

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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 29, 2021

CALADRIUS BIOSCIENCES, INC.
(Exact Name of Registrant as Specified in Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-33650
(Commission
File Number)

22-2343568
(IRS Employer
Identification No.)

110 Allen Road, Second Floor, Basking Ridge, NJ 07920
(Address of Principal Executive Offices)(Zip Code)

(908) 842-0100
Registrant's Telephone Number

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.001 per share	CLBS	The Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 13(a) of the Exchange Act.

Item 7.01. Regulation FD Disclosure.

A copy of a slide presentation that the Company will use at investor and industry conferences and presentations is attached to this Current Report as Exhibit 99.1 and is incorporated herein solely for purposes of this Item 7.01 disclosure. The information in this Item 7.01, including Exhibit 99.1 attached hereto, is being furnished and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of such section. The information, including Exhibit 99.1 attached hereto, shall not be incorporated by reference into any filing under the Securities Act of 1933, as amended or the Exchange Act, regardless of any incorporation by reference language in any such filing.

This information will not be deemed an admission as to the materiality of any information in this Item 7.01 that is required to be disclosed solely by Regulation FD.

Item 9.01. Financial Statement and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Caladrius Biosciences, Inc. Corporate Presentation, January 29, 2021

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CALADRIUS BIOSCIENCES, INC.

By: /s/ David J. Mazzo
Name: David J. Mazzo, PhD
Title: President and Chief Executive Officer

Dated: January 29, 2021

Exhibit 99.1

caladrius

BIOSCIENCES

*Developing Regenerative Therapies
that Reverse Chronic Disease*

David J. Mazzo, PhD
President & Chief Executive Officer

January 29, 2021 | Nasdaq: CLBS



Forward-looking statement

This Investor Presentation contains forward-looking statements within the meaning of Private Securities Litigation Reform Act of 1995. Forward-looking statements reflect management's current expectations, as of the date of this presentation, and involve certain risks and uncertainties. All statements other than statements of historical fact contained in this Investor Presentation are forward-looking statements. The Company's actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors. Factors that could cause future results to differ materially from the recorded results or those projected in forward-looking statements include the "Risk Factors" described in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 5, 2020 and in the Company's other periodic filings with the SEC. The Company's further development is highly dependent on, among other things, future medical and research developments and market acceptance, which are outside of its control. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date of this Investor Presentation. Caladrius does not intend, and disclaims any obligation, to update or revise any forward-looking information contained in this Investor Presentation or with respect to the matters described herein.

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Caladrius investment highlights



CD34+ cell therapy platform yielding a multi-product development pipeline
2 clinical programs having regenerative medicine “breakthrough” designation



Proprietary field-leading technology in lucrative global indications backed by
strong IP portfolio



Multiple potential value creating events in the next 12-24 months based on
milestones across the pipeline



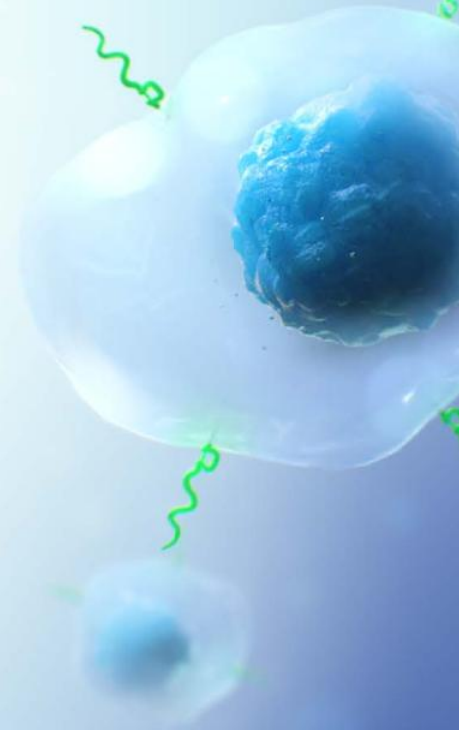
Strong balance sheet; ~\$58 million in cash & cash equivalents (1/29/2021)
with no debt and cash runway projected to fund operations through 2022



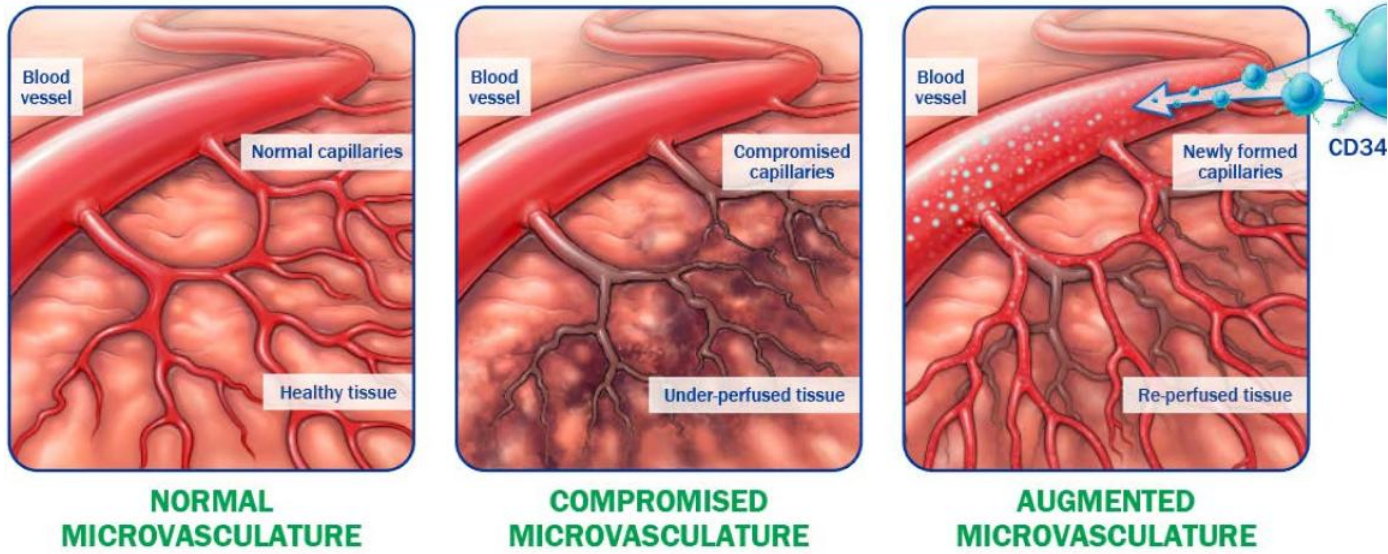
Seasoned management with noteworthy domain expertise along with
big pharma and emerging biotech experience

