

SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934
(Amendment No. 2)*

Ra Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

74933V108

(CUSIP Number)

December 31, 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 the disclosures provided in a prior cover page.

The information required in 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
Novartis Bioventures Ltd.

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

(a)

(b)

3. SEC Use Only

4. Citizenship or Place of Organization
Switzerland

5. Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

6. Shared Voting Power
1,191,996

7. Sole Dispositive Power
0

8. Shared Dispositive Power
1,191,996

9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,191,996

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

11. Percent of Class Represented by Amount in Row 9
2.8%

12. Type of Reporting Person (See Instructions)
CO

1. Names of Reporting Persons
Novartis AG

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

(a)

(b)

3. SEC Use Only

4. Citizenship or Place of Organization
Switzerland

5. Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

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2.8%

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CO

Item 1(a). Name of Issuer:
Ra Pharmaceuticals, Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:
87 Cambridge Park Drive, Cambridge, MA 02140

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 Bioventures Ltd., a Swiss corporation, with respect to shares held by it; and
 (ii) Novartis AG, a Swiss corporation, as the publicly owned parent of Novartis Bioventures Ltd., with respect to the shares held by Novartis Bioventures Ltd.
 The foregoing persons are hereinafter referred to collectively as the "Reporting Persons."

Item 2(b). Address of Principal Business Office or, if none, Residence:
 The address of the principal business office of Novartis Bioventures Ltd. is Lichtstrasse 35, 4056 Basel, Switzerland.

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

Item 2(c). Citizenship:
 Novartis Bioventures Ltd. is a corporation organized under the laws of Switzerland 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 Novartis Bioventures Ltd.

Item 2(d). Title of Class of Securities:
 Common Stock, par value \$0.001 per share ("Common Stock").

Item 2(e). CUSIP Number:
 74933V108

- Item 3.** **If this statement is filed pursuant to §§240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:**
- (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
 - (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
 - (c) Insurance company as defined in section 3(a)19 of the Act (15 U.S.C. 78c);
 - (d) Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
 - (e) An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
 - (f) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
 - (g) A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
 - (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
 - (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
 - (j) A non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J);
 - (k) Group, in accordance with §240.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution: _____

Item 4. Ownership

(a) Amount beneficially owned:

Novartis Bioventures Ltd. is the record owner of 1,191,996 shares of Common Stock of the Issuer. As the indirect parent of Novartis Bioventures, Ltd., Novartis AG may be deemed to beneficially own these securities.

(b) Percent of class:

2.8%, based on 42,032,187 shares of Common Stock outstanding as of December 12, 2018, as reported by the Issuer in the Prospectus Supplement filed pursuant to Rule 424(b)(5) on December 12, 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:
1,191,996

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

(iv) Shared power to dispose or to direct the disposition of:
1,191,996

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

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than 5 percent of the class of securities, check the following .

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

Each of the Reporting Persons hereby makes the following certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

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.

Date: February 5, 2019

NOVARTIS BIOVENTURES LTD.

/s/ Bart Dzikowski
Name: Bart Dzikowski
Title: Secretary of the Board

/s/ Stephan Sandmeier
Name: Stephan Sandmeier
Title: Authorized Signatory

NOVARTIS AG

/s/ Bart Dzikowski
Name: Bart Dzikowski
Title: Authorized Signatory

/s/ Stephan Sandmeier
Name: Stephan Sandmeier
Title: Authorized Signatory

INDEX EXHIBIT

SCHEDULE 13G

<u>Exhibit Number</u>	<u>Exhibit Description</u>
99	Joint Filing Agreement

Joint Filing Agreement

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a Statement on Schedule 13G (including amendments thereto) with respect to the shares of Common Stock, par value \$0.001 per share, of Ra Pharmaceuticals, Inc., a Delaware corporation, and further agree that this Joint Filing Agreement shall be included as an exhibit to such joint filings.

The undersigned further agree that each party hereto is responsible for the timely filing of such Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such party contained therein; provided that no party is responsible for the completeness or accuracy of the information concerning any other filing party, unless such party knows or has reason to believe that such information is inaccurate.

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 5, 2019.

NOVARTIS BIOVENTURES LTD.

/s/ Bart Dzikowski

Name: Bart Dzikowski

Title: Secretary of the Board

/s/ Stephan Sandmeier

Name: Stephan Sandmeier

Title: Authorized Signatory

NOVARTIS AG

/s/ Bart Dzikowski

Name: Bart Dzikowski

Title: Authorized Signatory

/s/ Stephan Sandmeier

Name: Stephan Sandmeier

Title: Authorized Signatory
