18,677)	$(10,957)
Net cash used in investing activities	(5)	(2,466)
Net cash flows provided by financing activities	406	30,069
Increase/(decrease) in cash, cash equivalents and restricted cash	$ (18,276)	$ 16,646

Operating Activities

Q32's cash flows from operating activities are greatly influenced by Q32's use of cash for operating expenses and working capital requirements to support Q32's business. Q32 has historically experienced negative cash flows from operating activities as Q32 invested in developing clinical programs, drug discovery efforts and related infrastructure.

For the year ended December 31, 2023, net cash used in operating activities of $18.7 million was primarily due to a net loss of $53.7 million partially offset by a change in net operating assets and liabilities of $26.3 million and net non-cash operating expenses of $8.7 million. The change in net operating assets and liabilities was primary attributable to an increase in a contingent liability, accounts payables, accrued expenses and other current liabilities, prepaid expenses and other current assets and other non-current assets of $52.6 million, partially offset by a decrease in deferred revenue and operating lease liability of $26.3 million. The non-cash operating expenses consisted of a $6.2 million change in fair value of convertible notes, stock-based compensation expense of $1.4 million, non-cash lease expenses of $0.5 million, and depreciation and amortization of $0.6 million.

During the year ended December 31, 2022, net cash used in operating activities of $11.0 million consisted of a net loss of $42.8 million, partially offset by a change in net operating assets and liabilities of $26.9 million and net non-cash operating expenses of $4.9 million. The change in net operating assets and liabilities was primarily attributable to an increase in prepaid expenses, accrued expenses and deferred revenue of $ 28.4 million, partially offset by a decrease in other current assets, accounts payable and operating lease liability of $1.5 million. The non-cash operating expenses consisted mainly of a $2.4 million change in fair value of convertible notes, stock-based compensation expense of $1.2 million, non-cash lease expenses of $0.8 million and depreciation and amortization expense of $0.5 million.

Investing Activities

For the years ended December 31, 2023 and 2022, net cash used in investing activities consisted of purchases for property and equipment.

Financing Activities

For the year ended December 31, 2023, net cash provided by financing activities consisted of $5.5 million of proceeds from the borrowings under a new loan and security agreement and $106 thousand of proceeds from the exercise of common stock options offset by payments of $5.2 million associated with the repayment of Q32's initial loan and security agreement.

For the year ended December 31, 2022, net cash provided by financing activities consisted of $30.0 million of proceeds from the issuance of Q32's convertible notes and $69 thousand of proceeds from the exercise of common stock options.

Pre-Closing Financing

In connection with the Merger Agreement, certain third parties have entered into the Q32 Pre-Closing Financing as described above under "—Recent Developments—Merger with Homology and the Pre-Closing Financing." On March 25, 2024 (the Closing Date), following approval by the stockholders of the Company and Homology, the Pre-Closing Financing closed immediately prior to the consummation of the Merger. Shares of the Company's common stock issued pursuant to the Pre-Closing Financing were converted into the right to receive 1,682,045 shares of Homology common stock after taking into account the Reverse Stock Split.

Future Funding Requirements

Management expects Q32's expenses to increase substantially in connection with its ongoing research and development activities, particularly as it advances the preclinical activities and clinical trials of its product candidates. In addition, upon the completion of the Merger, Q32 expects to incur additional costs associated with operating as a public company.

Because of the numerous risks and uncertainties associated with research, development and commercialization of product candidates, Q32 is unable to estimate the exact amount and timing of its capital requirements. Q32's future funding requirements will depend on many factors, including:

- the scope, timing, progress, results, and costs of researching and developing bempikibart and ADX-097, and conducting larger and later-stage clinical trials;
- the scope, timing, progress, results, and costs of researching and developing other product candidates that Q32 may pursue;
- the costs, timing, and outcome of regulatory review of Q32's product candidates;
- the costs of future activities, including product sales, medical affairs, marketing, manufacturing, and distribution, for any of Q32's product candidates for which it receives marketing approval;
- the costs of manufacturing commercial-grade products and sufficient inventory to support commercial launch;
- the revenue, if any, received from commercial sale of Q32's products, should any of product candidates receive marketing approval;
- the cost and timing of attracting, hiring, and retaining skilled personnel to support Q32's operations and continued growth;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing Q32's intellectual property rights and defending intellectual property-related claims;
- Q32's ability to establish, maintain, and derive value from collaborations, partnerships or other marketing, distribution, licensing, or other strategic arrangements with third parties on favorable terms, if at all;
- the extent to which Q32 acquires or in-licenses other product candidates and technologies, if any; and
- the costs associated with operating as a public company.

A change in the outcome of any of these or other factors with respect to the development of any of Q32's product candidates could significantly change the costs and timing associated with the development of that product candidate. Furthermore, Q32's operating plans may change in the future, and Q32 may need additional capital to meet the capital requirements associated with such operating plans.

Q32 believes that, based on its current operating plan, the net proceeds of the Q32 Pre-Closing Financing, together with the combined company's cash and cash equivalents will enable Q32 to fund its operating expenses and capital expenditure requirements into mid-2026. Management based its projections of operating capital requirements on Q32's current operating plan, which includes several assumptions that may prove to be incorrect, and Q32 may use all of its available capital resources sooner than management expects.

To complete the development of Q32's product candidates and to build the sales, marketing and distribution infrastructure that management believes will be necessary to commercialize product candidates, if approved, Q32 will require substantial additional capital. Accordingly, until such time that Q32 can generate a sufficient revenue from product sales or other sources, if ever, management expects to seek to raise any necessary additional capital through private or public equity or debt financings, loans or other capital sources, which could include income from collaborations, partnerships or other marketing, distribution, licensing or other strategic arrangements with

third parties, or from grants. To the extent that Q32 raises additional capital through equity financings or convertible debt securities, the ownership interest of its stockholders will be or could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of its common stockholders. Debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting Q32 ability to take specific actions, including restricting its operations and limiting its ability to incur liens, issue additional debt, pay dividends, repurchase its own common stock, make certain investments or engage in merger, consolidation, licensing, or asset sale transactions. If Q32 raises capital through collaborations, partnerships, and other similar arrangements with third parties, it may be required to grant rights to develop and market product candidates that Q32 would otherwise prefer to develop and market themselves. Q32 may be unable to raise additional capital from these sources on favorable terms, or at all. Q32's ability to raise additional capital may be adversely impacted by potential worsening global economic conditions and the recent disruptions to, and volatility in, the credit and financial markets in the United States and worldwide resulting from recent bank failures. The failure to obtain sufficient capital on acceptable terms when needed could have a material adverse effect on Q32's business, results of operations or financial condition, including requiring Q32 to delay, reduce or curtail its research, product development or future commercialization efforts. Q32 may also be required to license rights to product candidates at an earlier stage of development or on less favorable terms than Q32 would otherwise choose. Management cannot provide assurance that Q32 will ever generate positive cash flow from operating activities.

Contractual Obligations and Commitments

Lease Obligations

Q32 leases space under an operating lease for administrative offices and lab space in Waltham, Massachusetts, which expires in December 2031.

The following table summarizes Q32's contractual obligations and commitments as of December 31, 2023 (in thousands):

	Payments Due by Period			
	Total	1 to 3 years	3 to 5 years	More than 5 years
Operating lease obligation	**$9,150**	$ 3,181	$ 3,475	$ 2,494

Q32 has agreements with certain vendors for various services, including services related to preclinical and clinical operations and support, for which Q32 is not contractually able to terminate for convenience and avoid any and all future obligations to the vendors. Q32's most significant contracts relate to agreements with CROs for clinical trials and preclinical studies and CDMOs, which Q32 enters into in the normal course of business. Certain agreements provide for termination rights subject to termination fees or wind down costs. Under such agreements, Q32 is contractually obligated to make certain payments to vendors to reimburse them for their unrecoverable outlays incurred prior to cancellation. The exact amounts of such obligations are dependent on the timing of termination and the exact terms of the relevant agreement and cannot be reasonably estimated. Q32 does not include these payments in the table above as they are not fixed and estimable.

In addition, Q32 enters into standard indemnification agreements and/or indemnification sections in other agreements in the ordinary course of business. Pursuant to these agreements, Q32 agrees to indemnify, hold harmless and reimburse the indemnified party for losses suffered or incurred by the indemnified party, generally its business partners. The term of these indemnification agreements is generally perpetual upon execution of the agreement. The maximum potential amount of future payments Q32 could be required to make under these indemnification agreements cannot be reasonably estimated and therefore is not included in the table above.

Collaboration and License Agreements

ADX-097—License Agreement – The Regents of the University of Colorado

In August 2017, Q32 entered into an exclusive license agreement, as amended in February 2018, September 2018, and April 2019, or the Colorado License Agreement, with The Regents of the University of Colorado, or Colorado, pursuant to which Q32 obtained worldwide, royalty-bearing, sublicensable licenses under certain patents and know-how owned by Colorado and Medical University of South Carolina, or MUSC, relating to the research, development and commercialization of ADX-097. The licenses granted to Q32 are exclusive with respect to certain patent families and know-how and non-exclusive with certain other patent families and know-how. The licenses granted to Q32 are also subject to certain customary retained rights of Colorado and MUSC and rights of the United States government owing to federal funding giving rise to inventions covered by the licensed patents. Q32 agreed to use commercially reasonable efforts to develop, manufacture and commercialize ADX-097, including by using commercially reasonable efforts to achieve specified development and regulatory milestones by specified dates.

In addition, Q32 agreed to pay Colorado (i) development and sales milestone payments in an aggregate amount of up to $2.2 million per licensed product for the first three products, (ii) tiered royalty rates on cumulative net sales of licensed products in the low single digit percentages, (iii) 15% of sublicense income and (iv) ongoing fees associated with the prosecution, maintenance, or filing of the licensed patents. Q32's obligation to pay royalties to Colorado commences, on a licensed product-by-licensed product and country-by-country basis, from the first commercial sale of a licensed product in any country and expires on the later of (i) the last to expire valid claim within the licensed patents covering such licensed product in such country, and (ii) 20 years following the effective date of the Colorado License Agreement, or April 2037, or the Royalty Term.

Unless earlier terminated by either party pursuant to its terms, the Colorado License Agreement will expire upon the expiration of the Royalty Term in all countries. Q32 may terminate the Colorado License Agreement for convenience upon providing prior written notice to Colorado. Colorado may terminate the Colorado License Agreement or convert Q32's exclusive license to a non-exclusive license if Q32 breaches certain obligations under the Colorado License Agreement and fails to cure such breach. The Colorado License Agreement will terminate automatically upon Q32's dissolution, insolvency, or bankruptcy. Q32 has the right to terminate the agreement for any reason upon written notice, and therefore, this agreement has not been included in the discussion above.

Bempikibart—License Agreement – Bristol-Myers Squibb Company

In September 2019, Q32 entered into a license agreement, as amended in August 2021 and July 2022, or the BMS License Agreement, with Bristol-Myers Squibb Company, or BMS, pursuant to which Q32 obtained sublicensable licenses from BMS to research, develop and commercialize licensed products, including bempikibart, for any and all uses worldwide. The licenses granted to Q32 are exclusive with respect to BMS's patent rights and know-how relating to certain antibody fragments (including certain fragments of bempikibart) and non-exclusive with respect to BMS's patent rights and know-how relating to the composition of matter and use of a specific region of bempikibart. BMS retained the right for it and its affiliates to use the exclusively licensed patents and know-how for internal, preclinical research purposes. Under the BMS License Agreement, Q32 is prohibited from engaging in certain clinical development or commercialization of any antibody other than a licensed compound with the same mechanism of action until the earlier of the expiration of Q32's obligation to pay BMS royalties or September 2029.

In consideration for the license, Q32 made an upfront payment to BMS of $8 million, issued 6,628,788 Series A preferred shares to BMS and agreed to use commercially reasonable efforts to develop and commercialize at least one licensed product in key geographic markets. In addition, Q32 agreed to pay BMS (i) development and regulatory milestone payments in aggregate amounts ranging from $32 million to $49 million per indication for the first three indications and commercial milestone payments in an aggregate amount of up to $215 million on net sales of licensed products, (ii) tiered royalties ranging from rates in the mid-single digit percentages to up to 10% of net sales, with increasing rates depending on the cumulative net sales, (iii) up to 60% of sublicense income, which percentage decreases based on the development stage of bempikibart at the time of the sublicensing event, and (iv) ongoing fees associated with the prosecution, maintenance, or filing of the licensed patents.

Q32's obligation to pay BMS royalties under subsection (ii) above commences, on a licensed product-by-licensed product and country-by-country basis, on the first commercial sale of a licensed product in a country and expires on the later of (x) 12 years from the first commercial sale of such Licensed Product in such country, (y) the last to expire licensed patent right covering bempikibart or such licensed product in such country, and (z) the expiration or regulatory or marketing exclusivity for such licensed product in such country, or the Royalty Term). If Q32 undergoes a change of control prior to certain specified phase of development, the development and milestone payments are subject to increase by a low double digit percentage and the royalty rates are subject to increase by a low sub-single digit percentage.

Unless terminated earlier by either party pursuant to its terms, the BMS License Agreement will expire on a country-by-country and licensed product-by-licensed product basis upon the expiration of the last to expire Royalty Term with respect to such licensed product in such country. Either party may terminate the BMS License Agreement for the other party's material breach, subject to a specified notice and cure period. BMS may terminate the BMS License Agreement if Q32 fails to meet its diligence obligations under the BMS License Agreement, for Q32's insolvency, or if Q32 or its affiliates challenges the validity, scope, enforceability, or patentability of any of the licensed patents. Q32 may terminate the BMS License Agreement for any reason upon prior written notice to BMS, with a longer notice period if a licensed product has received regulatory approval. If the BMS Agreement is terminated for Q32's material breach, BMS will regain rights to bempikibart and Q32 must grant BMS an exclusive license under Q32's patent rights covering bempikibart, subject to a low single digit percentage royalty on net sales of bempikibart payable to Q32 by BMS. Q32 has the right to terminate the agreement for any reason upon written notice, and therefore, this agreement has not been included in the discussion above.

Bempikibart – Collaboration and Option Agreement, Asset Purchase Agreement and Termination Agreement – Horizon Therapeutics Ireland DAC)

From August 2022 until November 2023, Q32 was a party to the Collaboration and Option Agreement, or the Horizon Collaboration Agreement, and the Asset Purchase Agreement, or the Purchase Agreement, and together with the Horizon Collaboration Agreement, the Horizon Agreements, each with Horizon, pursuant to which Q32 received $55.0 million in initial consideration and staged development funding to complete two ongoing Phase 2 trials for bempikibart, and granted Horizon an option to acquire the bempikibart program at a prespecified price, subject to certain adjustments.

In October 2023, Amgen completed the acquisition of Horizon plc. Following its acquisition of Horizon plc, Q32 agreed with Amgen to mutually terminate the Horizon Agreements and in November 2023, Q32 and Horizon entered into a termination agreement, or the Horizon Termination Agreement, pursuant to which Horizon's option to acquire the bempikibart program was terminated. As a result, Q32 retained all initial consideration and development funding received under the Horizon Collaboration Agreement and regained full development and commercial rights to bempikibart. In consideration for the Horizon Termination Agreement, Q32 agreed to pay Horizon regulatory and sales milestones payments of up to an aggregate amount of $75.1 million upon the first achievement of certain regulatory and sales milestones with respect to bempikibart.

Critical Accounting Policies and Significant Judgments and Estimates

Management's discussion and analysis of its financial condition and results of operations is based on its consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported expenses incurred during the reporting periods. Management considers many factors in selecting appropriate financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these consolidated financial statements. Management must apply significant judgment in this process. In addition, other factors may affect estimates, including expected business and operational changes, sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes and management must select an amount that falls within that range of reasonable estimates. Actual results could materially differ from those estimates.

While Q32's significant accounting policies are described in more detail in the notes to its consolidated financial statements appearing elsewhere in this current Report on Form 8-K, management believes that the following accounting policies are those most critical to the judgments and estimates used in the preparation of Q32's consolidated financial statements.

Revenue Recognition

Under ASC Topic 606, Revenue from Contracts with Customers (Topic 606), an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of Topic 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price, including variable consideration, if any; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. Q32 only applies the five-step model to contracts when it is probable that the entity will collect the consideration to which it is entitled in exchange for the goods or services it transfers to the customer.

Once a contract is determined to be within the scope of Topic 606, Q32 assesses the goods or services promised within each contract and determines those that are performance obligations.

Arrangements that include rights to additional goods or services that are exercisable at a customer's discretion are generally considered options. Q32 assesses if these options provide a material right to the customer and if so, they are considered performance obligations. The identification of material rights requires judgments related to the determination of the value of the underlying good or service relative to the option exercise price. The exercise of a material right is accounted for as a contract modification for accounting purposes.

Q32 assesses whether each promised good or service is distinct for the purpose of identifying the performance obligations in the contract. This assessment involves subjective determinations and requires management to make judgments about the individual promised goods or services and whether such are separable from the other aspects of the contractual relationship. Promised goods and services are considered distinct provided that: (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer (that is, the good or service is capable of being distinct) and (ii) the entity's promise to transfer

the good or service to the customer is separately identifiable from other promises in the contract (that is, the promise to transfer the good or service is distinct within the context of the contract). In assessing whether a promised good or service is distinct, Q32 considers factors such as the license terms, the research, manufacturing and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. Q32 also considers the intended benefit of the contract in assessing whether a promised good or service is separately identifiable from other promises in the contract. If a promised good or service is not distinct, an entity is required to combine that good or service with other promised goods or services until it identifies a bundle of goods or services that is distinct.

The transaction price is determined and allocated to the identified performance obligations in proportion to their stand-alone selling prices (SSP) on a relative SSP basis. SSP is determined at contract inception and is not updated to reflect changes between contract inception and when the performance obligations are satisfied. Determining the SSP for performance obligations requires significant judgment. In developing the SSP for a performance obligation, Q32 considers applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs. Q32 validates the SSP for performance obligations by evaluating whether changes in the key assumptions used to determine the SSP will have a significant effect on the allocation of arrangement consideration between multiple performance obligations.

If the consideration promised in a contract includes a variable amount, Q32 estimates the amount of consideration to which it will be entitled in exchange for transferring the promised goods or services to a customer. Q32 determines the amount of variable consideration by using the expected value method or the most likely amount method. The amount of variable consideration included in the transaction price is constrained to the amount for which it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty related to the variable consideration is resolved. At the end of each subsequent reporting period, Q32 re-evaluates the estimated variable consideration included in the transaction price and any related constraint, and if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis in the period of adjustment.

If an arrangement includes development and regulatory milestone payments, Q32 evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within Q32's control or the licensee's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received.

For arrangements with licenses of intellectual property that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, Q32 recognizes royalty revenue and sales-based milestones at the later of (i) when the related sales occur, or (ii) when the performance obligation to which the royalty has been allocated has been satisfied.

In determining the transaction price, Q32 adjusts consideration for the effects of the time value of money if the timing of payments provides Q32 with a significant benefit of financing. Q32 does not assess whether a contract has a significant financing component if the expectation at contract inception is such that the period between payment by the licensees and the transfer of the promised goods or services to the licensees will be one year or less.

Q32 recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) each performance obligation is satisfied, either at a point in time or over time, and if over time recognition is based on the use of an output or input method.

