

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

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CALADRIUS BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

22-2343568

(I.R.S. Employer
Identification Number)

**110 Allen Road, 2nd Floor
Basking Ridge, NJ 07920
(908) 842-0100**

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

**Todd C. Girolamo, Esq.
SVP, General Counsel and Corporate Secretary
Caladrius Biosciences, Inc.
110 Allen Road, 2nd 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:

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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.

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.

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.

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.

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. []

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

Smaller reporting company

Emerging growth 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 Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, \$0.001 par value	1,454,541	\$2.16	\$3,141,808.56	\$407.81

(1) This Registration Statement registers (i) 969,694 shares of common stock of the Registrant and (ii) 484,847 shares of common stock of the Registrant issuable upon the exercise of certain outstanding warrants issued by the Registrant. Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this Registration Statement shall also cover any additional shares of the Registrant's common stock that become issuable by reason of any stock dividend, stock split, recapitalization or other transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of common stock.

(2) Estimated in accordance with Rule 457(c) solely for the purposes of calculating the registration fee on the basis of the average of the high and low prices of the Registrant's common stock as reported on The Nasdaq Capital Market on August 13, 2020.

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 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. The selling stockholders may not sell these securities until the Securities and Exchange Commission declares the registration statement effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED AUGUST 18, 2020

PROSPECTUS

CALADRIUS BIOSCIENCES, INC.

1,454,541 Shares of Common Stock

The selling stockholders of Caladrius Biosciences, Inc. ("Caladrius," "we," "us" or the "Company") listed beginning on page 10 of this prospectus may offer and resell under this prospectus (i) up to 969,694 shares of our common stock and (ii) up to 484,847 shares of common stock issuable upon exercise of warrants acquired by certain of the selling stockholders under the Purchase Agreement (defined below) (the "Warrants"). The selling stockholders acquired the shares of common stock and the Warrants from us pursuant to a Securities Purchase Agreement (the "Purchase Agreement"), dated July 10, 2020, by and among the Company and the investors listed therein (the "Investors").

We are registering the resale of the shares of common stock covered by this prospectus as required by the Registration Rights Agreement we entered into with the Investors on July 10, 2020. The selling stockholders will receive all of the proceeds from any sales of the shares offered hereby. We will not receive any of the proceeds, but we will incur expenses in connection with the offering. To the extent the Warrants are exercised for cash, if at all, we will receive the exercise price of the Warrants.

The selling stockholders may sell these shares through public or private transactions at market prices prevailing at the time of sale or at negotiated prices. The timing and amount of any sale are within the sole discretion of the selling stockholders. Our registration of the shares of common stock covered by this prospectus does not mean that the selling stockholders will offer or sell any of the shares. For further information regarding the possible methods by which the shares may be distributed, see "Plan of Distribution" beginning on page 12 of this prospectus.

Our common stock is listed on The Nasdaq Capital Market, under the symbol "CLBS." The last reported sale price of our common stock on August 17, 2020 was \$2.43 per share.

Investing in our common stock is highly speculative and involves a significant degree of risk. Please consider carefully the specific factors set forth under "Risk Factors" beginning on page 6 of this prospectus and in our filings with the Securities and Exchange Commission.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of the disclosures in this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2020.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission (the "SEC") pursuant to which the selling stockholders named herein may, from time to time, offer and sell or otherwise dispose of the shares of our common stock covered by this prospectus. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or shares of common stock are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus, including the documents incorporated by reference therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under "Where You Can Find Additional Information" and "Information Incorporated by Reference" in this prospectus.

We have not authorized anyone to give any information or to make any representation to you other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any of our shares of common stock other than the shares of our common stock covered hereby, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy any securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about, and to observe, any restrictions as to the offering and the distribution of this prospectus applicable to those jurisdictions.

Unless we have indicated otherwise, or the context otherwise requires, references in this prospectus to "Caladrius," the "Company," "we," "us" and "our" refer to Caladrius Biosciences, Inc.

PROSPECTUS SUMMARY

This summary description about us and our business highlights selected information contained elsewhere in this prospectus or incorporated by reference into this prospectus. It does not contain all the information you should consider before investing in our securities. Important information is incorporated by reference into this prospectus. To understand this offering fully, you should read carefully the entire prospectus, including "Risk Factors" and "Special Note Regarding Forward-Looking Statements," together with the additional information described under "Information Incorporated by Reference."

Overview

Caladrius Biosciences, Inc. ("we," "us," "our," "Caladrius" or the "Company") is a clinical-stage biopharmaceutical company dedicated to the development and commercialization of cellular therapies designed to reverse disease and/or promote the regeneration of damaged tissue. We are developing first-in-class therapeutic products that are based on the characteristics of naturally occurring CD34+ cells and their ability to stimulate the growth of new microvasculature. Our technology leverages these cells using formulations unique to each medical indication and uses them to enable the body's natural repair mechanisms.

