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): June 03, 2026

CABALETTA BIO, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-39103**	**82-1685768**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**
2929 Arch Street Suite 600 Philadelphia, Pennsylvania		**19104**
(Address of Principal Executive Offices)		**(Zip Code)**

Registrant's Telephone Number, Including Area Code: (267) 759-3100

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

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 $0.00001 per share	CABA	The Nasdaq Global Select 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.

On June 3, 2026, Cabaletta Bio, Inc. (“Cabaletta” or the “Company”) issued a press release announcing new rese-cel data and development updates across the Company's autoimmune portfolio, including encouraging early preconditioning-free ("PC-free") lupus findings (the “Press Release”). A copy of the Press Release is furnished herewith as Exhibit 99.1 to this Current Report on Form 8-K.

The information contained in Item 7.01 of this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is being furnished and shall not be deemed to be “filed” for the purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section and shall not be incorporated by reference in any filing under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Item 8.01 Other Events.

On June 3, 2026, the Company posted to the “Investors & Media” section of the Company’s website at *www.cabalettabio.com* an updated corporate presentation (the “Corporate Presentation”). A copy of the Corporate Presentation is attached hereto as Exhibit 99.2 to this Current Report on Form 8-K and incorporated herein by reference.

On June 3, 2026, the Company issued the Press Release announcing new rese-cel data and development updates across the Company's autoimmune portfolio, including encouraging early preconditioning-free lupus findings, which are being presented in multiple oral and poster presentations, as well as in a company-sponsored satellite symposium, at the European Alliance of Associations for Rheumatology ("EULAR") 2026 Congress.

At the EULAR 2026 Congress, Cabaletta’s presentations include data from 52 evaluable autoimmune disease patients living with myositis (17), lupus (20) and systemic sclerosis (15) who were treated with rese-cel, including the first juvenile dermatomyositis (JDM) patient and the first two lupus patients treated with PC-free rese-cel. Rese-cel exhibited a predictable translational profile when administered with and without preconditioning, consistent across each indication evaluated. In addition, patients were generally able to discontinue all immunomodulators (IM) and require no or only low-doses of steroids while achieving significant improvement in disease activity following rese-cel treatment. As of the cut-off dates of April 16, 2026, for patients treated with rese-cel and preconditioning and May 15, 2026, for patients treated with PC-free rese-cel, key data insights include:

RESET-Myositis®: Phase 1/2 cohort data demonstrate 80% (8/10) of dermatomyositis (DM) and antisynthetase syndrome (ASyS) patients would have met the primary endpoint of the registrational cohort. After discontinuation of all immunomodulators:

- 83% (5/6) of DM patients achieved an immunomodulator-free (IM-free), moderate-to-major Total Improvement Score (TIS) response at 16 weeks; all patients maintained their IM-free response through latest follow-up as long as 1.5 years.
- 75% (3/4) of ASyS patients achieved an IM-free, moderate-to-major TIS response at 16 weeks. Durability in these patients was variable, consistent with the reported academic CD19-CAR T data.
- The first JDM patient achieved an IM-free, moderate TIS response at 16 weeks, with response maintained through latest follow-up at 32 weeks.
- 100% (17/17) of patients experienced either no CRS or transient fever (Grade 1 CRS) and no immune effector cell-associated neurotoxicity syndrome (ICANS) of any grade was observed in any patient.

RESET-SSc™: Phase 1/2 cohort patients showed overall improvement in skin and lung disease activity and achieved clinical responses while off IMs and off or tapering steroids that appear to improve with longer follow-up

- Patients with ILD at screening demonstrated an IM-free improvement in percent predicted FVC, with a median improvement of 7.5% in patients with 36 weeks of follow-up.
- 83% (5/6) of patients achieved revised Composite Response Index in Systemic Sclerosis (rCRISS)-25 and 67% (4/6) of patients achieved rCRISS-50 at 36 weeks while off all immunomodulators and off or tapering steroids.
- 87% (13/15) of patients experienced either no CRS or transient fever (Grade 1 CRS); 93% (14/15) of patients experienced no ICANS (one Grade 3 ICANS previously reported March 2025).

RESET-SLE™: Based on data from the first two PC-free patients, the lowest dose of PC-free rese-cel appears to be a threshold dose; patients who received rese-cel with preconditioning achieved meaningful clinical responses off IMs with no or low-dose steroids at 12 months

- In the first two PC-free lupus patients, initial pharmacokinetic/pharmacodynamic (PK/PD) findings suggest the lowest PC-free rese-cel dose may represent a threshold dose, as seen in the PC-free pemphigus vulgaris study, where some patients achieved deep B cell depletion with substantial clinical benefit.
    - One of the two lupus patients experienced deep B cell depletion, similar to what has been observed in lupus patients treated with rese-cel plus preconditioning who achieved an immune reset. The second patient experienced a reduction in peripheral B cells of ~90%.

- One patient experienced grade 1 CRS and no ICANS was observed.

- In the preconditioning cohorts:
  - In patients with 12 months of follow-up, 75% (6/8) of patients achieved Definition of Remission in SLE (DORIS) while remaining off IMs for the duration of follow-up.
  - 83% (15/18) of patients remain IM-free and on no or low-dose steroids at latest follow-up.
  - 94% (17/18) of patients experienced either no CRS or transient fever (Grade 1 CRS); 94% (17/18) of patients experienced no ICANS (one Grade 4 ICANS reported in August 2024).

