As filed with the Securities and Exchange Commission on September 13, 2017

Registration No. 333-220354

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

Amendment No. 1 to

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

CALADRIUS BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware

22-2343568

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

110 Allen Road Second Floor Basking Ridge, NJ 07920 (908) 842-0100

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

David J. Mazzo **President and Chief Executive Officer** Caladrius Biosciences, Inc. 110 Allen Road Second Floor Basking Ridge, NJ 07920 (908) 842-0100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to: Jeffrey P. Schultz, Esq. Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. **Chrysler Center, 666 Third Avenue** New York, NY 10017 Tel: (212) 935-3000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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. (Check one):

Large accelerated filer	0	Accelerated fil	er o
Non-accelerated filer	0	Smaller reporti	ng company x
(Do not check if a smal	ler reporting	company)	Emerging growth company o

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. o

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

EXPLANATORY NOTE

This Amendment No. 1 to the Registration Statement on Form S-3 filed by Caladrius Biosciences, Inc. on September 6, 2017 (the "Original Report") is being filed solely to refile Exhibit 23.1 to the Original Report and to revise the Exhibit Index as set forth below in Item 16 of Part II. No changes have been made to Part I or Items 14, 15 or 17 of the Original Report. Accordingly, they have been omitted.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. Exhibits

The exhibits to this registration statement are listed in the Exhibit Index to this registration statement, which Exhibit Index is hereby incorporated by reference.

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-3 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 September 13, 2017.

CALADRIUS BIOSCIENCES, INC.

By /s/ David J. Mazzo

David J. Mazzo President and Chief Executive Officer

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

	Signature	Date
/s/ David J. Mazzo, PhD.		
David J. Mazzo, PhD.	Director, and President and Chief Executive Officer (Principal Executive Officer)	September 13, 2017
<u>/s/ Joseph Talamo</u> Joseph Talamo	Senior Vice President, and Chief Financial Officer (Principal Financial and Accounting Officer)	September 13, 2017
<u>*</u>		
Gregory B. Brown, M.D.	Chair of the Board of Directors	September 13, 2017
<u>*</u> <u>Steven S. Myers</u>	Director	September 13, 2017
<u>*</u> Steven M. Klosk	Director	September 13, 2017
<u>*</u> Peter Traber	Director	September 13, 2017

*Bv:	

/s/ David J. Mazzo David J. Mazzo As Attorney-in-Fact

EXHIBIT INDEX

Exhibit		Incorporated	Filing	SEC File/Reg.
Number	Description	By Reference	Date	Number
<u>4.1</u>	Specimen Certificate for Common Stock.	Form S-3 (Exhibit 4.1)	9/11/2007	333-145988
<u>5.1</u>	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.	Form S-3 (Exhibit 5.1)	9/6/17	333-220354
<u>23.1</u>	Consent of Grant Thornton LLP			
<u>23.2</u>	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in the opinion filed as Exhibit 5.1).	Form S-3 (Exhibit 5.1)	9/6/17	333-220354
<u>24.1</u>	Powers of Attorney	Form S-3 (included on the signature page of the registration statement)	9/6/17	333-220354

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 and to the use of our name as it appears under the caption "Experts".

/s/ GRANT THORNTON LLP

New York, New York September 13, 2017