Research and Development Expenses and Related Accrued and Prepaid Expenses

Research and development costs are expensed as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities, including salaries, stock-based compensation and benefits, costs for clinical research organizations, manufacturing expenses and costs of other outside vendors and other outsourced activities; laboratory supplies; technology licenses, software and other information technology support; facilities and depreciation.

Upfront payments and milestone payments made for the licensing of technology are expensed as research and development expenses in the period in which they are incurred. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. The prepaid amounts are expensed as the related goods are delivered or the services are performed.

As part of the process of preparing Q32's consolidated financial statements, management is required to estimate its accrued research and development expenses. This process involves reviewing open contracts and purchase orders, communicating with its personnel to identify services that have been performed on its behalf and estimating the level of service performed and the associated costs incurred for the services when Q32 has not yet been invoiced or otherwise notified of the actual costs. The majority of its service providers invoice Q32 in arrears for services performed, on a pre-determined schedule or when contractual milestones are met; however, some require advanced payments. Management makes estimates of its prepaid and accrued expenses as of each balance sheet date in its financial statements based on facts and circumstances known to Q32 at that time. Management periodically confirms the accuracy of the estimates with the service providers and make adjustments if necessary. Examples of estimated prepaid and accrued research and development expenses include fees paid to:

- CROs and investigative sites in connection with performing research services, preclinical studies and clinical trials;
- vendors, including research laboratories, in connection with preclinical and clinical development activities; and
- vendors, including CDMOs, related to product manufacturing, development and distribution of preclinical studies and clinical trial materials.

Management bases the expense recorded related to contract research and manufacturing on its estimates of the services received and efforts expended pursuant to quotes and contracts with multiple CDMOs and CROs that supply materials and conduct services. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to its vendors will exceed the level of services provided and result in a prepayment of the expense. In accruing service fees, management estimates the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, management adjusts the accrual or prepaid expense accordingly. Although Q32 does not expect its estimates to be materially different from amounts actually incurred, its understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in reporting amounts that are too high or too low in any particular period.

Convertible Notes

Q32 accounts for all Convertible Notes issued under the fair value option election of ASC 825, *Financial Instruments* (ASC 825). The financial instrument is initially measured at its issue-date estimated fair value and then subsequently remeasured at estimated fair value on a recurring basis at each reporting period date. The estimated fair value adjustment is recognized within other income (expense) in the accompanying consolidated statements of operations and the portion of the fair value adjustment attributed to a change in the instrument-specific credit risk is recognized as a component of other comprehensive loss, if any. The fair value is based on significant inputs not observable in the market, namely potential financing scenarios, the likelihood of such scenarios, the expected time for each scenario to occur, and the required market rates of return utilized in modeling these scenarios. Q32 recorded $6.2 million and $2.4 million loss related to the change in fair value of the Convertible Notes for the years ended December 31, 2023 and 2022, respectively.

Stock-Based Compensation Expense

Q32 accounts for stock-based awards in accordance with ASC Topic 718, Compensation – Stock Compensation (ASC 718). ASC 718 requires all stock-based awards issued to employees and members of Q32's board of directors (the "Board") for their services to be recognized as expense in the statements of operations based on their grant date fair values. Q32 uses the value of its common stock to determine the fair value of its stock-based awards. For stock options and time-based restricted stock awards, Q32 expenses the fair value of the awards on a straight-line basis over each award's service period, which is generally the period in which the related services are received. For performance-based stock awards, Q32 uses the accelerated attribution method to expense the awards over the implicit service period based on the probability of achieving the performance conditions. Q32 accounts for stock-based awards to non-employees consistently with the accounting for awards to employees and measures stock-based awards granted to non-employees based on their grant date fair value and recognizes the resulting value as stock-based compensation expense during the period the related services are rendered. Q32 accounts for forfeitures as they occur.

Fair Value of Stock-Based Awards

Q32 determines the fair value of restricted stock awards in reference to the fair value of its common stock less any applicable purchase price. Management estimates the fair value of Q32's stock options granted with service-based conditions using the Black-Scholes option pricing model, which requires inputs of subjective assumptions, including: (i) the expected volatility of our common stock, (ii) the expected term of the award, (iii) the risk-free interest rate, (iv) expected dividends and (v) the fair value of its common stock. Due to the lack of a public market for the trading of our common stock and a lack of company-specific historical and implied volatility data, management bases the estimate of expected volatility on the historical volatilities of a representative group of publicly traded guideline companies. For these analyses, it selects companies with comparable characteristics and with historical share price information that approximates the expected term of the stock-based awards. Management computes the historical volatility data using the daily closing

prices for the selected companies' shares during the equivalent period that approximates the calculated expected term of its stock options. Management will continue to apply this method until a sufficient amount of historical information regarding the volatility of its own stock price becomes available. Q32 estimates the expected term of its stock options granted to employees and directors using the simplified method, whereby the expected term equals the average of the vesting term and the original contractual term of the option. It utilizes this method as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. The expected dividend yield is assumed to be zero as Q32 has no current plans to pay any dividends on common stock. Q32 has elected to use the expected term for stock options granted to non-employees, using the simplified method, as the basis for the expected term assumption. However, Q32 may elect to use either the contractual term or the expected term for stock options granted to non-employees on an award-by-award basis.

Determination of the Fair Value of Common Stock

Given the absence of an active market for its common stock, the fair values of the shares of common stock underlying Q32's stock-based awards were determined on each grant date by the Board with input from management, considering its most recently available third-party valuations of its common stock and the Board's assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the grant date. Historically, these independent third-party valuations of its equity instruments were performed contemporaneously with identified value inflection points. The third-party valuations were prepared in accordance with the framework of the American Institute of Certified Public Accountants' Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, or the Practice Aid. The Practice Aid identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each valuation date.

In addition to considering the results of these third-party valuations, the Board considered various objective and subjective factors to determine the fair value of Q32's equity instruments as of each grant date, which may be later than the most recently available third-party valuation date, including:

- the lack of liquidity of its equity as a private company;
- the prices of its convertible preferred stock sold to outside investors in arm's length transactions and the rights, preferences and privileges of its convertible preferred stock as compared to those of its common stock, including the liquidation preferences of its convertible preferred stock;
- the progress of its research and development efforts, including the status of preclinical studies and clinical trials for its product candidates;
- its stage of development and business strategy and the material risks related to its business and industry;
- the achievement of enterprise milestones, including entering into strategic collaborative and license agreements;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- any external market conditions affecting the biotechnology industry and trends within the biotechnology industry;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of Q32, given prevailing market conditions; and
- the analysis of initial public offerings and the market performance of similar companies in the biotechnology industry.

For financial statement purposes, management performed common stock valuations at various dates, which resulted in valuation of its common stock of $0.90 per share as of December 31, 2023, $0.82 per share as of October 27, 2023, $0.81 per share as of September 15, 2023, $0.36 per share as of September 30, 2022, and $0.35 per share as of December 27, 2021. There are significant judgments and estimates inherent in these valuations. These judgments and estimates include assumptions regarding its future operating performance, the stage of development of our product candidates, the timing and probability of a potential initial public offering or other liquidity event and the determination of the appropriate valuation methodology at each valuation date. The assumptions underlying these valuations represent management's best estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors or expected outcomes change and management uses significantly different assumptions or estimates, its stock-based compensation expense could be materially different.

Once a public trading market for its common stock has been established in connection with the completion of the merger, it will no longer be necessary for the Board to estimate the fair value of its common stock in connection with its accounting for granted stock options and restricted stock awards, as the fair value of its common stock will be determined based on the trading price of its common stock on Nasdaq.

Valuation Methodologies

Q32 used a hybrid of the probability-weighted expected returns method, or PWERM, and the Option Pricing Method, or OPM, when allocating enterprise value to classes of securities.

Under the PWERM, the value of an enterprise, and its underlying common stock are estimated based on an analysis of future values for the enterprise, assuming various outcomes. The value of the common stock is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes and the rights of each class of equity. The future values of the common stock under the various outcomes are discounted back to the valuation date at an appropriate risk-adjusted discount rate and then probability weighted to determine the value for the common stock.

The OPM treats common stock and preferred stock as call options on the enterprise's equity value, with exercise prices based on the liquidation preferences of the preferred stock. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the liquidation preferences at the time of a liquidity event. The Black-Scholes option pricing model is used to price the call option, and the model includes assumptions for the time to liquidity and the volatility of equity value.

The hybrid method is a blend of the PWERM and OPM, estimating the probability-weighted value across multiple scenarios and then using the OPM to estimate the allocation of value within one or more of those scenarios. When using the hybrid method, Q32 assumed three scenarios: an early initial public offering, or IPO, scenario, a late IPO scenario and a remain-private scenario. The IPO scenarios reflect an exit or liquidity event by means of a sale of common stock to the public where the estimated IPO price is based, in part, on a review of recent IPO information of comparable public companies at a similar stage to us at the time of their IPO. The comparable IPO companies considered for these scenarios consisted of biopharmaceutical companies at various stages of development ranging from discovery stage to completion of early-stage clinical trials. Additional comparable IPO companies at similar product development stages in the broader biopharmaceutical industry were also considered. We converted the estimated future value in an IPO to present value using a risk-adjusted discount rate. The equity value for the remain-private scenario was estimated using the discounted cash flow method or by back-solving to the price of recently issued preferred stock. In the remain-private scenario, value is allocated to our equity securities using the OPM. In the OPM, volatility is estimated based on the trading histories of selected guideline public companies. The relative probability of each scenario was determined based on an assessment of then-current market conditions and our expectations as to timing and prospects of an IPO.

Recently Issued and Adopted Accounting Pronouncements

A description of recently issued and certain recently adopted accounting pronouncements that have or may potentially impact Q32's financial position and results of operations is included in Note 2 to Q32's audited consolidated financial statements appearing elsewhere in this Current Report on Form 8-K.

Quantitative and Qualitative Disclosures About Market Risk

As of December 31, 2023 and 2022, Q32 had cash, cash equivalents, restricted cash, and restricted cash equivalents of $31.3 million, $49.5 million, respectively, which consisted of cash and money market funds. Interest income is sensitive to changes in the general level of interest rates; however, due to the nature of these investments, an immediate 10% change in market interest rates would not have a material effect on the fair market value of Q32's cash or cash equivalents.

All of Q32's employees and operations are currently located in the United States. Q32 has, from time to time, engaged in contracts with contractors or other vendors in a currency other than the U.S. dollar. To date, Q32 has had minimal exposure to fluctuations in foreign currency exchange rates as the time period between the date that transactions are initiated, and the date of payment or receipt of payment is generally of short duration. Accordingly, Q32 believes it does not have a material exposure to foreign currency risk.

Inflation generally affects Q32 by increasing its cost of labor. Q32 does not believe that inflation had a material effect on its business, financial condition or results of operations during the years ended December 31, 2023 or 2022.

Exhibit 99.5

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Years ended December 31, 2023 and 2022

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Q32 Bio Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Q32 Bio, Inc. (the Company) as of December 31, 2023 and 2022, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows for each of the two years in the period ended December 31, 2023, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accrued and Prepaid Research and Development Expenses

Description of the Matter	The Company's accrued external research and development expenses totaled $3.6 million at December 31, 2023. In addition, the Company's current and noncurrent prepaid external research and development expenses were $1.8 million and $0.7 million, respectively. As discussed in Note 2 to the consolidated financial statements, the Company analyzes the progress of the research activities, including the phase or completion of events, invoices received and contracted costs. Significant judgments and estimates are made in determining the accrued and prepaid balances at the end of any reporting period for the Company's clinical and pre-clinical trials costs, and costs to manufacture its product candidates. The Company is required to estimate such accruals and prepaids using judgment based on certain information, including actual costs incurred or level of effort expended, as reported to the Company by its vendors. Payments for such activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred. Auditing the Company's accrued and prepaid research and development expenses was complex, as accounting for the costs associated with the clinical and pre-clinical trials, and costs to manufacture its product candidates, requires subjective estimates of the level of services performed and the associated costs incurred by multiple service providers that perform service on the Company's behalf. In addition, while the Company's estimates of accrued and prepaid research and development expenses are primarily based on information received related to each contract from its vendors, the Company may need to make an estimate based on its evaluation of the status of the related services since the actual amounts incurred are not typically known at the time the consolidated financial statements are issued.
How We Addressed the Matter in Our Audit	To evaluate the accrued and prepaid research and development expenses, our audit procedures included, among others, testing the accuracy and completeness of the underlying data used in the estimates and evaluating the significant judgments and estimates made by management to determine the recorded accruals and prepayments. To test the significant judgments and estimates, we discussed the progress of research and development activities with the Company's research and development personnel that oversee the research and development projects and inspected the Company's contracts with vendors and pending change orders to assess the impact on amounts recorded. In addition, we reviewed information received by the Company directly from certain vendors, which indicated the vendors' estimate of costs incurred to date. We also analyzed fluctuations in prepaids and accruals by vendor and by trial throughout the period subject to audit and tested subsequent invoices received from vendors.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2020.

Boston, Massachusetts
March 26, 2024

Q32 BIO INC.
CONSOLIDATED BALANCE SHEETS
(amounts in thousands, except share and per share data)

	December 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	**$ 25,617**	$ 43,893
Prepaid expenses and other current assets	**3,099**	2,960
Total current assets	**28,716**	46,853
Property and equipment, net	**1,782**	2,276
Right-of-use asset, operating leases	**6,301**	6,890
Restricted cash and restricted cash equivalents	**5,647**	5,647
Other noncurrent assets	**4,611**	108
Total assets	**$ 47,057**	$ 61,774
Liabilities, convertible preferred stock and stockholders' deficit		
Current liabilities:		
Accounts payable	**$ 3,468**	$ 1,435
Accrued expenses and other current liabilities	**9,763**	9,497
Venture debt, current portion	**878**	—
Convertible notes	**—**	32,402
Deferred revenue, current portion	**—**	14,531
Total current liabilities	**14,109**	57,865
Deferred revenue, net of current portion	**—**	11,318
Lease liability, net of current portion	**6,248**	6,786
Venture debt, net of current portion	**4,581**	5,072
Convertible notes	**38,595**	—
Other noncurrent liabilities	**55,000**	—
Total liabilities	**118,533**	81,041
Commitments and contingencies (Note 7)		
Series A convertible preferred stock, $0.0001 par value, 47,628,788 shares authorized, issued and outstanding as of December 31, 2023 and 2022 (liquidation preference of $47,629 at December 31, 2023)	**47,458**	47,458
Series A-1 convertible preferred stock, $0.0001 par value, 6,500,000 shares authorized, issued and outstanding at December 31, 2023 and 2022 (liquidation preference of $5,753 as of December 31, 2023)	**4,132**	4,132
Series B convertible preferred stock, $0.0001 par value, 54,689,627 shares authorized, issued and outstanding at December 31, 2023 and 2022 (liquidation preference of $60,000 as of December 31, 2023)	**59,855**	59,855
Total convertible preferred stock	**111,445**	111,445
Stockholders' deficit:		
Common stock, $0.0001 par value; 225,000,000 and 141,900,000 shares authorized, 7,472,835 and 7,139,216 shares issued and outstanding at December 31, 2023 and 2022, respectively	**1**	1
Additional paid-in capital	**4,159**	2,625
Accumulated deficit	**(187,081)**	(133,338)
Total stockholders' deficit	**(182,921)**	(130,712)
Total liabilities, convertible preferred stock and stockholders' deficit	**$ 47,057**	$ 61,774

The accompanying notes are an integral part of these consolidated financial statements.

Q32 BIO INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(amounts in thousands, except share and per share data)

	Year Ended December 31,	
	2023	**2022**
Collaboration arrangement revenue	**$ (6,651)**	$ 6,651
Operating expenses:		
Research and development	**31,729**	35,814
General and administrative	**9,875**	10,062
Total operating expenses	**41,604**	45,876
Loss from operations	**(48,255)**	(39,225)
Change in fair value of convertible notes	**(6,193)**	(2,402)
Other income (expense), net	**1,023**	(1,120)
Total other income (expense), net	**(5,170)**	(3,522)
Loss before provision for income taxes	**(53,425)**	(42,747)
Provision for income taxes	**(318)**	(62)
Net loss and comprehensive loss	**$ (53,743)**	$ (42,809)
Net loss attributable to common stockholders—basic and diluted	**(53,743)**	(42,809)
Weighted-average common shares—basic and diluted	**7,253,978**	7,025,420
Net loss per share attributable to common stockholders—basic and diluted	**$ (7.41)**	$ (6.09)

The accompanying notes are an integral part of these consolidated financial statements.

Q32 BIO INC.
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT
(amounts in thousands, except share data)

	Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Common Stock		Additional Paid in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance as of December 31, 2021	47,628,788	$47,458	6,500,000	$ 4,132	54,689,627	$59,855	6,828,125	$ 1	$ 1,318	$ (90,529)	$ (89,210)
Exercise of stock options	—	—	—	—	—	—	307,859	—	69	—	69
Vesting of restricted stock	—	—	—	—	—	—	3,232	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—	—	—	1,238	—	1,238
Net loss	—	—	—	—	—	—	—	—	—	(42,809)	(42,809)
Balance as of December 31, 2022	47,628,788	47,458	6,500,000	4,132	54,689,627	59,855	7,139,216	1	2,625	(133,338)	(130,712)
Exercise of stock options	—	—	—	—	—	—	**333,619**	—	**106**	**—**	**106**
Stock-based compensation expense	—	—	—	—	—	—	—	—	**1,428**	**—**	**1,428**
Net loss	—	—	—	—	—	—	—	—	—	**(53,743)**	**(53,743)**
Balance as of December 31, 2023	**47,628,788**	**$47,458**	**6,500,000**	**$ 4,132**	**54,689,627**	**$59,855**	**7,472,835**	**$ 1**	**$ 4,159**	**$ (187,081)**	**$ (182,921)**

The accompanying notes are an integral part of these consolidated financial statements.

Q32 BIO INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(amounts in thousands)

	Year Ended December 31,	
	2023	**2022**
Cash flows from operating activities:		
Net loss	**$(53,743)**	$(42,809)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of debt discount and issuance costs	**87**	100
Depreciation expense	**499**	370
Loss on disposal of property and equipment	**—**	23
Stock-based compensation expense	**1,428**	1,238
Non-cash lease expense	**544**	776
Change in fair value of convertible notes	**6,193**	2,402
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	**(94)**	(1,209)
Other noncurrent assets	**(4,503)**	195
Accounts payable	**2,033**	(1,241)
Operating lease liability	**(471)**	(409)
Accrued expenses and other current liabilities	**199**	3,758
Contingent liability	**55,000**	—
Deferred revenue	**(25,849)**	25,849
Net cash used in operating activities	**(18,677)**	(10,957)
Cash flows from investing activities:		
Purchases of property and equipment	**(5)**	(2,485)
Proceeds from sale of property and equipment	**—**	19
Net cash used in investing activities	**(5)**	(2,466)
Cash flows from financing activities:		
Proceeds from borrowings under loan and security agreement, net	**5,500**	—
Payments on borrowings under loan and security agreement, net	**(5,200)**	—
Proceeds from exercise of common stock options	**106**	69
Proceeds from issuance of convertible debt	**—**	30,000
Net cash provided by financing activities	**406**	30,069
Net increase (decrease) in cash, cash equivalents, restricted cash and restricted cash equivalents	**(18,276)**	16,646
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of period	**49,540**	32,894
Cash, cash equivalents, restricted cash and restricted cash equivalents at end of period	**$ 31,264**	$ 49,540
Supplemental disclosure of non-cash operating, investing and financing activities:		
Interest payments on venture debt	**$ 422**	$ 229
Right-of-use asset obtained in exchange for new operating lease liability	**$ —**	$ 7,666

The accompanying notes are an integral part of these consolidated financial statements.