In addition, pan-translational findings to be presented at the conference highlight that PK/PD dynamics show a short-term rese-cel activity phase that results in evidence of deep B cell depletion and immune system reset, while minimizing the potential for prolonged B cell aplasia and other delayed adverse events as B cells repopulate with a median time of approximately 2 months.

Anticipated Development Plans and Upcoming Milestones for Rese-cel

- **Initiate SSc registrational program with preconditioning in 4Q26, leveraging Phase 1/2 RESET-SSc data and FDA discussions:** Based on the complete Phase 1/2 cohort data and FDA feedback, Cabaletta is conducting a single-arm registrational study of approximately 25 patients with SSc-associated ILD using an FVC-based primary endpoint at 52 weeks. Cabaletta anticipates initiating this study in 4Q26.
- **Report topline data from registrational DM/ASyS cohort in mid-2027:** Patient enrollment is progressing in the registrational, single-arm DM/ASyS cohort in RESET-Myositis, which includes an outpatient dosing option. The primary endpoint will assess whether a moderate or major TIS response after discontinuation of all IMs can be achieved at 16 weeks while remaining off IMs and on no or low-dose steroids.
- **Advance enrollment in JDM to support incorporation in 2H27 BLA submission:** Based on data from the ongoing phase 1/2 study and the academic literature, Cabaletta's BLA submission strategy is planned to include JDM and adult DM. This strategy may allow the Company to receive a priority review voucher as Cabaletta has been granted Rare Pediatric Disease Designation for the treatment of JDM.
- **Present PC-free dose-ranging data in multiple autoimmune diseases, as warranted:** Based on the safety profile and unanticipated activity of the lowest PC-free rese-cel dose in lupus and pemphigus vulgaris patients, Cabaletta plans to generate and report dose-ranging data across multiple autoimmune indications.

Forward-Looking Statements

This 8-K contains "forward-looking statements" of Cabaletta within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including without limitation, express or implied statements regarding: Cabaletta's business plans and objectives as a whole; Cabaletta's ability to realize its vision of launching curative targeted cell therapies designed specifically for patients with autoimmune diseases; the clinical significance of the data presented, including clinical and translational data from the RESET clinical trials; Cabaletta's expectations regarding the potential of preconditioning-free rese-cel to expand patient access and plans to explore higher doses across autoimmune diseases, including the anticipated timing of data therefrom; Cabaletta's ability to successfully complete research and further development and commercialization of its drug candidates in current or future indications, including the timing and results of its clinical trials; Cabaletta's plans regarding the initiation of a SSc registrational program in 4Q26 and expectations regarding the timing of topline data from the DM/ASyS registrational cohort in mid-2027; Cabaletta's expectations around the potential success and therapeutic benefits of rese-cel, including the potential demand from thousands of patients living with autoimmune diseases; Cabaletta's expectations regarding its BLA submission strategy for adult DM and JDM in 2H27, and the potential eligibility for a priority review voucher based on Rare Pediatric Disease Designation for JDM; and Cabaletta's plans to generate and report PC-free dose-ranging data across multiple autoimmune indications.

Any forward-looking statements in this 8-K are based on management's current expectations and beliefs of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: risks related to regulatory filings, approvals and designations; the risk that preclinical or clinical data, including signs of biologic activity or clinical response, may not be predictive of long-term results or translate across programs; Cabaletta's ability to demonstrate sufficient safety, efficacy and tolerability of rese-cel in its clinical trials; risks related to clinical trial enrollment, conduct and assessment of results; risks related to Cabaletta's ability to retain and recognize the intended incentives conferred by Orphan Drug Designation, Fast Track Designation, Regenerative Medicine Advanced Therapy Designation or other designations for its product candidates, as applicable; risks related to Cabaletta's ability to protect its intellectual property position and maintain successful relationships with its collaboration and manufacturing partners; and the risk that any one or more of Cabaletta's product candidates will not be successfully developed and/or commercialized. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause Cabaletta's actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in Cabaletta's most recent annual report on Form 10-K as well as discussions of potential risks, uncertainties, and other important factors in Cabaletta's subsequent filings with the Securities and Exchange Commission. All information in this 8-K is as of the date of this Current Report on Form 8-K, and the Company undertakes no duty to update this information unless required by law.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

99.1	Press Release issued by the registrant on June 3, 2026, furnished herewith.
99.2	Cabaletta Bio, Inc. Corporate Presentation, dated June 3, 2026, filed herewith.
104	Cover Page Interactive Data File (embedded within the Inline XBRL Document).

SIGNATURE

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 thereunto duly authorized.

CABALETTA BIO, INC.

Date: June 3, 2026

By: /s/ Steven Nichtberger

Steven Nichtberger
Chief Executive Officer and President
(Principal Executive Officer)

Exhibit 99.1

Cabaletta Bio®

Cabaletta Bio Announces New Rese-cel Data and Development Updates Across Autoimmune Portfolio, Including Encouraging Early PC-Free Lupus Findings, at EULAR 2026 Congress

83% of dermatomyositis patients in the Phase 1/2 RESET-Myositis study would have met the registrational primary endpoint; all these patients maintained their response off immunomodulators through latest follow-up, as long as 1.5 years

First juvenile dermatomyositis (JDM) patient demonstrated moderate TIS response off immunomodulators and maintained their response through latest follow-up at 32 weeks; JDM expected to be included in 2H27 myositis BLA submission, facilitating the potential for a priority review voucher

Systemic sclerosis (SSc) announced as second pivotal indication based on convincing Phase 1/2 data after a single dose of rese-cel upon discontinuation of immunomodulators; single-arm registrational study initiation anticipated in 4Q26 in ~25 SSc patients with interstitial lung disease (ILD)