CD34+ Cell Therapy

Technology Overview



CD34+ cells have a well characterized mechanism of act



- Naturally occurring endothelial progenitor cells that re-establish blood flow to under-perfused tissue
- Possess pre-programmed pro-angiogenic and anti-inflammatory tissue repair properties^{3,4}

¹Mackie, A.R. et al., *Tex Heart Inst J* 2011, 38(5), 474-485
²Kocher, A.A. et al., *Nat Med* 2001, 440-436

³Abd-Allah et al., *Cytotherapy* 2015, 17: 443-53
⁴Lo, B.C. et al., *Am J Respir Cell Mol Biol* 2017, 57: 651-61

CD34+ cell therapy is extensively studied/clinically validated

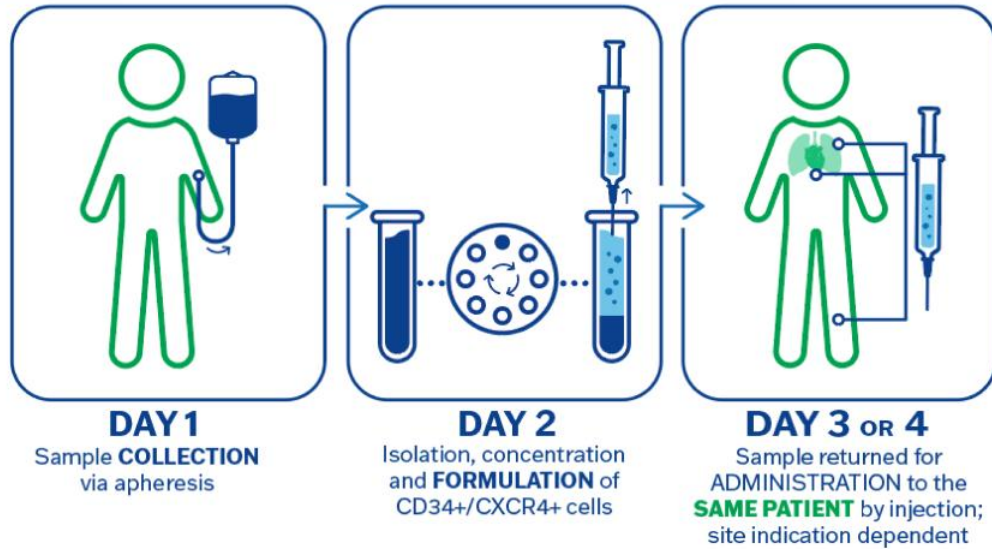
- CD34+ cells have been studied clinically in a variety of ischemic disease indications by numerous investigators across many sites and countries
- CD34+ cells repeatedly demonstrated vascular repair in multiple organs
- Consistent and compelling results of rigorous clinical studies comprising >1,000 patients have been published in peer reviewed journals¹⁻⁴
- A single treatment has elicited durable therapeutic effect
- No cell-related adverse events reported to date

¹ Povsic, T. et al. *JACC Cardiovasc Interv*, 2016, 9 (15):1576-1585
² Losordo, D.W. et al. *Circ Cardiovasc Interv*, 2012; 5:821-830

³ Velagapudi P, et al. *Cardiovas Revasc Med*, 2018, 20(3):215-219
⁴ Henry T.D., et al. *European Heart Jour* 2018, 2208-2216

Caladrius' CD34+ cell process is rapid/economical/scale

GCSF-induced mobilization of patient's CD34+ cells from the bone marrow to the peripheral circulation



- Drug induced mobilization eliminates need for surgical bone marrow aspiration
- No genetic manipulation or *ex vivo* expansion of cells
- Four days or less from donation to treatment
- Cost-of-goods an order of magnitude less expensive than CAR-T therapies

Caladrius' CD34 technology has robust intellectual property

Patent protection to 2031+

9

U.S. patents
granted

28

Foreign patents
granted

Key Claims

- Pharmaceutical composition of non-expanded CD34+/CXCR4+ stem cells
- Therapeutic concentration range
- Stabilizing serum
- Repair of injury caused by vascular insufficiency

Caladrius' innovative CD34+ cell therapy pipeline^{1,2}

PRODUCT/INDICATION	DEVELOPMENT STAGE	KEY MILESTONE TARGETS
CLBS16 CORONARY MICROVASCULAR DYSFUNCTION	FREEDOM PHASE 2B TRIAL (USA; ONGOING)	- Complete enrollment: - Top-line data: 3Q2022
HONEDRA® (CLBS12) *SAKIGAKE DESIGNATED CRITICAL LIMB ISCHEMIA + BUERGER'S DISEASE	REGISTRATION ELIGIBLE TRIAL (JAPAN; ONGOING)	- Complete enrollment: - Top-line data: 2Q2023 - J-NDA submission: 2H2022 - Approval: 1H2023
CLBS201 CHRONIC KIDNEY DISEASE	PHASE 1/2 (USA; CLINICAL INITIATION PENDING)	- File IND: 2Q2021 - Initiate enrollment: 2-3Q2022 - Complete enrollment: - Top-line data: 3Q2022
OLOGO™ (CLBS14) *RMAT DESIGNATED NO-OPTION REFRACTORY DISABLING ANGINA	PHASE 3 (USA; INITIATION PENDING)	- Complete developer FDA discussions completed

