

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

March 22, 2022  
Date of Report (date of earliest event reported)

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

**Delaware**  
(State or other jurisdiction of incorporation or organization)

**001-33650**  
(Commission File Number)

**22-2343568**  
(I.R.S. Employer Identification No.)

**110 Allen Road, Second Floor, Basking Ridge, NJ 07920**  
(Address of Principal Executive Offices)(ZipCode)  
**(908) 842-0100**  
Registrant's telephone number, including area code

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 (see General Instruction A.2. below):

- 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 2.02 Results of Operations and Financial Condition.**

The information in Item 7.01 is incorporated by reference.

**Item 7.01 Regulation FD Disclosure.**

On March 22, 2022, Caladrius Biosciences, Inc. (the "Company") issued a press release in connection with its financial results for the fiscal year ended December 31, 2021. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated into this Item 7.01 by reference.

The Company will conduct a conference call to review its financial results on March 22, 2022 at 4:30 p.m. Eastern Time.

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 99.2 and is incorporated herein solely for purposes of this Item 7.01 disclosure.

The information in this Item 7.01, including Exhibits 99.1 and 99.2 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, or otherwise subject to the liabilities of that Section. The information in this Item 7.01, including Exhibits 99.1 and 99.2 attached hereto, shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, except as otherwise expressly stated in such filing.

**Item 9.01. Financial Statement and Exhibits.**

**Exhibit N** Description

[99.1](#) Press release, dated March 22, 2022

[99.2](#) Caladrius Biosciences, Inc. Corporate Presentation, March 22, 2022

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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: March 22, 2022

## Caladrius Biosciences Reports Fourth Quarter and Full Year 2021 Financial Results and Provides Business Update

*Conference call begins today at 4:30 p.m. Eastern time*

**BASKING RIDGE, N.J. (March 22, 2022)** – Caladrius Biosciences, Inc. (Nasdaq: CLBS) (“Caladrius” or the “Company”), a clinical-stage biopharmaceutical company dedicated to the development of innovative therapies designed to treat or reverse disease, provides a business update and reports financial results for the three and twelve months ended December 31, 2021.

“Caladrius made significant progress in 2021 that we believe has positioned us well to achieve several important milestones in 2022,” stated David J. Mazzo, Ph.D., President and Chief Executive Officer of Caladrius. “Highlights from 2021 include the initiation of our ongoing Phase 2b FREEDOM Trial of XOWNA<sup>®</sup> for the treatment of coronary microvascular dysfunction; the appointment of Kristen K. Buck, M.D., as Executive Vice President of Research & Development and Chief Medical Officer; and the strengthening of our balance sheet with approximately \$95 million in capital that will serve as a foundation for our next phase of growth. The Company remains focused on refining and executing its development plans in 2022 and is already off to a strong start with the initiation of our Phase 1 study of CLBS201 in diabetic kidney disease where we anticipate the first patient to be treated early in the second quarter. In parallel, the Company continues to identify and evaluate strategic development opportunities with the aim of consummating transactions that will deliver additional value to our shareholders beyond our current development pipeline.”

### **Product Development and Financing Highlights**

#### ***HONEDRA<sup>®</sup> (CLBS12) for the treatment of critical limb ischemia (“CLI”)***

HONEDRA<sup>®</sup> is the Company’s SAKIGAKE-designated product candidate for the treatment of CLI and Buerger’s disease in Japan. As discussed in previous quarters, enrollment in the ongoing registration-eligible trial has been severely impeded by the multiple states of emergency declared by the Japanese government during 2020 and 2021 as a result of the COVID-19 pandemic. This has made even incremental enrollment exceedingly challenging. Since the trial continues to demonstrate positive trends in both safety and efficacy, the key criteria for consideration of conditional approval in Japan under the SAKIGAKE designation, the Company suspended enrollment and turned its focus to securing a Japanese partner either to complete study enrollment of the four remaining patients, if necessary, and/or to explore the possibility of submitting the existing data to the Japanese Regulatory Authorities for registration review. This decision was motivated by the Company’s desire to minimize additional operational and financial burden caused by enrollment delays and the lack of visibility on time to completion of the current study. The Company has had numerous conversations with the Pharmaceuticals and Medical Devices Agency (PMDA) in Japan regarding the best path forward and anticipates having clarity on next steps during the second quarter of 2022.

#### ***XOWNA<sup>®</sup> (CLBS16) for the treatment of coronary microvascular dysfunction (“CMD”)***

XOWNA<sup>®</sup> is an experimental regenerative therapy for the treatment of CMD. It was the subject of a positive Phase 2a study (the “ESCaPE-CMD trial”) reported in 2020 and is currently being evaluated in the U.S. Phase 2b FREEDOM Trial. The FREEDOM Trial is a double-blind, randomized, placebo-controlled study designed to assess the efficacy and safety of delivering autologous CD34+ cells to subjects with CMD and without obstructive coronary artery disease. As previously communicated, enrollment in the FREEDOM Trial initially proceeded as planned with the first patient treated in January 2021, however, the impact of the COVID-19 pandemic in the U.S. has contributed to a general slowing of enrollment that continues to this day. Caladrius has taken steps to accelerate enrollment by expanding the number of participating investigational sites as well as modifying the study protocol to make study inclusion criteria more flexible. At this time, the Company is unable to give guidance on when enrollment will be

completed but expects the study to run into 2023, if continued as planned. Final data from the study is expected approximately six months after last patient/last visit in the study. Caladrius continues to monitor the progress of the study and will consider additional future protocol and/or execution changes, as appropriate, to accelerate completion.

#### **CLBS201 for the treatment of diabetic kidney disease (“DKD”)**

Progressive kidney failure is associated with attrition of the microcirculation of the kidney. Pre-clinical studies in kidney disease and injury models have demonstrated that protection or replenishment of the microcirculation results in improved kidney function. Based on these observations, the Company recently initiated a Phase 1, open-label, proof-of-concept trial evaluating CLBS201, a CD34+ regenerative cell therapy investigational product for intra-renal artery administration in patients with DKD. Although still in the pre-dialysis stage of kidney disease, the selected patients will exhibit rapidly progressing stage 3b disease. The protocol provides for a staggered, sequentially dosed cohort of six patients overseen by an independent Data Safety Monitoring Board (DSMB) with the objective of determining the tolerance of intra-renal cell therapy injection in DKD patients as well as the ability of CLBS201 to regenerate kidney function. A key read-out of data will occur at the 6-month follow-up visit for all patients. As previously announced, the Company anticipates the first patient to be treated in this study early in the second quarter of 2022 with top-line data from all subjects expected by the first quarter of 2023.