Lowest dose of PC-free rese-cel achieved deep B cell depletion in one of the first two lupus patients treated based on translational data similar to RESET-SLE patients who achieved immune reset after a single dose of rese-cel with preconditioning; second, higher dose PC-free cohorts enrolling in lupus and PV

EULAR presentations demonstrate that for most patients, a single dose of rese-cel provided an immune system reset and compelling immunomodulator-free outcomes that persisted over time

PHILADELPHIA, June 3, 2026 (GLOBE NEWSWIRE) -- Cabaletta Bio, Inc. (Nasdaq: CABA), a late-stage clinical biotechnology company focused on developing and launching targeted cell therapies designed specifically for patients with autoimmune diseases, today announced new clinical data supporting rese-cel (resecabtagene autoleucel) as a potential treatment for multiple autoimmune diseases, including findings that further inform Cabaletta's registrational strategy in myositis and systemic sclerosis as well as its preconditioning-free (PC-free) program in lupus. These data are being presented in multiple oral and poster presentations, as well as in a company-sponsored satellite symposium, at the European Alliance of Associations for Rheumatology (EULAR) 2026 Congress, being held June 3-6, 2026, in London, UK.

"Over 80% of the Phase 1/2 dermatomyositis patients would have achieved the pivotal primary endpoint and all five of these patients maintained their response through the latest follow-up as long as 1.5 years. Based on a conservatively high control group response rate, the registrational cohort requires no more than 50% of patients to achieve the 16-week primary endpoint for a positive study," said David J. Chang, M.D., Chief Medical Officer of Cabaletta Bio. "In addition, the emerging durability of rese-cel is promising. The vast majority of dermatomyositis and lupus patients maintained their immunomodulator-free responses and most systemic sclerosis

patients demonstrated continued increases in the magnitude of response with longer follow-up. Beyond the emerging durability data, we are encouraged by the safety profile of rese-cel, which we believe supports outpatient administration. The unanticipated clinical activity at the lowest dose of PC-free rese-cel further supports the potential to expand the market, and we believe that with the optimal dose, preconditioning may not be required for many patients to achieve immune reset in lupus and other autoimmune diseases."

At the EULAR 2026 Congress, Cabaletta's presentations include data from 52 evaluable autoimmune disease patients living with myositis (17), lupus (20) and systemic sclerosis (15) who were treated with rese-cel, including the first juvenile dermatomyositis (JDM) patient and the first two lupus patients treated with PC-free rese-cel. Rese-cel exhibited a predictable translational profile when administered with and without preconditioning, consistent across each indication evaluated. In addition, patients were generally able to discontinue all immunomodulators (IM) and require no or only low-doses of steroids while achieving significant improvement in disease activity following rese-cel treatment. As of the cut-off dates of April 16, 2026, for patients treated with rese-cel and preconditioning and May 15, 2026, for patients treated with PC-free rese-cel, key data insights include:

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- **Report topline data from registrational DM/ASyS cohort in mid-2027:** Patient enrollment is progressing in the registrational, single-arm DM/ASyS cohort in RESET-Myositis, which includes an outpatient dosing option. The primary endpoint will assess whether a moderate or major TIS response after discontinuation of all IMs can be achieved at 16 weeks while remaining off IMs and on no or low-dose steroids.
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- **Present PC-free dose-ranging data in multiple autoimmune diseases, as warranted:** Based on the safety profile and unanticipated activity of the lowest PC-free rese-cel dose in lupus and pemphigus vulgaris patients, Cabaletta plans to generate and report dose-ranging data across multiple autoimmune indications.

Additional information can be accessed on the website of the EULAR 2026 Congress. Presentation materials will be made available on the Posters & Publications section of the Company's website following their presentation.

About rese-cel
Rese-cel (resecabtagene autoleucel) is an investigational, autologous CAR T cell therapy engineered with a fully human CD19 binder and a 4-1BB co-stimulatory domain, designed specifically for the treatment of autoimmune diseases. Administered as a single, weight-based infusion, rese-cel has demonstrated the ability to transiently, reliably and deeply deplete CD19-positive cells, with the goal of resetting the immune system and achieving durable clinical responses without the need for chronic therapy. Cabaletta is evaluating rese-cel in the RESET™ (REstoring SElf-Tolerance) clinical development program, which includes multiple ongoing company-sponsored trials across a broad range of autoimmune diseases in rheumatology, neurology and dermatology.

About Cabaletta Bio
Cabaletta Bio (Nasdaq: CABA) is a late-stage clinical biotechnology company focused on developing and launching curative targeted cell therapies designed specifically for patients with autoimmune diseases. The CABA™ platform encompasses two complementary strategies which aim to advance the discovery and development of engineered T cell therapies with the potential to become deep and durable, perhaps curative, treatments for a broad range of autoimmune diseases. The lead CARTA (Chimeric Antigen Receptor T cells for Autoimmunity) strategy is prioritizing the development of rese-cel, a 4-1BB-containing fully human CD19-CAR T cell investigational therapy. Rese-cel is currently being evaluated in the RESET™ (REstoring SElf-Tolerance) clinical development program spanning multiple therapeutic areas, including rheumatology, neurology and dermatology. Cabaletta Bio's headquarters and labs are located in Philadelphia, PA. For more information, please visit www.cabalettabio.com and connect with us on LinkedIn.