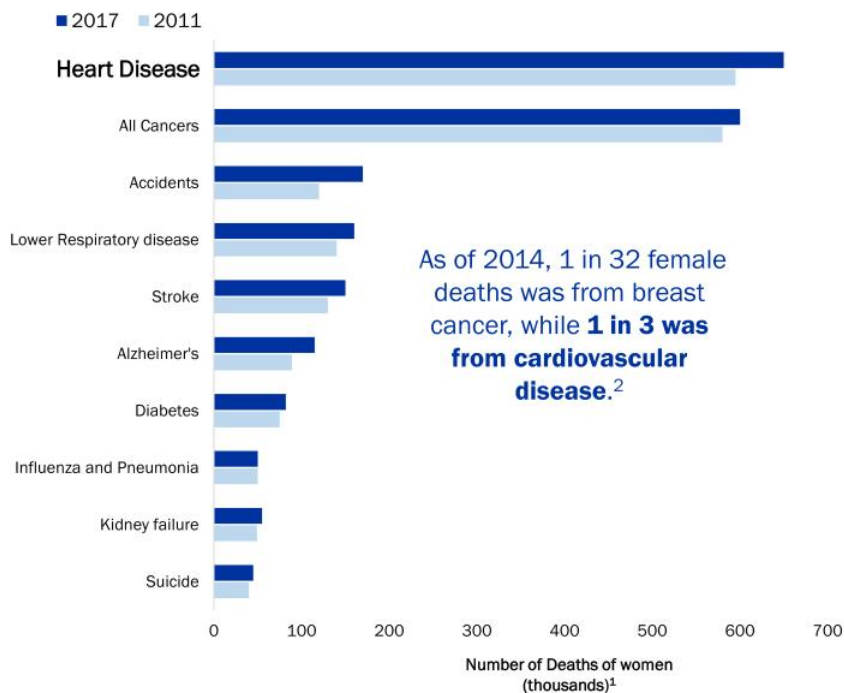
¹ Products are distinct and not interchangeable

² Timing subject to COVID-19 pandemic influence

CLBS16
Coronary Microvascular
Dysfunction
(USA)



CD34+ cell therapy targets unmet needs in cardiovascular disease



ISCHEMIA Trial³ results underscore the need for treatments beyond large vessel interventions

- The International Study of Comparative Effectiveness with Medical and Invasive Approaches (ISCHEMIA) enrolled 5,179 patients at 320 sites in 37 countries

Conclusion:
Interventional heart procedures *do not* reduce the overall rate of heart attack or death compared with medicines and lifestyle changes alone.

¹ Centers for Disease Control and Prevention as cited in McKay, Betsy. "Heart-Failure Deaths Rise, Contributing to Worsening Life Expectancy." The Wall Street Journal, 30 Oct. 2019. [Link to article.](#)
² Kochanek, KD., et al. (2016). Deaths: final data for 2014. National vital statistics reports: from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, 65(4), 1-122.
³ ISCHEMIA Study Results, AHA Scientific Sessions November 2019. <https://ischemiatrial.org/ischemia-study-results#slides>

Indication: coronary microvascular dysfunction (CMD)

- Deficient heart microvasculature *without large vessel obstructive disease*
- Causes frequent, debilitating chest pain; not treatable by stents or bypass; responds poorly or not at all to available pharmacotherapies
- Afflicts women more frequently (2:1 to 3:1), especially younger women^{1,2}
- Results in poor prognosis for patients³
 - Significantly elevated risk of all-cause mortality⁴
- Clinically diagnosed based on symptoms *and* demonstrated absence of large vessel obstructive disease
- Quantitatively diagnosed using Coronary Flow Reserve (CFR)⁵

¹ Coronary Microvascular Disease. (2015, July 31). In American Heart Association

² R. David Anderson, John W. Petersen, Pujja K. Mehta, et al., *Journal of Interventional Cardiology*, 2019; 8

³ Loffler and Bourque, *Curr Cardiol Rep*. 2016 Jan; 18(1): 1

⁴ Kenkre, T.S. et al., *Circ: CV Qual & Outcomes* 2017, 10(12) 1-9

⁵ Collins, P., *British heart journal* (1993) 69(4), 279-281

CMD represents a large unmet medical need

- ~112 million people globally are affected by angina¹
- ~8.3 million people in the U.S. suffering from coronary artery disease (CAD)²
- 10% - 30% of angina patients have no significant CAD on invasive coronary angiography^{3,4}
- 50% - 65% of patients with angina without obstructive CAD are believed to have CMD⁵

Applicable CMD population in the U.S. potentially treatable by CLBS16 ranges from ~415,000 to ~1.6 million patients

¹ Kunadian V, et al. *European Heart Journal*. 2020; 0:1-21

² Cleveland Clinic/AHA (American Heart Association)

³ Farrehi PM, et al. *Am J Manag Care*. 2002;8:643-648

⁴ Bradley SM, et al. *J Am Coll Cardiol*. 2014;63:417-426

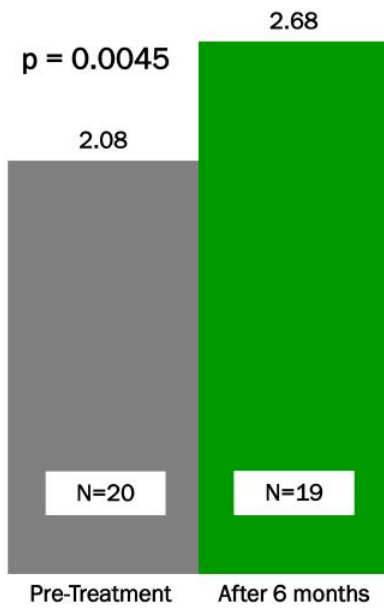
⁵ Marinescu MA, et al. *JACC Cardiovasc Imaging*. 2015;8:210-220