#### **Fourth Quarter and Full Year 2021 Financial Highlights**

Research and development expenses for the fourth quarter of 2021 were \$4.2 million, a 43% increase compared with \$2.9 million for the fourth quarter of 2020, and \$17.7 million for the year ended December 31, 2021 compared to \$9.3 million for the year ended December 31, 2020, representing an increase of approximately 91%. Research and development activities in both the current year and prior year periods focused on the advancement of our ischemic repair platform and related to:

- Expenses associated with efforts to continue execution and acceleration of enrollment of the FREEDOM Trial;
- Expenses associated with the planning, preparation and initiation of the Phase 1 proof-of-concept trial for CLBS201 as a treatment for DKD; and
- Ongoing expenses for HONEDRA® in CLI and Buerger’s disease in Japan associated with maintenance of manufacturing facility and personnel qualification as well as Contract Research Organization engagement despite no subject treatment execution due to the COVID-19 imposed state of emergency in Japan.

General and administrative expenses, which focus on general corporate related activities, were \$2.7 million for the three months ended December 31, 2021, representing an increase of 6% compared to \$2.5 million for the three months ended December 31, 2020, and \$11.4 million for the year ended December 31, 2021, representing an increase of 15% compared to \$9.9 million for the year ended December 31, 2020. This increase was primarily due to an increase in directors and officers liability insurance premiums and strategic consulting expenses.

Overall, net losses were \$27.5 million and \$8.1 million for the years ended December 31, 2021, and 2020, respectively.

#### **Balance Sheet Highlights**

As of December 31, 2021, we had cash, cash equivalents and marketable securities of approximately \$95.0 million. Based on existing development programs, the Company projects that its current cash balance will fund operations for the next several years. Based on this favorable cash position, the Company will continue its concerted efforts to identify and acquire additional development assets to diversify its portfolio of product candidates and to enhance the opportunity for shareholder value creation.

## Conference Call

Caladrius will hold a live conference call today March 22, 2022, at 4:30 p.m. (ET) to discuss financial results, provide a business update and answer questions. To join the conference call, please refer to the dial-in information provided below. A live webcast of the call will also be available under the Investors & News section of the Caladrius website (<https://ir.caladrius.com/>) and will be available for replay for 90 days after the conclusion of the call.

### Dial-in information:

**Conference ID:** 5066195

**U.S. Toll-Free:** 866-595-8403

**International:** 706-758-9979

*Please dial-in 10 minutes before the start of the conference call.*

For those unable to participate on the live conference call, an audio replay will be available that day starting at 7:30 p.m. (ET) until March 29, 2022, by dialing 855-859-2056 (U.S. Toll-Free) or 404-537-3406 (International) and by entering the replay passcode: 5066195.

## About Caladrius Biosciences

Caladrius Biosciences, Inc. is a clinical-stage biopharmaceutical company dedicated to the development of innovative therapies designed to treat or reverse disease. We currently are developing first-in-class autologous cell therapy products based on the finely tuned mechanisms for self-repair that exist in the human body. Our technology leverages and enables these mechanisms in the form of specific cells, using formulations and modes of delivery unique to each medical indication.

The Company's current product candidates include: XOWNA<sup>®</sup> (CLBS16), the subject of both a recently completed positive Phase 2a study and an ongoing Phase 2b study ([www.freedom-trial.com](http://www.freedom-trial.com)) in the U.S. for the treatment of coronary microvascular dysfunction ("CMD"); CLBS12 (HONEDRA<sup>®</sup> in Japan), recipient of a SAKIGAKE designation in Japan and eligible for early conditional approval for the treatment of critical limb ischemia ("CLI") and Buerger's disease based on the results of an ongoing clinical trial; and CLBS201, designed to assess the safety and efficacy of CD34+ cell therapy as a treatment for diabetic kidney disease ("DKD"). For more information on the Company, please visit [www.caladrius.com](http://www.caladrius.com).

## Safe Harbor for Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements reflect management's current expectations, as of the date of this press release, and involve certain risks and uncertainties. All statements other than statements of historical fact contained in this press release are forward-looking statements including, without limitation, any expectations of revenues, expenses, cash flows, earnings or losses from operations, cash required to maintain current and planned operations, capital or other financial items; any statements of the plans, strategies and objectives of management for future operations; market and other conditions; any plans or expectations with respect to product research, development and commercialization, including regulatory approvals; any plans or expectations to complete strategic transactions to diversify our pipeline of development product candidates; any other statements of expectations, plans, intentions or beliefs; and any statements of assumptions underlying any of the foregoing. Without limiting the foregoing, the words "plan," "project," "forecast," "outlook," "intend," "may," "will," "expect," "likely," "believe," "could," "anticipate," "estimate," "continue" or similar expressions or other variations or comparable terminology are intended to identify such forward-looking statements, although some forward-looking statements are expressed differently. Factors that could cause future results to differ materially from the recent 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 22, 2022, 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 Press Release. Caladrius does not intend, and disclaims any obligation, to update or revise any forward-looking information contained in this Press Release or with respect to the matters described herein, except as required by law.

**Contact:**

Investors:  
Caladrius Biosciences, Inc.  
John Menditto  
Vice President, Investor Relations and Corporate Communications  
Phone: 908-842-0084  
Email: [jmenditto@caladrius.com](mailto:jmenditto@caladrius.com)

- Tables to Follow -

**Caladrius Biosciences, Inc.**  
**Selected Financial Data**  
(in thousands, except per share data)

(in thousands, except per share data)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2021	2020	2021	2020
	(unaudited)	(unaudited)		
<b>Statement of Operations Data:</b>				
Research and development	\$ 4,150	\$ 2,907	\$ 17,680	\$ 9,253
General and administrative	2,699	2,539	11,370	9,892
<b>Total operating expenses</b>	<b>6,849</b>	<b>5,446</b>	<b>29,050</b>	<b>19,145</b>
<b>Operating loss</b>	<b>(6,849)</b>	<b>(5,446)</b>	<b>(29,050)</b>	<b>(19,145)</b>
Investment income, net	40	15	151	132
Other expense, net	15	—	(75)	—
<b>Net loss before benefit from income taxes and noncontrolling interests</b>	<b>(6,794)</b>	<b>(5,431)</b>	<b>(28,974)</b>	<b>(19,013)</b>
Benefit from income taxes	—	—	(1,508)	(10,872)
<b>Net loss</b>	<b>(6,794)</b>	<b>(5,431)</b>	<b>(27,466)</b>	<b>(8,141)</b>
Less - net (loss) income attributable to noncontrolling interests	—	(1)	—	9
<b>Net loss attributable to Caladrius Biosciences, Inc. common shareholders</b>	<b>\$ (6,794)</b>	<b>\$ (5,430)</b>	<b>\$ (27,466)</b>	<b>\$ (8,150)</b>
<b>Basic and diluted loss per share attributable to Caladrius Biosciences, Inc. common shareholders</b>	<b>\$ (0.11)</b>	<b>\$ (0.28)</b>	<b>\$ (0.50)</b>	<b>\$ (0.53)</b>
<b>Weighted average common shares outstanding</b>	<b>59,775</b>	<b>19,396</b>	<b>55,313</b>	<b>15,440</b>