Forward-Looking Statements
This press release contains "forward-looking statements" of Cabaletta Bio within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including without limitation, express or implied statements regarding: Cabaletta's business plans and objectives as a whole; Cabaletta's ability to realize its vision of launching curative targeted cell therapies designed specifically for patients with autoimmune diseases; the clinical significance of the data presented, including clinical and translational data from the RESET clinical trials; Cabaletta's expectations regarding the potential of preconditioning-free rese-cel to expand patient access and plans to explore higher doses across autoimmune diseases, including the anticipated timing of data therefrom; Cabaletta's ability to successfully complete research and further development and commercialization of its drug candidates in current or future indications, including the timing and results of its clinical trials; Cabaletta's plans regarding the initiation of a SSc registrational program in 4Q26 and expectations regarding the timing of topline data from the DM/ASyS registrational cohort in mid-2027; Cabaletta's expectations around the potential success and therapeutic benefits of rese-cel, including the potential demand from thousands of patients living with autoimmune diseases; Cabaletta's expectations regarding its BLA submission strategy for adult DM and JDM in 2H27, and the potential eligibility for a priority review voucher based on Rare Pediatric Disease Designation for JDM; and Cabaletta's plans to generate and report PC-free dose-ranging data across multiple autoimmune indications.

Any forward-looking statements in this press release are based on management's current expectations and beliefs of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: risks related to regulatory filings, approvals and designations; the risk that preclinical or clinical data, including signs of biologic activity or clinical response, may not be predictive of long-term results or translate across programs; Cabaletta's ability to demonstrate sufficient safety, efficacy and tolerability of rese-cel in its clinical trials; risks related to clinical trial enrollment, conduct and assessment of results; risks related to Cabaletta's ability to retain and recognize the intended incentives conferred by Orphan Drug Designation, Fast Track Designation, Regenerative Medicine Advanced Therapy Designation or other designations for its product candidates, as applicable; risks related to Cabaletta's ability to protect its intellectual property position and maintain successful relationships with its collaboration and manufacturing partners; and the risk that any one or more of Cabaletta's product candidates will not be successfully developed and/or commercialized. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause Cabaletta's actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in Cabaletta's most recent annual report on Form 10-K as well as discussions of potential risks, uncertainties, and other important factors in Cabaletta's subsequent filings with the Securities and Exchange Commission. All information in this press release is as of the date of the release, and Cabaletta undertakes no duty to update this information unless required by law.

Contacts:

Anup Marda
Chief Financial Officer
investors@cabalettabio.com

Exhibit 99.2

Cabaletta Bio®

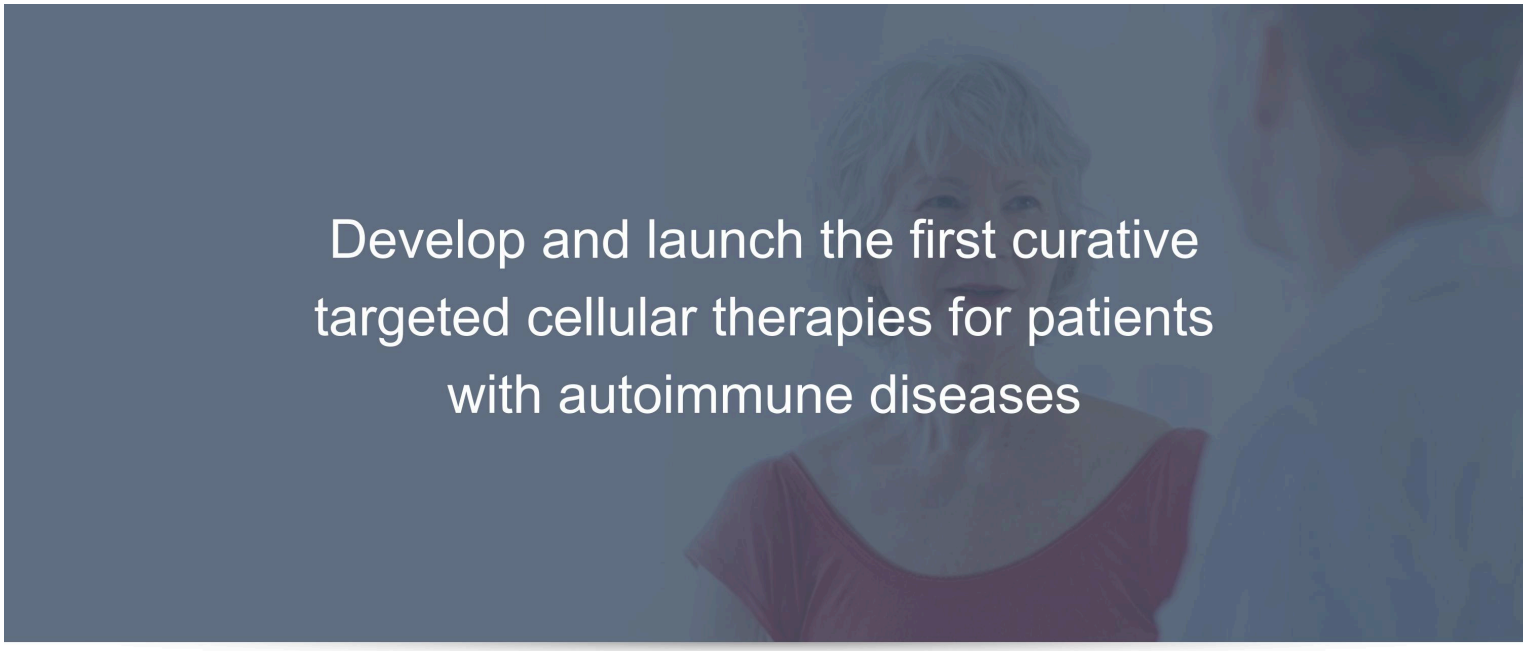
Corporate Presentation

JUNE 2026

Disclaimer

This presentation, including any printed or electronic copy of these slides, the talks given by the presenters, the information communicated during any delivery of the presentation and any question and answer session and any document distributed at or in connection with the presentation (collectively, the "Presentation") has been prepared by Cabaletta Bio, Inc. ("we," "us," "our," "Cabaletta" or the "Company") and may contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 relating to our business, operations, and financial condition, and include, but are not limited to, express or implied statements regarding our current beliefs, expectations and assumptions regarding: our business, future plans and strategies for our technology; our ability to grow our autoimmune-focused pipeline; the ability to capitalize on and potential benefits resulting from our research and translational insights, including those related to any similarly-designed constructs or dosing regimens; the Company's business plans and objectives; our expectations around the potential success and therapeutic and clinical benefits of rese-cel, as well as our ability to successfully complete research and further development and commercialization of our drug candidates in current or future indications, including the timing and results of our clinical trials and our ability to conduct and complete preclinical and clinical trials; expectation that clinical results will support rese-cel's safety and activity profile; our plan to leverage increasing clinical data and a unique development program for rese-cel; the timing, clinical significance and impact of clinical data read-outs, including the progress, results and clinical data from each of the patients dosed with rese-cel in the Phase 1/2 RESET-Myositis, RESET-SLE, RESET-SSc, RESET-MG and RESET-PV trials and our other planned activities with respect to rese-cel; our expectations regarding the potential applicability and relevance of our preliminary and interim clinical data to results in larger patient populations, registrational studies, and future clinical trials; our belief that rese-cel has the potential to provide drug-free, durable transformative clinical responses, through an immune reset; the Company's advancement of separate Phase 1/2 clinical trials of rese-cel and advancement of the RESET-PV and RESET-SLE trials, with and without preconditioning, as applicable, including updates related to status, safety data, efficiency of clinical trial design and timing of data read-outs or otherwise; our ability to enroll the requisite number of patients, dose each dosing cohort in the intended manner and timing thereof, and advance the trial as planned in our Phase 1/2 clinical trials of rese-cel; the timing of any planned regulatory filings for our development programs, including IND applications, initiation of registrational cohorts, potential BLA submission and interactions with regulatory authorities, including such authorities' review of safety information from our ongoing clinical trials and discussions with regulatory agencies on potential registrational pathway for rese-cel in various indications, and the timing of trial design related thereto; our plans and expectations regarding automated scalable manufacturing and no preconditioning and its potential to expand and accelerate access; our expectations that automation and elimination of preconditioning and apheresis will enhance patient experience; our expectation and timing for clinical manufacturing data with Cellares' automated manufacturing process and its ability to confirm GMP readiness, including supply chain logistics, as well as its potential to provide scalability for thousands of patients per year and to facilitate post-approval expansion and timing thereof; our expectation and timing for completion of dosing of most disease-specific cohorts; our expectations regarding opportunities based on market research; our ability to accelerate our pipeline to approval and launch and to develop transformative therapies for patients, including in collaboration with academic and industry partners and the ability to optimize such collaborations on, including timing thereof, our development programs; our ability to contract with third-party suppliers and manufacturers; our ability to execute our manufacturing strategy to enable expansion of clinical supply and efficiently scale commercial supply for rese-cel; our potential commercial opportunities, including value and addressable market, for our product candidates; our expectations regarding the potential commercial and economic benefits of preconditioning elimination and automated manufacturing, including its potential to reduce costs of goods, minimize capital investment requirements, and support efficient global expansion of rese-cel; our expectations regarding potential reimbursement, pricing and coverage decisions for rese-cel by governmental and private payers, site-of-care utilization and its potential impact on reimbursement treatment, market adoption, our launch strategy and commercial execution of rese-cel if approved. Words such as, but not limited to, "look forward to," "believe," "expect," "anticipate," "estimate," "intend," "plan," "would," "should" and "could," and similar expressions or words, identify forward-looking statements.

Various risks, uncertainties and assumptions could cause actual results to differ materially from those anticipated or implied in our forward-looking statements. Such risks and uncertainties include, but are not limited to, risks related to the success, cost, and timing of our development activities and clinical trials, risks related to our ability to demonstrate sufficient evidence of safety, efficacy and tolerability in our clinical trials, the risk that the results observed with the similarly-designed construct, including, but not limited to, dosing regimen, are not indicative of the results we seek to achieve with rese-cel, the risk that signs of biologic activity or persistence may not inform long-term results, risks related to clinical trial site activation or enrollment rates that are lower than expected, risks that modifications to trial design or approach may not have the intended benefits and that the trial design may need to be further modified; our ability to protect and maintain our intellectual property position, risks related to our relationships with third parties, uncertainties related to regulatory agencies' evaluation of regulatory filings and other information related to our product candidates, our ability to retain and recognize the intended incentives conferred by any regulatory designations, risks related to regulatory filings and potential clearance, the risk that any one or more of our product candidates will not be successfully developed and commercialized, the risk that the results of preclinical studies or clinical studies will not be predictive of future results in connection with future studies, risks related to volatile market and economic conditions and our ability to fund operations and continue as a going concern. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. Accordingly, you are cautioned not to place undue reliance on these forward-looking statements. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause our actual results to differ materially from those contained in the forward-looking statements, see the section entitled "Risk Factors" in our most recent annual report on Form 10-K and quarterly report on Form 10-Q, as well as discussions of potential risks, uncertainties, and other important factors in our other filings with the Securities and Exchange Commission. Certain information contained in this Presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and the Company's own internal estimates and research. While the Company believes these third-party sources to be reliable as of the date of this Presentation, it has not independently verified, and makes no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. The Company is the owner of various trademarks, trade names and service marks. Certain other trademarks, trade names and service marks appearing in this Presentation are the property of third parties. Solely for convenience, the trademarks and trade names in this Presentation are referred to without the ® and TM symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.