1. Nature of the Business

Q32 Bio Inc. (the Q32 or Company) was formed on April 10, 2017 as Admirx, Inc. under the laws of the state of Delaware and is headquartered in Waltham, Massachusetts. On March 20, 2020, the Company changed its name to Q32 Bio Inc. The Company aims to bring safer, more efficacious therapeutics to patients suffering from a wide range of devastating autoimmune and inflammatory diseases, starting with those rooted in the complement system and interleukin-7 (IL-7) signaling pathways.

Since its inception, the Company's operations have been focused on organizing and staffing, business planning, raising capital, establishing the Company's intellectual property portfolio and performing research and development of its product candidates, programs and platform. The Company has primarily funded its operations with proceeds from the sale of convertible preferred stock, convertible notes, venture debt and its collaboration arrangement.

Risks and Uncertainties

The Company is subject to risks and uncertainties common to early-stage companies in the biotechnology industry, including but not limited to, risks associated with completing preclinical studies and clinical trials, obtaining regulatory approvals for product candidates, development by competitors of new biopharmaceutical products, dependence on key personnel, protection of proprietary technology, compliance with government regulations and the ability to secure additional capital to fund operations. Programs currently under development will require significant additional research and development efforts, including preclinical and clinical testing, and will need to obtain regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will realize revenue from product sales.

Merger with Homology

On November 16, 2023, the Company entered into an Agreement and Plan of Merger and Reorganization (the Merger Agreement) with Homology and Kenobi Merger Sub, Inc., a wholly owned subsidiary of Homology (Merger Sub). The Merger was completed on March 25, 2024. Pursuant to the Merger Agreement, Merger Sub merged with and into the Company, with the Company continuing as the surviving company and as a wholly owned subsidiary of Homology (the Merger). Homology changed its name to Q32 Bio, Inc., and the Company which remains as a wholly-owned subsidiary of Q32, changed its name to Q32 Bio Operations, Inc. On March 26, 2024, the combined company's common stock began trading on the Nasdaq Capital Market under the ticker symbol "QTTB". The business of the Company will continue as the business of the combined company. The Merger is intended to qualify for federal income tax purposes as a tax-free reorganization under the provisions of Section 368(a) of the Internal Revenue Code of 1986, as amended. In connection with the Merger Agreement, certain parties entered into a subscription agreement with the Company to purchase shares of the Company's common stock for an aggregate purchase price of $42.0 million (the Pre-Closing Financing).

On March 25, 2024 (the Closing Date), following approval by the stockholders of the Company and Homology, the Pre-Closing Financing closed immediately prior to the consummation of the Merger. Shares of the Company's common stock issued pursuant to the Pre-Closing Financing were converted into the right to receive 1,682,045 shares of Homology common stock after taking into account the Reverse Stock Split. On March 25, 2024, in connection with, and prior to the completion of the Merger, Homology effected a one-for-eighteen reverse stock split of its then outstanding common stock. Subject to the terms and conditions of the Merger Agreement, at the effective time of the Merger (the "Effective Time") which was March 25, 2024, all issued and outstanding shares of the Company's common stock (including common stock issued upon the conversion of all the Company's Series A, Series A-1 and Series B preferred stock, conversion of Q32 convertible notes, but excluding the common stock issued in Pre-Closing Financing) converted into the right to receive 7,017,842 shares of Homology's common stock calculated in accordance with the exchange ratio at the Effective Time. Lastly, each option to purchase the Company's shares that was outstanding and unexercised immediately prior to the Effective Time was converted into an option to purchase shares of Homology based on the Exchange Ratio. Immediately following the merger, stockholders of the Company owned approximately 74.4% of the outstanding common stock of the combined company.

The Merger will be accounted for as a reverse recapitalization in accordance with U.S. GAAP. For accounting purposes, the Company is the accounting acquirer and Homology is the acquired company based on the terms of the Merger agreement and other factors, including: (i) the Company's shareholders own a majority of the voting rights in the combined company; (ii) the Company designated a majority (seven of nine) of the initial members of the board of directors of the combined company; (iii) the Company's executive management team became the management of the combined company; (iv) the pre-combination assets of Homology were primarily cash and cash equivalents, short-term investments, and other non-operating assets (the in-process research and development assets potentially remaining as of the combination are de minimis value); and (v) the combined company was named Q32 Bio, Inc. and is

headquartered in the Company's office in Waltham, Massachusetts. Accordingly, the merger was treated as the equivalent of the Company's issuing stock to acquire the net assets of Homology. As a result of the merger, the net assets of Homology will be recorded at their acquisition-date fair value in the financial statements of the combined company and the reported operating results prior to the merger will be those of the Company.

At the Effective Time, each person who as of immediately prior to the Effective Time was a stockholder of record of Homology or had the right to receive Homology's common stock will be entitled to receive a contractual contingent value right (CVR) issued by Homology subject to and in accordance with the terms and conditions of a Contingent Value Rights Agreement between Homology and the rights agent (the CVR Agreement), representing the contractual right to receive cash payments from the combined company upon the receipt of certain proceeds from a disposition of Homology's pre-merger assets, calculated in accordance with the CVR Agreement.

Liquidity and Going Concern

In accordance with the Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2014-15, *Disclosure of Uncertainties about an Entity's ability to Continue as a Going Concern (Subtopic 205-40)*, the Company has evaluated whether they are conditions and events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the consolidated financial statements are issued.

The Company has incurred recurring losses since its inception, including a net loss of $53.7 million for the year ended December 31, 2023. In addition, as of December 31, 2023, the Company had an accumulated deficit of $187.1 million. To date, the Company has funded its net losses principally through the sale of preferred stock, convertible notes, debt, and proceeds from a collaboration arrangement. The Company expects its operating losses and negative operating cash flows to continue into the foreseeable future.

The Company expects that its cash and cash equivalents as of December 31, 2023 of $25.6 million, together with the proceeds from the issuance of additional shares of common stock in the Pre-Closing Financing for aggregate proceeds of $42.0 million and Homology's net cash and cash equivalents of $61.3 million on the closing date will be sufficient to fund its operating expenditures and capital expenditure requirements necessary to advance its research efforts and clinical trials for at least one year from the date of issuance of these consolidated financial statements. The future viability of the Company is dependent on its ability to raise additional capital to finance its operations. The Company's inability to raise capital as and when needed could have a negative impact on its financial condition and ability to pursue its business strategies. There can be no assurance that the current operating plan will be achieved or that additional funding will be available on terms acceptable to the Company, or at all.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the ASC and Accounting Standards Update (ASU) of the FASB.

Principles of Consolidation

The accompanying consolidated financial statements include those of the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts in the financial statements and accompanying notes. Actual results could materially differ from those estimates. Management considers many factors in selecting appropriate financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these consolidated financial statements. Management must apply significant judgment in this process. In addition, other factors may affect estimates, including expected business and operational changes, sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes and management must select an amount that falls within that range of reasonable estimates. Significant estimates and assumptions reflected in these consolidated financial statements include, but are not limited to, the valuation of common stock awards, the valuation of convertible notes, the accruals of research and development expenses, the identification of material rights and estimation of standalone selling price for the identified performance obligations in the collaboration agreement and the inputs and assumptions to the over-time recognition of revenue under the collaboration agreement. Estimates are periodically reviewed considering changes in circumstances, facts and historical experience. Actual results may differ from the Company's estimates.

Segment Information

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision-making group, in making decisions on how to allocate resources and assess performance. The Company's chief operating decision maker is the chief executive officer (CEO). The Company and the CEO view the Company's operations and manage its business as one operating segment. All material long-lived assets of the Company reside in the United States.

Foreign Currency Transactions

The Company's functional currency is the United States dollar. Foreign currency transaction gains and losses are recorded in the statement of operations and comprehensive loss.

Concentrations of Credit Risk and Significant Suppliers

Financial instruments that potentially expose the Company to credit risk primarily consist of cash, cash equivalents, restricted cash and restricted cash equivalents. The Company maintains its cash, cash equivalents, restricted cash and restricted cash equivalents balances with accredited financial institutions and, consequently, the Company does not believe it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

The Company's cash management limits investment to investment-grade securities with the objective to preserve capital and to maintain liquidity until the funds can be used in business operations. The Company maintains its cash in bank deposit accounts that are Federal Deposit Insurance Corporation (FDIC) insured up to $250,000. At times, the Company's bank accounts may exceed the federal insurance limit.

The Company is dependent on contract development and manufacturing organizations (CDMOs) to supply products for research and development activities in its programs. In particular, the Company relies and expects to continue to rely on a small number of manufacturers to supply it with its requirements for the active pharmaceutical ingredients, other raw materials and formulated drugs related to these programs. These programs could be adversely affected by a significant interruption in the supply of active pharmaceutical ingredients, other raw materials and formulated drugs. The Company is also dependent on contract research organization (CROs) which provide services related to the research and development activities in its programs.

Off-Balance Sheet Risk

As of December 31, 2023 and 2022, the Company had no off-balance-sheet risk such as foreign exchange contracts, option contracts or other foreign hedging arrangements.

Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

Level 1 – Quoted prices in active markets for identical assets or liabilities.

Level 2 – Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the respective assets. Major additions and betterments are capitalized; maintenance and repairs, which do not improve or extend the life of the respective assets, are charged to operations as incurred. Upon retirement or sale, the cost and related accumulated depreciation of assets disposed of are removed from the accounts and any resulting gain or loss is included in loss from operations.

	Estimated Useful Life (Years)
Lab equipment	5
Furniture and fixtures	3
Computer equipment	3
Leasehold improvements	Shorter of useful life or term of associated lease

Leases

The Company evaluates whether an arrangement is or contains a lease at contract inception. If a contract is or contains a lease, lease classification is determined at lease commencement, which represents the date at which the underlying asset is made available for use by the Company. The Company's lease terms are generally measured at the respective lease's noncancelable term and exclude any optional extension terms as the Company is not reasonably certain to exercise such options. The Company elected the short-term lease exemption and therefore does not recognize lease liabilities and right of use assets for lease arrangements with the original lease terms of twelve months or less.

Lease liabilities represent the Company's obligation to make lease payments under a lease arrangement. Lease liabilities are measured as the present value of fixed lease payments, discounted using an incremental borrowing rate, as interest rates implicit in the Company's lease arrangements are generally not readily determinable. The Company elected the practical expedient to not separate lease and non-lease components for its real estate leases and therefore both are considered when determining the lease payments in a lease arrangement. Variable lease costs are expensed as incurred.

The incremental borrowing rate represents the interest rate at which the Company could borrow a fully collateralized amount equal to the lease payments, over a similar term, in a similar economic environment. The Company determines the incremental borrowing rate at lease commencement, generally using a synthetic credit rating based on the Company's financial position and negative cash flows, factoring in adjustments for additional risks based on the Company's economic condition, a survey of comparable companies with similar credit and financial profiles, as well as additional market risks, as may be applicable.

Right-of-use assets represent the Company's right to use an underlying asset over its lease term. Right-of-use assets are initially measured as the associated lease liability, adjusted for prepaid rent and tenant incentives. The Company remeasures right-of-use assets and lease liabilities when a lease is modified, and the modification is not accounted for as a separate contract. A modification is accounted for as a separate contract if the modification grants the Company an additional right of use not included in the original lease agreement and the increase in lease payments is commensurate with the additional right of use. The Company assesses its right-of-use assets for impairment consistent with its policy for impairment of long-lived assets held and used in operations.

Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents

The Company considers all highly liquid investments that are readily convertible into cash with maturities of three months or less at the date of purchase to be cash equivalents. The Company maintains its cash in bank deposits accounts that are FDIC insured up the $250,000. At times, the Company's bank accounts may exceed the federal insurance limits. Cash equivalents are comprised of money market accounts invested in U.S. Treasury securities.

Restricted cash and restricted cash equivalents are comprised of deposits held by financial institutions as collateral for the company's venture debt and used to collateralize letters of credit related to the Company's lease arrangements.

The Company includes the restricted cash and restricted cash equivalents balance together with its cash and cash equivalents when reconciling beginning-of-period and end-of-period total amounts shown on the consolidated statements of cash flows.

Cash, cash equivalents, restricted cash and restricted cash equivalents consisted of the following (in thousands):

	December 31,	
	2023	2022
Cash and cash equivalents	**$25,617**	$43,893
Restricted cash and cash equivalents	**5,647**	5,647
Total cash, cash equivalents, restricted cash and restricted cash equivalents	**$31,264**	$49,540

Impairment of Long-Lived Assets

The Company continually monitors events and changes in circumstances that could indicate carrying amounts of long-lived assets may be impaired, and assesses their recoverability based upon estimated future undiscounted future cash flows expected to be generated by the long-lived assets. If the estimated aggregate undiscounted cash flows are less than the carrying amount of the long-lived assets, an impairment charge, calculated as the amount by which the carrying amount of the assets exceeds the estimated fair value of the assets, is recorded. The estimated fair value of the long-lived assets is determined based on the estimated discounted cash flows expected to be generated from the long-lived assets.

Convertible notes

During 2022, the Company recognized a liability as a result of the issuance of convertible promissory notes (the Convertible Notes). The Company accounts for all Convertible Notes issued under the fair value option election of ASC 825, *Financial Instruments* (ASC 825). The financial instrument is initially measured at its issue-date estimated fair value and then subsequently remeasured at estimated fair value on a recurring basis at each reporting period date. The estimated fair value adjustment is recognized within other income (expense) in the accompanying consolidated statements of operations and the portion of the fair value adjustment attributed to a change in the instrument-specific credit risk is recognized as a component of other comprehensive loss, if any.

Debt and Warrant Issuance Costs

The carrying value of the Company's venture debt was recorded net of issuance costs and discount relating to the issuance of warrants. The amounts are amortized over the term of the debt using the effective interest method and recognized as interest expense.

Convertible Preferred Stock

The Company records all convertible preferred stock upon issuance at its respective fair value or original issuance price less issuance costs, as stipulated by its terms. The Company classifies its convertible preferred stock outside of stockholders' deficit as the redemption of such shares is outside the Company's control in certain circumstances, including upon liquidation or sale, as holders of the convertible preferred shares could cause redemption of the shares in these situations. The Company does not adjust the carrying value of the convertible preferred stock to redemption value until the contingent events that could give rise to redemption are considered probable of occurring.

Revenue Recognition

Under ASC Topic 606, *Revenue from Contracts with Customers* (Topic 606), an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of Topic 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price, including variable consideration, if any; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that the entity will collect the consideration to which it is entitled in exchange for the goods or services it transfers to the customer.

Once a contract is determined to be within the scope of Topic 606, the Company assesses the goods or services promised within each contract and determines those that are performance obligations.

Arrangements that include rights to additional goods or services that are exercisable at a customer's discretion are generally considered options. The Company assesses if these options provide a material right to the customer and if so, they are considered performance obligations. The identification of material rights requires judgments related to the determination of the value of the underlying good or service relative to the option exercise price. The exercise of a material right is accounted for as a contract modification for accounting purposes.

The Company assesses whether each promised good or service is distinct for the purpose of identifying the performance obligations in the contract. This assessment involves subjective determinations and requires management to make judgments about the individual promised goods or services and whether such are separable from the other aspects of the contractual relationship. Promised goods and services are considered distinct provided that: (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer (that is, the good or service is capable of being distinct) and (ii) the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract (that is, the promise to transfer the good or service is distinct within the context of the contract). In assessing whether a promised good or service is distinct, the Company considers factors such as the license terms, the research, manufacturing and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. The Company also considers the intended benefit of the contract in assessing whether a promised good or service is separately identifiable from other promises in the contract. If a promised good or service is not distinct, an entity is required to combine that good or service with other promised goods or services until it identifies a bundle of goods or services that is distinct.

The transaction price is determined and allocated to the identified performance obligations in proportion to their stand-alone selling prices (SSP) on a relative SSP basis. SSP is determined at contract inception and is not updated to reflect changes between contract inception and when the performance obligations are satisfied. Determining the SSP for performance obligations requires significant judgment. In developing the SSP for a performance obligation, the Company considers applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs. The Company validates the SSP for performance obligations by evaluating whether changes in the key assumptions used to determine the SSP will have a significant effect on the allocation of arrangement consideration between multiple performance obligations.

If the consideration promised in a contract includes a variable amount, the Company estimates the amount of consideration to which it will be entitled in exchange for transferring the promised goods or services to a customer. The Company determines the amount of variable consideration by using the expected value method or the most likely amount method. The amount of variable consideration included in the transaction price is constrained to the amount for which it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty related to the variable consideration is resolved. At the end of each subsequent reporting period, the Company re-evaluates the estimated variable consideration included in the transaction price and any related constraint, and if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis in the period of adjustment.

If an arrangement includes development and regulatory milestone payments, the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the Company's control or the licensee's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received.

For arrangements with licenses of intellectual property that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes royalty revenue and sales-based milestones at the later of (i) when the related sales occur, or (ii) when the performance obligation to which the royalty has been allocated has been satisfied.

In determining the transaction price, the Company adjusts consideration for the effects of the time value of money if the timing of payments provides the Company with a significant benefit of financing. The Company does not assess whether a contract has a significant financing component if the expectation at contract inception is such that the period between payment by the licensees and the transfer of the promised goods or services to the licensees will be one year or less.

The Company recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) each performance obligation is satisfied, either at a point in time or over time, and if over time recognition is based on the use of an output or input method.

Collaboration Arrangement

The Company analyzes first its collaboration arrangement to assess whether it is within the scope of FASB ASC Topic 808, Collaborative Arrangements (ASC 808) to determine whether such arrangements involve joint operating activities performed by parties that are both active participants in the activities and exposed to significant risks and rewards that are dependent on the commercial success of such activities. To the extent the arrangement is within the scope of ASC 808, the Company assesses whether aspects of the arrangement between the Company and its collaboration partner are within the scope of other accounting literature, including ASC 606. If it is concluded that some or all aspects of the arrangement represent a transaction with a customer, the Company will account for those aspects of the arrangement within the scope of ASC 606. ASC 808 provides guidance for the presentation and disclosure of transactions in collaborative arrangements, but it does not provide recognition or measurement guidance.

Therefore, if the Company concludes a counterparty to a transaction is not a customer or otherwise not within the scope of ASC 606, the Company considers the guidance in other accounting literature, including the guidance in ASC 606, as applicable or by analogy to account for such transaction. The classification of transactions under the Company's arrangements is determined based on the nature and contractual terms of the arrangement along with the nature of the operations of the participants.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and Development expenses are comprised of costs incurred in performing research and development activities, including salaries, stock-based compensation and benefits, costs for clinical research organizations and other outsourced activities; laboratory supplies; technology licenses, software and other information technology support; facilities and depreciation.

Upfront payments and milestone payments made for the licensing of technology are expensed as research and development expenses in the period in which they are incurred. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. The prepaid amounts are expensed as the related goods are delivered or the services are performed.

The Company has entered into various research and development related contracts with external parties. The payments under these agreements are recorded as research and development expenses as the underlying services are performed or the goods are received. The Company records accrued liabilities for estimated ongoing research costs. When evaluating the adequacy of the accrued liabilities, the Company analyzes progress of the research activities, including the phase or completion of events, invoices received and contracted costs. Significant judgments and estimates are made in determining the accrued and prepaid balances at the end of any reporting period. Actual results could differ from the Company's estimates. The Company's historical accrual estimates have not been materially different from the actual costs.