	December 31, 2021	December 31, 2020
<b>Balance Sheet Data:</b>		
Cash, cash equivalents and marketable securities	\$94,970	\$34,573
Total assets	97,008	36,002
Total liabilities	5,008	3,760
Total equity	92,000	32,242

###

Exhibit 99.2

**caladrius**  
BIOSCIENCES

*Developing Innovative Therapies  
that Treat or Reverse Disease*

David J. Mazzo, PhD  
*President & Chief Executive Officer*

March 22, 2022 | Nasdaq: CLBS



## Forward-looking statement

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This Investor Presentation contains forward-looking statements within the meaning of the 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 recent 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 22, 2022, 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.

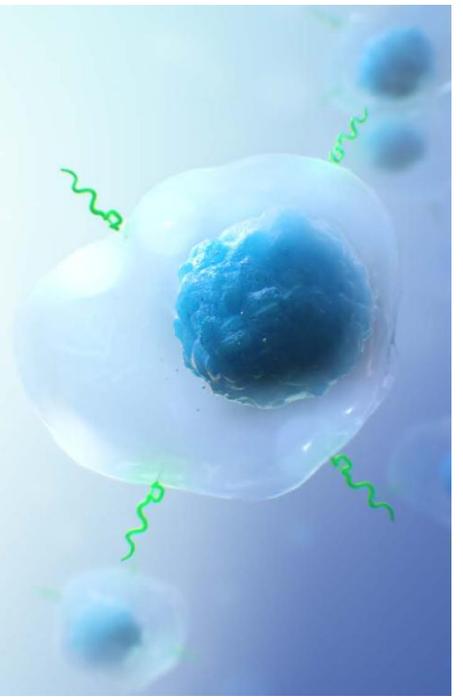
## Caladrius investment highlights

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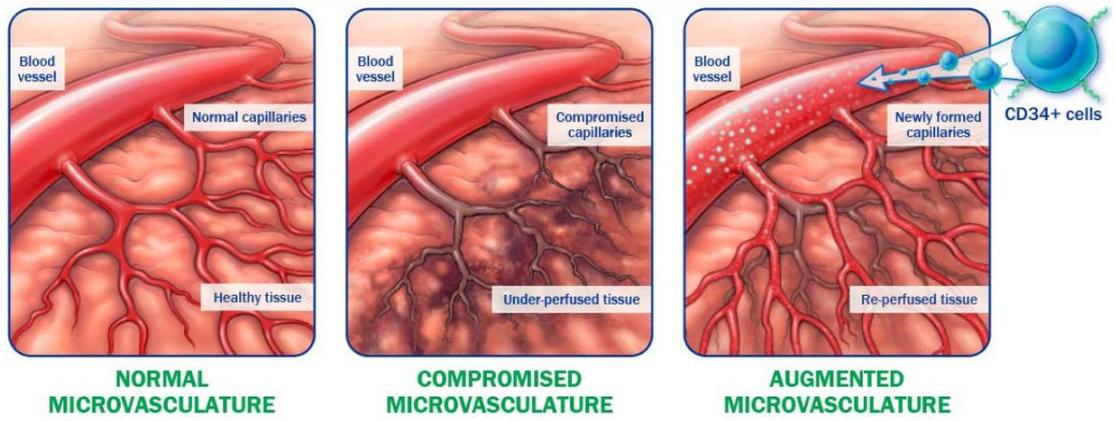
-  CD34+ cell therapy platform yielding a multi-product development pipeline with 2 clinical programs having regenerative medicine “breakthrough” designation
-  Proprietary field-leading technology in lucrative global indications backed by a strong IP portfolio
-  Potential value creating events in the next 12-24 months based on milestones across the pipeline
-  Strong balance sheet [\$95 million cash & investments (end 2021) - no debt]; projected to fund operations (current development portfolio) for several years
-  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 action



- Naturally occurring endothelial progenitor cells that re-establish blood flow to under-perfused tissues<sup>1,2</sup>
- Possess pre-programmed pro-angiogenic and anti-inflammatory tissue repair properties<sup>3,4</sup>

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

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

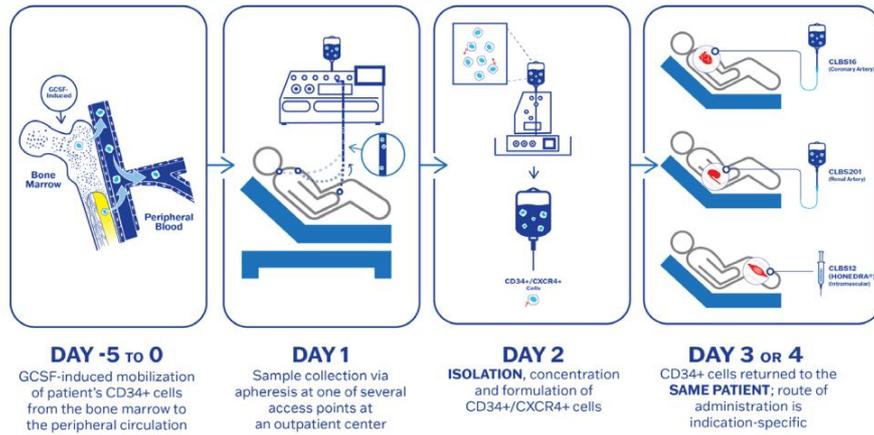
## CD34+ autologous cell therapy is extensively studied/clinically validated

- 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 journals<sup>1-4</sup>
  - Single treatments elicited durable therapeutic effects
  - Treatment generally well-tolerated