Cabaletta Bio®

Rese-cel: Delivering on the promise of CD19-CAR T in autoimmunity

2H27 BLA planned to include adult and pediatric DM with potential PRV; PC-free & automated mfg advancing

- **Rese-cel data with preconditioning: 63 myositis, SSc, lupus and MG patients with up to 1.5 years of follow-up**
  - Data suggest a single rese-cel dose after discontinuation of all IMs can deliver immune reset with compelling outcomes
- **Myositis: 2H27 BLA submission plans to include adult DM and JDM data, facilitating potential PRV**
  - 83% of phase 1/2 adult DM patients would have met the registrational endpoint; responses maintained through latest f/u[1]
  - First JDM patient with clinical and PK/PD data consistent with adult DM patients and response maintained at 32 weeks[1]
- **SSc: 2nd pivotal indication; ~25 patient, single-arm registrational study expected to start in 4Q26**
- **Favorable safety profile in first 63 patients dosed with preconditioning (PC) supports outpatient administration[2]**
  - 94% - Either no CRS (68%) or Grade 1 CRS (26%); 97% - No ICANS
- **PC-free lowest dose data: Lupus (1/2 pts) & PV (2/4 pts) achieved deep B cell depletion → potential threshold dose**
  - Published low dose PV data in *Blood*[3]; next higher dose cohorts enrolling
- **Automated manufacturing by Cellares offers potential scale to thousands of patients with minimal capital investment**
  - Consistent manufacturing & translational data; commercial supply agreement includes among lowest COGS in industry

A single dose of rese-cel after discontinuation of all immunomodulators is reliably delivering immune reset with compelling safety & efficacy profile; initial BLA submission including adult and pediatric DM patients in 2H27

BLA – biologics license application; DM – dermatomyositis; f/u – follow-up; JDM – juvenile dermatomyositis; MG – myasthenia gravis; PC – preconditioning; PRV – priority review voucher; PV – pemphigus vulgaris; rese-cel – resecabtagene autoleucel (CABA-201); SLE – systemic lupus erythematosus; TIS – total improvement score.

1. As of data cut-off on 16 Apr 2026.
2. As of data cut-off on 16 Apr 2026 (6 Mar 2026 for MG data).
3. Nunez, Daniel, et al. "CD19 CAR T Therapy Is Feasible in Patients with Pemphigus Vulgaris Treated Without Lymphodepletion in the RESET-PV Trial." Blood Journal (2026): blood-2025032093.

Immune reset with a single infusion and a favorable safety profile

Beyond myositis and scleroderma, advancing innovation with PC-free rese-cel & industrialized automated mfg

Elimination of PC

- Expands the market
- Catalyzes outpatient use
- Reduces resource utilization
- Improves patient and provider experience

Automated Manufacturing

- Minimal capital investment
- Scalability to produce thousands of patient runs per year
- Substantially reduced COGS
- Facilitates global expansion

Transformative Value Proposition

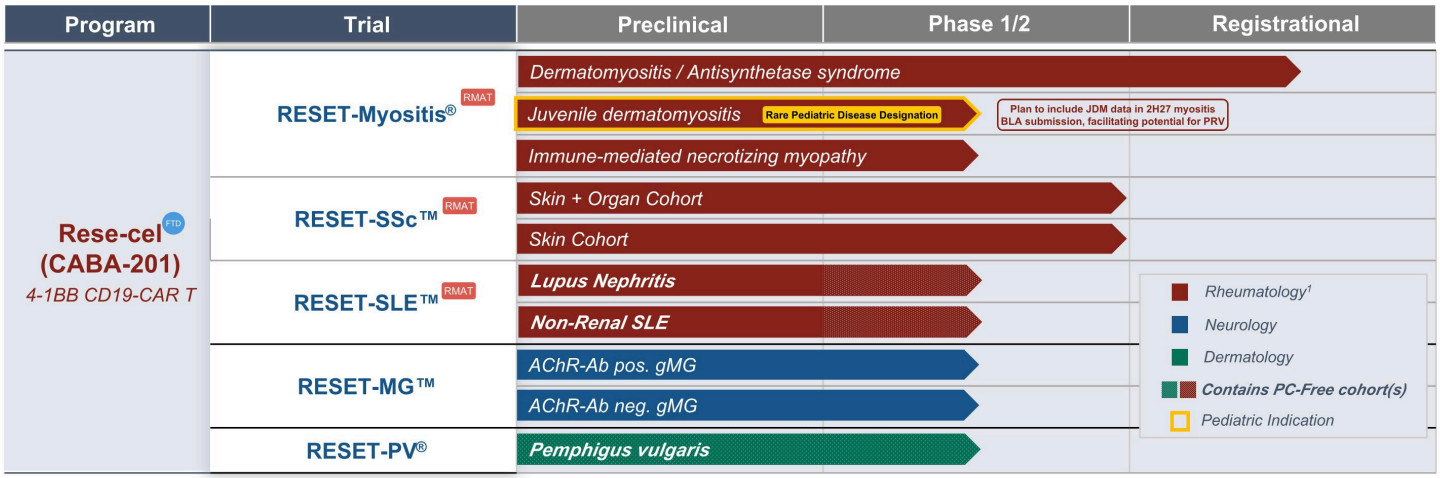
- Differentiated product profile
- Typical ‘biologic’ margins
- Potential to address larger autoimmune indications including UC, T1D and RA

PC-free rese-cel can expand access while automated manufacturing can reduce COGS & increase scale

COGS – Cost of goods sold; PC – Preconditioning; PV – Pemphigus vulgaris; SLE – Systemic lupus erythematosus; RA – Rheumatoid arthritis; T1D – Type 1 diabetes; UC – Ulcerative colitis.