ESCaPE-CMD: Phase 2a interventional, proof-of-concept

Endpoints	<ul style="list-style-type: none">Therapeutic effect and the evaluation of adverse events; including change from baseline to 6 months for coronary flow reserve, angina frequency, Cangina class, quality of life
Study Size	<ul style="list-style-type: none">20 subjects (U.S. centers - Cedars Sinai, Los Angeles & Mayo Clinic, Roch
Dose	<ul style="list-style-type: none">Up to 300×10^6 CD34+ cells
Mode of administration	<ul style="list-style-type: none">Single intracoronary infusion
Timing	<ul style="list-style-type: none">Positive complete results presented at SCAI Scientific Sessions (May 202

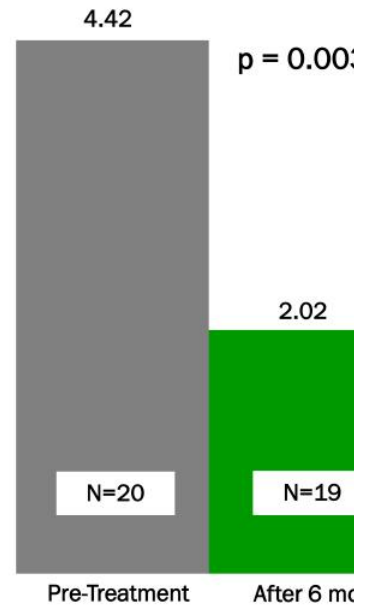
CLBS16 ESCaPE-CMD results are unique and compelling

Coronary Flow Reserve ¹



- CFR ≤ 2.5 indicates CMD
 - CFR of 2 = 3-4 x increase in MACE at 3 years¹
- CFR ≥ 2.5 is in “normal” range
- Results after a single intracoronary administration of CLBS16

Daily Angina Frequency



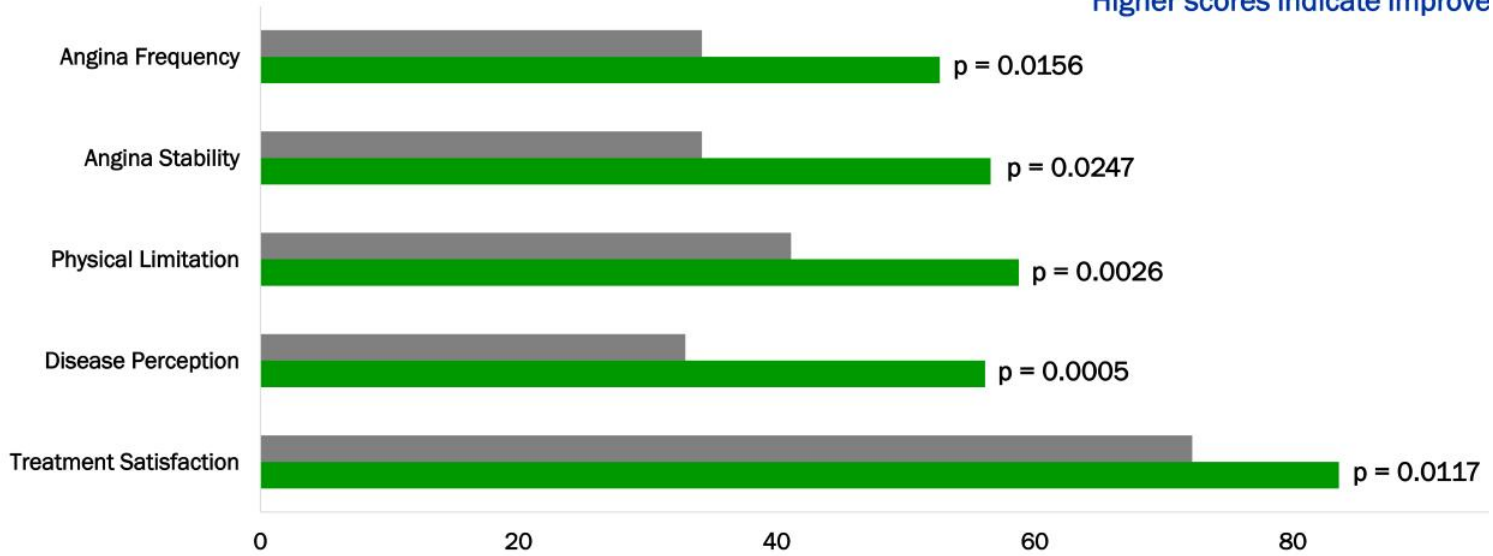
¹ Murthy et al, Circulation, 2014
² Henry, D. T., SCAI 2020 Scientific Sessions

CLBS16 ESCaPE-CMD results are unique and compelling

Seattle Angina Questionnaire Score¹

■ Baseline ■ 6 months

Higher scores indicate improve



¹ Henry, D. T., SCAI 2020 Scientific Sessions

² Spertus, J.A. et al, JACC Vol. 25, No. 2 February 1995: 333-341

CLBS16: ESCaPE-CMD summary and next step

- Statistically significant improvement in heart function and symptoms
- No evidence of cell related adverse events
- First therapy to potentially reverse CMD after a single administration; a potential breakthrough in the treatment of CMD
 - Expected to lead to a decreased risk of MACE, including CV-related de
- Supports microvascular repair mechanism of CD34+ cells
- Phase 2b FREEDOM trial initiated 4Q2020; top-line data anticipated 3Q21
 - Double blind, placebo-controlled, randomized

FREEDOM trial: Phase 2b double-blind, placebo-controlled

Endpoints	<ul style="list-style-type: none">▪ Change from baseline in angina frequency [Baseline to 3 and 6 months]▪ Change from baseline in total exercise time [Baseline to 6 months]▪ Change from baseline in health-related quality of life [Baseline to 3 and 6 months]▪ Change from baseline in peak coronary flow reserve [Baseline to 6 months]
Study Size	<ul style="list-style-type: none">▪ 105 subjects (~10 sites in the USA)
Dose	<ul style="list-style-type: none">▪ Up to 300×10^6 CD34+ cells vs. placebo
Mode of administration	<ul style="list-style-type: none">▪ Single intracoronary infusion
Timing	<ul style="list-style-type: none">▪ Study initiated 4Q2020▪ Top-line Data Target: 3Q2022



