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

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FORM S-8  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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**CALADRIUS BIOSCIENCES, INC.**  
(Exact name of registrant as specified in its charter)

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<b>Delaware</b>	<b>22-2343568</b>
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification number)

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**110 Allen Road, Second Floor**  
**Basking Ridge, NJ 07920**  
(Address of principal executive offices; zip code)

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**Caladrius Biosciences, Inc. 2015 Equity Compensation Plan**  
(Full title of the plan)

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**Todd C. Girolamo, Esq.**  
**Senior Vice President, General Counsel and Secretary**  
**Caladrius Biosciences, Inc.**  
**420 Lexington Avenue, Suite 350**  
**New York, NY 10170**  
**(212) 584-4180**  
(Name, address and telephone number, including area code, of agent for service)

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer   
Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting 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 7(a)(2)(B) of the Securities Act.

### CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, \$0.001 par value per share	379,356 shares (1)	\$3.37	\$1,278,430	\$159.16

- (1) Consists of the aggregate number of shares of common stock, par value \$0.001 per share (“Common Stock”) of Caladrius Biosciences, Inc. (the “Registrant”), which may be sold upon the exercise of options or issuance of stock-based awards which may be hereafter issued under the Caladrius Biosciences, Inc. 2015 Equity Compensation Plan (the “Equity Plan”). In accordance with Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions under the Equity Plan.
- (2) Pursuant to Rule 457(c) of the Securities Act, the proposed maximum offering price per share and the proposed maximum aggregate offering price are estimated solely for the purpose of calculating the amount of the registration fee for shares reserved for future grant or issuance under the Equity Plan which are based on the average of the high and low prices of Registrant’s Common Stock as reported on The Nasdaq Capital Market as of a date (December 28, 2017) within five business days prior to filing this Registration Statement.

**PART I**

**INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

**EXPLANATORY NOTE**

This Registration Statement on Form S-8 is filed to register an increase of 379,356 shares of the Registrant's Common Stock reserved under the Equity Plan effective January 1, 2018, by operation of the Equity Plan's "evergreen" provision. This Registration Statement registers additional securities of the same class as other securities for which a Registration Statement on Form S-8 has previously been filed and is effective. Accordingly, this Registration Statement hereby incorporates by reference pursuant to General Instruction E of Form S-8 the contents of the Registration Statement on Form S-8, File No. 333-215455, filed with the Securities and Exchange Commission on January 6, 2017 and Form S-8, File No. 333-205662, filed with the Securities and Exchange Commission on July 15, 2015 by the Registrant, relating to the Registrant's 2015 Equity Compensation Plan. In addition, on June 23, 2016, the Registrant filed an additional Registration Statement on Form S-8, File No. 333-212202, to register an additional 226,932 shares of the Registrant's Common Stock which became available for issuance on June 23, 2016 as a result of the evergreen provision. On July 28, 2016, the Registrant effected a 1-for-10 reverse stock split of the Registrant's issued and outstanding Common Stock. In connection with the reverse stock split, the total number of shares then-authorized for issuance under the 2015 Equity Compensation Plan decreased proportionately to reflect the reverse stock split. The share totals contained in this Registration Statement reflect the 1-for-10 reverse stock split.

The documents containing the information specified in "Item 1. Plan Information" and "Item 2. Registrant Information and Employee Plan Annual Information" of this Part I of this Registration Statement is included in documents sent or given by the Registrant to participants in the Equity Plan covered by this Registration Statement, pursuant to Rule 428(b)(1) under the Securities Act.

## PART II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Documents by Reference.

The following documents filed by the Registrant with the Securities and Exchange Commission (the "SEC") are incorporated herein by reference (other than documents or information deemed to be furnished and not filed in accordance with the rules of the SEC):

- Annual Report on Form 10-K for the year ended December 31, 2016 filed with the SEC on March 19, 2017;
- Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017, filed with the SEC on May 15, 2017, August 10, 2017 and November 9, 2017, respectively;
- Current Reports on Form 8-K filed with the SEC on January 6, 2017, March 17, 2017, March 22, 2017, March 23, 2017, March 30, 2017, May 17, 2017 (two reports), May 18, 2017, June 5, 2017, August 10, 2017, September 5, 2017, September 21, 2017, November 1, 2017 and November 9, 2017; and
- The description of the Common Stock contained in the Registrant's Registration Statement on Form 8-A filed with the SEC on August 2, 2013, including any amendments or reports filed for the purpose of updating that description.

All reports and other documents filed by the Registrant after the date hereof pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing of such reports and documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

#### Item 4. Description of Securities.

Not applicable.

#### Item 5. Interest of Named Experts and Counsel.

Not applicable.

#### Item 6. Indemnification of Directors and Officers.

The Registrant was incorporated under the laws of the State of Delaware. Under the General Corporation Law of the State of Delaware (the "Delaware GCL"), a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), by reason of the fact that he or she is or was the Registrant's director, officer, employee or agent, or is or was serving at the Registrant's request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding if he or she acted in good faith and in a manner he or she

reasonably believed to be in or not opposed to the Registrant's best interests, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

In addition, the Delaware GCL also provides that the Registrant also may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the Registrant's right to procure a judgment in its favor by reason of the fact that he or she is or was the Registrant's director, officer, employee or agent, or is or was serving at the Registrant's request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the Registrant's best interests. However, in such an action by or on the Registrant's behalf, no indemnification may be made in respect of any claim, issue or matter as to which the person is adjudged liable to the Registrant unless and only to the extent that the court determines that, despite the adjudication of liability but in view of all the circumstances, the person is fairly and reasonably entitled to indemnity for such expenses which the court shall deem proper.