Our leadership team has decades of collective biopharmaceutical development experience and world-recognized scientific achievement in the field of cardiovascular disease, among other therapeutic areas. Our goal is to develop and commercialize products that address important unmet medical needs based on a broad and versatile portfolio of candidates. Our current product candidates include CLBS119, an emergent CD34+ stem cell therapy responding to the COVID-19 pandemic and the potentially permanent damage it inflicts on the lungs of many patients, as well as three other developmental treatments for ischemic diseases based on our CD34+ cell therapy platform: CLBS12, recipient of SAKIGAKE designation and eligible for early conditional approval in Japan for the treatment of critical limb ischemia ("CLI") based on the results of an ongoing clinical trial; CLBS16, the subject of a recently completed positive Phase 2 clinical trial in the U.S. for the treatment of coronary microvascular dysfunction ("CMD"); and CLBS14, a Regenerative Medicine Advanced Therapy ("RMAT") designated therapy for which we have finalized with the U.S. Food and Drug Administration (the "FDA") a protocol for a Phase 3 confirmatory trial in subjects with no-option refractory disabling angina ("NORDA").

Ischemic Repair (CD34 Cell Technology)

The CD34+ cell was discovered as a result of the deliberate search for a stem cell capable of stimulating the development and/or repair of blood vessels. All tissues in the body maintain their function by replacing cells over time. In addition to the maintenance function, the body must also be capable of building new blood vessels after injury. A CD34+ cell is a stem cell that has the ability to stimulate new blood vessel formation. No other native cell discovered to date has demonstrated this same capability.

Our proprietary CD34+ cell technology has led to the development of therapeutic product candidates designed to address diseases and conditions caused by ischemia. Ischemia occurs when the supply of oxygenated blood to healthy tissue is restricted. Through the administration of CD34+ cells, we seek to promote the development and formation of new microvasculature and thereby increase blood flow to the impacted area. We believe that a number of conditions caused by underlying ischemic injury can be improved through our CD34+ cell technology, including but not limited to, CLI, CMD, NORDA and COVID-19 induced lung damage.

CLBS119 for Treatment of COVID -19 Induced Lung Damage

COVID-19 appears to damage the vasculature of the lungs and we believe that repair of that vasculature will prove necessary for patients to achieve a full recovery. Survivors of COVID-19 often remain debilitated even after leaving the hospital due to the damage caused to their lungs, and while many developmental therapies responding to the COVID-19 pandemic are appropriately targeting the SARS-CoV-2 virus itself or the symptoms of the acute phase of the illness, we are aware of no therapy that has demonstrated the ability to repair COVID-19 induced lung damage. With consistent clinical and pre-clinical evidence that CD34+ cells can repair multiple organs, including models of severe lung inflammation, we sought and received FDA authorization for our investigational new drug ("IND") application for the study of CLBS119, a CD34+ cell therapy for repair of COVID-19 induced lung damage. The planned study will target patients with severe SARS-CoV-2 infection who, after ventilatory support due to respiratory failure, had otherwise recovered but remained debilitated due to persistent pulmonary damage.

CLBS12 for Treatment of Critical Limb Ischemia

Our open-label, registration-eligible study of CLBS12 in Japan for the treatment of critical limb ischemia ("CLI"), a disease with no currently available approved therapy and a higher mortality rate than all cancers except that of lung cancer, has shown strong results to date. The initial responses observed in the subjects who have reached an endpoint in this open label study are consistent with a positive therapeutic effect and safety profile as reported by previously published clinical trials in Japan. Although the study's enrollment, which had been targeted for completion this year, has been slowed by the pandemic's impact in Japan, we are encouraged by the patient pre-screening pipeline that has been identified and hope to conclude the trial enrollment rapidly once the coronavirus abates. While the final outcome of the trial will depend on all data from all subjects, data from the concluded Buerger's Disease cohort and the data to date in the no-option CLI cohort remain very encouraging.