Research and Development Tax Incentive

The Company is eligible under the AusIndustry Research and Tax Development Tax Incentive Program to obtain a cash amount from the Australian Taxation Office (ATO). The tax incentive is available to the Company on the basis of specific criteria with which the Company must comply related to research and development expenditures in Australia. The Company adopted on January 1, 2022, ASU No. 2021-10, *Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance*. The Company applied a grant accounting model by analogy to IAS 20. The Company recognizes the Research and Development Tax Incentive (grant) as it incurs costs eligible for reimbursement under the AusIndustry Research and Tax Development Tax Incentive Program when it is reasonably assured that the grant funding will be received, as evidenced through enrollment in the program and when the applicable conditions under the program have been met. During the years ended December 31, 2023 and 2022, respectively, the Company recorded zero million and $0.4 million of research and development tax incentives as contra-research and development expense over the periods in which the Company recognized the eligible research and development activities taking place in Australia.

Patent Costs

The Company expenses all costs as incurred in connection with patent applications, including direct application fees, and the legal and consulting expenses related to making such applications, and such costs are included in general and administrative expenses within the Company's statement of operations.

Stock-Based Compensation

The Company accounts for stock-based awards in accordance with ASC Topic 718, *Compensation – Stock Compensation* (ASC 718). ASC 718 requires all stock-based awards issued to employees and members of the Company's board of directors for their services to be recognized as expense in the statements of operations based on their grant date fair values. The Company uses the value of its common stock to determine the fair value of its stock-based awards. For stock options and time-based restricted stock awards, the Company expenses the fair value of the awards on a straight-line basis over each award's service period, which is generally the period in which the related services are received. For performance-based stock awards, the Company uses the accelerated attribution method to expense the awards over the implicit service period based on the probability of achieving the performance conditions. The Company accounts for stock-based awards to non-employees consistently with the accounting for awards to employees and measures stock-based awards granted to non-employees based on their grant date fair value and recognizes the resulting value as stock-based compensation expense during the period the related services are rendered. The Company has not issued any stock-based awards with market-based vesting conditions. The Company accounts for forfeitures as they occur.

The Company's equity incentive plan allows for the issuance of restricted stock awards to employees and non-employee consultants that may be subject to vesting. The unvested shares of any restricted stock awards are held in escrow as the stock award vests or until award holder termination, whichever occurs first. In the event of a sale of the Company, the Company has the obligation to repurchase at cost, the portion of unvested stock awards from the award holder. For all unvested stock awards, a liability is established related to the Company's obligation for unvested awards at cost.

Determination of Fair Value of Common Stock on Grant Dates

The fair value of each restricted common stock award is estimated on the date of grant based on the fair value of the Company's common stock on that same date. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model, which requires inputs based on certain subjective assumptions, including the fair value of the Company's common stock, expected stock price volatility, the expected term of the award, the risk-free interest rate, and expected dividends (see Note 11). The Company has been a private company and lacks company-specific historical and implied volatility information for its stock. Therefore, it estimates its expected stock price volatility based on the historical volatility of publicly traded peer companies. The expected term of options was calculated using the simplified method, which represents the average of the contractual term of the option and the weighted-average vesting period of the option. The Company uses the simplified method because it does not have sufficient historical option exercise data to provide a reasonable basis upon which to estimate expected term. The expected term of options granted to non-employees is equal to the contractual term of the option award. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that the Company has never paid cash dividends on common stock and does not expect to pay any cash dividends in the foreseeable future.

Due to the absence of an active market for the Company's common stock, the Company and the board of directors were required to determine the fair value of the Company's common stock at the time of each grant of a stock-based award. The Company estimated the fair value of its common stock utilizing methodologies in accordance with the framework of the American Institute of Certified Public Accountants' Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*. In determining the exercise prices for options granted, the Company has considered the estimated fair value of the common stock as of the measurement date. The estimated fair value of the common stock has been determined at each grant date based upon a variety of factors, including prices paid for the Company's convertible preferred stock and the rights, preferences, and privileges of the Company's Preferred Stock and common stock; the Company's stage of development and status of technological developments within the Company's research; the illiquid nature of securities in a private company; the prospects of a liquidity event; and the current business climate in the marketplace. Significant changes to the key assumptions underlying the factors used could result in different fair values of common stock at each valuation date. The Company's common stock valuations were prepared using an option pricing method, or OPM. The OPM treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceeded the value of the preferred stock liquidation preferences at the time of the liquidity event, such as a strategic sale or a merger. A discount for lack of marketability of the common stock is then applied to arrive at an indication of value for the common stock. There are significant judgments and estimates inherent in the determination of the fair value of the Company's common stock. These estimates and assumptions include a number of objective and subjective factors, including external market conditions, the prices at which the Company sold shares of preferred securities, the superior likelihood of, achieving a liquidity event, such as an IPO or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

The Company classifies stock-based compensation expense in its statements of operations and comprehensive loss in the same manner in which the award recipient's payroll costs are classified or in which the award recipient's service payments are classified.

Income Taxes

Income taxes are recorded in accordance with FASB ASC Topic 740, *Income Taxes* (ASC 740), which provides for deferred taxes using an asset and liability approach. The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements or tax returns. Deferred tax assets and liabilities are determined based on the difference between the consolidated financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for

recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies. Should the actual amounts differ from these estimates, the amount of the Company's valuation allowance could be materially impacted. Changes in these estimates may result in significant increases or decreases to the tax provision in a period in which such estimates are changed, which in turn would affect net income or loss.

Income taxes have been accounted for using the asset and liability method. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates applicable to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date. A valuation allowance against deferred tax assets is recorded if, based upon the weight of all available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company accounts for uncertainty in income taxes recognized in the consolidated financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the consolidated financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

Comprehensive Income (Loss)

Comprehensive loss includes net loss as well as other changes in stockholders' equity (deficit) that result from transactions and economic events other than those with stockholders. There was no difference between net loss and comprehensive loss for each of the periods presented in the accompanying financial statements.

Net Loss per Share Attributable to Common Stockholders

Net loss per share attributable to common stockholders is determined using the two-class method, which is an earnings allocation formula that determines net loss per share for the holders of the Company's common shares and participating securities. The Company's preferred stock contains participation rights in any dividend paid by the Company and is deemed to be a participating security. In periods of income, the convertible preferred stock would be considered participating securities because the shares include rights to participate in dividends with the common stock; however, the convertible preferred stock is not considered a participating security in periods of loss as they do not have an obligation to share in the Company's net losses and are not included in the calculation of net loss per share in the periods in which a net loss is recorded. Net loss attributable to common stockholders is equal to the net loss for the period.

Diluted net loss per share is computed using the more dilutive of (a) the two-class method or (b) the treasury stock method and if-converted method. The Company allocates earnings first to preferred stockholders based on dividend rights and then to common and preferred stockholders based on ownership interests. The weighted-average number of common shares included in the computation of diluted net loss gives effect to all potentially dilutive common equivalent shares, including outstanding stock options and Preferred Stock. Common stock equivalent shares are excluded from the computation of diluted net loss per share if their effect is antidilutive. In periods in which the Company reports a net loss attributable to common stockholders, diluted net loss per share attributable to common stockholders is generally the same as basic net loss per share attributable to common stockholders since dilutive common shares are not assumed to have been issued if their effect is anti-dilutive.

Deferred Transaction Costs

The Company capitalizes certain legal, professional accounting and other third-party fees that are directly associated with in-process equity financings as deferred transaction costs until such financings are consummated. After consummation of an equity financing, these costs are recorded as a reduction of the proceeds from the transaction, either as a reduction of the carrying value of the preferred stock or in stockholders' deficit as a reduction of additional paid-in capital generated as a result of the transaction. Should the in-process equity financing be abandoned, the deferred transaction costs would be expensed immediately as a charge to operating expenses in the consolidated statements of operations and comprehensive loss. As of December 31, 2023, the Company had capitalized deferred transaction costs of $3.9 million in other noncurrent assets related to the merger with Homology.

Subsequent Event Considerations

The Company considers events or transactions that occur after the balance sheet date but prior to the issuance of the financial statements to provide additional evidence for certain estimates or to identify matters that require additional disclosure. The Company has evaluated events occurring after the date of its consolidated balance sheet through March 26, 2024, the date of these consolidated financial statements were available to be issued. See Note 17.

Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that are adopted by the Company as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on its financial position or results of operations upon adoption.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments – Credit Losses (Topic 326) – Measurement of Credit Losses on Financial Instruments,* which has been subsequently amended by ASU No. 2018-19, ASU No. 2019-04, ASU No. 2019-05, ASU No. 2019-10, ASU No. 2019-11 and ASU No. 2020-03 (ASU 2016-13). The provisions of ASU 2016-13 modify the impairment model to utilize an expected loss methodology in place of the currently used incurred loss methodology and require a consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 was effective for the Company on January 1, 2023. The adoption of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In August 2020, the FASB issued ASU No. 2020-06, *Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging Contracts in Entity's Own Equity (Subtopic 815-40)* (ASU 2020-06), which reduces the number of accounting models for convertible debt instruments and convertible preferred stock as well as amends the derivatives scope exception for contracts in an entity's own equity. ASU 2020-06 is effective for the Company on January 1, 2024, with early adoption permitted. The Company early adopted on January 1, 2022. The early adoption of this standard did not have a material impact on the Company's consolidated financial statements.

Recently Issued Accounting Standards Not Yet Adopted

In November 2023, the FASB issued Accounting Standards Update 2023-07, *Segment Reporting (Topic 280: Improvements to Reportable Segment Disclosures ("ASU 2023-07")*. The amendments in this update improve reportable segment disclosure requirements through enhanced disclosures about significant segment expenses. All disclosure requirements of the update are required for entities with a single reportable segment. The amendments are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, and should be applied on a retrospective basis to all periods presented. The Company will adopt this standard as of January 1, 2024. The Company has determined that the effects of adopting the amendments in ASU 2023-07 will only impact its disclosures and not have a material impact on its consolidated financial position and the results of its operations when such amendment is adopted.

On December 14, 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740)—Improvements to Income Tax Disclosures*. ASU No. 2023-09 provides more transparency about income tax information through improvements to income tax disclosures primarily related to the rate reconciliation and incomes taxes paid information. For public companies, the amendments are effective for annual periods beginning after December 15, 2024 and should be applied prospectively. The Company has determined that the effects of adopting the amendments in ASU 2023-09 will only impact its disclosures and not have a material impact on its consolidated financial position and the results of its operations when such amendment is adopted.

3. Fair Value Measurements

The carrying values of the Company's prepaid expenses and other current assets, accounts payable, and accrued expenses and other current liabilities approximate their fair value due to their short-term nature. The carrying value of the Company's term loan as of December 31, 2023 (see Note 8) approximated fair value based on interest rates currently available to the Company.

The tables below presents information about the Company's assets and liabilities that are regularly measured and carried at fair value on a recurring basis at December 31, 2023 and 2022 and indicate the level within the fair value hierarchy of the valuation techniques the Company utilized to determine such fair value, which is described further within Note 2, Summary of Significant Accounting Policies.

Financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2023 are summarized as follows (in thousands):

Description	Balance as of December 31, 2023	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Assets				
Cash equivalents:				
Money market funds	**$ 24,100**	**$24,100**	**$ —**	**$ —**
Restricted cash equivalents:				
Money market funds	**5,000**	**5,000**	**—**	**—**
Total	**$ 29,100**	**$29,100**	**$ —**	**$ —**
Liabilities				
Convertible Notes	**$ 38,595**	**$ —**	**$ —**	**$ 38,595**
Total	**$ 38,595**	**$ —**	**$ —**	**$ 38,595**

Financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2022 are summarized as follows (in thousands):

Description	Balance as of December 31, 2022	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Assets				
Cash equivalents:				
Money market funds	$ 42,496	$42,496	$ —	$ —
Restricted cash equivalents:				
Money market funds	5,000	5,000	—	—
Total	$ 47,496	$47,496	$ —	$ —
Liabilities				
Convertible Notes	$ 32,402	$ —	$ —	$ 32,402
Total	$ 32,402	$ —	$ —	$ 32,402

Money market funds were valued by the Company using quoted prices in active markets for identical securities, which represent a Level 1 measurement within the fair value hierarchy. During the years ended December 31, 2023 and 2022, there were no transfers between Level 1, Level 2 and Level 3. There have been no impairments of the Company's assets measured and carried at fair value during the years ended December 31, 2023 and 2022.

The Company issued convertible notes (Convertible Notes) totaling $30,000,000 during the year ended December 31, 2022. The Company concluded that the Convertible Notes and its related features are within the scope of ASC 825, *Financial Instruments*, as a combined financial instrument, and the Company elected the fair value option where changes in fair value of the Convertible Notes are measured through the accompanying consolidated statement of operations and comprehensive loss until settlement. The Convertible Notes liability represents a Level 3 measurement within the fair value hierarchy as it has been valued using certain unobservable inputs. These inputs include the underlying fair value of the equity instrument into which the Convertible Notes are convertible. The fair value is based on significant inputs not observable in the market, namely potential financing scenarios, the likelihood of such scenarios, the expected time for each scenario to occur, and the required market rates of return utilized in modeling these scenarios.

Year ending December 31, 2023	Scenario 1	Scenario 2	Scenario 3
Probability of each scenario	80.0%	15.0%	5.0%
Expected Term (years)	0.25	0.25	0.42
Required market rates of return	15.0%	15.0%	15.0%

The Convertible Notes had an estimated fair value of $38.6 million as of December 31, 2023. The Company recorded in other income (expense), net, an interest expense of $1.5 million and a charge of $4.7 million on the change in estimated fair value during the year ended December 31, 2023. There was no change in fair value attributable to the instrument-specific credit risk for the year ended December 31, 2023.

4. Property and Equipment, Net

Property and equipment, net consisted of the following as of (in thousands):

	December 31,	
	2023	2022
Lab equipment	$ 1,382	$ 1,382
Furniture and fixtures	341	341
Computer equipment	85	85
Leasehold improvements	940	935
Total property and equipment	2,748	2,743
Less accumulated depreciation	(966)	(467)
Property and equipment, net	$1,782	$2,276

Depreciation expense for the years ended December 31, 2023 and 2022 was $499 thousand and $370 thousand, respectively. No impairment losses occurred in 2023 and 2022. The Company had a loss on disposal of fixed assets of $23 thousand for the year ended December 31, 2022.

5. Prepaid Expenses, Other Current Assets and Other Noncurrent Assets

Prepaid expenses and other current assets consisted of the following as of (in thousands):

	December 31,	
	2023	2022
Payroll tax credit	$ 755	$ 948
Prepaid external research and development	1,834	1,329
Research credit receivable	—	116
Prepaid expenses	427	421
Other	83	146
Total prepaid expenses and other current assets	$3,099	$2,960

Other noncurrent assets consisted of the following as of (in thousands):

	December 31,	
	2023	2022
Deferred transaction costs	$3,912	$—
Prepaid external research and development - long term	676	—
Other	23	108
Total other noncurrent assets	$4,611	$108

6. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following as of (in thousands):

	December 31,	
	2023	**2022**
Accrued external research and development	**$3,578**	$4,077
Accrued compensation and related expenses	**3,003**	2,791
Accrued taxes payable	**316**	570
Operating lease liability, current	**538**	471
Accrued professional services and other	**2,328**	1,588
Total accrued expenses and other current liabilities	**$9,763**	$9,497

7. Commitments and Contingencies

As of December 31, 2023, the Company has several ongoing clinical studies in various clinical trial stages. Its most significant contracts relate to agreements with clinical research organizations (CROs) for clinical trials and preclinical studies and contract development and manufacturing organizations (CMOs), which the Company enters into in the normal course of business. The contracts with CROs and CMOs are generally cancellable, with notice, at the Company's option.

Operating lease

In 2021 the Company entered into a long-term operating lease agreement for its current corporate headquarters in Waltham, Massachusetts. The lease for the Company's corporate headquarters provides approximately 15,000 rentable square feet for general office use and research lab facilities. The lease commencement date began on January 1, 2022 and the Company did not take control or have the right to use the leased property until this time. The lease term ends in December 2031. The Company has an option to extend the lease term for an additional five years. The initial rent for the office space is approximately $970 thousand per year, increasing every year by 3% for total aggregate payment of $11.1 million. Upon the commencement date, the Company established a right-of-use asset and lease liability on the consolidated balance sheet. As part of the agreement, the Company arranged for a letter of credit for $647 thousand as a security for lease, which is considered restricted cash and included as restricted cash and restricted cash equivalents in the consolidated balance sheet. The Company received $0.4 million in a tenant improvement allowance that was applied against the right-of-use asset.

As of December 31, 2023, the Company's operating lease had a weighted-average remaining lease term of eight years and weighted average incremental borrowing rate of 7.5%.

Amounts reported in the consolidated balance sheet for leases where the Company is the lessee as of December 31, 2023 and 2022 were as follows (in thousands):

	December 31,	
	2023	**2022**
Assets:		
Operating lease right-of-use assets	**$6,301**	$6,890
Total operating lease right-of-use assets	**$6,301**	$6,890
Liabilities:		
Current:		
Operating lease liabilities	**$ 538**	$ 471
Noncurrent:		
Operating lease liabilities, net of current portion	**6,248**	6,786
Total operating lease liabilities	**$6,786**	$7,257

The following table summarizes operating lease costs for the years ended December 31, 2023 and 2022 (in thousands):

	December 31,	
	2023	2022
Fixed lease costs	**$ 999**	$1,232
Variable lease costs	**73**	103
Total lease costs	**$1,072**	$1,335

Variable lease costs were primarily related to operating expenses, taxes and insurances associated with the operating leases, which were assessed based on the Company's proportionate share of such costs for the leased premises. As these costs are generally variable in nature, they were not included in the measurement of the operating lease right-of-use asset and related lease liability. Total lease costs are included as operating expenses in the Company's consolidated statements of operations and comprehensive loss. Future minimum lease payments under non-cancelable lease agreement as of December 31, 2023 and a reconciliation to the carrying amount of the lease liabilities presented in the consolidated balance sheet are as follows (in thousands):

	Minimum Rental Payments
2024	$ 1,029
2025	1,060
2026	1,092
2027	1,124
2028	1,158
Thereafter	3,687
Total minimum lease payments	9,150
Less imputed interest	(2,364)
Total lease liability	$ 6,786
Lease liability, current portion	$ 538
Lease liability, net of current portion	6,248
Total	$ 6,786

License Agreements

License Agreement with the University of Colorado

In August 2017, the Company entered into an exclusive license agreement, as amended in February 2018, September 2018, and April 2019 (the Colorado License Agreement), with The Regents of the University of Colorado (Colorado), pursuant to which the Company obtained worldwide, royalty-bearing, sublicensable licenses under certain patents and know-how owned by Colorado and Medical University of South Carolina (MUSC) relating to the research, development and commercialization of ADX-097. The licenses granted to the Company are exclusive with respect to certain patent families and know-how and non-exclusive with certain other patent families and know-how. The licenses granted to the Company are also subject to certain customary retained rights of Colorado and MUSC and rights of the United States government owing to federal funding giving rise to inventions covered by the licensed patents. The Company agreed to use commercially reasonable efforts to develop, manufacture and commercialize ADX-097, including by using commercially reasonable efforts to achieve specified development and regulatory milestones by specified dates.