HONEDRA®
(CLBS12)

Critical Limb Ischemia (Japan)

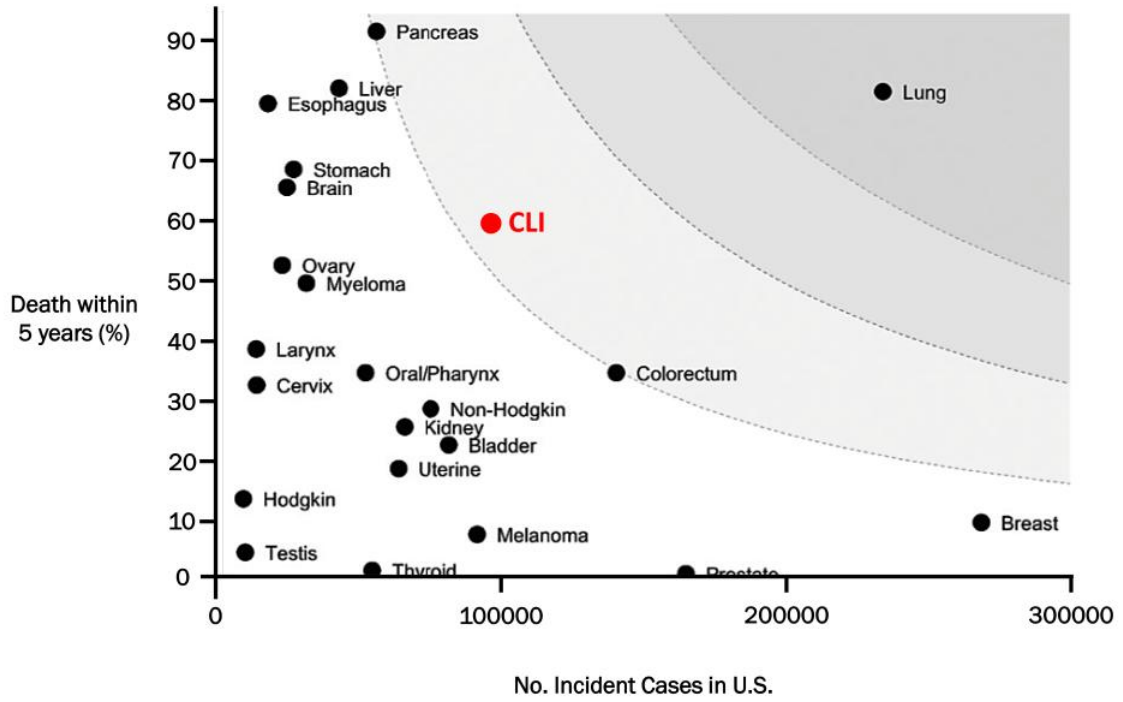
SAKIGAKE designated – Japan

Advanced Therapeutic Medicinal
Product (ATMP) designated - EU

Indication: critical limb ischemia (CLI)

- Severe arterial obstruction impeding blood flow in the lower extremities
 - Often found as a co-morbidity in diabetes patients
 - Includes severe rest pain and non-healing ulcers
- Buerger's disease (inflammation in small and medium arteries) a form of associated with a history of heavy smoking (orphan population)
- Patients with no-option CLI have persistent symptoms even after bypass surgery, angioplasty, stenting and available pharmacotherapy
- CLI patients are at high risk of amputation and increased risk of death
- Multi-hundred-million-dollar opportunity in Japan

CLI: higher mortality rate and incidence than most cancer



HONEDRA[®] targets patients based on the Rutherford Scale

CLI amputation rates increase with increasing Rutherford score (disease severity)

Rutherford ("R") scale

R 6: Functional foot no longer salvageable

R 5: Minor tissue loss non-healing ulcer; focal gangrene with diffuse pedal ischemia

R 4: Debilitating rest pain

R 1-3: Mild to severe claudication

HONEDRA[®] targets patients with R4 or R5 disease

¹ Reinecke H., European Heart Journal, 2015 Apr 14;36(15):932-8

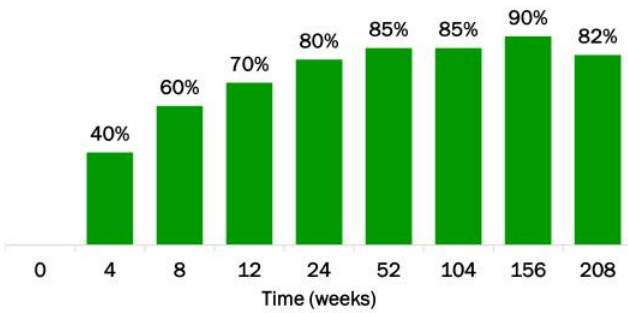
Single treatment of CD34+ cells reversed CLI (Phase 2 d

Actual CLI Patient Laser Doppler Image

Pre-treatment Post-treatment (week 12)