CLBS16 for Treatment of Coronary Microvascular Dysfunction

In 2017, with the assistance of a \$1.9 million grant from the National Institutes of Health (Award Number R44HL135889), we initiated our program for CLBS16 for the treatment of coronary microvascular dysfunction ("CMD"), a disease that potentially afflicts annually millions of patients with no current treatment options. That study, titled ESCaPE-CMD, was a Phase 2 proof-of-concept study that enrolled patients at the Mayo Clinic in Rochester, MN and Cedars-Sinai Medical Center in Los Angeles, CA. In June 2019, we announced the completion of enrollment in this study. Results of the first 17 of 20 patients enrolled in this trial who reached 6-month follow-up were presented as a rapid fire oral presentation on November 16, 2019 at the annual meeting of the American Heart Association in Philadelphia, PA by one of the principal investigators, Dr. Noel Bairey Merz, FACC, FAHA, FESC, the director of the Barbra Streisand Women's Heart Center at Cedars-Sinai in Los Angeles, CA. That data set showed a positive therapeutic effect with a statistically significant improvement in angina frequency, coronary flow reserve, Canadian Cardiovascular Society Angina Class and Seattle Questionnaire score, as well as an acceptable safety profile. The full data from that study was presented at the SCAI 2020 Scientific Sessions Virtual Conference on May 14, 2020 and we now expect to initiate the next CMD trial, a Phase 2b study, in the fall of 2020.

CLBS14 for Treatment of No Option Refractory Disabling Angina (NORDA)

We acquired the rights to data and regulatory filings for a CD34+ cell therapy program for refractory angina that had been advanced to Phase 3 by a previous sponsor.

Based on the clinical evidence from the completed studies that a single administration of CLBS14 reduces mortality, improves angina and increases exercise capacity in patients with otherwise untreatable angina, this product received Regenerative Medicine Advanced Therapy ("RMAT") designation from the FDA. Working closely with the FDA, we have finalized the design of a confirmatory Phase 3 trial which, in combination with previously filed Phase 1, 2 and 3 data, will be considered for the registration of CLBS14. Notably, this study design includes a 6-month primary endpoint and, with the benefit of the RMAT designation, the biologics license application ("BLA"), once submitted, should receive a 6-month review. We have substantially completed the preparatory work for initiation of this trial. We will not, however, commence enrollment of patients until sufficient capital is acquired and dedicated to this program such that we have confidence that we can fund the trial uninterrupted through completion.

Additional Out-licensing Opportunities

Our broad intellectual property portfolio of cell therapy assets includes notable programs available for out-licensing in order to continue their clinical development. Our current long-term strategy focuses on advancing our therapies through development with the ultimate objective of obtaining market authorizations and entering commercialization, either alone or with partners, to provide treatment options to patients suffering from life-threatening medical conditions. We believe that we are well-positioned to realize potentially meaningful value increases within our own proprietary pipeline if we are successful in advancing our product candidates to their next significant development milestones.

Coronavirus Considerations

In December 2019, a novel strain of coronavirus (SARS-CoV-2), which causes COVID-19, was reported to have surfaced in China. In March 2020, the World Health Organization declared the outbreak of COVID-19 to be a pandemic, and the world's economies began to experience pronounced effects. While the disruption is currently expected to be temporary, there is uncertainty around the extent and duration, and any future related financial impact cannot be reasonably estimated at this time.

Corporate Information

We incorporated in 1980 as a Delaware corporation and our principal executive offices are located at 110 Allen Road, Second Floor, Basking Ridge, NJ 07920. Our telephone number is (908) 842-0100 and our corporate website address is www.caladrius.com.

We include our website address in this prospectus only as an inactive textual reference and do not intend it to be an active link to our website. The information contained on, connected to or that can be accessed via our website is not part of this prospectus.

Summary of Risk Factors

Our business is subject to a number of risks and uncertainties that you should understand before making an investment decision. Risks are discussed more fully in the section entitled "Risk Factors" following this prospectus summary. These risks include, but are not limited to, the following:

- We have a history of net losses and our future profitability is uncertain.
- We may be required to raise additional funds to finance our operations; we may not be able to do so when necessary, and/or the terms of any financings may not be advantageous to us.
- Our success may be dependent on the timely and successful continued development and commercialization of our product candidates, and delays or difficulties may result in significant harm to our business prospects.
- We are subject to extensive regulation by the FDA and other regulatory agencies in the United States and abroad, and the failure to receive regulatory approvals or failure to comply with regulation would likely have a material and adverse effect on our business and prospects.
- We may be unable to obtain or maintain patent protection for our products and product candidates, which could have a material adverse effect on our business.
- The issuance of additional shares of our common stock in connection with future securities offerings, pursuant to our at-the-market sales agreement or our equity line of credit or in connection with the exercise of outstanding warrants may cause dilution to our existing stockholders.
- Our stock price may be extremely volatile, and our stockholders could lose a significant part of their investment.