Innovative clinical strategy to support accelerated regulatory path

Myositis and SSc programs advancing to registrational trials with preconditioning



RESET™ – **RE**storing **SE**lf-**T**olerance; Ab – Antibody; AChR – Acetylcholine receptor; gMG – Generalized myasthenia gravis; JDM – Juvenile dermatomyositis; PRV – Priority review voucher; PV – Pemphigus vulgaris; SLE – Systemic lupus erythematosus; SSc – Systemic sclerosis

1. Myositis patients can also be treated by neurologists or dermatologists; lupus nephritis patients can also be treated by nephrologists.

● FDA Fast Track Designation received in dermatomyositis, SLE and lupus nephritis, systemic sclerosis, generalized myasthenia gravis and multiple sclerosis.

■ FDA Regenerative Medicine Advanced Therapy (RMAT) received in myositis, SLE, LN and systemic sclerosis.

RESET™ program advancing trials in a broad portfolio of diseases

Broad portfolio of trials designed to address high unmet need and realize the potential of rese-cel

— PC-free cohorts —

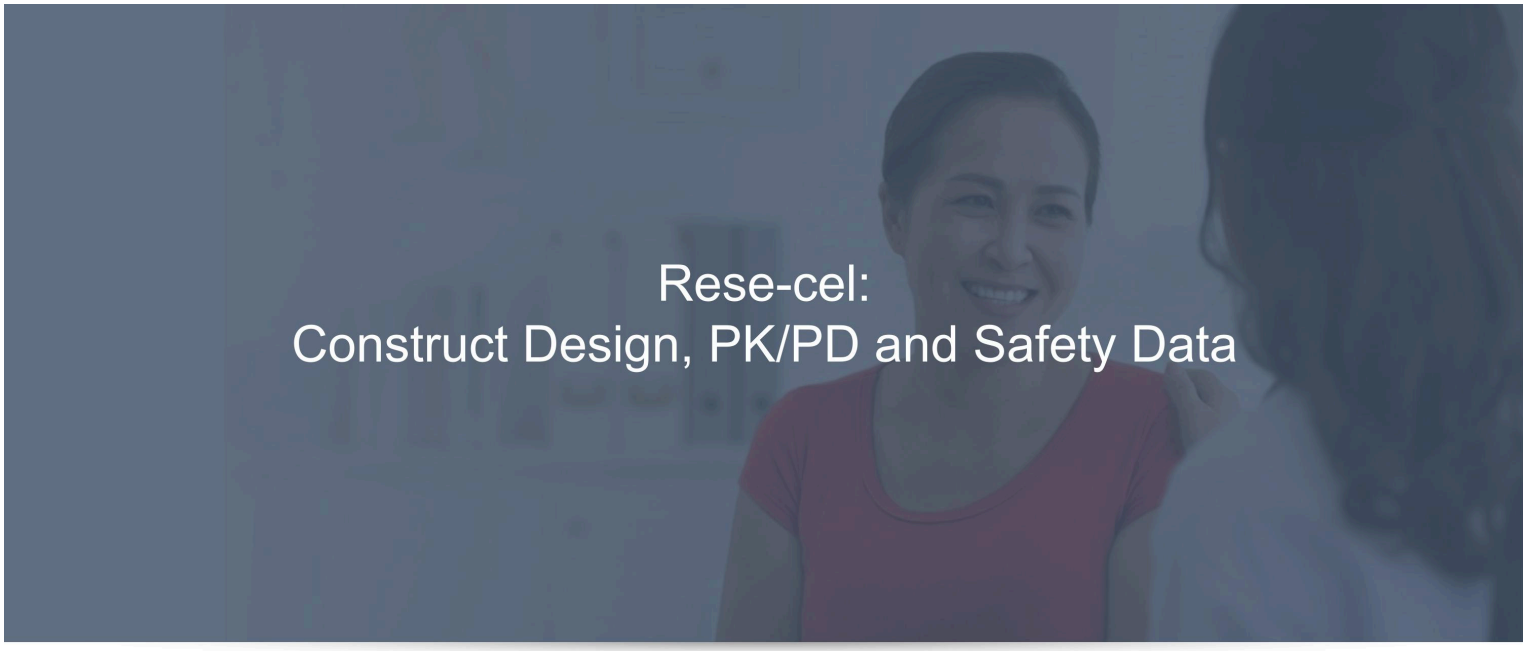
— PC-free only —

Myositis	SLE/LN	SSc	gMG	PV
				
♀>♂	♀>♂	♀>♂	♀>♂	
Typical onset middle age	Affects young women & people of color	Middle age onset common	Bimodal age of onset	Pure autoantibody & B-cell mediated autoimmune disease
Only FDA-approved therapy is IVIg in DM	~30-40% with lupus nephritis, which carries ~25% risk of death or ESRD within 10y	Progressive skin & organ fibrosis with lung, cardiac, renal damage	Profound weakness that can be disabling	Characterized by painful blisters & erosions
Three-fold increased mortality due to lung & cardiac involvement		Average survival of 12y	Risk for myasthenic crises, with respiratory failure	
~80k	~210k / ~110k	~90k	~100k	~15k