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

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

## Caladrius' autologous CD34+ cell process is rapid/economical/scaled



- 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

*Patent protection to 2031+*



**Key Patent Claims**

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

# Caladrius' innovative autologous CD34+ cell therapy pipeline<sup>1,2</sup>

PRODUCT/INDICATION	DEVELOPMENT STAGE
<b>XOWNA® (CLBS16)</b> CORONARY MICROVASCULAR DYSFUNCTION	FREEDOM PHASE 2B TRIAL (USA; ONGOING)
<b>HONEDRA® (CLBS12) *SAKIGAKE DESIGNATED (JAPAN)</b> CRITICAL LIMB ISCHEMIA + BUERGER'S DISEASE	REGISTRATION ELIGIBLE TRIAL (JAPAN; ONGOING)
<b>CLBS201</b> DIABETIC KIDNEY DISEASE	PHASE 1 (USA; ONGOING)

<sup>1</sup> Products are distinct and not interchangeable

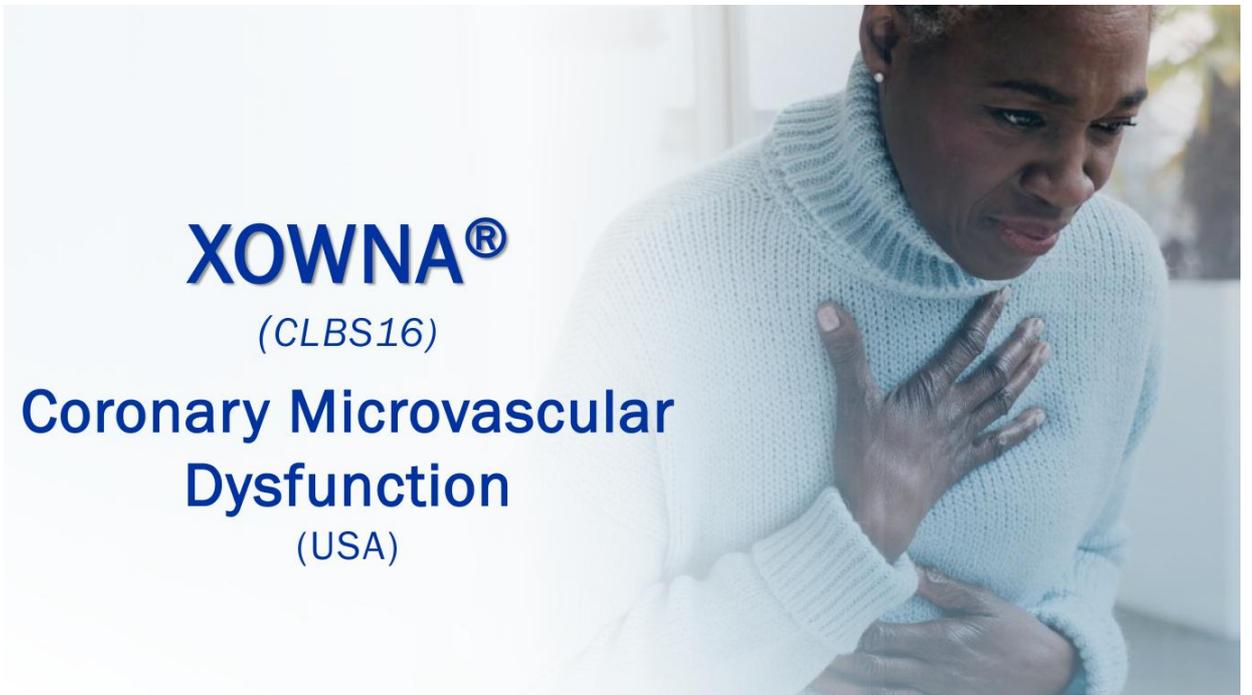
<sup>2</sup> All timing subject to COVID-19 pandemic influence

**XOWNA®**

(CLBS16)

**Coronary Microvascular  
Dysfunction**

(USA)



## Indication: Coronary microvascular dysfunction (CMD)

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- 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<sup>1,2</sup>
- Results in poor prognosis for patients<sup>3</sup>
  - Significantly elevated risk of all-cause mortality<sup>4</sup>
- Clinically diagnosed based on symptoms *and* demonstrated absence of large vessel obstructive disease
- Quantitatively diagnosed using Coronary Flow Reserve (CFR)<sup>5</sup> and image-techniques (cPET and cMRI)

<sup>1</sup> Coronary Microvascular Disease. (2015, July 31). In American Heart Association

<sup>2</sup> R. David Anderson, John W. Petersen, Puja K. Mehta, et al., *Journal of Interventional Cardiology*, 2019; 8

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

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

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

## CMD represents a large unmet medical need

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- ~112 million people globally are affected by angina<sup>1</sup>
- ~8.3 million people in the U.S. suffering from coronary artery disease (CAD)<sup>2</sup>
- 10% - 30% of angina patients have no significant CAD on invasive coronary angiography<sup>3,4</sup>
- 50% - 65% of patients with angina without obstructive CAD are believed to have CMD<sup>5</sup>

**Applicable CMD population in the U.S. potentially treatable by XOWNA<sup>®</sup> ranges from ~415,000 to ~1.6 million patients<sup>6</sup>**

<sup>1</sup> Kunadian V, et al. European Heart Journal. 2020; 0:1-21  
<sup>2</sup> Cleveland Clinic/AHA (American Heart Association)

<sup>3</sup> Farrehi PM, et al. Am J Manag Care. 2002;8:643-648

<sup>4</sup> Bradley SM, et al. J Am Coll Cardiol. 2014;63:417-426

<sup>5</sup> Marinescu MA, et al. JACC Cardiovasc Imaging. 2015;8:210-220

<sup>6</sup> Tunstall-Pedoe H, (ed.) WHO, Geneva, 2003, pp. 244, Swiss FR 45, ISBN: 92-4-156223-4.