Registered Direct Offerings and Private Placements

April 2020 Registered Direct Offering and Concurrent Private Placement

On April 23, 2020, we entered into a Securities Purchase Agreement (the "April 2020 Purchase Agreement") with certain investors named therein, pursuant to which we agreed to issue and sell, in a registered direct offering directly to the investors (the "April 2020 Registered Offering"), an aggregate of 2,162,166 shares of common stock, par value \$0.001 per share, of the Company, at a purchase price of \$2.3125 per share. In addition, in a concurrent private placement, we agreed to sell and issue to the investors in the April 2020 Registered Offering unregistered warrants to purchase up to an aggregate of 1,081,083 shares of common stock (the "April 2020 Warrants"). Each April 2020 Warrant is exercisable for one share of common stock and features an exercise price equal to \$2.25 per share. The April 2020 Warrants are exercisable immediately upon issuance and will expire five and one-half years from the issuance date. The April 2020 Warrants and the shares of our common stock issuable from time to time upon the exercise of the April 2020 Warrants were not registered under the Securities Act of 1933, as amended (the "Securities Act"), were not offered pursuant to a registration statement and were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act, and Rule 506(b) promulgated thereunder.

We received approximately \$4,500,000 net proceeds from the April 2020 Registered Offering and concurrent private placement. The offering closed on April 27, 2020.

May 2020 Registered Direct Offering and Concurrent Private Placement

On May 25, 2020, we entered into a Securities Purchase Agreement (the "May 2020 Purchase Agreement") with certain investors named therein, pursuant to which we agreed to issue and sell, in a registered direct offering directly to the investors (the "May 2020 Registered Offering"), an aggregate of 2,084,850 shares of common stock, par value \$0.001 per share, of the Company, at a purchase price of \$2.0625 per share. In addition, in a concurrent private placement, we agreed to sell and issue to the investors in the May 2020 Registered Offering unregistered warrants to purchase up to an aggregate of 1,042,425 shares of common stock (the "May 2020 Warrants"). Each May 2020 Warrant is exercisable for one share of common stock and features an exercise price equal to \$2.0625 per share. The May 2020 Warrants are exercisable immediately upon issuance and will expire five and one-half years from the issuance date. The May 2020 Warrants and the shares of our common stock issuable from time to time upon the exercise of the May 2020 Warrants were not registered under the Securities Act, were not offered pursuant to a registration statement and were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act, and Rule 506(b) promulgated thereunder.

We received approximately \$3,850,000 net proceeds from the May 2020 Registered Offering and concurrent private placement. The offering closed on May 28, 2020.

July 2020 Private Placement

On July 10, 2020, we entered into a securities purchase agreement (the "Purchase Agreement") with certain accredited investors, pursuant to which we agreed to sell to the investors an aggregate of (i) 969,694 shares of common stock, par value \$0.001 per share, of the Company and (ii) warrants to purchase up to an aggregate of 484,847 shares of common stock (the "Warrants"), at a purchase price equal to \$2.0625 per share and accompanying warrant. The Warrants are exercisable immediately upon issuance and will expire five and one-half years from the issuance date. The shares of common stock issued in the July 2020 private placement, the Warrants and the shares of our common stock issuable from time to time upon the exercise of the Warrants were not registered under the Securities Act, were not offered pursuant to a registration statement and were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act, and Rule 506(b) promulgated thereunder. The shares of common stock issued in the July 2020 private placement and the shares of common stock underlying the Warrants are being registered for resale by the selling stockholders pursuant to the Registration Statement of which this prospectus forms a part.

We received approximately \$1,981,000 net proceeds from the July 2020 private placement. The offering closed on July 15, 2020.

THE OFFERING

Shares of Common Stock That May be Offered by the Selling Stockholders-

Up to 1,454,541 shares of common stock.

Use of Proceeds

We will not receive any proceeds from the sale of the common stock by the selling stockholders. However, if all the Warrants were exercised for cash, we would receive gross proceeds of approximately \$1.0 million. We currently intend to use such proceeds, if any, for working capital and general corporate purposes, including, but not limited to the clinical advancement of our CD34+ cell technology platform in various cardiac indications.

Offering Price

The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices.

Nasdaq Capital Market Symbol

CLBS

Risk Factors

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 6 of this prospectus, and any other risk factors described in the documents incorporated by reference herein, for a discussion of certain factors to consider carefully before deciding to invest in our common stock.

Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of the selling stockholders for offer and sale, we are referring to the shares of common stock sold to the selling stockholders, as well as the shares of common stock issuable upon exercise of the Warrants, each as described under "The Private Placement" and "Selling Stockholders." When we refer to the selling stockholders in this prospectus, we are referring to the selling stockholders identified in this prospectus and, as applicable, their donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider and evaluate all of the information contained in this prospectus, the accompanying prospectus and in the documents we incorporate by reference into this prospectus and accompanying prospectus before you decide to purchase our securities. In particular, you should carefully consider and evaluate the risks and uncertainties described under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019. Any of the risks and uncertainties set forth in that report, as updated by annual, quarterly and other reports and documents that we file with the SEC and incorporate by reference into this prospectus or any prospectus, could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the value of any securities offered by this prospectus. As a result, you could lose all or part of your investment.