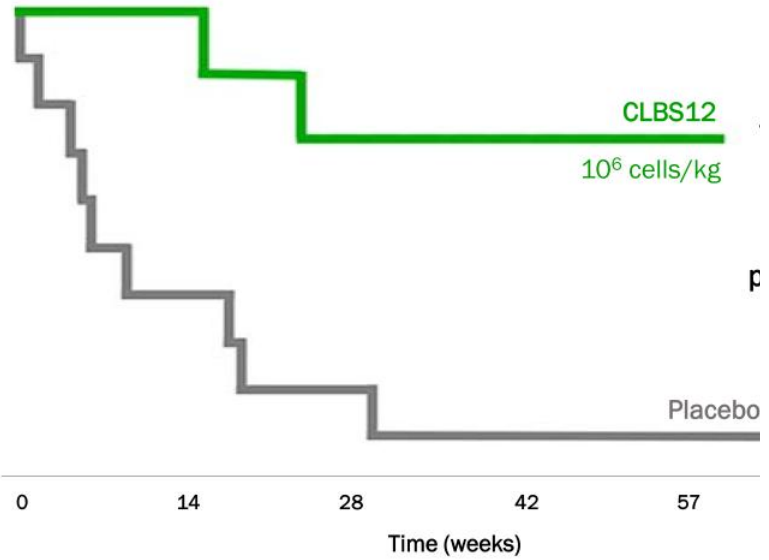


% of Patients (CLI + BD) Achieving CLI-free Status (China; n=27)¹



~80% of patients achieved sustainable remission within 6 months of a single treatment; durable for at least 4 years

Probability of Amputation-Free Survival (USA; n=28)²



¹ Kinoshita et al, Atherosclerosis 224 (2012) 440-445
² Losordo, D.W. et al, Circulation 2012; 5(6):821-830

HONEDRA[®] registration-eligible study (Japan)

Primary Endpoint	<ul style="list-style-type: none">▪ Continuous CLI-free (2 consecutive monthly visits, adjudicated independent)
Study Size	<ul style="list-style-type: none">▪ 30 subjects with no-option CLI + 7 Buerger's Disease pts.; all R4 or R5; 12 centers in Japan
Dose	<ul style="list-style-type: none">▪ 10⁶ cells/kg of HONEDRA[®] per affected limb (studied in previous trial)
Control/Comparator	<ul style="list-style-type: none">▪ Standard of Care: wound care plus drugs approved in Japan<ul style="list-style-type: none">▪ Including antimicrobials, antiplatelets, anticoagulants and vasodilators
Mode of administration	<ul style="list-style-type: none">▪ Intramuscular, 20 injections in affected lower limb in a single treatment
Timing	<ul style="list-style-type: none">▪ Enrollment completion/results target : 2Q2021/2Q2022, respectively▪ Early approval targeted for 1H2023▪ Timing subject to COVID-19 pandemic influence

Extraordinary HONEDRA® results in Buerger's Disease (JI

- Surgery not viable; existing pharmacotherapies do not prevent amputa
- Cohort enrollment complete
- Results will contribute to the efficacy evaluation of the full study popul

Approximately 60% of patients achieved CLI-free stati

(Natural patient evolution is continual deterioration for all patients,

CLBS201

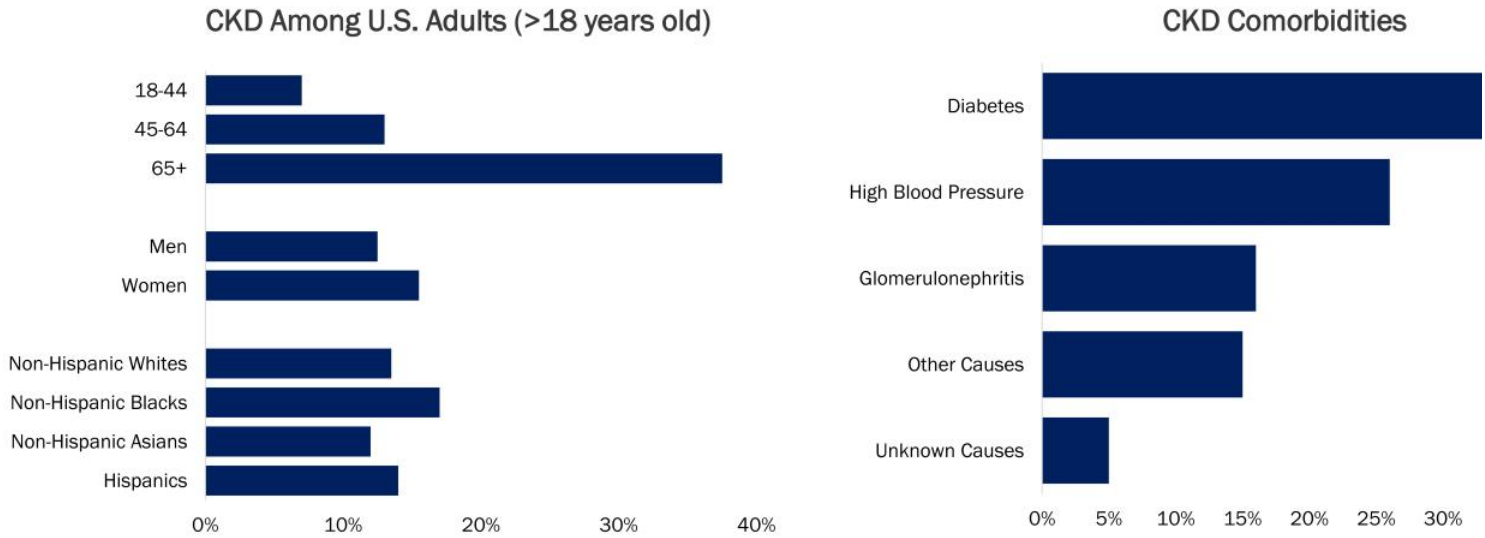
Chronic Kidney Disease

(USA)