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

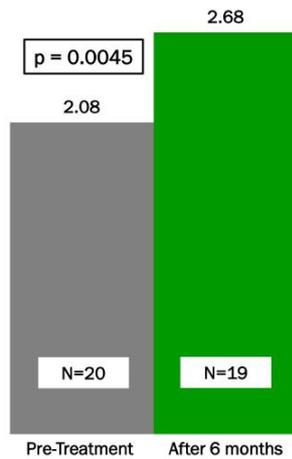
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<b>Endpoints</b>	<ul style="list-style-type: none"><li>▪ Therapeutic effect and the evaluation of adverse events; including changes from baseline to 6 months for coronary flow reserve, angina frequency, CCS angina class, quality of life</li></ul>
<b>Study Size</b>	<ul style="list-style-type: none"><li>▪ 20 subjects (U.S. centers - Cedars Sinai, Los Angeles &amp; Mayo Clinic, Rochester)</li></ul>
<b>Dose</b>	<ul style="list-style-type: none"><li>▪ Up to <math>300 \times 10^6</math> CD34+ cells</li></ul>
<b>Mode of Administration</b>	<ul style="list-style-type: none"><li>▪ Single intracoronary infusion</li></ul>
<b>Objective</b>	<ul style="list-style-type: none"><li>▪ Demonstrate proof-of-concept of CD34+ cell therapy in CMD patients</li><li>▪ Data reported at AHA 2019 and SCAI 2020</li></ul>

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## ESCaPE-CMD: Durable, physiologic coronary vasculature improvement

### Coronary Flow Reserve <sup>1</sup>



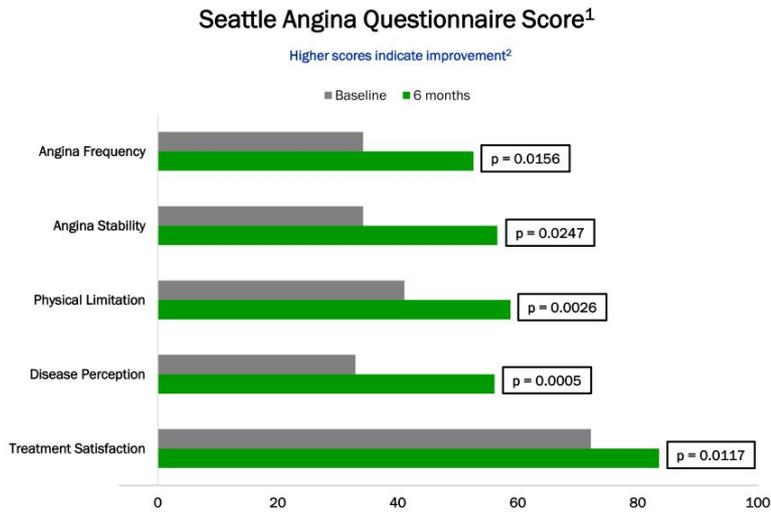
### Key Points:

- Evaluated subjects with CFR  $\leq 2.5$  (diagnosed as CMD)
- CFR = 2 correlates with a 3-4x increase in major adverse cardiac events (MACE) at 3 years<sup>1</sup>
- A single intracoronary XOWNA<sup>®</sup> infusion significantly increased CFR to normal values (i.e.,  $\geq 2.5$ ) for at least 6 months (period of patient follow-up)
  - First therapy to potentially reverse CMD
  - Treatment generally well-tolerated
- Intracoronary XOWNA<sup>®</sup> infusion may ultimately correlate with a reduction in MACE

<sup>1</sup> Murthy et al. Circulation. 2014

<sup>2</sup> Henry, T. D., Bairey Merz, C. N., et al. (2022). Cardiovascular interventions.

# ESCaPE-CMD: Durable, symptomatic anginal relief

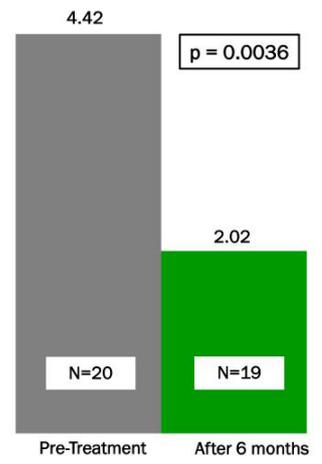


<sup>1</sup> Henry, D. T., SCAI 2020 Scientific Sessions

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

<sup>3</sup> Henry, T. D., Bairey Merz, C. N., et al. (2022), Cardiovascular interventions.