THE PRIVATE PLACEMENT

On July 10, 2020, we entered into the Purchase Agreement with the Investors pursuant to which we issued and sold, in a private placement (the "Offering"), 969,694 shares of the Company's common stock at a purchase price of \$2.0625 per share (the "Shares") and warrants to purchase up to 484,847 shares of common stock at an exercise price of \$2.0625 per share (the "Warrants"). The Warrants are exercisable immediately from the date of issuance and expire five and one-half years from the date of issuance.

In connection with the Offering, we entered into a Registration Rights Agreement (the "Registration Rights Agreement") with the Investors, pursuant to which we are obligated, among other things, to (i) file a registration statement with the SEC following the closing of the Offering for purposes of registering the Shares and the shares of common stock issuable upon exercise of the Warrants for resale by the Investors, (ii) use its reasonable best efforts to have the registration statement declared effective promptly after filing, and in any event no later than ninety (90) days after the closing of the Offering (or one hundred and twenty (120) days after the closing of the Offering if the registration statement is reviewed by the SEC), and (iii) maintain the registration until all registrable securities (a) have been sold pursuant to this registration statement or Rule 144 under the Securities Act or (b) may be sold pursuant to Rule 144 under the Securities Act, without restriction as to volume. The Registration Rights Agreement contains customary terms and conditions for a transaction of this type, including certain customary cash penalties on the Company for its failure to satisfy specified filing and effectiveness time periods.

The foregoing descriptions of the Purchase Agreement, the Registration Rights Agreement and the form of Warrant are not complete and are subject to and qualified in their entirety by reference to the Purchase Agreement, the Registration Rights Agreement and the form of Warrant, respectively, copies of which are attached as Exhibits 10.1, 10.2 and 4.1, respectively, to the Current Report on Form 8-K dated July 10, 2020, and are incorporated herein by reference.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements regarding our business, financial condition, results of operations and prospects. Words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates” and similar expressions or variations thereof are intended to identify forward-looking statements, but are not deemed to represent an all-inclusive means of identifying forward-looking statements as denoted in this prospectus. Additionally, statements concerning future matters are forward-looking statements. These statements include, among other things, statements regarding:

- our ability to obtain sufficient capital or strategic business arrangements to fund our operations and expansion plans, including meeting our financial obligations under various licensing and other strategic arrangements, the funding of our clinical trials for product candidates, and the commercialization of the relevant technology;
- our ability to build and maintain the management and human resources infrastructure necessary to support the growth of our business;
- whether a market is established for our cell-based products and services and our ability to capture a meaningful share of this market;
- scientific, regulatory and medical developments beyond our control;
- our ability to obtain and maintain, as applicable, appropriate governmental licenses, accreditations or certifications or to comply with healthcare laws and regulations or any other adverse effect or limitations caused by government regulation of our business;
- whether any of our current or future patent applications result in issued patents, the scope of those patents and our ability to obtain and maintain other rights to technology required or desirable for the conduct of our business; and our ability to commercialize products without infringing upon the claims of third-party patents;
- whether any potential strategic or financial benefits of various licensing agreements will be realized;
- the results of our development activities;
- our ability to complete our other planned clinical trials (or initiate other trials) in accordance with our estimated timelines due to delays associated with enrolling patients due to the novelty of the treatment, the size of the patient population and the need of patients to meet the inclusion criteria of the trial or otherwise;
- the extent to which the COVID-19 coronavirus may impact our business, including our clinical trials and financial condition; and
- other factors discussed in "Risk Factors" in our Annual Report on Form 10-K filed with the Securities and Exchange Commission (the “SEC”) on March 5, 2020.

Although forward-looking statements in this prospectus reflect the good faith judgment of our management, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties and actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include, without limitation, those specifically addressed under the heading “Risks Factors” above, as well as those discussed elsewhere in this prospectus. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this prospectus. We file reports with the SEC and our electronic filings with the SEC (including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and any amendments to these reports) are available free of charge on the SEC’s website at <http://www.sec.gov>. You can also read and copy any materials we file with the SEC at the SEC’s Public Reference Room at 100 F Street, NE, Washington, DC 20549. You can obtain additional information about the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

We undertake no obligation to revise or update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this prospectus, except as required by law. Readers are urged to carefully review and consider the various disclosures made throughout the entirety of this prospectus, which are designed to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the common stock by the selling stockholders named in this prospectus. The selling stockholders will receive all of the proceeds from this offering.