CKD: risk factors and comorbidities

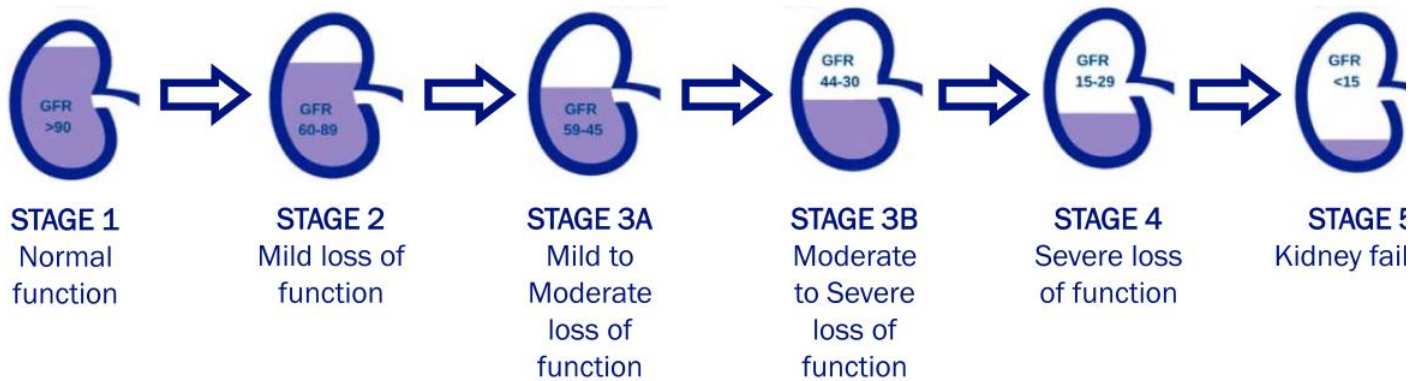
- An aging population is at greatest risk of chronic kidney disease with diabetes and hypertension being typical comorbidities
 - 1 in 3 adults are diabetic and 1 in 5 adults are hypertensive



Centers for Disease Control and Prevention. Chronic Kidney Disease in the United States, 2019. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2019.

CKD: multiple stages progressing toward kidney failure

- The stages of CKD are determined by glomerular filtration rate (GFR)¹
- GFR is measured to determine the level of creatinine in the blood (serum creatinin
- As kidney function worsens, the level of creatinine increases and GFR decreases
- In 2015-2016, 14%-15% of U.S. adults had evidence of CKD stages 1-4; of these, to 18 million had evidence of CKD stage 3 or 4²



¹ 2020 Dallas Nephrology Associates

² Centers for Disease Control and Prevention. Chronic Kidney Disease Surveillance System—United States.

Scientific rationale for CLBS201 trial

- CKD is often associated with progressive microvasculature damage and loss, resulting from its common comorbidities of hypertension and diabetes¹
- The pathophysiology of CKD denotes compromised renal microvasculature²
- Preclinical studies show that microcirculation replenishment improves kidney function
- CD34+ cells are promoters of new capillary growth, improving the microvasculature

CLBS201 clinical strategy

- To demonstrate that regeneration of the kidney microcirculation using CD34+ cell therapy will safely improve or stabilize kidney function [as measured by GFR]
- To show that progression to kidney failure and hemodialysis can be slowed or prevented

¹ Chade AR. (2017) Small Vessels, Big Role: Renal Microcirculation and Progression of Renal Injury. *Hypertension*; 69(4):551-563.

² Zuk, Anna & Bonventre, Joseph. (2016). *Annual Review of Medicine*. 67. 293-307. [10.1146/annurev-med-050214-013407](https://doi.org/10.1146/annurev-med-050214-013407).

CLBS201: Planned Phase 1/2 proof-of-concept study

Primary Endpoint ■ Percent change in eGFR compared to baseline, assessed at 6 months

Study Size ■ ~40 subjects

Dose ■ 10^6 cells/kg administered as a one-time infusion

Design ■ Placebo-controlled with a total of 12-months follow-up

Mode of administration ■ Single intra-arterial injection into each renal artery

Timing ■ Initiation target: 2Q2021
 ■ Top-line data target: 3Q2022



OLOGO™

(CLBS14)

**No-Option Refractory
Disabling Angina (USA)**

Regenerative Medicine Advanced
Therapy (RMAT) designated - USA

Indication: no-option refractory disabling angina (NORDA)

- Recurring angina results from chronically impaired cardiac blood supply
- Persists even after bypass surgery, angioplasty, stenting and pharmacotherapy; no current treatment
- NORDA patients experience very frequent disabling chest pain at rest or with minimal activity
- Cardiac microcirculation deficiency is the remaining treatment target
- Multi-billion-dollar global commercial opportunity

Treatment: OLOGO™ (CLBS14)

- Phase 2 and partial Phase 3¹⁻⁵ clinical data (blinded, randomized, placebo-controlled; n_(total) = 303)
 - Statistically significant increase in exercise capacity (FDA primary endpoint)
 - Statistically significant reduction in angina
 - Statistically significant reduction in mortality
 - Pristine cell safety profile