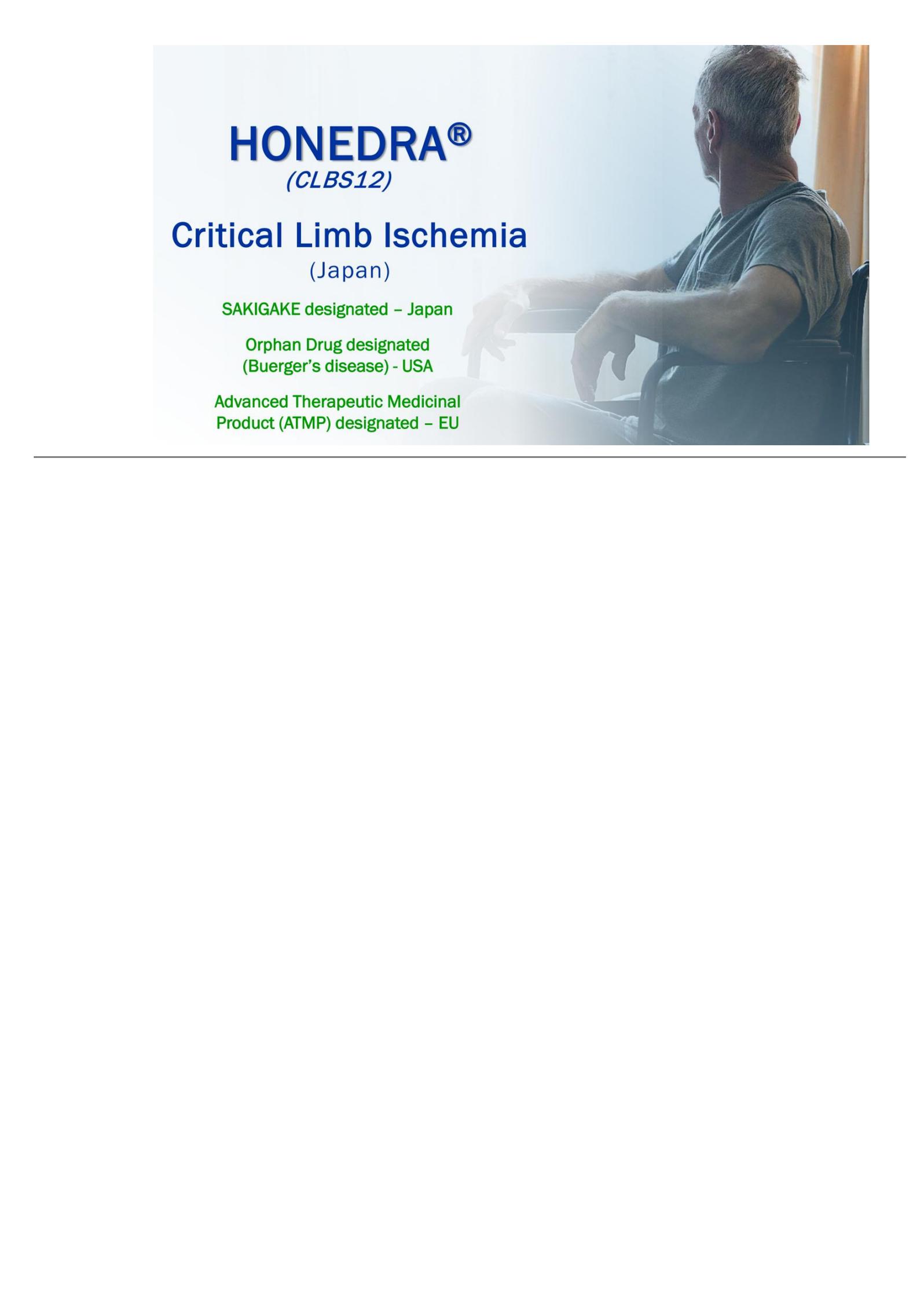
### Daily Angina Frequency<sup>2</sup>



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

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<b>Endpoints</b>	<ul style="list-style-type: none"><li>▪ Change from baseline in angina frequency [Baseline to 3 and 6 months]</li><li>▪ Change from baseline in total exercise time [Baseline to 6 months]</li><li>▪ Change from baseline in health-related quality of life [Baseline to 3 and 6 months]</li><li>▪ Change from baseline in peak coronary flow reserve [Baseline to 6 months]</li></ul>
<b>Study Size</b>	<ul style="list-style-type: none"><li>▪ 105 subjects (~15 sites in the USA)</li></ul>
<b>Dose</b>	<ul style="list-style-type: none"><li>▪ 1 x 10<sup>6</sup> to 300 x 10<sup>6</sup> CD34+ cells (XOWNA®) or placebo</li></ul>
<b>Mode of Administration</b>	<ul style="list-style-type: none"><li>▪ Single intracoronary infusion</li></ul>
<b>Objective</b>	<ul style="list-style-type: none"><li>▪ Confirm ESCaPE-CMD safety and efficacy results in a controlled trial (possible basis for RMAT application)</li><li>▪ Estimate effect size for endpoint(s) likely required in a registration trial</li><li>▪ Characterize patient flow and diagnoses using “real world” criteria</li></ul>



**HONEDRA<sup>®</sup>**  
*(CLBS12)*

**Critical Limb Ischemia**  
(Japan)

SAKIGAKE designated – Japan

Orphan Drug designated  
(Buerger's disease) - USA

Advanced Therapeutic Medicinal  
Product (ATMP) designated – EU

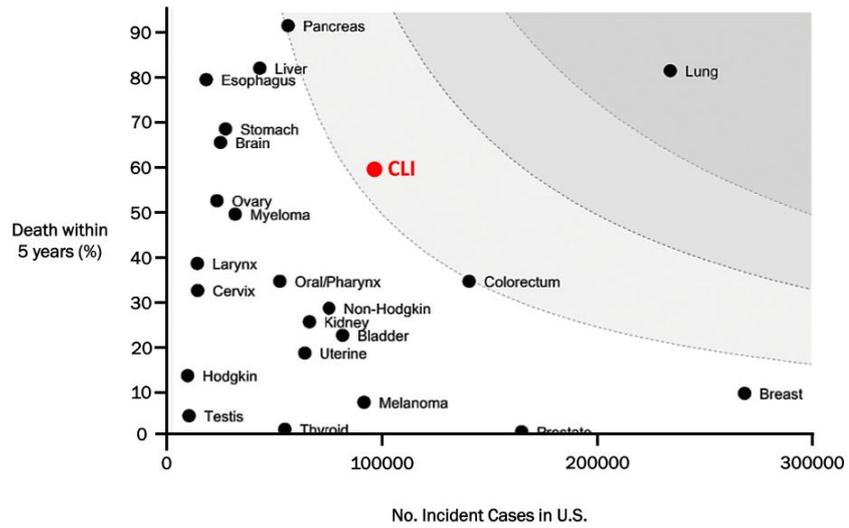
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## Indication: Critical limb ischemia (CLI)

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- 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 (BD = inflammation in small and medium arteries) a form of CLI 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 death
- Multi-hundred-million-dollar opportunity in Japan

## CLI: Higher mortality incidence than most cancers



## HONEDRA® targets patients based on the Rutherford Scale

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CLI amputation rates increase with increasing Rutherford score (disease severity)<sup>1</sup>

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

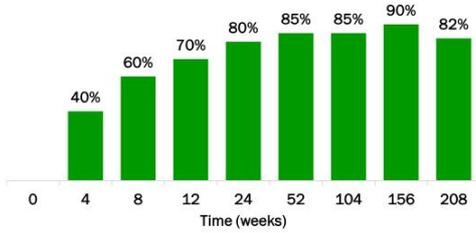
<sup>1</sup> Reinecke H., European Heart Journal, 2015 Apr 14;36(15):932-8

# Single treatment of CD34+ cells reversed CLI (Phase 2 data)

Actual CLI Patient Laser Doppler Image  
Pre-treatment Post-treatment (week 12)