Pursuant to conditions set forth in the Warrants, the Warrants are exercisable under certain circumstances on a cashless basis, and should a selling stockholder elect to exercise on a cashless basis we will not receive any proceeds from the sale of common stock issued upon the cashless exercise of the Warrant. The holders of the Warrants are not obligated to exercise their Warrants, and we cannot predict whether holders of the Warrants will choose to exercise all or any of their Warrants or if they will do so for cash or on a cashless basis. However, if all of the Warrants were exercised for cash, we would receive gross proceeds of approximately \$1.0 million. We currently intend to use such proceeds, if any, for working capital and general corporate purposes, including, but not limited to the clinical advancement of our CD34+ cell technology platform in various cardiac indications.

SELLING STOCKHOLDERS

This prospectus relates to the sale or other disposition of up to 1,454,541 shares of our common stock and shares of common stock issuable to the selling stockholders upon exercise of the Warrants by the selling stockholders named below, and their donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer. The shares of common stock covered hereby were issued by us in the Private Placement. See "The Private Placement" beginning on page 7 of this prospectus.

The table below sets forth information as of August 13, 2020, to our knowledge, for the selling stockholders and other information regarding the beneficial ownership (as determined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of the shares of common stock held by the selling stockholders. The second column lists the number of shares of common stock and percentage beneficially owned by the selling stockholders as of August 13, 2020. The third column lists the maximum number of shares of common stock that may be sold or otherwise disposed of by the selling stockholders pursuant to the registration statement of which this prospectus forms a part. The selling stockholders may sell or otherwise dispose of some, all or none of their shares. Pursuant to Rules 13d-3 and 13d-5 of the Exchange Act, beneficial ownership includes any shares of our common stock as to which a stockholder has sole or shared voting power or investment power, and also any shares of our common stock which the stockholder has the right to acquire within 60 days of August 13, 2020. The percentage of beneficial ownership for the selling stockholders is based on 19,323,107 shares of our common stock outstanding as of August 13, 2020 and the number of shares of our common stock issuable upon exercise or conversion of convertible securities that are currently exercisable or convertible or are exercisable or convertible within 60 days of August 13, 2020 beneficially owned by the applicable selling stockholder. Except as described below, to our knowledge, none of the selling stockholders has been an officer or director of ours or of our affiliates within the past three years or has any material relationship with us or our affiliates within the past three years. Our knowledge is based on information provided by the selling stockholders in connection with the filing of this prospectus, as well as information obtained from relevant Schedule 13D and 13G filings.

The shares of common stock being covered hereby may be sold or otherwise disposed of from time to time during the period the registration statement of which this prospectus is a part remains effective, by or for the account of the selling stockholders. After the date of effectiveness of such registration statement, the selling stockholders may have sold or transferred, in transactions covered by this prospectus or in transactions exempt from the registration requirements of the Securities Act, some or all of their common stock.

Information about the selling stockholders may change over time. Any changed information will be set forth in an amendment to the registration statement or supplement to this prospectus, to the extent required by law.

Selling Shareholder	Number of Shares Owned Prior to the Offering		Number of Shares of Common Stock Being Offered	Shares of Common Stock to Be Beneficially Owned Upon Completion of this Offering	
	Number	%(1)		Number	%(1)
IEA Private Investments Ltd. (2)	1,694,187	8.7%	727,272	966,915	4.9%
Greenfield Investment Services (3)	385,058	2.0%	109,089	275,969	1.4%
Greenfield Childrens LLC (4)	636,981	3.3%	618,180	18,801	*

*Less than one percent

(1) Based on a denominator equal to the sum of (i) 19,323,107 shares of our common stock outstanding on August 13, 2020 and (ii) the number of shares of our common stock issuable upon exercise or conversion of convertible securities that are currently exercisable or convertible or are exercisable or convertible within 60 days of August 13, 2020 beneficially owned by the applicable selling stockholder.

(2) Consists of (i) 484,848 shares of common stock held by IEA Private Investments Ltd. ("IEA") and (ii) 242,424 shares of common stock issuable upon the exercise of Warrants held by IEA. Mark Siao Hing Pu is the director of IEA and may be deemed to beneficially own such shares. The address for IEA is Suite 1505, One Exchange Square, 8 Connaught Place, Central, Hong Kong.

- (3) Consists of (i) 72,726 shares of common stock held by Greenfield Investment Services and (ii) 36,363 shares of common stock issuable upon the exercise of Warrants held by Greenfield Investment Services. Ian Greenfield is the President of Greenfield Investment Services and may be deemed to beneficially own such shares. The address for Greenfield Investment Services is 3331 Stanford Road, Apt. 201, Ft. Collins, Colorado 80525.
- (4) Consists of (i) 412,120 shares of common stock held by Greenfield Childrens LLC and (ii) 206,060 shares of common stock issuable upon the exercise of Warrants held by Greenfield Childrens LLC. Jana Greenfield is the Vice President of Greenfield Childrens LLC and may be deemed to beneficially own such shares. The address for Greenfield Childrens LLC is 5535 Cedar Valley Drive, Loveland, Colorado 80537.

