

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934
(Amendment No.)*

Homology Medicines, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

438083107

(CUSIP Number)

March 27, 2018

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☐ Rule 13d-1(b)
- ☐ Rule 13d-1(c)
- ☒ Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1. Names of Reporting Persons
I.R.S. Identification Nos. of Above Persons (Entities Only)

Novartis Institutes for BioMedical Research, Inc.

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) ☐ o

(b) ☐ o

3. SEC Use Only

4. Citizenship or Place of Organization
Delaware

5. Sole Voting Power
0

6. Shared Voting Power
1,979,226

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,979,226

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,979,226

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) ☐ o

11. Percent of Class Represented by Amount in Row (9)
5.3% (1)

12. Type of Reporting Person (See Instructions)
CO

(1) This percentage is calculated based upon 37,495,773 shares of common stock of Homology Medicines, Inc. (the "Issuer") outstanding as of November 5, 2018, as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission (the "SEC") on November 13, 2018.

1. Names of Reporting Persons
I.R.S. Identification Nos. of Above Persons (Entities Only)

Novartis AG

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) ☐ o

(b) ☐ o

3. SEC Use Only

4. Citizenship or Place of Organization
Switzerland

5. Sole Voting Power
0

6. Shared Voting Power
1,979,226

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,979,226

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,979,226

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) ☐ o

11. Percent of Class Represented by Amount in Row (9)
5.3% (1)

12. Type of Reporting Person (See Instructions)
CO

(1) This percentage is calculated based upon 37,495,773 shares of the Issuer's common stock outstanding as of November 5, 2018, as reported in the Issuer's quarterly report on Form 10-Q filed with the SEC on November 13, 2018.

Item 1.

- (a) Name of Issuer

Homology Medicines, Inc. (the "Issuer")

- (b) Address of Issuer's Principal Executive Offices

45 Wiggins Avenue, Bedford, MA 01730

Item 2.

- (a) Name of Person Filing

This statement is filed on behalf of the following persons with respect to shares of Common Stock of the Issuer:

(i) Novartis Institutes for BioMedical Research, Inc. ("NIBRI"), a Delaware corporation, with respect to shares held by it; and

(ii) Novartis AG, a Switzerland corporation, as the publicly owned parent of NIBRI, with respect to the shares held by NIBRI.

The foregoing persons are hereinafter referred to collectively as the "Reporting Persons."

- (b) Address of the Principal Office or, if none, Residence

The address of the principal business office of NIBRI is 250 Massachusetts Avenue, Cambridge, MA 02139.

The address of the principal business office of Novartis AG is Lichtstrasse 35, 4056 Basel, Switzerland.

- (c) Citizenship

NIBRI is a corporation organized under the laws of Delaware and is an indirect wholly-owned subsidiary of Novartis AG.

Novartis AG is a corporation organized under the laws of Switzerland and is the publicly owned parent of NIBRI.

- (d) Title of Class of Securities

Common Stock, par value \$0.0001 per share ("Common Stock").

- (e) CUSIP Number

438083 107

Item 3. If this statement is filed pursuant to Â§Â§240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable.

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned:

NIBRI is the record owner of 1,979,226 shares of Common Stock of the Issuer. As the indirect parent of NIBRI, Novartis AG may be deemed to beneficially own these securities.

(b) Percent of class:

5.3%, based upon 37,495,773 shares of the Issuer's common stock outstanding as of November 5, 2018, as reported in the Issuer's quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 13, 2018.

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:
Not applicable

(ii) Shared power to vote or to direct the vote:
1,979,226

(iii) Sole power to dispose or to direct the disposition of:
Not applicable

(iv) Shared power to dispose or to direct the disposition of:
1,979,226

Item 5. Ownership of 5 Percent or Less of a Class.

Not applicable.

Item 6. Ownership of More than 5 Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable.

Item 9. Notice of Dissolution of a Group.

Not applicable.

Item 10. Certification.

Not applicable.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 4, 2019

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.

By: /s/ Scott A. Brown
Scott A. Brown, VP, General Counsel

NOVARTIS AG

By: /s/ Christian Rehm
Christian Rehm, Authorized Signatory

By: /s/ Felix Eichhorn
Felix Eichhorn, Authorized Signatory

EXHIBIT INDEX

SCHEDULE 13G

Exhibit Number	Exhibit Description
99.1	Joint Filing Agreement

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, each of the persons named below agrees to the joint filing of a Statement on Schedule 13G (including amendments thereto) with respect to the shares of Common Stock of Homology Medicines, Inc., a Delaware corporation, and further agree that this Joint Filing Agreement shall be included as an exhibit to such joint filings.

This Joint Filing Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original instrument, but all of such counterparts together shall constitute one agreement.

In evidence thereof, the undersigned, being duly authorized, hereby execute this Joint Filing Agreement as of February 4, 2019.

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.

By: /s/ Scott A. Brown
Scott A. Brown, VP, General Counsel

NOVARTIS AG

By: /s/ Christian Rehm
Christian Rehm, Authorized Signatory

By: /s/ Felix Eichhorn
Felix Eichhorn, Authorized Signatory