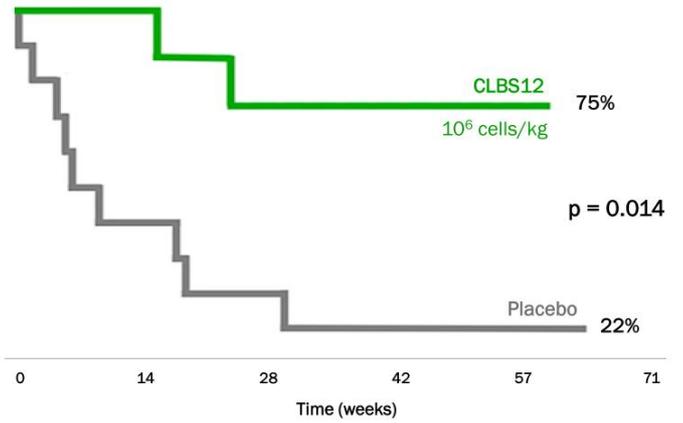


% of Patients (CLI + BD) Achieving CLI-free Status  
(Japan; n=27)<sup>1</sup>



~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)<sup>2</sup>



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

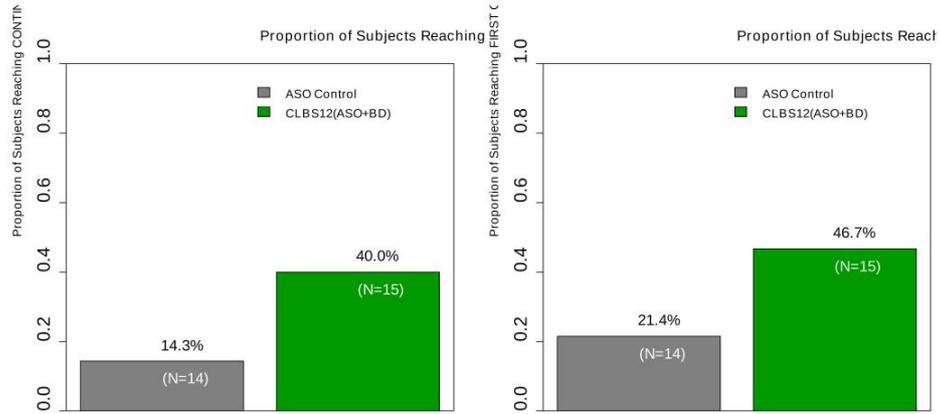
## HONEDRA® registration-eligible study (CLBS12-P01, Japan)

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<b>Primary Endpoint</b>	<ul style="list-style-type: none"><li>▪ Time to continuous CLI-free (2 consecutive monthly visits, adjudicated independently)</li></ul>
<b>Target Study Size</b>	<ul style="list-style-type: none"><li>▪ 35 (30 subjects with no-option CLI + 5 Buerger's disease pts.); all Rutherford category 4 or 5; recruited across 12 centers in Japan</li></ul>
<b>Dose</b>	<ul style="list-style-type: none"><li>▪ Up to <math>10^6</math> cells/kg of HONEDRA® (CLBS12)</li></ul>
<b>Control/Comparator</b>	<ul style="list-style-type: none"><li>▪ Standard of Care: wound care plus drugs approved in Japan<ul style="list-style-type: none"><li>▪ Including antimicrobials, antiplatelets, anticoagulants and vasodilators</li></ul></li></ul>
<b>Mode of Administration</b>	<ul style="list-style-type: none"><li>▪ Intramuscular, 20 injections in affected lower limb in a single treatment</li></ul>
<b>Objective</b>	<ul style="list-style-type: none"><li>▪ Demonstrate a trend toward efficacy and acceptable safety to qualify for consideration of early conditional approval under Japan's Regenerative Medicine Development Guidelines</li></ul>

## CLBS12-P01 “full analysis set” efficacy trends positively

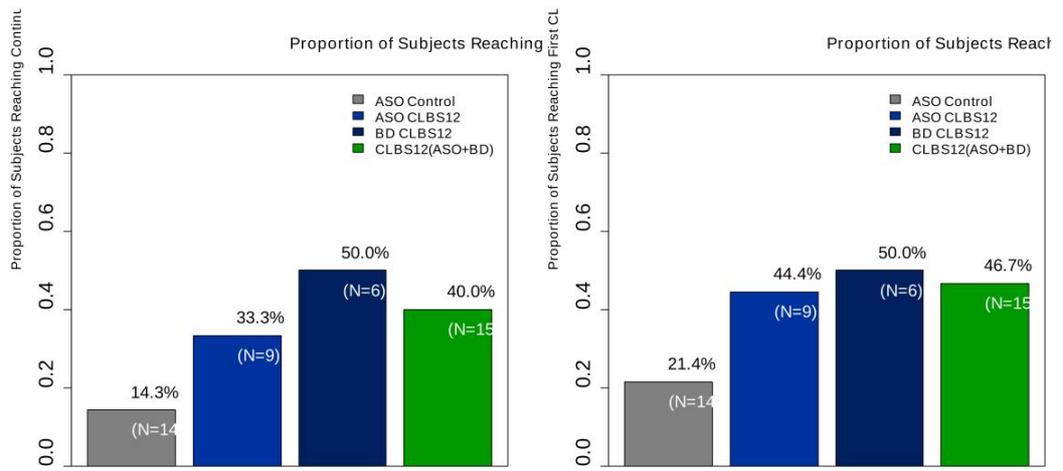
- Proportion of CLBS12-treated subjects reaching **CONTINUOUS** CLI-free status **MORE THAN DOUBLE** control arm
- Proportion of CLBS12-treated subjects reaching **FIRST** CLI-free status **MORE THAN DOUBLE** control arm



FAS: Full Analysis Set as defined by Japanese Regulators (PMDA)

# CLBS12-P01 efficacy trends positively for both ASO and BD individually

Efficacy trends are consistent across both populations



## HONEDRA® development next steps

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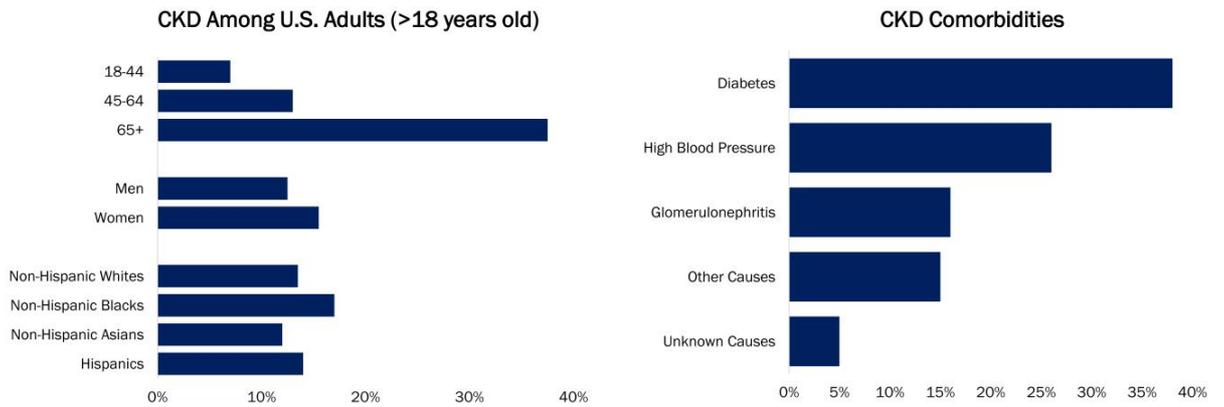
- HONEDRA® study enrollment was significantly curtailed by the impact of COVID-19 (States of Emergency in Japan between ~ February 2020 and October 2021)
  - Total enrolled to date: 33 (26 no-option CLI pts. + 7 Buerger's disease pts.)
- Combined CLI and BD interim data suggest trend toward efficacy and acceptable safety
  - Further enrollment paused as a result of substantial continued operational & financial burden due to enrollment delays and unpredictability of completion timing
- Priority for Caladrius in Japan is securing a local partner to explore submitting the existing data to the Pharmaceuticals & Medical Devices Agency (PMDA) under the SAKIGAKE designation