In addition, the Company agreed to pay Colorado (i) development and sales milestone payments in an aggregate amount of up to $2.2 million per licensed product for the first three products, (ii) tiered royalty rates on cumulative net sales of licensed products in the low single digit percentages, (iii) 15% of sublicense income and (iv) ongoing fees associated with the prosecution, maintenance, or filing of the licensed patents. The Company's obligation to pay royalties to Colorado commences, on a licensed product-by-licensed product and country-by-country basis, from the first commercial sale of a licensed product in any country and expires on the later of (a) the last to expire valid claim within the licensed patents covering such licensed product in such country, and (b) 20 years following the effective date of the Colorado License Agreement, or April 2037 (the Royalty Term).

Unless earlier terminated by either party pursuant to its terms, the Colorado License Agreement will expire upon the expiration of the Royalty Term in all countries. The Company may terminate the Colorado License Agreement for convenience upon providing prior written notice to Colorado. Colorado may terminate the Colorado License Agreement or convert the Company's exclusive license to a non-exclusive license if the Company breaches certain obligations under the Colorado License Agreement and fails to cure such breach. The Colorado License Agreement will terminate automatically upon the Company's dissolution, insolvency, or bankruptcy.

During the years ended December 31, 2023 and 2022, the Company recorded research and development expense of zero and $50 thousand, respectively for milestone related to the Colorado License Agreement. The financial statements as of December 31, 2023 and 2022 do not include liabilities with respect to royalty fees on the license agreement as the Company has not yet generated revenue and the achievement of certain milestones is not yet probable.

License Agreement with Bristol-Myers Squibb Company

In September 2019, the Company entered into a license agreement, as amended in August 2021 and July 2022 (the BMS License Agreement), with Bristol-Myers Squibb Company (BMS), pursuant to which the Company obtained sublicensable licenses from BMS to research, develop and commercialize licensed products, including bempikibart, for any and all uses worldwide. The licenses granted to the Company are exclusive with respect to BMS's patent rights and know-how relating to certain antibody fragments (including certain fragments of bempikibart) and non-exclusive with respect to BMS's patent rights and know-how relating to the composition of matter and use of a specific region of bempikibart. BMS retained the right for it and its affiliates to use the exclusively licensed patents and know-how for internal, preclinical research purposes. Under the BMS License Agreement, the Company is prohibited from engaging in certain clinical development or commercialization of any antibody other than a licensed compound with the same mechanism of action until the earlier of the expiration of Q32's obligation to pay BMS royalties or September 2029.

In consideration for the license, the Company made an upfront payment to BMS of $8 million, issued 6,628,788 Series A preferred shares to BMS and agreed to use commercially reasonable efforts to develop and commercialize at least one licensed product in key geographic markets. In addition, the Company agreed to pay BMS (i) development and regulatory milestone payments in aggregate amounts ranging from $32 million to $49 million per indication for the first three indications and commercial milestone payments in an aggregate amount of up to $215 million on net sales of licensed products, (ii) tiered royalties ranging from rates in the mid-single digit percentages to up to 10% of net sales, with increasing rates depending on the cumulative net sales, (iii) up to 60% of sublicense income, which percentage decreases based on the development stage of bempikibart at the time of the sublicensing event, and (iv) ongoing fees associated with the prosecution, maintenance, or filing of the licensed patents.

The Company's obligation to pay BMS royalties under subsection (ii) above commences, on a licensed product-by-licensed product and country-by-country basis on the first commercial sale of a licensed product in a country and expires on the later of (x) 12 years from the first commercial sale of such Licensed Product in such country, (y) the last to expire licensed patent right covering bempikibart or such licensed product in such country, and (z) the expiration or regulatory or marketing exclusivity for such licensed product in such country (Royalty Term). If the Company undergoes a change of control prior to certain specified phase of development, the development and milestone payments are subject to increase by a low double digit percentage and the royalty rates are subject to increase by a low sub single digit percentage.

Unless terminated earlier by either party pursuant to its terms, the BMS License Agreement will expire on a country-by-country and licensed product-by-licensed product basis upon the expiration of the last to expire Royalty Term with respect to such licensed product in such country. Either party may terminate the BMS License Agreement for the other party's material breach, subject to a specified notice and cure period. BMS may terminate the BMS License Agreement if the Company fails to meet its diligence obligations under the BMS License Agreement, for the Company's insolvency, or if the Company or its affiliates challenges the validity, scope, enforceability, or patentability of any of the licensed patents. The Company may terminate the BMS License Agreement for any reason upon prior written notice to BMS, with a longer notice period if a licensed product has received regulatory approval. If the BMS Agreement is terminated for the Company's material breach, BMS will regain rights to bempikibart and the Company must grant BMS an exclusive license under the Company's patent rights covering bempikibart, subject to a low single digit percentage royalty on net sales of bempikibart payable to the Company by BMS

During the year ended December 31, 2019, the Company recorded in-process-research and development expense of $14.6 million in the statement of operations related to the BMS License Agreement comprised of $8.0 million of cash consideration and $6.6 million of Series A preferred shares issued to BMS.

As of December 31, 2023, no events have occurred that would require payment of the milestones, royalties or sublicense fees.

Legal Proceedings

The Company is not currently party to any material legal proceedings. At each reporting date, the Company evaluates whether or not a potential loss amount or a potential range of loss is probable and reasonably estimable under the provisions of FASB ASC Topic 450, *Contingencies*. The Company expenses as incurred the costs related to its legal proceedings.

Indemnification Arrangements

As permitted under Delaware law, the Company has agreements whereby it indemnifies certain of its investors, stockholders, employees, officers, and directors (collectively, the Indemnified Parties) for certain events or occurrences while the Indemnified Parties are, or were serving, at its request in such capacity. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited; however, the Company has an Executive Liability insurance policy that limits its exposure and enables it to recover a portion of any future amounts paid up to $5.0 million. The Company believes the estimated fair value of these indemnification agreements is minimal. The Company enters into standard indemnification agreements in the ordinary course of business. Pursuant to these agreements, the Company indemnifies, holds harmless, and agrees to reimburse the Indemnified Parties for losses suffered or incurred by the Indemnified Parties, generally the Company's business partners or customers, in connection with any U.S. patent or any copyright or other intellectual property infringement claim by any third party with respect to the Company's products. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited. The Company has never incurred costs to defend lawsuits or settle claims related to these indemnification agreements.

8. Debt

Venture Debt

On December 11, 2020, the Company entered into a Loan and Security Agreement with Silicon Valley Bank, a California corporation (Loan Agreement) for a lending facility of up to $25 million. The Company received $5.0 million upon execution of the Agreement (2020 Term A Loan Advance) and had the ability to draw up to $20.0 million in three separate term loan advances if certain performance milestones are met. The term loan bears interest at an annual rate equal to the greater of the prime rate or 3.25%. The Loan Agreement provides for interest-only payments until April 30, 2022, and repayment of the aggregate outstanding principal balance of the term loan in monthly installments starting on July 1, 2022 through December 1, 2023. The commencement of principal payments and the maturity date will be deferred by one year upon the occurrence of a contingent event. In addition, the Company paid a fee of $91 thousand upon closing and is required to pay a fee of 2.0% of the aggregate amount of advances under the Loan Agreement at maturity. At its option, the Company may elect to prepay all or a portion of the outstanding advances by paying the principal balance, and all accrued and unpaid interest, and a prepayment premium. In connection with the Loan Agreement, the Company granted the lender a security interest in all of its personal property now owned or hereafter acquired, excluding intellectual property (but including the rights to payment and proceeds from the sale, licensing or disposition of intellectual property), and a negative pledge on intellectual property. The Loan Agreement also contains certain events of default, representations, warranties and non-financial covenants of the Company. If the Company fails to make payments when due or breaches any operational covenant or has any event of default, this could have a material adverse effect on its business and financial condition. The Company was in compliance with all covenants at December 31, 2023.

On June 30, 2022, a second amendment to the Loan Agreement was entered into with the lender that extended the interest-only payment until December 31, 2022 followed by 24 equal monthly payments of principal plus interest. The loan matures on December 31, 2024. The amendment increases the final payment from 2.0% to 4.0% of the advanced payment and modifies the prepayment premium.

On August 10, 2022, a third amendment to the Loan Agreement was entered into with the lender. Per the terms of the amendment and in conjunction with the Collaboration Agreement (as defined below), the Company transferred $5.0 million into a restricted cash collateral money market account which is included as Restricted cash and restricted cash equivalents on the balance sheet. This restricted cash equivalent covers the amount of the debt outstanding as of the third amendment effective date.

On December 21, 2022, a fourth amendment to the Loan Agreement was entered into with the lender that extended the interest-only payment until July 1, 2023 followed by 18 equal monthly payments of principal plus interest. The loan matures on December 1, 2024.

On April 26, 2023, a fifth amendment to the Loan Agreement was entered into with the lender. The amendment provides that the Company must maintain at least 50% of its consolidated cash with the lender. In addition, the Company shall at all times have on deposit in operating and depository accounts maintained with the lender, unrestricted and unencumbered cash in an amount equal to the lesser of (i) 100% of the dollar value of the Company's consolidated cash and (ii) 110% of the then-outstanding obligations of the Company to the bank. So long as, the Company is in compliance with those terms, the Company shall be permitted to maintain accounts with other banks or financial institutions.

On July 12, 2023, a sixth amendment to the Loan Agreement was entered into with the lender. The amendment provides for one term loan advance (the 2023 Term A loan advance) in an original principal amount of $5.5 million and required the Company to repay the outstanding 2020 Term A Loan Advance of $5.0 million, including the final payment of $0.2 million. Upon the occurrence of a contingent event, the lender shall make up to three additional term loan advances at the Company's request in original principal amounts of $7.0 million, $7.5 million and $5.0 million. The amounts must be drawn by the Company before March 31, 2024, March 31, 2025 and July 1, 2025, respectively. The interest-only period extends through June 30, 2024 followed by 36 equal monthly payments of principal plus interest. The term loan bears interest at an annual rate equal to the greater of the prime rate minus 0.25% or 8.00%. Pursuant to this amendment, specifically the interest-only period through June 30, 2024, the Company classified the principal of its venture debt as noncurrent on the consolidated balance sheet as of December 31, 2022.

On November 2, 2023, a seventh amendment to the Loan Agreement was entered into with the lender. The additional loan advance of $7.0 million, the first advance stated in the sixth amendment to the Loan Agreement, could be drawn down once the company received net cash proceeds of at least $75.0 million from (a) the issuance and sale of its equity securities to investors satisfactory to the lender and/or (b) a business development transaction satisfactory to the lender; provided that, at least, $37.5 million of such net cash proceeds must be received from the issuance and sale of equity securities to investors satisfactory to the lender. The seventh amendment extends the time the Company has to receive the net proceeds to March 31, 2024.

In conjunction with the Loan Agreement, the Company issued warrants to purchase 166,371 shares of common stock to the lender at a per share price of $0.33 with a maximum contractual term of 10 years. The warrants had a total relative fair value of $39 thousand upon issuance and were recorded as a debt discount.

In conjunction with the sixth amendment, the Company issued warrants to purchase 211,528 shares of common stock to the lender at a per share price of $0.36 with a maximum contractual term of 10 years. The warrants are issued in two separate tranches of 105,764 based upon certain milestone events. The warrants had a de minimis total relative fair value at the time of issuance.

Pursuant to ASC Topic 480, *Distinguishing Liabilities from Equity* and ASC Topic 815, *Derivatives and Hedging*, the Warrants were classified as equity and were initially measured at fair value. Subsequent changes to fair value will not be recognized so long as the instrument continues to be equity classified.

Interest expense was $531 thousand and $327 thousand for the years ended December 31, 2023 and 2022, respectively. The effective rate on the Loan Agreement, including the amortization of the debt discount and issuance costs was 10.42% and 9.49% at December 31, 2023 and 2022, respectively. The components of the long-term debt balance are as follows (in thousands):

	December 31,	
	2023	**2022**
Principal amount of term loans	**$5,500**	$5,000
Unamortized debt discount and issuance costs	**(41)**	72
Carrying amount	**5,459**	5,072
Less current portion	**(878)**	—
Long-term debt, net	**$4,581**	$5,072

Convertible Notes

On May 20, 2022, the Company entered into an agreement with the existing investors of the Company to purchase up to an aggregate of $30.0 million in convertible notes (the Convertible Notes). The Convertible Notes bear interest at 5.0% per annum. The Convertible Notes become due on demand of the Convertible Noteholders one year from the date of issuance. On April 27, 2023, the Company amended the maturity dates for the Convertible Notes. On May 20, August 5 and December 23, 2022, the Company received $8.3 million, $5.0 million, and $16.7 million, respectively, in exchange for issuance of the Convertible Notes. Interest expense was $1.5 million and $376 thousand for the year ended December 31, 2023 and 2022, respectively.

The Convertible Notes contain mandatory conversion features whereby the total outstanding amount of principal and accrued and unpaid interest of the Convertible Notes shall automatically convert into shares of common stock upon certain qualified financings. The total outstanding amount of principal and accrued and unpaid interest of the Convertible Notes convert into common shares at 90% of the purchase price of the mandatory conversion events. If the mandatory conversion events do not occur the holders of the Convertible Notes may request the Convertible Notes plus accrued interest be converted into Series B preferred stock at the Series B convertible price of $1.0971.

The Company has elected to account for the Convertible Notes at fair value where changes in fair value of the notes are measured through the consolidated statements of operations and comprehensive loss until settlement. As the Convertible Notes are due on demand. the Company recorded the Convertible Notes at fair value totaling $32.4 million within current liabilities on its consolidated balance sheet as of December 31, 2022. Subsequent to December 31, 2023 and per the Merger further discussed in Note 1, the Convertibles Notes converted into 29,853,711 shares of common stock. As the Convertible Notes were settled with equity securities subsequent to the balance sheet date but prior to the issuance of the financial statements, per ASC 470 *Debt*, the Company recorded the Convertible Notes at the fair value totaling $38.6 million as a long-term liability on its consolidated balance sheet as of December 31, 2023. The Company recorded in other income (expense), net an interest expense of $1.5 million and a charge of $4.7 million related to the change in estimated fair value during the year ended December 31, 2023.

9. Convertible Preferred Stock

In July 2018, the Company entered into a Series A and A-1 Preferred Stock Purchase Agreement and issued 10,000,000 shares of Series A Preferred Stock at a price of $1.00 per share less issuance costs of $100 thousand for total net proceeds of $9.9 million. The Company also issued 6,500,000 shares of Series A1 preferred stock for the conversion of financial instruments that had been previously issued during the years ended December 31, 2018 and 2017.

In connection with the initial issuance of the Series A preferred stock, the holders received the right to purchase, and the Company the obligation to sell, an additional 31,000,000 shares of Series A preferred stock at the same purchase price as the initial closing upon achieving certain milestones. The specified milestones could be waived upon written consent of the holders of a majority of the shares of Series A preferred stock. The Company determined that the tranche rights did not meet the definition of a freestanding financial instrument because they are not legally detachable. Further, the Company determined that the tranche rights do not meet the definition of an embedded derivative that require bifurcation from the equity instrument.

In August 2019, the Company issued 3,000,000 shares of Series A preferred stock at a price of $1.00 per share less issuance costs of $30 thousand for net proceeds of $2.97 million upon the achievement of specified milestones. In September 2019, the Company issued 28,000,000 shares of Series A preferred stock at a price of $1.00 per share less issuance costs of $40 thousand for net proceeds of $27.96 million upon the receipt of a waiver of the final milestones being met.

In September 2019, the Company issued 6,628,788 Series A preferred shares in association with the purchase of a license agreement with BMS as further described in Note 7.

On August 31, 2020, the Company entered into a Series B Preferred Stock Purchase Agreement and issued 34,636,767 shares of Series B Preferred Stock at a price of $1.0971 per share less issuance costs of $100 thousand for total net proceeds of $37.9 million.

In connection with the initial issuance of the Series B preferred stock, the holders received the right to purchase, and the Company the obligation to sell, an additional 17,318,383 shares of Series B preferred stock at the same purchase price as the initial closing upon achieving certain milestones. The specified milestones could be waived upon written consent of the holders of a majority of the shares of Series B preferred stock. The Company also had the right to issue additional shares of Series B Preferred Stock to new investors if the agreement was reached before December 31, 2020, a portion of which would be issued immediately and a portion upon achieving the specified milestones. The Company determined that the tranche rights did not meet the definition of a freestanding financial instrument because they are not legally detachable. Further, the Company determined that the tranche rights do not meet the definition of an embedded derivative that require bifurcation from the equity instrument.

On October 15, 2020, the Company issued an additional 1,822,987 shares of Series B Preferred Stock to new investors at a purchase price of $1.0971 per share for total net proceeds of $2.0 million.

In November and December of 2021, the Company issued 18,229,873 shares of Series B Preferred stock at a purchase price of $1.0971 per share less issuance cost of $10 thousand for total net proceeds of $20.0 million upon the achievement of the specified milestones.

The Series A Preferred stock, the Series A-1 preferred stock and the Series B preferred stock, (together the Preferred Stock) have the following rights and preferences:

Voting Rights

The holders of the Preferred Stock are entitled to vote, together with the holders of common stock, on all matters submitted to stockholders for a vote. Each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of shares of common stock into which the shares of Preferred Stock held by such holder are convertible at the time of such vote.

Except as provided by law or by the other provisions of the Company's Second Amended and Restated Certificate of Incorporation, holders of Preferred Stock vote together with the holders of common stock as a single class and on an as-converted to Common Stock basis.

The holders of record of the shares of Series B Preferred Stock, exclusively and as a separate class, are entitled to elect two directors of the Company (the Series B Preferred Directors); the holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, are entitled to elect three directors of the Company (the Series A Preferred Directors and together with the Series B Directors, the Preferred Directors).

Conversion

Each share of Preferred Stock is convertible, at the option of the holder, at any time, and without the payment of additional consideration, into such number of fully paid and non-assessable shares of common stock as is determined by dividing the Applicable Preferred Stock Original Issue Price (as defined below) by the Applicable Preferred Stock Conversion Price (as defined below) in effect at the time of conversion.

The Applicable Preferred Stock Original Issue Price is $1.00 per Series A share, $0.885 per Series A1 share and $1.0971 per Series B share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Preferred Stock. The Applicable Preferred Stock Conversion Price is initially $1.00 for Series A, $0.885 for Series A1 and $1.0971 for Series B, subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization and other adjustments, as set forth in the Company's Second Amended and Restated Certificate of Incorporation.

Each share of Preferred Stock will automatically convert into shares of common stock at the then effective conversion ratio (i) upon an initial public offering of the Company's common stock, provided that such offering results in at least $50 million of gross proceeds, after deducting the underwriting discount and commissions, to the Company or (ii) upon the vote or written consent of the holders of a majority of the outstanding shares of Preferred Stock.

On March 25, 2024, immediately prior to completing the Merger, all classes of convertible preferred stock of Q32 were converted to Q32 common stock. The Series A convertible preferred stock converted to 47,628,788 shares of Q32 common stock, the Series A-1 convertible preferred stock converted to 6,500,000 shares of Q32 common stock and the Series B convertible preferred stock converted to 54,689,627 shares of Q32 common stock. The conversion of the Q32 preferred stock into shares of Q32 common stock results in an increase of $11 thousand to Common stock and an increase of $111.4 million to additional paid-in-capital immediately prior to completing the Merger.