¹ Losordo, D.W., et al, *Circulation* 2007, 115(25): 3165-72

² Losordo, D.W., et al, *Circ Res* 2011, 109(4): 428-36

³ Povsic, T.J., et al, *JACC Cardiovasc Interv*, 2016 9(15): 1576-85

⁴ Povsic, T. J. et al, *European Heart Journal*, 2018 39(23), 2208-2216

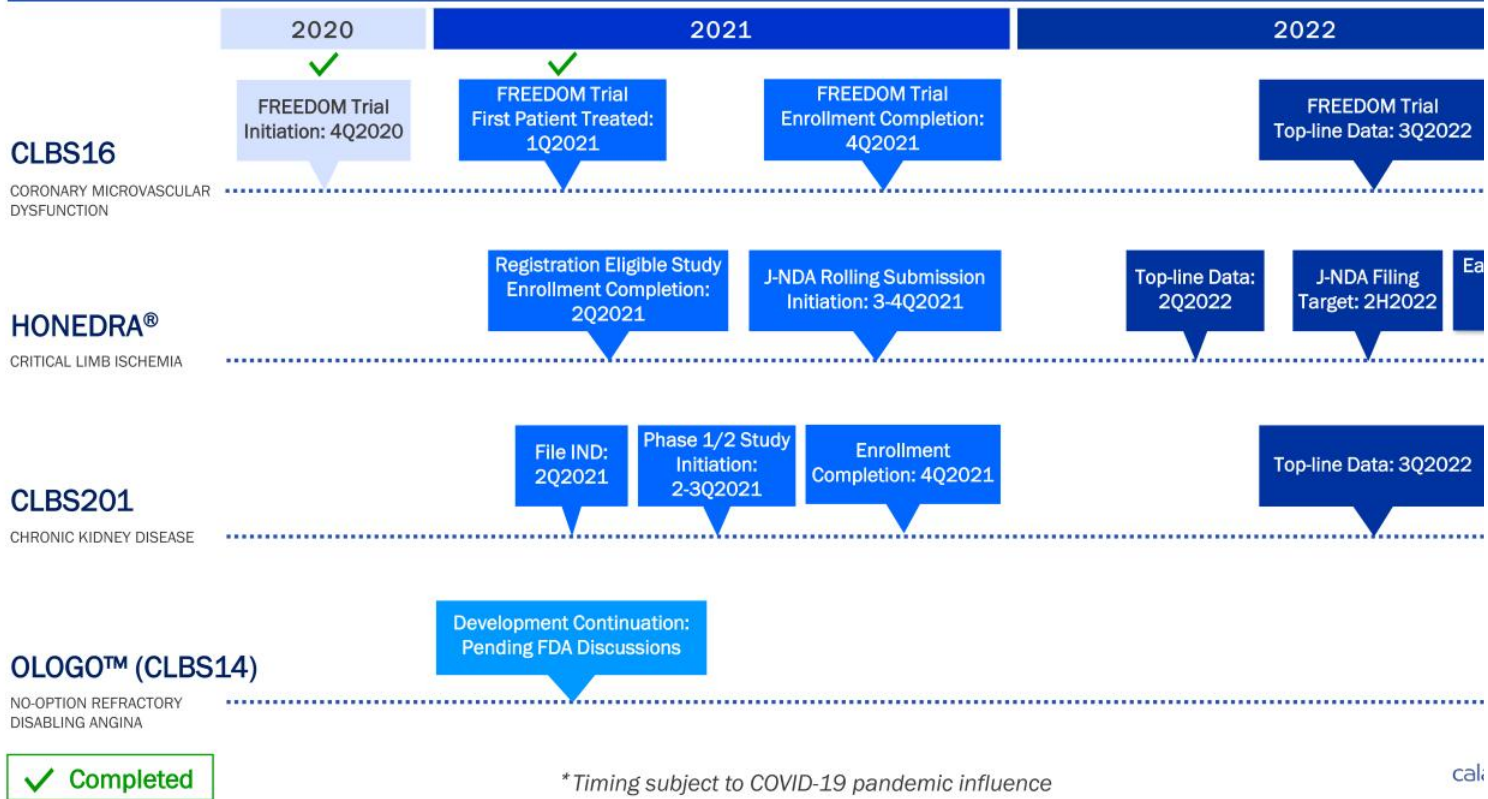
⁵ Velagapudi P, et al, *Cardiovasc Revasc Med*, 2018, 20(3):215-219

OLOGO™ (CLBS14) Phase 3 study; initial FDA agreement

Primary Endpoint	<ul style="list-style-type: none">Change in exercise time from baseline at month 6 (studied in Phase 2)
Timing	<ul style="list-style-type: none">39 months from first-patient-in to top-line data; interim analysis after 50 patients complete 6-month follow-up
Study Size	<ul style="list-style-type: none">~400 subjects (~200 active, ~150 placebo, ~50 SOC with cross-over to label treatment at 6 months)
Dose	<ul style="list-style-type: none">10⁵ cells/kg body weight (studied in Phase 2)
Control/Comparator	<ul style="list-style-type: none">Placebo control (blinded)Standard-of-care (unblinded)
Mode of administration	<ul style="list-style-type: none">Intramyocardial injection guided by mapping catheter (NOGA)
Timing	<ul style="list-style-type: none">Target initiation: Pending completion of ongoing discussions with FDA regarding orphan designation status, combination product definition and Phase 3 size/scope reductions

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Caladrius timeline of key development milestones*



✓ Completed

*Timing subject to COVID-19 pandemic influence

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Caladrius key financial information

Cash & Investments: As of January 29, 2021 ¹	~\$58 million
Full Year Ended December 31, 2020 Operating Cash Burn: ²	\$19.7 million
Cash Runway Based on Current Plan:	Through 2022
Debt as of January 29, 2020:	\$0
Common Shares Outstanding: As of January 29, 2021 ³	33.0 million shares
Options Outstanding as of January 29, 2021: Exercise Price: \$1.43 - \$3.50 = 191,000 shares Exercise Price: > \$3.50 = 765,000 shares	1.0 million shares
Warrants Outstanding as of January 29, 2021 ⁴ : Weighted Average Exercise Price: \$2.74	8.1 million shares

¹ Includes \$25.0 million in gross proceeds from January 2021 Private Placement, and \$1.7 million from warrant exercises in January 2021

² Excludes \$10.9 million in net proceeds from sale of New Jersey NOLs

³ Includes 12.5 million shares from January 2021 Private Placement and ~0.8 million shares from from warrant exercises in January 2021

⁴ Includes ~6.3 million warrants from January 2021 Private Placement less ~0.8 million warrants exercised in January 2021

Caladrius investment highlights



CD34+ cell therapy platform yielding a multi-product development pipeline
2 clinical programs having regenerative medicine “breakthrough” designation



Proprietary field-leading technology in lucrative global indications backed by
strong IP portfolio



Multiple potential value creating events in the next 12-24 months based on
milestones across the pipeline



Strong balance sheet; ~\$58 million in cash & cash equivalents (1/29/2021)
with no debt and cash runway projected to fund operations through 2022



Seasoned management with noteworthy domain expertise along with
big pharma and emerging biotech experience



caladrius
BIOSCIENCES

*Developing Regenerative Therapies
that Reverse Chronic Disease*

Investor Relations Contact:

John D. Menditto

Tel: (908) 842-0084

jmenditto@caladrius.com

January 29, 2021 | Nasdaq: CLBS