**CLBS201**  
**Diabetic Kidney**  
**Disease**  
(USA)



## Chronic kidney disease: Risk factors and comorbidities

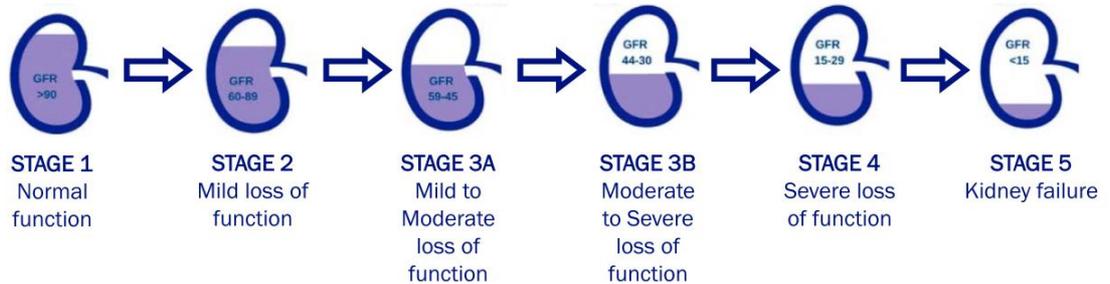
- Advancing age is a risk factor for chronic kidney disease (CKD). Type 2 diabetes and hypertension are common comorbidities
  - 1 in 3 adults are type 2 diabetic and 1 in 5 adults are hypertensive<sup>1</sup>



<sup>1</sup> 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)<sup>1</sup>
- GFR is measured to determine how well the kidneys are filtering blood
- 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, ~15 to 18 million had evidence of CKD stage 3 or 4<sup>2</sup>



<sup>1</sup> 2020 Dallas Nephrology Associates

<sup>2</sup> Centers for Disease Control and Prevention. Chronic Kidney Disease Surveillance System—United States.

## Development rationale for CLBS201

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- CKD is often associated with progressive microvasculature damage and loss<sup>1,2</sup>
- Preclinical studies show that microcirculation replenishment improves kidney function
- CD34+ cells are promoters of new capillary growth, improving the microvasculature
- Therapies currently available and/or expected to be available over the next 5–10 years will slow the progression of CKD/diabetic kidney disease (DKD)
- An effective regenerative DKD therapy (i.e., one that *reverses* the course of the disease) could represent a medical and pharmacoeconomic breakthrough

## CLBS201 clinical strategy

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- To demonstrate that CD34+ cell therapy (mobilization, donation and administration) can be tolerated by patients with CKD with Type 2 Diabetes
- To demonstrate that regeneration of the kidney microcirculation using CD34+ cell therapy improves kidney function

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

<sup>2</sup> Zuk, Anna & Borventre, 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 proof-of-concept study

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<b>Endpoints</b>	<ul style="list-style-type: none"><li>Change in eGFR compared to baseline, assessed at 6 months</li><li>Change in Urine albumin-to-creatinine ratio (UACR) and urine protein-to-creatinine ratio (UPCR) from baseline to 3 and 6 months</li></ul>
<b>Study Size</b>	<ul style="list-style-type: none"><li>6 patients (1 sentinel - unilateral inj., 1 sentinel - bilateral inj., 4 bilateral inj. patients)</li></ul>
<b>Dose</b>	<ul style="list-style-type: none"><li><math>1 \times 10^6</math> – <math>300 \times 10^6</math> cells administered as a one-time infusion</li></ul>
<b>Patient Population</b>	<ul style="list-style-type: none"><li>Stage 3b DKD</li></ul>
<b>Design</b>	<ul style="list-style-type: none"><li>Open-label</li></ul>
<b>Mode of Administration</b>	<ul style="list-style-type: none"><li>Intra-arterial injection into one or both renal arteries</li></ul>
<b>Timing</b>	<ul style="list-style-type: none"><li>Top-line data target for all subjects: 1Q2023</li></ul>

## Caladrius key financial information

Cash & Investments: As of December 31, 2021	\$95.0 million
Full year ended December 31, 2021 Operating Cash Burn <sup>1</sup> :	\$23.7 million
Cash Runway Based on Current Plan:	Sufficient capital to fund operations beyond multiple key data readouts (>2024)
Debt as of December 31, 2021:	\$0
Common Shares Outstanding: As of December 31, 2021	59.8 million shares
Options Outstanding as of December 31, 2021: Exercise Price: \$1.28 - \$3.28 = 1,474,300 shares Exercise Price: > \$3.28 = 657,600 shares	2.1 million shares
Warrants Outstanding as of December 31, 2021: Weighted Average Exercise Price: \$2.84	21.4 million shares

<sup>1</sup> Excludes \$1.4 million in net proceeds from sale of New Jersey NOLs

## Caladrius investment highlights

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-  CD34+ cell therapy platform yielding a multi-product development pipeline with 2 clinical programs having regenerative medicine “breakthrough” designation
-  Proprietary field-leading technology in lucrative global indications backed by a strong IP portfolio
-  Potential value creating events in the next 12-24 months based on milestones across the pipeline
-  Strong balance sheet [\$95 million cash & investments (end 2021) - no debt]; projected to fund operations (current development portfolio) for several years
-  Seasoned management with noteworthy domain expertise along with big pharma and emerging biotech experience

A photograph of a middle-aged couple smiling and embracing each other outdoors. The woman is leaning her head on the man's shoulder. They are both looking towards the camera with warm expressions.

# caladrius

BIOSCIENCES

*Developing Innovative Therapies  
that Treat or Reverse Disease*

**Investor Relations Contact:**

*John D. Menditto*  
Tel: (908) 842-0084  
[jmenditto@caladrius.com](mailto:jmenditto@caladrius.com)

March 22, 2022 | Nasdaq: CLBS

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