Dividends

The Company may not declare, pay or set aside any dividends on any other class or series of stock of the Company, other than dividends on common stock payable in common stock, unless the holders of the Preferred Stock first receive, or simultaneously receive, a dividend on each outstanding Preferred Stock of an amount equal to six percent (6%) of the applicable preferred stock original issue price (as defined below) per share of such series of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such series of Preferred Stock). Dividends are non-cumulative. No cash dividends were declared or paid during the years ended December 31, 2023 or 2022.

Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company or Deemed Liquidation Event (as defined below), the holders of shares of Preferred Stock then outstanding shall be entitled, on a pari passu basis, to be paid out of the assets of the Company available for distribution to its stockholders before any payment will be made to the holders of common stock by reason of their ownership thereof, an amount per share equal to with respect to the Series A, A1 and B preferred stock, one times the original issue price, plus any dividends declared but unpaid. If upon any such liquidation, dissolution or winding up of the Company or Deemed Liquidation Event, the assets of the Company available for distribution to its stockholders shall be insufficient to pay the holders of shares of Preferred Stock the full amount to which they shall be entitled, the holders of the shares of Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

After the payment of all preferential amounts required to be paid to the holders of shares of Preferred Stock, the remaining assets of the Company available for distribution to its stockholders will be distributed among the holders of the shares of Series A, A1 and B preferred stock, and common stock, pro rata based on the number of shares held by each such holder, treating for the purpose all such securities

as if they had been converted to common stock. Unless the holders of a majority of the Preferred Stock, voting together as a single class, elect otherwise, a Deemed Liquidation Event shall include (i) a merger or consolidation (other than one in which stockholders of the Company own a majority by voting power of the outstanding shares of the surviving or acquiring corporation) or (ii) a sale, lease, transfer, exclusive license, or other disposition of substantially all of the assets of the Company.

Redemption

The Preferred Stock is not redeemable at the option of the holders thereof. However, the Preferred Stock is redeemable upon the occurrence of certain contingent events, unless otherwise determined by the holders.

As it relates to the payment upon the occurrence of a contingent event, the Company evaluated the Preferred Stock in accordance with the guidance in FASB ASC Topic 480, *Distinguishing Liabilities from Equity*, and determined that the payment upon the occurrence of a contingent event is not solely within its control and accordingly classified the Preferred Stock in temporary equity. The Preferred Stock is not currently redeemable, nor is it currently probable that the instruments will become redeemable, and therefore the instruments are not accreted to redemption value.

10. Common Stock

As of December 31, 2023 the Company's Second Amended and Restated Certificate of Incorporation authorized the Company to issue 225,000,000 shares of common stock, $0.0001 par value per share, respectively. The voting, dividend and liquidation rights of the holders of the Company's common stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth above. Each share of common stock entitles the holder to one vote, together with the holders of the Preferred Stock, on all matters submitted to the stockholders for a vote. On May 20, 2022, December 8, 2022 and November 16, 2023, the Company amended and restated the Certificate of Incorporation to increase the authorized common stock by 5,000,000, 6,900,000 and 83,100,000 respectively to 225,000,000.

Common stockholders are entitled to receive dividends, as may be declared by the Company's board of directors, if any, subject to the preferential dividend rights of the Preferred Stock. No dividends have been declared or paid during the years ended December 31, 2023 and 2022.

The Company has reserved the following shares of common stock for future issuance:

	As of December 31,	
	2023	**2022**
Shares reserved upon the conversion of authorized Series A preferred stock	**47,628,788**	47,628,788
Shares reserved upon the conversion of authorized Series A1 preferred stock	**6,500,000**	6,500,000
Shares reserved upon the conversion of authorized Series B preferred stock	**54,689,627**	54,689,627
Shares reserved for future issuance under the 2017 Stock Incentive Plan	**1,167,685**	1,669,058
Shares reserved upon the conversion of the convertible notes	**29,853,711**	—
Shares reserved for stock option exercises	**23,165,393**	22,997,639
Shares reserved for warrants	**377,899**	166,371
	163,383,103	133,651,483

11. Stock-Based Compensation

Grants under the 2017 Plan

The Company adopted the 2017 Stock Option and Grant Plan and subsequent amendments (the Plan) with 25,956,535 shares of common stock reserved for issuance to employees, directors, and consultants. The Plan allows for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock unit awards and other stock awards. Recipients of stock options are eligible to purchase shares of the Company's common stock at an exercise price equal to the estimated fair market value of such stock on the date of grant. The maximum contractual term of options granted under the Plan is ten years, and the awards vest under such terms prescribed by the Company's board of directors.

Since inception, the Company has granted restricted stock awards, non-qualified stock options and incentive stock options. As of December 31, 2023, 1,167,685 shares remain available for future grant under the Plan.

Restricted Stock

For the restricted stock awards, the purchase price equaled the estimated fair value of the common stock as determined by the board of directors on the date of grant. The Company has the right, but not the obligation to repurchase unvested shares at the original purchase price if employees or non-employees are terminated or cease their employment or service relationship with the Company. The vesting period is generally contingent upon continued employment or consulting services being provided to the Company. The shares typically vest over a two-year or four-year period. The unvested shares of restricted stock are not considered outstanding shares for accounting purposes until the shares vest.

The aggregate fair value of restricted stock awards that vested during the year ended December 31, 2023 was zero. No restricted stock awards were issued during the years ended December 31, 2023 and 2022. As of December 31, 2023, no shares remained subject to a repurchase right by the Company.

As of December 31, 2023, there was no unrecognized compensation cost related to the unvested restricted stock awards.

Stock Options

Stock options granted by the Company typically vest over a four-year period and have a ten-year contractual term. The following table summarizes the Company's stock option activity under the 2017 Plan during the year ended December 31, 2023:

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (In Years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2022	22,997,639	$ 0.34	7.94	$ 362
Granted	3,221,672	0.52	—	
Exercised	(333,619)	0.32	—	
Cancelled	(2,720,299)	0.35	—	
Outstanding at December 31, 2023	23,165,393	$ 0.36	6.87	$ 10,712
Exercisable at December 31, 2023	12,899,524	$ 0.33	5.36	$ 6,299

The weighted-average grant date fair value per share of options granted in the period ended December 31, 2023 was $0.40. The total fair value of options vested during 2023 was $1.4 million. As of December 31, 2023, total unrecognized compensation costs to the unvested stock options were approximately $3.0 million, which is expected to be recognized over a weighted-average period of 2.5 years. The total intrinsic value of options exercised during the year ended December 31, 2023 was $0.1 million.

Stock-Based Compensation Expense

For purposes of calculating stock-based compensation, the Company estimates the fair value of stock options using the Black-Scholes option-pricing model. This model incorporates various assumptions, including the expected volatility, expected term, and interest rates.

The underlying assumptions used to value stock options granted using the Black-Scholes option-pricing model during the years ended December 31, 2023 and 2022 were as follows:

	Year Ended December 31,	
	2023	2022
Risk-free interest rate range	3.59% – 4.67%	1.74% – 3.90%
Expected dividend rate	—	—
Expected term (years) range	5.08 – 6.12	5.94 – 6.11
Expected stock price volatility range	88.9% – 94.0%	85.9% – 88.9%

Risk-Free Interest Rate – The risk-free rate assumption is based on the U.S. Treasury instruments, the terms of which were consistent with the expected term of the Company's stock options.

Expected Dividend – The expected dividend assumption is based on the Company's history and expectation of dividend payouts. The Company has not paid and does not intend to pay dividends.

Expected Term – The expected term of stock options represents the weighted average period the stock options are expected to be outstanding. The Company uses the simplified method for estimating the expected term, which calculates the expected term as the average time-to-vesting and the contractual life of the options for stock options issued to employees. The expected term for options granted to non-employees is based on the contractual life of the options.

Expected Volatility – Due to the Company's limited operating history and lack of company-specific historical or implied volatility, the expected volatility assumption was determined by examining the historical volatilities of a group of industry peers whose share prices are publicly available. The Company expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded stock price.

Fair Value of Common Stock – As there has been no public market for the Company's common stock to date, the estimated fair value of its common stock has been determined by the Company using estimates and assumptions on the respective grant dates of the awards. These estimates and assumptions include a number of objective and subjective factors, including external market conditions, the prices at which the Company sold shares of preferred securities, the superior likelihood of, achieving a liquidity event, such as an IPO or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

Stock-Based Compensation Expense

The Company recorded stock-based compensation expense in the following expense categories of its statements of operations (in thousands):

	Year Ended December 31,	
	2023	2022
Research and development	**$ 500**	$ 447
General and administrative	**929**	791
Total stock-based compensation expense	**$ 1,429**	$ 1,238

12. Agreements with Horizon

The Company entered into a Collaboration and Option Agreement (the Horizon Collaboration Agreement) and an Asset Purchase Agreement (the Purchase Agreement, collectively with the Horizon Collaboration Agreement, the Horizon Agreements) with Horizon Therapeutics Ireland DAC (Horizon) on August 12, 2022. Prior to the execution of the Horizon Agreements, the Company had completed a Phase 1 study for bempikibart (formerlyADX-914, a fully humanized, high affinity anti-inerleukin-7 receptor antagonist antibody) and was preparing to initiate two separate Phase 2 clinical trials. Under the terms of the Horizon Agreements, the Company was required to complete the two planned Phase 2 clinical trials as well as certain other development work agreed to by the parties. Horizon had the option to purchase bempikibart at any time up until the option termination date, which would have been shortly after the receipt of a data package from the second Phase 2 clinical trial. If Horizon had elected to exercise the option to acquire bempikibart, Horizon would have received all tangible and non-tangible assets related to bempikibart, including the assignment of the license the Company obtained from BMS (see Note 7) when it initially acquired the technology, and would have assumed liabilities associated with bempikibart, including payment obligations under the BMS license.

Per the terms of the Horizon Collaboration Agreement, the Company received a total of $55.0 million for initiation of certain development activities associated with the planned clinical trials and related activities. If Horizon had exercised its option, the Company would have received a prespecified fee pursuant to the Purchase Agreement. The Company would also have been entitled to receive additional payment from Horizon based on the achievement of future development and regulatory milestones as well as royalty payments on annual net sales.

Horizon Termination Agreement

In October 2023, Amgen Inc. (Amgen) completed its acquisition of Horizon Therapeutics public limited company (Horizon plc). Following the closing of Amgen's acquisition of Horizon plc, the Company agreed with Amgen to mutually terminate the Horizon Agreements and in November 2023, the Company and Horizon entered into a termination agreement (the Horizon Termination Agreement), pursuant to which Horizon's option to acquire the bempikibart program was terminated. As a result, the Company retained all initial consideration and development funding received under the Horizon Collaboration Agreement and regained full development and commercial rights to bempikibart. In consideration for the Horizon Termination Agreement, the Company agreed to pay Horizon regulatory and sales milestones payments of up to an aggregate amount of $75.1 million upon the first achievement of certain regulatory and sales milestones with respect to bempikibart.

Accounting Analysis

Prior to the termination agreement, the Company concluded the arrangement was within the scope of Topic 606. Specifically, the Company concluded that the research services required to be performed as part of the Horizon Collaboration Arrangement represented an output of the Company's ordinary activities, and this represents a contract with a customer. At the commencement of the collaboration arrangement with Horizon, the Company identified two performance obligations related to the development activities of bempikibart, one of each of the specified clinical trials, with each composing the services related to the clinical trial and other related development activities. The Company also identified a material right related to the option for Horizon to purchase bempikibart. The material right was considered a separate performance obligation pursuant to the provisions of Topic 606. The Company determined the transaction price to be $55.0 million which it allocated to the three performance obligations based on the estimated stand-alone selling price of each performance obligation.

The following table summarizes the allocation of the transaction price allocated to each performance obligation (in thousands):

	Transaction Price
AD phase 2 research services	$ 25,417
AA phase 2 research services	18,265
Material right for the purchase of ADX-914	11,318
Total	$ 55,000

The Company concluded that the consideration allocated to the research service performance obligations should be recognized over time as Horizon received the benefit of the research activities as the activities were performed. The Company has determined that this method was most appropriate as progress towards completion of research is largely driven by time and effort spent and costs incurred to perform this research. As of December 31, 2022, the Company had received $32.5 million of the $55.0 million transaction price from Horizon. The Company recognized $6.7 million of collaboration agreement revenue for the year ended December 31, 2022. As of December 31, 2023, the Company had received the full $55.0 million, which the Company retains. The Termination Agreement is accounted for as a modification because it does not result in the addition of distinct goods or services. Since the two performance obligations and the material right are terminated with no further performance obligations aside from the contingent payments to Horizon of up to $75.1 million, the Company recognized the remaining deferred revenue in the fourth quarter of 2023.

Upon the execution of the Horizon Termination Agreement, the Company became obligated to pay Horizon up to $75.1 million contingent on regulatory and sales-based milestones or up to $20.1 million in excess of the cash received. These potential payments to the customer are not in exchange for a distinct good or service; therefore, the Company accounts for consideration payable to a customer as a reduction of the transaction price under ASC 606. The Company concluded that the $55.0 million of arrangement consideration previously recognized should be fully constrained as a result of the contingent consideration payable to the customer, and accordingly, all amounts previously recognized as revenue were reversed in the fourth quarter of 2023 and a refund liability was established for the $55.0 million cash received during the term of the collaboration agreement. No amounts have been recognized related to the remaining potential payment to Horizon (up to $20.1 million) as it is not probable that the respective milestones will be achieved at this time.

13. Related Party Transactions

The Company has consulting and advisory agreements with certain investors and board members which are considered to be related party transactions. For the years ended December 31, 2023 and 2022, the Company recorded expense of zero and $87 thousand, respectively, related to services provided by these investors.

No amounts were due to related parties at December 31, 2023 or 2022.

14. Defined Contribution Plan

The Company has a defined contribution savings plan under Section 401(k) of the Internal Revenue Code (the 401(k) Plan). The 401(k) Plan covers all employees who meet defined minimum age and service requirements and allows participants the option to elect to defer a portion of their annual compensation on a pretax basis, as well as Roth post tax deferrals. As currently designed, the Company is not required to make and has not made any contributions to the 401(k) Plan.

15. Income Taxes

For the years ended December 31, 2023 and 2022, the Company recorded current and deferred income tax expense of $0.3 million and $62 thousand, respectively. The Company's effective tax rate of 0.6% differs from the U.S. statutory tax rate of 21.0% primarily as a result of the valuation allowance maintained against the Company's net deferred tax assets.

For financial reporting purposes, loss from operations before income taxes includes the following components (in thousands):

	Year Ended December 31,	
	2023	**2022**
Pretax loss:		
United States	**$(53,430)**	$(42,722)
Foreign	**5**	(25)
Loss before income taxes	**$(53,425)**	$(42,747)

The components of our provision for income taxes during the two years ended December 31, 2023, consisted of the following (in thousands):

	Year Ended December 31,	
	2023	**2022**
Current:		
Federal	**$316**	$—
State	**1**	—
Foreign	**1**	62
Total current	**318**	62
Deferred:		
Federal	**$—**	$—
State	**—**	—
Foreign	**—**	—
Total deferred	**—**	—
Total income tax provision	**$318**	$ 62

A reconciliation of income tax expense (benefit) computed at the statutory federal income tax rate to income taxes as reflected in the financial statements is as follows:

	Year Ended December 31,	
	2023	2022
Federal income tax expense at statutory rate	21.0%	21.0%
State income taxes, net of federal benefit	5.9	6.9
Permanent differences	(1.2)	(0.4)
Convertible note revaluation	(1.8)	0.0
Research and development tax credits	3.1	4.1
Change in valuation allowance	(27.6)	(31.6)
Effective income tax rate	(0.6)%	— %

Deferred taxes are recognized for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. The significant components of the Company's deferred tax assets and liabilities consisted of the following (in thousands):

	2023	2022
Deferred tax assets:		
Federal net operating loss carryforwards	**$ 13,412**	$ 19,135
State net operating loss carryforwards	**3,500**	5,401
Contingent liability	**14,876**	—
Accruals and Reserves	**818**	659
Capitalized intangible assets	**2,828**	3,089
Tax credit carryforwards	**5,762**	4,745
Capitalized R&D expenditures	**13,546**	7,378
Lease liability	**1,835**	1,962
Stock compensation and other	**544**	318
Total gross deferred tax assets before valuation allowance	57,121	42,687
Less: Valuation allowance	(55,078)	(40,342)
Net deferred tax assets	2,043	2,345
Deferred tax liabilities:		
Fixed assets	**(339)**	(483)
Right of use asset	**(1,704)**	(1,862)
Net deferred tax assets	$ —	$ —

The Company had gross deferred tax assets before valuation allowances of $57.1 million and $42.7 million as of December 31, 2023 and 2022, respectively, principally attributable to net operating losses, the contingent liability and capitalized R&D expenditures. The Company has provided a valuation allowance for the full amount of the deferred tax assets as, based on all available evidence, it is considered more likely than not that all the recorded deferred tax assets will not be realized in a future period. The Company recorded an increase to the valuation allowance of $14.7 million during the year ended December 31, 2023 due primarily to the contingent liability related to the termination of Horizon agreements which was recorded in 2023.

As of December 31, 2023, the Company has $63.9 million of federal net operating loss carryforwards which can be carried forward indefinitely, and $55.4 million of state net operating loss carryforwards that expire at various dates beginning in 2040.

Subject to the limitations described below, as of December 31, 2023, the Company had federal and state research and development tax credit carryforwards of $4.3 million and $1.8 million, respectively available to reduce future tax liabilities which start to expire in 2038. The Company has generated federal and state research and development credits but has not conducted a study to document the qualified activity. This study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed, and any adjustment is known, no amounts are being presented as uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the deferred tax asset established for the research and development credit carryforwards and the valuation allowance.

Realization of the future tax benefits is dependent on many factors, including the Company's ability to generate taxable income within the net operating loss carryforward period. Under the provisions of the Internal Revenue Code, the net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service (IRS) and state tax authorities. Net operating loss and tax credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the

Internal Revenue Code, respectively, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. As a result of ownership changes in the Company from its inception through December 31, 2023, the Company's NOL and tax credit carryforwards allocable to the periods preceding each such ownership change could be subject to limitations under IRC Section 382, however the Company has not yet completed an IRC Section 382 study.

The Company files income tax returns in the United States, Australia and Massachusetts. The statute of limitations for assessment by the IRS and state tax authorities is closed prior to 2020, although carryforward attributes that were generated prior to tax year 2020 may still be adjusted upon examination by the IRS or state tax authorities if they either have been or will be used in a future period. The Company is currently not under examination by the IRS or any other jurisdictions for any tax years. The statute of limitations for assessment by the Australian Taxation Office is four years from the date of return filing. The Company is not currently under examination by the Australian Taxation Office for any tax years.

The Company's current intention is to permanently reinvest the total amount of its unremitted earnings in the local international jurisdiction. As such, the Company has not provided for taxes on the unremitted earnings of its international subsidiary. As of December 31, 2023, the Company's foreign subsidiary does not have any unremitted foreign earnings.

The Company establishes reserves for uncertain tax positions based on management's assessment of exposures associated with tax positions taken on tax return filings. The tax reserves are analyzed periodically, and adjustments are made as events occur to warrant adjustments to the reserve.