PLAN OF DISTRIBUTION

The selling stockholders and any of their pledgees, donees, transferees, assignees or other successors-in-interest may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The selling stockholders may use one or more of the following methods when disposing of the shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through brokers, dealers or underwriters that may act solely as agents;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions entered into after the effective date of the registration statement of which this prospectus is a part, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of disposition; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act of 1933, as amended, or Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The selling stockholders may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares of common stock from time to time under this prospectus, or under a supplement or amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

Upon being notified in writing by a selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, we will file a supplement to this prospectus, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of each such selling stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such shares of common stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In addition, upon being notified in writing by a selling stockholder that a donee or pledge intends to sell more than 500 shares of common stock, we will file a supplement to this prospectus if then required in accordance with applicable securities law.

The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of the shares of common stock or interests in shares of common stock, the selling stockholders may enter into hedging transactions after the effective date of the registration statement of which this prospectus is a part with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of common stock short after the effective date of the registration statement of which this prospectus is a part and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions after the effective date of the registration statement of which this prospectus is a part with broker-

dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act and the rules of the Financial Industry Regulatory Authority (FINRA).

We have advised the selling stockholders that they are required to comply with Regulation M promulgated under the Securities and Exchange Act during such time as they may be engaged in a distribution of the shares. The foregoing may affect the marketability of the common stock.

The aggregate proceeds to the selling securityholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling securityholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

We are required to pay all fees and expenses incident to the registration of the shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act or otherwise.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the date on which all registrable securities (a) have been sold pursuant to this registration statement or Rule 144 under the Securities Act or (b) may be sold pursuant to Rule 144 under the Securities Act, without restriction as to volume.

LEGAL MATTERS

The validity of the shares of common stock offered in this prospectus has been passed upon for us by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York.

EXPERTS

The audited financial statements incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarterly and other periodic reports, proxy statements and other information with the SEC. You can read our SEC filings over the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street NE, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

Our Internet address is www.caladrius.com. There we make available free of charge, on or through the investor relations section of our website, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with the SEC. The information found on our website is not part of this prospectus.

INFORMATION INCORPORATED BY REFERENCE

We are “incorporating by reference” specific documents that we file with the SEC, which means that we can disclose important information to you by referring you to those documents that are considered part of this prospectus. Information that we file subsequently with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below, and any documents that we file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, after the date of this prospectus until the termination of the offering of all of the securities registered pursuant to the registration statement of which this prospectus is a part (excluding any portions of such documents that have been “furnished” but not “filed” for purposes of the Exchange Act):

- Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on March 5, 2020.
- Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2020 and June 30, 2020, filed on May 7, 2020 and August 13, 2020, respectively.
- Current Reports on Form 8-K filed on April 22, 2020, April 24, 2020, May 26, 2020, June 18, 2020, July 10, 2020, July 28, 2020 and August 5, 2020.
- The description of our common stock contained in our Form 8-A filed on August 2, 2013.

You may request, and we will provide you with, a copy of these filings, at no cost, by calling us at (908) 842-0100 or by writing to us at the following address:

Caladrius Biosciences, Inc.
110 Allen Road, 2nd Floor
Basking Ridge, NJ 07920
Attn: Todd C. Girolamo

We maintain a website at <http://www.caladrius.com>. You may access our definitive proxy statements on Schedule 14A, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and periodic amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or therein, in any other subsequently filed document that also is or is deemed to be incorporated by reference herein and in this prospectus, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified and superseded, to constitute a part of this prospectus.

Any statement made in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed or incorporated by reference any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract, agreement or other document is qualified by reference to the actual document.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses payable by the Registrant, in connection with the sale of the securities being registered under this registration statement. All amounts shown are estimates except for the Securities and Exchange Commission, or SEC registration fee.

	<u>Amount</u>
SEC Registration Fee	\$ 407.81
Legal Fees and Expenses	19,592.19
Total	\$ 20,000.00

Item 15. Indemnification of Directors and Officers.

We are 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 our director, officer, employee or agent, or is or was serving at our 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 our 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 we 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 our right to procure a judgment in our favor by reason of the fact that he or she is or was our director, officer, employee or agent, or is or was serving at our 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 our best interests. However, in such an action by or on our behalf, no indemnification may be made in respect of any claim, issue or matter as to which the person is adjudged liable to us 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.

