

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL	
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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>ARCH Venture Fund VIII, L.P.</u> (Last) (First) (Middle) 8755 WEST HIGGINS ROAD, SUITE 1025 (Street) CHICAGO IL 60631 (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 03/27/2018	3. Issuer Name and Ticker or Trading Symbol <u>Homology Medicines, Inc. [FIXX]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Series A Preferred Stock	(1)	(1)	Common Stock	4,683,238	(1)	I	See footnotes ⁽²⁾⁽⁴⁾
Series B Preferred Stock	(1)	(1)	Common Stock	1,385,457	(1)	I	See footnotes ⁽³⁾⁽⁴⁾

1. Name and Address of Reporting Person*
ARCH Venture Fund VIII, L.P.
 (Last) (First) (Middle)
 8755 WEST HIGGINS ROAD, SUITE 1025
 (Street)
 CHICAGO IL 60631
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
ARCH Venture Fund VIII Overage, L.P.
 (Last) (First) (Middle)
 8755 WEST HIGGINS ROAD, SUITE 1025
 (Street)
 CHICAGO IL 60631
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
ARCH Venture Partners VIII, L.P.
 (Last) (First) (Middle)
 8755 WEST HIGGINS ROAD, SUITE 1025
 (Street)
 CHICAGO IL 60631
 (City) (State) (Zip)

1. Name and Address of Reporting Person*

[ARCH Venture Partners VIII, LLC](#)

(Last) (First) (Middle)
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(Street)
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(City) (State) (Zip)

1. Name and Address of Reporting Person*

[CRANDELL KEITH](#)

(Last) (First) (Middle)
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(Street)
CHICAGO IL 60631

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[BYBEE CLINTON](#)

(Last) (First) (Middle)
8755 WEST HIGGINS ROAD, SUITE 1025

(Street)
CHICAGO IL 60631

(City) (State) (Zip)

1. Name and Address of Reporting Person*

[NELSEN ROBERT](#)

(Last) (First) (Middle)
8755 WEST HIGGINS ROAD, SUITE 1025

(Street)
CHICAGO IL 60631

(City) (State) (Zip)

Explanation of Responses:

1. The preferred stock is convertible into the Issuer's common stock on a one-for-one basis at the holder's election and has no expiration date. The preferred stock will automatically convert into common stock upon the closing of the Issuer's initial public offering.
2. Includes 669,034 and 4,014,204 shares of Series A Preferred Stock held by ARCH Venture Fund VIII Overage, L.P. ("ARCH Fund Overage") and ARCH Venture Fund VIII, L.P. ("ARCH Fund VIII"), respectively.
3. Includes 527,793 and 857,664 shares of Series B Preferred Stock held by ARCH Fund Overage and ARCH Fund VIII, respectively.
4. The sole general partner of ARCH Fund VIII is ARCH Venture Partners VIII, L.P. ("ARCH Partners VIII"). The sole general partner of ARCH Partners VIII and ARCH Fund Overage is ARCH Venture Partners VIII, LLC ("ARCH VIII LLC"). ARCH Partners VIII may therefore be deemed to beneficially own the securities held by ARCH Fund VIII and ARCH VIII LLC may be deemed to beneficially own the securities held by ARCH Fund VIII and ARCH Fund Overage. ARCH Partners VIII and ARCH VIII LLC disclaim beneficial ownership of such securities, except to the extent of any pecuniary interest therein. The managing directors of ARCH VIII LLC are Keith L. Crandell, Clinton Bybee and Robert Nelsen, and they may be deemed to beneficially own the shares held by ARCH Fund VIII and ARCH Fund Overage. Messrs. Crandell, Bybee and Nelsen disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein.

Remarks:

[ARCH Venture Fund VIII, L.P., By: ARCH Venture Partners VIII, L.P., its General Partner, By: ARCH Venture Partners VIII, LLC, its General Partner, By: /s/ Mark McDonnell, as Attorney-in-Fact for Keith, Crandell, Managing Director](#)
[ARCH Venture Fund VIII Overage, L.P., ARCH Venture Partners VIII, LLC, its General Partner, By: /s/ Mark McDonnell, as Attorney-in-Fact for Keith, Crandell, Managing Director](#) 03/27/2018
[ARCH Venture Partners VIII, L.P., By: ARCH Venture](#) 03/27/2018

<u>Partners VIII, LLC, its General Partner, By: /s/ Mark McDonnell, as Attorney-in-Fact for Keith, Crandell, Managing Director</u>	
<u>ARCH Venture Partners VIII, LLC, By: /s/ Mark McDonnell, as Attorney-in-Fact for Keith, Crandell, Managing Director</u>	<u>03/27/2018</u>
<u>Keith Crandell, Managing Director, By: /s/ Mark McDonnell, as Attorney-in-Fact,</u>	<u>03/27/2018</u>
<u>Clinton Bybee, Managing Director, By: /s/ Mark McDonnell, as Attorney-in-Fact</u>	<u>03/27/2018</u>
<u>Robert Nelsen, Managing Director, By: /s/ Mark McDonnell, as Attorney-in-Fact</u>	<u>03/27/2018</u>
** Signature of Reporting Person	Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 5 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.