As of December 31, 2023, the Company had no gross unrecognized tax benefits. During 2022 the Company amended its prior year tax filings and settled the $1.4 million unrecognized tax benefit that was previously recognized in the December 31, 2021 reporting period. The Company does not expect the unrecognized tax benefits to change significantly over the next 12 months. The Company recognizes both interest and penalties associated with uncertain tax positions as a component of income tax expense. As of December 31, 2023, the Company has not accrued penalties and provisions for interest.

16. Net Loss per Share

Basic and diluted loss per share is computed by dividing net loss attributable to common stockholders by the weighted-average common shares outstanding.

The Company's potentially dilutive securities, which include convertible preferred stock, convertible notes, and stock options, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted-average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The Company excluded the following from the computation of diluted net loss per share attributable to common stockholders because including them would have had an anti-dilutive effect:

	Year Ended December 31,	
	2023	2022
Series A convertible preferred stock	47,628,788	47,628,788
Series A-1 convertible preferred stock	6,500,000	6,500,000
Series B convertible preferred stock:	54,689,627	54,689,627
Options to purchase common stock	23,165,393	22,997,639
Warrants to purchase common stock	377,899	166,371

In addition, during the year ended December 31, 2022, the Company issued convertible notes with a principal balance of $30.0 million. These convertible notes and any accrued interest may convert into either a variable number of common shares or into shares of Series B Preferred Stock based on a fixed exchange ratio. Any shares of Series B Preferred Stock issued to settle the convertible notes would then be convertible into shares of common stock.

17. Subsequent Events

The Company considers events or transactions that occur after the balance sheet date but prior to the date the financial statements are available to be issued for potential recognition or disclosure in the financial statements. The Company has completed an evaluation of all subsequent events after the audited balance sheet date of December 31, 2023 through March 26, 2024, the date the financial statements were issued, to ensure that these financial statements include appropriate disclosure of events both recognized in the financial statements as of December 31, 2023 and events which occurred subsequently but were not recognized in the financial statements.

Amendment to Loan Agreement

On March 21, 2024, an eighth amendment to the Loan Agreement was entered into with the lender. The eighth amendment extends the time the Company has to receive the net proceeds to May 31, 2024 and also extends the time to Company can draw down on the first advanced payment of $7.0 million from March 31, 2024 to May 31, 2024. The date changes were adjusted to align the milestone in the Loan Agreement with closing of the Merger. On March 26, 2024, the Company received the first advance payment of $7.0 million per the terms of the Loan Agreement.

Merger with Homology

On March 25, 2024 the Company completed the Merger with Homology. See Note 1 for further discussion of the Merger.

Stock Option Grants

In March 2024, the Company granted under the 2024 Stock Option Plan, 0.9 million stock options to the officers, directors and other key members of management. Stock options were issued with an exercise price on the close of business on March 25, 2024. The stock option awards vest in accordance with terms typically grants under the 2024 Stock Option Plan.

SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA

Selected Historical Consolidated Financial Data of Homology

The following tables summarize Homology's consolidated financial data. The consolidated statement of operations data for the years ended December 31, 2023 and the consolidated balance sheet data as of December 31, 2023 have been derived from the audited consolidated financial statements included elsewhere in Homology's Annual Report on Form 10-K for the year ended December 31, 2023. You should read the following selected consolidated financial data together with "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" and Homology's financial statements and the related notes included in Homology's Annual Report on Form 10-K for the year ended December 31, 2023. Homology's historical results are not necessarily indicative of results that should be expected in any future period.

	Year Ended December 31, 2023
	(in thousands, except share and per share data)
Collaboration revenue	$ 1,156
Operating expenses:	
Research and development	62,002
General and administrative	31,256
Restructuring and other charges	9,327
Total operating expenses	102,585
Loss from operations	(101,429)
Gain on sale of business	—
Gain on lease termination	8,767
Interest income	5,582
Total other income	14,349
Income (loss) before income taxes	(87,080)
Provision for income taxes	—
Loss from equity method investment	(25,881)
Net income (loss)	$ (112,961)
Net income (loss)per share—basic & diluted	$ (35.16)
Weighted-average common shares outstanding—basic & diluted	3,213,046

	As of December 31, 2023
	(in thousands)
Consolidated Balance Sheet Data:	
Cash and cash equivalents	$ 39,266
Short-term investments	43,387
Assets held for sale	260
Working capital (1)	72,341
Total assets	84,564
Total liabilities	11,573
Accumulated deficit	(542,098)
Stockholders' equity	$ 72,991

(1) Working capital is defined as current assets less current liabilities

Selected Historical Consolidated Financial Data of Q32

The following tables summarize Q32's consolidated financial data. The consolidated statement of operations data for the years ended December 31, 2023 and the consolidated balance sheet data as of December 31, 2023 have been derived from Q32's audited consolidated financial statements included elsewhere in this Current Report on Form 8-K. You should read the following selected consolidated financial data together with "*Q32 Management's Discussion and Analysis of Financial Condition and Results of Operations*" and Q32's consolidated financial statements and the related notes included elsewhere in this Current Report on Form 8-K. Q32's historical results are not necessarily indicative of results that should be expected in any future period.

	Year Ended December 31, 2023
	(in thousands, except share and per share data)
Collaboration arrangement revenue	$ (6,651)
Operating expenses:	
Research and development	31,729
General and administrative	9,875
Total operating expenses	41,604
Loss from operations	(48,255)
Change in fair value of convertible notes	(6,193)
Other income (expense), net	1,023
Total other income (expense), net	(5,170)
Loss before provision for income taxes	(53,425)
Provision for income taxes	(318)
Net loss and comprehensive loss	$ (53,743)
Net loss attributable to common stockholders—basic and diluted	$ (7.41)
Weighted-average common shares—basic and diluted	7,253,978

	As of December 31, 2023
	(in thousands)
Consolidated Balance Sheet Data:	
Cash and cash equivalents	$ 25,617
Working capital (1)	14,607
Total assets	47,057
Other non-current liabilities	55,000
Total liabilities	118,533
Convertible preferred stock	111,445
Accumulated deficit	(187,081)
Stockholders' deficit	$ (182,921)

(1) Working capital is defined as current assets less current liabilities

SUMMARY OF UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL DATA

Selected Unaudited Pro Forma Condensed Combined Financial Data of Homology and Q32

The following unaudited pro forma condensed combined financial information was prepared based on the expectation that the Merger will be treated as a reverse recapitalization in accordance with U.S. generally accepted accounting principles, or GAAP. For accounting purposes, Q32 is considered to be completing an equity financing through the acquisition of Homology in the Merger. This determination is based on the fact that, immediately following the Merger: (i) Q32's equity holders own a substantial majority of the voting rights in the combined organization, (ii) Q32 designated a majority (seven of nine) of the initial board of directors of the combined organization, (iii) Q32's senior management hold all positions in the senior management of the combined organization and no senior employees from Homology will be retained and (iv) Homology primarily holds non-operating assets and the purpose of the transaction was to obtain additional capital to fund the operations of Q32.

Accordingly, for accounting purposes: (i) the Merger is treated as the equivalent of Q32 issuing stock to acquire primarily cash and cash equivalents, short-term investments, and other non-operating assets, (ii) the net assets of Homology are recorded based upon the fair value at the time of closing and (iii) the reported historical operating results of the combined company prior to the Merger will be those of Q32.

The unaudited pro forma condensed combined balance sheet assumes that Q32's Pre-Closing Financing and the Merger were consummated as of December 31, 2023 and combines the historical balance sheets of Homology and Q32 as of such date. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2023 assumes that Q32's pre-closing financing and the merger were consummated as of January 1, 2023 and combines the historical results of Homology and Q32 for the respective periods presented.

The selected unaudited pro forma condensed combined financial data are presented for illustrative purposes only and are not necessarily indicative of the combined financial position or results of operations of future periods or the results that actually would have been realized had the entities been a single entity during these periods. The selected unaudited pro forma condensed combined financial data for the year ended December 31, 2023 are derived from the unaudited pro forma condensed combined financial information and should be read in conjunction with that information. For more information, please see the section entitled "*Unaudited Pro Forma Condensed Combined Financial Information*" in this Form 8-K filing and in Homology's Annual Report on Form 10-K for the year ended December 31, 2023.

Selected Unaudited Pro Forma Condensed Combined Statements of Operations Data

	Year Ended December 31, 2023
	(in thousands, except share and per share data)
Collaboration arrangement revenue	$ (5,495)
Research and development expense	93,731
General and administrative expense	48,431
Restructuring and other charges	9,327
Other income/(expense), net	25,069
Provision for income taxes	(318)
Loss on equity method investment	(25,881)
Loss from operations	(158,114)
Net loss attributable to common stockholders—basis and diluted	$ (158,114)
Net loss per share attributable to common stockholders—basic and diluted	$ (13.23)

Selected Unaudited Pro Forma Condensed Combined Balance Sheet Data

	As of December 31, 2023
Consolidated Balance Sheet Data:	
Cash and cash equivalents	$ 106,883
Short-term investments	43,387
Other non-current liabilities	55,000
Working capital, net (1)	110,901
Total assets	180,128
Total liabilities	116,685
Accumulated deficit	(178,491)
Total stockholders' deficit	$ 63,443

(1) Working capital is defined as current assets less current liabilities

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

The following unaudited pro forma condensed combined financial statements are based on the Q32 Bio Inc.'s historical consolidated financial statements and Homology Medicine Inc.'s historical consolidated financial statements as adjusted to give effect to the merger of the companies, accounted for as a reverse recapitalization, and to the issuance of shares in the Q32 Pre-Closing Financing. The unaudited pro forma condensed combined financial information gives effect to a one-for-eighteen Reverse Stock Split effected on March 25, 2024.

The Merger

On November 16, 2023, Q32 Bio Inc's ("Q32") entered into an Agreement and Plan of Merger and Reorganization (the "Merger Agreement") with Homology, Inc. ("Homology") and Kenobi Merger Sub, Inc. a wholly owned subsidiary of Homology ("Merger Sub"). Pursuant to the Merger Agreement and subject to the satisfaction or waiver of the conditions therein, Merger Sub will merge with and into Q32, with Q32 continuing as the surviving company and as a wholly owned subsidiary of Homology (the "Merger"). The Merger was completed on March 25, 2024 and the business of Q32 will continue as the business of the combined company. The Merger is intended to qualify for federal income tax purposes as a tax-free reorganization under the provisions of Section 368(a) of the Internal Revenue Code of 1986, as amended.

Subject to the terms and conditions of the Merger Agreement, at the effective time of the Merger (the "Effective Time") which was March 25, 2024, each then outstanding share of Q32 common stock (including shares of common stock issued upon conversion of Q32 preferred stock, conversion of Q32 convertible notes and shares of Q32 common stock issued in the Q32 pre-closing financing (as defined below) was converted into the right to receive a number of shares of Homology's common stock (ignoring rounding of fractional shares) calculated in accordance with the Merger Agreement (the "exchange ratio").

At the Effective Time, Homology assumed outstanding and unexercised options to purchase shares of Q32 common stock, and in connection with the Merger they were converted into options to purchase Homology Common Stock based on the exchange ratio formula in the Merger Agreement. At the Effective Time, Homology assumed outstanding and unexercised warrants to purchase shares of Q32 common stock, and in connection with the Merger they were converted into warrants to purchase Homology common stock based on the exchange ratio formula in the Merger Agreement.

Immediately prior to the Effective Time, Q32 caused the outstanding principal and accrued but unpaid interest on the Q32 convertible notes to be converted into shares of Q32 common stock. In addition, the Q32 preferred stock was converted into Q32 common stock immediately prior to the Effective Time.

At the Effective Time, each person who, as of immediately prior to the Effective Time, was a stockholder of record of Homology or had the right to receive Homology's common stock was entitled to receive a contractual contingent value right ("CVR") issued by Homology subject to and in accordance with the terms and conditions of a Contingent Value Rights Agreement between Homology, the holder's representative and the rights agent (the "CVR Agreement"), representing the contractual right to receive consideration from the post-closing combined company upon the receipt of certain proceeds from a disposition of Homology's pre-merger assets, calculated in accordance with the CVR Agreement. The unaudited pro forma condensed combined balance sheet includes $7.6 million of contingent consideration with respect to the CVRs.

The Merger was treated as a reverse recapitalization in accordance with GAAP because on the effective date of the Merger, the pre-combination assets of Homology were primarily cash and cash equivalents, short-term investments and other non-operating assets. Any in-process research and development assets that remained as of the combination were de minimis value when compared to the cash, cash equivalents and short-term investments obtained through the Merger.

Immediately after the consummation of the Merger, based on the estimated exchange ratio as described in this Form 8-K filing, Q32 securityholders would own approximately 74.4% of the Homology common stock as defined in the Merger Agreement, and Homology securityholders would own approximately 25.6% of the Homology common stock as defined in the Merger Agreement, after giving effect to the Q32 pre-closing financing, and subject to adjustment of the exchange ratio as set forth in the Merger Agreement. Under certain circumstances further described in the Merger Agreement, the ownership percentages were adjusted for Homology's actual net cash as of the closing, as defined in the Merger Agreement ("Net Cash") if net cash was less than $59.5 million or greater than $60.5 million and to the extent there are any changes to the amount of the Q32 Pre-Closing Financing (as defined below). Actual net cash was $61.3 million at closing and there were no changes to the amount of the Q32 Pre-Closing Financing.

The percentage ownership of the combined company was derived using a stipulated value for Q32 of approximately $237.0 million, inclusive of the Q32 Pre-Closing Financing, and a stipulated value for Homology of approximately $81.3 million. The valuation of Homology was determined based on actual net cash, as defined in the Merger Agreement, of $61.3 million at a determination date prior to the closing of the Merger plus an additional $20.0 million of equity value. The value from any future monetization of Homology operating assets, including fixed assets, intellectual property, and the equity method investment, will be delivered to legacy Homology equity holders via a cash dividend as stipulated in the CVR. The fair value of consideration transferred is not indicative of the combined entities' enterprise value upon consummation of the Merger.

The Q32 Pre-Closing Financing

In connection with the Merger Agreement, certain investors have entered into a subscription agreement with Q32 to purchase shares of Q32 common stock for an aggregate purchase price of approximately $42.0 million (the "Q32 Pre-Closing Financing"). The Q32 Pre-Closing Financing occurred prior to the closing of the merger. Shares of the Q32 common stock issued pursuant to the Q32 Pre Closing Financing were converted into shares of Homology common stock in accordance with the exchange ratio at the Effective Time.

The unaudited pro forma condensed combined balance sheet assumes that the Q32 Pre-Closing Financing, and the Merger were consummated as of December 31, 2023 and combines the historical balance sheets of Homology and Q32 as of such date. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2023 assumes that the Q32 Pre-Closing Financing and the Merger were consummated as of January 1, 2023 and combines the historical results of Homology and Q32 for the respective periods presented.

The selected unaudited pro forma condensed combined financial data are presented for illustrative purposes only and are not necessarily indicative of the combined financial position or results of operations of future periods or the results that actually would have been realized had the entities been a single entity during these periods.

The unaudited pro forma condensed combined financial information is based on the assumptions and adjustments that are described in the accompanying notes.

The unaudited pro forma condensed combined financial information does not give effect to the potential impact of current financial conditions, regulatory matters, operating efficiencies or other savings or expenses that may be associated with the integration of the two companies. The unaudited pro forma condensed combined financial information is not necessarily indicative of the financial position or results of operations in future periods or the results that actually would have been realized had Homology and Q32 been a combined organization during the specified periods. The actual results reported in periods following the merger may differ significantly from those reflected in the unaudited pro forma condensed combined financial information presented herein for a number of reasons, including, but not limited to, differences in the assumptions used to prepare this pro forma financial information.

The unaudited pro forma condensed combined financial information, including the notes thereto, should be read in combination with the separate historical financial statements of Homology and Q32, and each company's respective Management's Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this Current Report on Form 8-K and in Homology's Annual Report on Form 10-K for the year ended December 31, 2023.

Accounting rules require evaluation of certain assumptions, estimates, or determination of financial statement classifications. The accounting policies of Homology may materially vary from those of Q32. During preparation of the unaudited pro forma condensed combined financial information, management has performed a preliminary analysis and is not aware of any material differences, and accordingly, this unaudited pro forma condensed combined financial information assumes no material differences in accounting policies. Following the closing, management will conduct a final review of Homology's accounting policies in order to determine if differences in accounting policies require adjustment or reclassification of Homology's results of operations or reclassification of assets or liabilities to conform to Q32's accounting policies and classifications. As a result of this review, management may identify differences that, when conformed, could have a material impact on these unaudited pro forma condensed combined financial statements.

Unaudited Pro Forma Condensed Combined Balance Sheet
December 31, 2023
(in thousands)

	Q32	Homology	Q32 Pre-closing Financing Adjustments	Pro Forma Merger Adjustments	Notes (See Note 4)	Pro Forma Combined
Assets						
Current assets:						
Cash and cash equivalents	$ 25,617	$ 39,266	$ 42,000	$ —	**A**	$106,883
Short-term investments	—	43,387	—	—		43,387
Assets held for sale	—	260	—	—		260
Prepaid expenses and other current assets	3,099	1,001	—	(432)	**G**	3,668
Total current assets	28,716	83,914	42,000	(432)		154,198
Restricted cash	5,647	—	—	—		5,647
Equity method investment	—	—	—	6,939	**H**	6,939
Property and equipment, net	1,782	—	—	—		1,782
Right-of-use asset, operating leases	6,301	650	—	—		6,951
Other non-current assets	4,611	—	—	—		4,611
Total assets	$ 47,057	$ 84,564	$ 42,000	$ 6,507		$180,128
Liabilities, Convertible Preferred Stock and Stockholders' Deficit						
Current liabilities:						
Accounts payable	$ 3,468	$ 3,234	$ —	$ —		$ 6,702
Accrued expenses and other current liabilities	9,763	7,021	—	17,615	**D, E, F,G**	34,399
Venture debt, current portion	878	—	—	—		878
Convertible notes	—	—	—	—		—
Operating lease liabilities, current portion	—	1,318	—	—		1,318
Deferred revenue, current portion	—	—	—	—		—
Total current liabilities	14,109	11,573	—	17,615		43,297
Deferred revenue, net of current portion	—	—	—	—		—
Operating lease liabilities, net of current portion	6,248	—	—	—		6,248
CVR liability	—	—	—	7,559	**H**	7,559
Venture debt	4,581	—	—	—		4,581
Convertible notes	38,595	—	—	(38,595)	**B**	—
Other non-current liabilities	55,000	—	—	—		55,000
Total liabilities	118,533	11,573	—	(13,421)		116,685
Series A convertible preferred stock	47,458	—	—	(47,458)	**C**	—
Series A-1 convertible preferred stock	4,132	—	—	(4,132)	**C**	—
Series B convertible preferred stock	59,855	—	—	(59,855)	**C**	—
Total convertible preferred stock	111,445	—	—	(111,445)		—
Stockholders' deficit:						
Preferred stock	—	—	—	—		—
Common stock	1	6	4	12	**K**	23
Additional paid-in-capital	4,159	615,088	41,996	(419,332)	**B**	241,911
Accumulated other comprehensive loss	—	(5)	—	5	**K**	—
Accumulated deficit	(187,081)	(542,098)	—	550,688	**K**	178,491
Total stockholders' deficit	(182,921)	72,991	42,000	131,373		63,443
Total liabilities, convertible preferred stock and stockholders' deficit	$ 47,057	$ 84,564	$ 42,000	$ 6,507		$180,128

The accompanying notes are an integral part of this pro forma condensed financial information.