The Registrant's certificate of incorporation is consistent with the Delaware GCL. Each of the Registrant's directors, officers, employees and agents will be indemnified to the extent permitted by the Delaware GCL. The Registrant also maintains insurance on behalf of its directors and officers against liabilities asserted against such persons and incurred by such persons in such capacities, whether or not the Registrant would have the power to indemnify such persons under the Delaware GCL.

The Registrant has entered into indemnification agreements with its Chief Executive Officer and Chief Financial Officer, and certain other employees and each of the Registrant's directors pursuant to which the Registrant has agreed to indemnify such party to the full extent permitted by law, subject to certain exceptions, if such party becomes subject to an action because such party is the Registrant's director, officer, employee, agent or fiduciary.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits**

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

**Item 9. Undertakings.**

(a) The Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

- (i) To include any prospectus required by section 10(a)(3) of the Securities Act;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in this Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b)The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c)Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Basking Ridge, State of New Jersey, on this 4th day of January, 2018.

### CALADRIUS BIOSCIENCES, INC.

By: /s/ David J. Mazzo

Name: David J. Mazzo, PhD

Title: President and Chief Executive Officer

### POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Caladrius Biosciences, Inc., hereby severally constitute and appoint David J. Mazzo and Joseph Talamo, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the Registration Statement on Form S-8 filed herewith and any and all subsequent amendments to said Registration Statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Caladrius Biosciences, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said Registration Statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ David J. Mazzo</u> David J. Mazzo, PhD	Director, President and Chief Executive Officer (Principal Executive Officer)	January 4, 2018
<u>/s/ Joseph Talamo</u> Joseph Talamo	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	January 4, 2018
<u>/s/ Gregory B. Brown</u> Gregory B. Brown, MD	Chairman of the Board of Directors	January 4, 2018
<u>/s/ Steven M. Klosk</u> Steven M. Klosk	Director	January 4, 2018
<u>/s/ Steven S. Myers</u> Steven S. Myers	Director	January 4, 2018
<u>/s/ Peter G. Traber</u> Peter G. Traber, MD	Director	January 4, 2018

## EXHIBIT INDEX

Number	Description
3.1	Amended and Restated Certificate of Incorporation, as amended, incorporated by reference to Exhibit 3.1 of Registrants Quarterly Report on Form 10-Q, filed with the SEC on August 9, 2016.
3.2	Amended and Restated Bylaws, as amended, incorporated by reference to Exhibit 3.2 of the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on August 9, 2016.
3.3	Amended to the Amended and Restated Bylaws, as amended, incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 21, 2017.
4.1	Caladrius Biosciences, Inc. 2015 Equity Compensation Plan, incorporated by reference to Annex A of the Registrant's Definitive Proxy Statement filed with the SEC on June 8, 2015.
<a href="#">5.1</a> *	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to the Registrant
23.1*	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., (included in Exhibit 5.1)
<a href="#">23.2</a> *	Consent of Grant Thornton LLP, independent registered public accounting firm
24.1*	Power of Attorney (included on the signature pages of this registration statement)

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\* Filed herewith



# MINTZ LEVIN

Chrysler Center  
666 Third Avenue  
New York, NY 10017  
212-935-3000  
212-983-3115 fax  
www.mintz.com

January 4, 2018

Caladrius Biosciences, Inc.  
110 Allen Road, Second Floor  
Basking Ridge, New Jersey 07920

Ladies and Gentlemen:

We have acted as counsel to Caladrius Biosciences, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission of a Registration Statement on Form S-8 (the "Registration Statement"), pursuant to which the Company is registering the issuance under the Securities Act of 1933, as amended, of a total of 379,356 shares (the "Shares") of its common stock, \$0.001 par value per share (the "Common Stock"), that may be issued pursuant to the Caladrius Biosciences Inc. 2015 Equity Compensation Plan, as amended (the "Plan"). This opinion is being rendered in connection with the filing of the Registration Statement. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined the Company's Amended and Restated Certificate of Incorporation, as amended, and Amended and Restated By-Laws, as amended, both as currently in effect; such other records of the corporate proceedings of the Company and certificates of the Company's officers as we have deemed relevant; and the Registration Statement and the exhibits thereto.

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies. In addition, we have assumed that the Company will receive any required consideration in accordance with the terms of the Plan.

Based upon the foregoing, we are of the opinion that (i) the Shares have been duly and validly authorized by the Company and (ii) the Shares, when sold and delivered in accordance with the terms of the Plan, will have been duly and validly issued, fully paid and non-assessable shares of the Common Stock, free of preemptive rights.

Our opinion is limited to the applicable provisions of the Delaware Constitution, the General Corporation Laws of the State of Delaware and the reported judicial decisions interpreting those laws, and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

We understand that you wish to file this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Securities Act, and we hereby consent thereto. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our report dated March 16, 2017 with respect to the consolidated financial statements of Caladrius Biosciences, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2016, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement.

/s/ GRANT THORNTON LLP

New York, New York  
January 4, 2018