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

We have entered into indemnification agreements with our Chief Executive Officer, President and Chief Financial Officer, and certain other employees and each of our directors pursuant to which we have 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 a our director, officer, employee, agent or fiduciary.

Item 16. Exhibits and financial statement schedules.

(a) Exhibits.

See the Exhibit Index attached to this registration statement, which is incorporated by reference herein.

(b) Financial statement schedules.

No financial statement schedules are provided because the information called for is not required or is shown either in the

financial statements or in the notes thereto.

Item 17. Undertakings.

(a) The undersigned 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 of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the 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 the 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 SEC 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; and

(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 the registration statement; *provided, however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) 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 SEC by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

4) That for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the 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.

5) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 SEC such indemnification is against public policy as expressed in the Securities Act of 1933 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 and 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 of 1933 and will be governed by the final adjudication of such issue.

(b) Each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

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 Basking Ridge (Bernards Township), State of New Jersey, on August 18, 2020.

CALADRIUS BIOSCIENCES, INC.

By /s/ David J. Mazzo

David J. Mazzo

President and Chief Executive Officer

(Principal Executive Officer)

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Mazzo and Todd Girolamo, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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.

	Signature	Date
<u>/s/ David J. Mazzo, PhD.</u> David J. Mazzo, PhD.	President, Chief Executive Officer and Director (Principal Executive Officer)	August 18, 2020
<u>/s/ Joseph Talamo</u> Joseph Talamo	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	August 18, 2020
<u>/s/ Gregory B. Brown, M.D.</u> Gregory B. Brown, M.D.	Chairman of the Board of Directors	August 18, 2020
<u>/s/ Michael H. Davidson, M.D.</u> Michael H. Davidson, M.D.	Director	August 18, 2020
<u>/s/ Steven M. Klosk</u> Steven M. Klosk	Director	August 18, 2020
<u>/s/ Steven S. Myers</u> Steven S. Myers	Director	August 18, 2020
.		August 18, 2020
<u>/s/ Cynthia Schwalm</u> Cynthia Schwalm	Director	August 18, 2020
<u>/s/ Peter Traber, M.D.</u> Peter Traber	Director	August 18, 2020

EXHIBIT INDEX

Exhibit Number	Description
4.1	Form of Warrant (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed on July 10, 2020).
5.1 *	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
10.1	Securities Purchase Agreement, dated July 10, 2020, by and among the Company and the Investors (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on July 10, 2020).
10.2	Registration Rights Agreement, dated July 10, 2020, by and among the Company and the Investors (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed on July 10, 2020).
23.1 *	Consent of Grant Thornton LLP
23.2 *	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in the opinion filed as Exhibit 5.1).
24.1 *	Powers of Attorney (included on the signature page of this registration statement).

*Filed herewith.

August 18, 2020

Caladrius Biosciences, Inc.
110 Allen Road, 2nd Floor
Basking Ridge, NJ 07920

Ladies and Gentlemen:

We have acted as legal counsel to Caladrius Biosciences, Inc., a Delaware corporation (the “Company”), in connection with the preparation and filing with the Securities and Exchange Commission (the “Commission”) of a Registration Statement on Form S-3 (the “Registration Statement”) under the Securities Act of 1933, as amended (the “Securities Act”). The Registration Statement relates to the registration for resale by the selling stockholders named in the Registration Statement (the “Selling Stockholders”) of up to an aggregate of 1,454,541 shares of the Company’s common stock, \$0.001 par value per share (“Common Stock”), consisting of (i) 969,694 shares of Common Stock issued to the Selling Stockholders on July 10, 2020 (the “Shares”) and (ii) 484,847 shares of Common Stock issuable upon the exercise of certain outstanding warrants (the “Warrants”) issued by the Company to the Selling Stockholders on July 10, 2020 (the “Warrant Shares”). This opinion is being rendered in connection with the filing of the Registration Statement with the Commission.

In connection with this opinion, we have examined and relied upon the Certificate of Incorporation and Bylaws of the Company, each as restated and/or amended to date, and such other documents as we have deemed necessary for purposes of rendering the opinions hereinafter set forth.

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.

Our opinion is limited to the general corporate laws of the State of Delaware 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 or the Warrant Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

Based upon the foregoing, we are of the opinion that (i) the Shares are validly issued, fully paid and non-assessable and (ii) the Warrant Shares, when issued and delivered upon the exercise of the Warrants in accordance with their terms, will be validly issued, fully paid and non-assessable. 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 to reference the firm's name under the caption "Legal Matters" in the prospectus which forms part of the Registration Statement, 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 5, 2020 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, 2019, which is 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
August 18, 2020