Unaudited Pro Forma Condensed Combined Statement of Operations
For the Year Ended December 31, 2023
(in thousands, except share and per share amounts)

	Q32	Homology	Q32 Pre-closing Financing Adjustments	Pro Forma Merger Adjustments	Notes	Pro Forma Combined
Collaboration arrangement revenue	$ (6,651)	$ 1,156	$ —	$ —		$ (5,495)
Operating expense:						
Research and development	31,729	62,002	—	—		93,731
General and administrative	9,875	31,256	—	7,300	F, G	48,431
Restructuring and other charges	—	9,327	—	—		9,327
Total operating expense	41,604	102,585	—	7,300		151,489
Loss from operations	(48,255)	(101,429)	—	(7,300)		(156,984)
Change in fair value of convertible notes	(6,193)	—	—	6,193	J	—
Gain on conversion of convertible notes	—	—	—	9,697	B	9,697
Gain on lease termination	—	8,767	—	—		8,767
Other income (expense), net	1,023	5,582	—	—		6,605
Total other income (expense), net	(5,170)	14,349	—	15,890		25,069
Loss before provision for income taxes	(53,425)	(87,080)	—	8,590		(131,915)
Provision for income taxes	(318)	—	—	—		(318)
Loss from equity method investment	—	(25,881)	—	—		(25,881)
Net loss and comprehensive loss	$ (53,743)	$ (112,961)	$ —	$ 8,590		$ (158,114)
Net loss attributable to common stockholders'—basic and diluted	$ (7.41)	$ (35.16)			L	$ (13.23)
Weighted-average common shares—basic and diluted	7,253,978	3,213,046			L	11,953,619

The accompanying notes are an integral part of this pro forma condensed financial information.

Notes to the Unaudited Pro Forma Condensed Combined Financial Information

All amounts below are in thousands, unless specifically noted otherwise, except share and per share amounts.

1. Description of Transaction

Upon the Effective Time, all shares of Q32 common stock outstanding immediately prior to the Effective Time, after giving effect to the preferred stock conversion, convertible notes conversion, and the Q32 Pre-Closing Financing, were converted into the right to receive 8,699,887 shares of Homology's common stock in the aggregate, based on an assumed exchange ratio of 0.0480, which has been adjusted to reflect the one-for-eighteen Reverse Stock Split. This exchange ratio was determined pursuant to a formula described in more detail in the Merger Agreement.

The aggregate value of the consideration to be paid in the merger was $59.2 million. The fair value of consideration transferred is based on the number of common shares Homology stockholders will own of the combined company upon consummation of the merger, multiplied by the closing price or fair value of Homology common stock on March 21, 2024, as well as the fair value of outstanding options to purchase Homology common stock and the fair value of the CVR. The fair value of consideration transferred is not indicative of the combined entities enterprise value upon consummation of the Merger. As the Merger will be accounted for as a reverse recapitalization, any difference between the consideration to be transferred in the merger and the fair value of the net assets acquired will be recorded as an adjustment to additional paid-in capital.

Final stockholders approval was received on March 15, 2024. Consummation of the merger was subject to certain closing conditions and was closed on March 25, 2024.

2. Basis of Pro Forma Presentation

The unaudited pro forma condensed combined financial information gives effect to a Reverse Stock Split of one-for-eighteen for stockholders of record on March 25, 2024.

The unaudited pro forma condensed combined financial information has been prepared in accordance with SEC Regulation S-X Article 11. The unaudited pro forma condensed combined statements of operations for the year ended December 31, 2023 give effect to the Q32 Pre-Closing Financing and Merger as if they had been consummated on January 1, 2023. The unaudited pro forma condensed combined balance sheet as of December 31, 2023 gives effect to the Q32 Pre-Closing Financing and the Merger as if they had been consummated on December 31, 2023.

For accounting purposes, Q32 is considered to be the acquiring company and the Merger will be accounted for as a reverse recapitalization of Q32 because on the Merger date, the pre-combination assets of Homology were primarily cash, cash equivalents, short-term investments and other non-operating assets. For purposes of these pro forma financial statements, the total estimated purchase price is summarized as follows (in thousands, except share and per share amounts):

Estimated number of shares of the combined company to be owned by Homology stockholders (i)	3,223,190
Multiplied by the assumed price per share of Homology stock (ii)	$ 15.84
Total	51,055
Estimated fair value of assumed Homology equity awards based on pre-combination service (iii)	562
Estimated fair value of the contingent value right (iv)	7,559
Total estimated purchase price	$ 59,176

i. Reflects the number of shares of common stock of the combined company that Homology equity holders would own as of the closing pursuant to the Merger Agreement. This amount is calculated, for purposes of this unaudited pro forma condensed combined financial information, based on shares of Homology common stock outstanding as of March 25, 2024.

ii. Reflects the price per share of Homology common stock, which is the closing trading price of Homology common stock outstanding as of March 21, 2024.

iii. The estimated purchase price includes the estimated acquisition-date fair value of the assumed Homology equity awards attributable to pre-combination service (which amount is determined based on the closing trading price of Homology common stock on March 21, 2024, the number of Homology equity awards outstanding on March 25, 2024, and the period of service provided by the holders of the awards prior to the merger closing date). The following table presents on a weighted average basis, the assumptions used in the Black-Scholes option-pricing model to determine the estimated acquisition date fair value of the assumed Homology equity awards:

Expected term (in years)	1
Volatility	64.52%
Risk free interest rate	5.23%
Dividend yield	—

iv. The estimated fair value of the CVR is $7.6 million, which is based on the estimated fair value of Homology's equity method investment in OXB Solutions as of February 21, 2024 and in-process research and development assets subject to the CVR. Refer to Note 6 to financial statements included in Homology's Annual Report on Form 10-K for the year ended December 31, 2023 for a description of the method used to estimate the fair value of the investment in OXB Solutions. The fair value of the of the in-process research and development assets was determined to be $0.6 million. Since the IPR&D has no future alternative use, it is not reflected on the unaudited pro forma condensed combined balance sheet.

The actual purchase consideration for the net assets of Homology will vary based on the actual fair value of the investment in OXB Solutions and in-process research and development assets and the resulting effect on the fair value of the CVR; however, any difference between the consideration transferred and the fair value of the net assets of Homology following determination of the actual purchase consideration for Homology will be reflected as an adjustment to additional paid-in capital. The estimated purchase consideration reflected in these unaudited pro forma condensed combined financial information does not purport to represent what the actual purchase consideration as the accounting is still preliminary.

Under reverse recapitalization accounting, the subsequent financial statements of Q32 will reflect the operations of the acquirer for accounting purposes together with a deemed issuance of shares, equivalent to the shares held by the former stockholders of the legal acquirer and a recapitalization of the equity of the accounting acquirer. The accompanying unaudited pro forma condensed combined financial information is derived from the historical financial statements of Homology and Q32, and include adjustments to give pro forma effect to reflect the accounting for the transaction in accordance with U.S. GAAP. The historical financial statements of Q32 will become the historical financial statements of the combined company.

Q32 and Homology may incur significant costs associated with integrating the operations of Q32 and Homology after the Merger is completed. The unaudited pro forma condensed combined financial information does not reflect the costs of any integration activities or benefits that may result from realization of future cost savings from operating efficiencies which may result from the Merger.

3. Shares of Homology Common Stock Issued to Q32 Stockholders upon Closing of the Merger

Prior to the Merger, all Convertible Notes and outstanding shares of Q32 convertible preferred stock were converted into Q32 common stock, which were exchanged for shares of Homology common stock based on the exchange ratio determined in accordance with the Merger Agreement. The exchange ratio for purposes of the unaudited pro forma condensed combined financial information was derived using a stipulated value for Q32 of approximately $237 million (including the Q32 pre-closing financing disclosed above) and for Homology of approximately $81.3 million. The estimated number of shares of common stock that Homology has issued to Q32's common stockholders, preferred stockholders and convertible note holders as of March 25, 2024 (ignoring rounding of fractional shares) is determined as follows:

Shares of Q32 common stock outstanding	7,472,835
Estimated shares of Q32's common stock to be issued upon consummation of the Q32 Concurrent Financing	35,032,111
Shares of Q32 common stock to be issued upon conversion of Q32 preferred stock	108,818,415
Shares of Q32 common stock to be issued upon conversion of Q32 convertible notes	29,853,711
Total	181,177,072
Exchange ratio	0.0480
Estimated shares of Homology common stock to be issued to Q32 shareholders upon closing of the Merger	8,699,887

The exchange ratio and shares of Homology common stock issued to Q32's securityholders has been adjusted to give effect to the Reverse Stock Split.

4. Pro Forma Adjustments

Adjustments included in the column under the heading "Q32 Pre-Closing Financing Adjustments" are primarily based on information contained within the subscription agreement for the Q32 Pre-Closing Financing and adjustments included in the column under the heading "Pro Forma Merger Adjustments" are primarily based on information contained within the Merger Agreement. Further analysis will be performed after the completion of the Merger to confirm these estimates.

Both Q32 and Homology have a history of generating net operating losses and maintain a full valuation allowance against their net deferred tax assets. For the year ended December 31, 2023, Homology did not record an income tax provision. Q32 has recorded a tax provision of $0.3 million for the year ended December 31, 2023. Management of both entities have not identified any changes to the income tax positions due to the merger that would result in an incremental tax expense or benefit. Accordingly, no tax related adjustments have been reflected for the pro forma adjustments.

The pro forma adjustments, based on preliminary estimates that could change materially as additional information is obtained, are as follows:

A. The Q32 Pre-Closing Financing which closed immediately prior to the consummation of the Merger. The adjustment reflects cash proceeds of $42.0 million from the sale and issuance of 35,032,111 shares of Q32 common stock at a purchase price of $1.20 per share pursuant to the subscription agreement entered into in connection with the Q32 Pre-Closing Financing. The issuance of common stock related to this Pre-Closing Financing results in an increase of $4 thousand to common stock and an increase of $42.0 million to additional paid-in-capital in the unaudited pro forma condensed combined balance sheet. The potential use of proceeds from the Q32 pre-closing financing has not yet been finalized, and as a result, for the purposes of the unaudited pro forma condensed combined statement of operations, no adjustments were made to reflect interest income from the potential investment of the proceeds or any other use of proceeds from the Q32 pre-closing financing.

B. Upon closing, Q32 converted its outstanding convertible notes plus accrued interest into shares of common stock at 90% of the purchase price of the mandatory conversion event. For the purposes of the unaudited pro forma condensed combined statements of operations, Q32's conversion of its convertible notes is reflected as if it occurred on January 1, 2023, resulting in the issuance of 29,853,711 shares of Q32 common stock. As the convertible notes are recorded at fair value, a gain of $9.7 million on conversion of convertible stock is reflected in the unaudited pro forma condensed combined statement of operation for the year ended December 31, 2023. Since the conversion of the convertible notes are reflected as if it occurred on January 1, 2023, an adjustment to remove $6.2 million of change in fair value of convertible notes recorded in 2023 was recorded (refer to Letter J). The conversion of the Q32 convertible notes into shares of Q32 common stock results in an increase of $2 thousand to Common stock and an increase of $22.7 million to additional paid-in-capital in the unaudited pro forma condensed combined balance sheet.

C. Immediately prior to completing the Merger, all classes of convertible preferred stock of Q32 were converted to Q32 common stock. The Series A convertible preferred stock converted to 47,628,788 shares of Q32 common stock, the Series A-1 convertible preferred stock converted to 6,500,000 shares of Q32 common stock and the Series B convertible preferred stock converted to 54,689,627 shares of Q32 common stock. The conversion of the Q32 preferred stock into shares of Q32 common stock results in an increase of $11 thousand to Common stock and an increase of $111.4 million to additional paid-in-capital in the unaudited pro forma condensed combined balance sheet.

D. To reflect Homology's estimated transaction costs of $2.8 million that were not accrued as of December 31, 2023, consisting of legal and accounting related fees of approximately $1.0 million, and investment banking fees of approximately $1.8 million as an increase to accrued expenses and an increase to accumulated deficit of $2.8 million in the unaudited pro forma condensed combined balance sheet.

E. To reflect Q32's estimated transaction costs of $7.5 million that were not accrued as of December 31, 2023, consisting of legal and accounting related fees of approximately $4.7 million and investment banking fees of approximately $2.8 million as an increase to accrued expenses and a reduction to additional paid-in capital of $7.5 million in the unaudited pro forma condensed combined balance sheet. As the merger will be accounted for as a reverse recapitalization equivalent to the issuance of equity for the primarily cash and cash equivalents, short-term investments, and other non-operating assets of Homology, these direct and incremental costs are treated as a reduction of the net proceeds received within additional paid-in capital. The adjustments for transaction costs exclude costs related to Q32's ongoing operations as a public company, which will be charged to expense as incurred.

F. Estimated compensation expense of $5.4 million related to change-in-control cash payments, retention and severance payments resulting from pre-existing employment agreements that will be payable in cash in connection with the Merger but were not incurred as of December 31, 2023 is reflected as an increase to accrued expenses and accumulated deficit in the unaudited pro forma condensed combined balance sheet. Homology's compensation costs of $5.4 million are reflected as general and administrative expense in the unaudited pro forma condensed combined statement of operations for the year ended December 31, 2023.

G. To remove Homology's prepaid D&O Insurance policy of $0.4 million as a reduction to prepaid expenses and other current assets and accumulated deficit of $0.4 million in the unaudited pro forma condensed combined balance sheet, and replace it with a $1.9 million D&O tail policy as an increase to accrued expenses and accumulated deficit of $1.9 million in the unaudited pro forma condensed combined balance sheet. Homology's D&O tail policy expense of $1.9 million is reflected as general and administrative expense in the unaudited pro forma condensed combined statement of operations for the year ended December 31, 2023.

H. The estimated fair value of the CVR is $7.6 million, of $7.0 million was related to the estimated fair value of the CVR related to the Homology's equity method investment in OXB Solutions as of February 21, 2024. Refer to Note 6 to financial statements included in Homology's Annual Report on Form 10-K for the year ended December 31, 2023 for a description of the method used to estimate the fair value of the investment. The estimated fair value of the CVR also includes $0.6 million attributed to the in-process research and development assets subject to the CVR. Since The IPR&D has no future alternative use it is not reflected on the unaudited pro forma condensed combined balance sheet.

I. Homology's historical financial statements were adjusted to give pro forma effect to events in connection with the Merger that include the elimination of Homology's historical common stock, additional paid-in capital and accumulated deficit balances and the capitalization of the fair value of the estimated number of common shares of the combined company to be owned by Homology stockholders.

J. To remove $6.2 million of change in fair value of convertible notes for the year ended December 31, 2023, since the notes are assumed to convert on January 1, 2023. Refer to letter B above.

K. The impacts of the adjustments from the Merger for the Pre-Closing Financing and pro forma adjustments on the equity accounts are included in the table below.

The amounts of the elimination of Homology's historical equity carrying values within the table above include the impacts of the pro forma adjustments related to pre-merger expenses of Homology. A reconciliation from the amounts of Homology's historical equity carrying values contained within the unaudited pro forma condensed combined balance sheet as of December 31, 2023 is as follows:

	Common								
	Q32	Homology							
(amounts in thousands, except share amounts)	Shares	Amount	Shares	Amount	Additional Paid-In-Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Shareholders' Deficit	Notes
Q32 historical equity carrying values as of December 31, 2023	7,472,835	1	—	—	4,159	(187,081)	—	(182,921)	
Homology historical equity carrying values as of December 31, 2023 (i), (iii)	—	—	3,223,190	6	615,088	(542,098)	(5)	72,991	
Combined historical equity carrying values as of December 31, 2023	7,472,835	1	3,223,190	6	619,247	(729,179)	(5)	(109,930)	
Effect of Consummation of Q32 pre-closing financing	35,032,111	4	—	—	41,996	—	—	42,000	A
Total Q32 Pre-closing Financing Adjustments	35,032,111	4	—	—	41,996	—	—	42,000	
To remove $6.2 million of change in fair value of Q32's convertible notes for the year ended December 31, 2023 since the notes are assumed to convert on January 1, 2023	—	—	—	—	—	6,193	—	6,193	
Conversion of Q32 convertible notes into Q32 common stock	29,853,711	2	—	—	22,703	9,697	—	32,402	B
Conversion of outstanding Q32 convertible preferred stock into Q32 common stock	108,818,415	11	—	—	111,435	—	—	111,446	C
Stock-based compensation costs recognized by Homology related to acceleration of vesting of equity awards upon closing (ii), (iii)	—	—	51,865	1	561	(562)	—	—	
Derecognition of Homology prepaid item being written off (ii)	—	—	—	—	—	(432)	—	(432)	G
Homology transaction costs associated with the transaction	—	—	—	—	—	(2,815)	—	(2,815)	D
Elimination of Homology's historical equity carrying values, after pro forma adjustments	—	—	—	—	(545,912)	545,907	5	—	I
Elimination of IPR&D	—	—	—	—	(620)	—	—	(620)	
Exchange of outstanding Q32's common stock based on the assumed Exchange Ratio for purposes of these pro forma condensed combined financial statements (iii)	(181,177,072)	(18)	8,699,887	16	2	—	—	—	
Payment of transaction costs associated with the merger	—	—	—	—	(7,501)	—	—	(7,501)	E
Payment of transaction related insurance costs	—	—	—	—	—	(1,900)	—	(1,900)	G
Payment of change-in-control, retention and severance in connection with the merger	—	—	—	—	—	(5,400)	—	(5,400)	F
Total Pro Forma Merger Adjustments	(42,504,946)	(5)	8,751,752	17	(419,332)	550,688	5	131,373	
Pro Forma Combined	—	—	11,974,942	23	241,911	(178,491)	—	63,443	

(i) Homology shares are as of March 25, 2024.
(ii) Homology shares are as of March 25 2024. This adjustment reflects the acceleration of Homology share-based compensation and is treated as a precombination expense.
(iii) Homology shares have been adjusted for a one-for-eighteen reverse stock split.

L. The pro forma combined basic and diluted earnings per share have been adjusted to reflect the pro forma net loss for the year ended December 31, 2023. In addition, the number of shares used in calculating the pro forma combined basic and diluted net loss per share has been adjusted to give effect to the issuance of Homology's common stock in connection with the Q32 pre-closing financing and the Merger. As the combined organization is in a net loss position for both periods presented, any adjustment for potentially dilutive shares would be anti-dilutive, and as such basic and diluted loss per share are the same for the period. The following table presents the calculation of the pro forma weighted average number of common stock outstanding. The estimated number of shares reflects the impact of the Reverse Stock Split that was effected prior to consummation of the merger:

	Year Ended December 31, 2023
Weighted-average Q32 common shares outstanding—basic and diluted	7,253,978
Impact of Q32 pre-closing financing assuming consummation as of January 1, 2023	35,032,111
Impact of Q32 convertible notes assuming conversion as of January 1, 2023	29,853,711
Impact of Q32 convertible preferred stock assuming conversion as of January 1, 2023	108,818,415
Total	180,958,215
Application of exchange ratio to historical Q32 weighted-average shares outstanding	0.05
Adjusted Q32 weighted-average shares outstanding	8,688,709
Impact of Homology common stock related to stock units that accelerated vesting as of January 1, 2023	18,963
Impact of common shares issued upon vesting of equity awards for the combined company as of January 1, 2023	32,902
Weighted-average Homology common shares outstanding—basic and diluted	3,213,046
Pro forma combined weighted-average number of shares of common stock—basic and diluted	11,953,619