

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

**SCHEDULE 13G**

UNDER THE SECURITIES EXCHANGE ACT OF 1934  
(AMENDMENT NO. )\*

**Aeglea BioTherapeutics, Inc.**

(Name of Issuer)

Common Stock, par value \$0.0001 per share  
(Title of Class of Securities)

00773J 103  
(CUSIP Number)

April 6, 2016  
(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*).

<b>1</b>	<b>NAMES OF REPORTING PERSONS</b> Novartis Bioventures Ltd.	
<b>2</b>	<b>CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)</b> (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
<b>3</b>	<b>SEC USE ONLY</b>	
<b>4</b>	<b>CITIZENSHIP OR PLACE OF ORGANIZATION</b> Bermuda	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>5</b>	<b>SOLE VOTING POWER</b> 0
	<b>6</b>	<b>SHARED VOTING POWER</b> 2,310,924
	<b>7</b>	<b>SOLE DISPOSITIVE POWER</b> 0
	<b>8</b>	<b>SHARED DISPOSITIVE POWER</b> 2,310,924
<b>9</b>	<b>AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON</b> 2,310,924	
<b>10</b>	<b>CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)</b> <input type="checkbox"/>	
<b>11</b>	<b>PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)</b> 17.2%	
<b>12</b>	<b>TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)</b> CO	

<b>1</b>	<b>NAMES OF REPORTING PERSONS</b> Novartis AG	
<b>2</b>	<b>CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)</b> (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
<b>3</b>	<b>SEC USE ONLY</b>	
<b>4</b>	<b>CITIZENSHIP OR PLACE OF ORGANIZATION</b> Switzerland	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>5</b>	<b>SOLE VOTING POWER</b> 0
	<b>6</b>	<b>SHARED VOTING POWER</b> 2,310,924
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<b>12</b>	<b>TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)</b> CO	

**Item 1(a). Name of Issuer:**

Aeglea BioTherapeutics, Inc.

**Item 1(b). Address of Issuer's Principal Executive Offices:**

901 S. MoPac Expressway, Barton Oaks Plaza One, Ste. 250, Austin, TX 78746.

**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 Bermuda corporation, with respect to shares held by it; and
- (ii) Novartis AG, a Switzerland 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 131 Front Street, Hamilton, Bermuda HM12.

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 Bermuda 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:**

00773J 103

**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);
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- (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 2,310,924 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:**

17.2%

**(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: 2,310,924
- (iii)** Sole power to dispose or to direct the disposition of: Not applicable
- (iv)** Shared power to dispose or to direct the disposition of: 2,310,924

**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

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**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.

**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: April 13, 2016

NOVARTIS BIOVENTURES LTD.

/s/ Simon Zivi

Name: Title: Chairman

/s/ Laurieann Chaikowsky

Name: Laurieann Chaikowsky

Title: Authorized Signatory

NOVARTIS AG

/s/ Simon Zivi

Name: Simon Zivi

Title: Authorized Signatory

/s/ Laurieann Chaikowsky

Name: Laurieann Chaikowsky

Title: Authorized Signatory

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INDEX EXHIBIT

SCHEDULE 13G

<u>Exhibit Number</u>	<u>Exhibit Description</u>
<a href="#">99.1</a>	Evidence of Signature Authority
<a href="#">99.2</a>	Power of Attorney
<a href="#">99.3</a>	Joint Filing Agreement

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EXHIBIT 99.1

EVIDENCE OF SIGNATURE AUTHORITY

Excerpt from Commercial Register of Novartis AG

Identification number	Legal status	Entry	Cancelled	Carried CH-270.3.002.061-2 from: on:	1
CHE-103.867.266	Limited or Corporation	01.03.1996			

All entries

In	Ca	Business name	Ref	Legal seat
1		<b>Novartis AG</b>	1	Basel
1	2	(Novartis SA) (Novartis Ltd)		
2		(Novartis SA) (Novartis Inc.)		

CHE-103.867.266	Novartis AG			Basel	5
All entries					
In	Mo	Ca	Personal Data	Function	Signature
6			Eichhorn, Felix, von Basel, in Basel		joint signature at two

CHE-103.867.266	Novartis AG			Basel	8
All entries					
In	Mo	Ca	Personal Data	Function	Signature
73			Rehm, Christian, von Ruschein, in Muttenz		joint signature at two



**POWER OF ATTORNEY**

We, the undersigned, under the authority granted to each of us to sign jointly on behalf of Novartis AG, hereby grant powers to Simon Zivi, Laurieann Chaikowsky, Michael Jones, David Middleton, Henry Skinner, Bartosz Dzikowski and Reinhard Ambros and constitute and appoint any two of them jointly as our true and lawful attorneys and representatives and to act on our behalf and to sign filings to be made with the U.S. Securities and Exchange Commission (the "SEC") relating to the shares of Aeglea BioTherapeutics, Inc. held by Novartis Bioventures, Ltd, an indirect subsidiary of Novartis AG, as required by the SEC (the "SEC Filings"), and to undertake and carry out all tasks and formalities on our behalf which may be required in connection with giving effect to the SEC Filings.

We, the undersigned, undertake to ratify and confirm whatever our true and lawful attorneys do or purport to do in good faith in the exercise of any power conferred by this Power of Attorney.

We, the undersigned, declare that a person who deals with our true and lawful attorneys in good faith may accept a written statement signed by such attorneys to the effect that this Power of Attorney has not been revoked as conclusive evidence of that fact.

The authority granted by this Power of Attorney shall expire immediately after the SEC Filings are no longer required.

**IN WITNESS WHEREOF**, this Power of Attorney is duly signed on this 30<sup>th</sup> day of March 2016.

Novartis AG

/s/ Christian Rehm

\_\_\_\_\_  
Name: Christian Rehm

Title: Authorized Signatory

/s/ Felix Eichhorn

\_\_\_\_\_  
Name: Felix Eichhorn

Title: Authorized Signatory

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EXHIBIT 99.3

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 Common Stock of Aeglea BioTherapeutics, 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 April 13, 2016.

NOVARTIS BIOVENTURES LTD.

/s/ Simon Zivi

\_\_\_\_\_  
Name: Simon Zivi

Title: Chairman

/s/ Laurieann Chaikowsky

\_\_\_\_\_  
Name: Laurieann Chaikowsky

Title: Authorized Signatory

NOVARTIS AG

/s/ Simon Zivi

\_\_\_\_\_  
Name: Simon Zivi

Title: Authorized Signatory

/s/ Laurieann Chaikowsky

\_\_\_\_\_  
Name: Laurieann Chaikowsky

Title: Authorized Signatory