U.S. Prevalence

Rheum *Neuro* *Derm*

SLE – Systemic lupus erythematosus; DM – Dermatomyositis; SSc – Systemic sclerosis; gMG – Generalized myasthenia gravis; PC – Preconditioning; ESRD – End-stage renal disease; PV – pemphigus vulgaris



Rese-cel:
Construct Design, PK/PD and Safety Data

Cabaletta Bio®

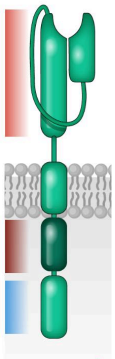
Rese-cel: CD19-CAR T specifically designed for autoimmunity

Rese-cel binder with similar *in vitro* & *in vivo* activity to construct used in academic studies in autoimmunity[1,3]

Fully human anti-CD19 binder

4-1BB costimulatory domain

CD3-ζ signaling domain



Rese-cel[4]

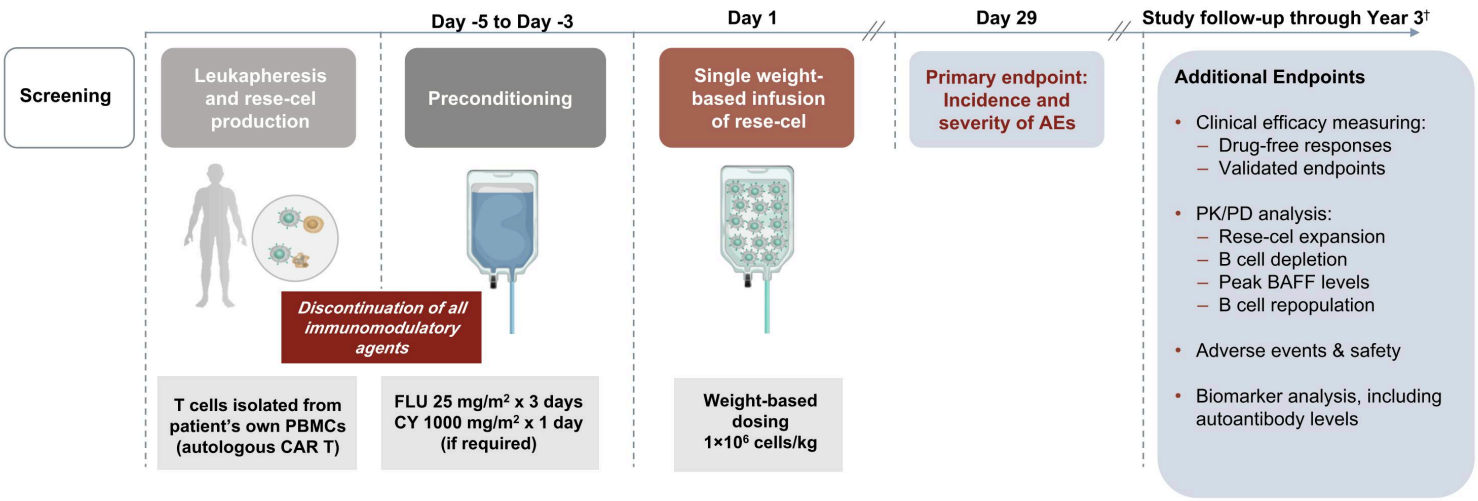
Rese-cel product design & clinical / translational data

- **4-1BB costimulatory domain with fully human binder**
  - **Binder with similar affinity & biologic activity to academic FMC63 binder while binding to the same epitopes[1,2]**
- **Same weight-based dose as in academic studies**
  - **Potential to provide immune reset based on clinical and translational data[5]**
- **Patients treated with rese-cel have shown compelling clinical responses with safety data that supports outpatient use for autoimmune patients[6]**

1. Peng BJ, et al. Mol Ther Methods Clin Dev. 2024;32(2):101267.
2. Dai, Zhenyu, et al. "Development and functional characterization of novel fully human antiCD19 chimeric antigen receptors for T-cell therapy." Journal of Cellular Physiology 236.8 (2021): 5832-5847.
3. Müller, Fabian, et al. "CD19 CAR T-Cell Therapy in Autoimmune Disease—A Case Series with Follow-up." New England Journal of Medicine 390.8 (2024): 687-700.
4. Maschan, Michael, et al. "Multiple site place-of-care manufactured anti-CD19 CAR-T cells induce high remission rates in B-cell malignancy patients." Nature Communications 12, 7200 (2021) Transmembrane domain in rese-cel is CD8α vs. TNFRSF19 (Troy) utilized in the academic construct. The two transmembrane domains have not been shown to have a significant difference in function or IFNγ production in preclinical studies. The CD8α transmembrane domain is employed in tisagenlecleucel.
5. Volkov, Jenell, et al. "Case study of CD19 CAR T therapy in a subject with immune-mediate necrotizing myopathy treated in the RESET-Myositis phase I/II trial." Molecular Therapy 32.11 (2024): 3821-3828.
6. Abstract 1733: Safety and Efficacy of CABA-201, a Fully Human, Autologous 4-1BB Anti-CD19 CAR T Cell Therapy in Patients with Immune-Mediated Necrotizing Myopathy and Systemic Lupus Erythematosus from the RESET-Myositis™ and RESET-SLE™ Clinical Trials. ACR 2024.

RESET™ clinical trials have consistent design principles[1]

Many of the RESET trials share common elements of preconditioning, dose, and study design



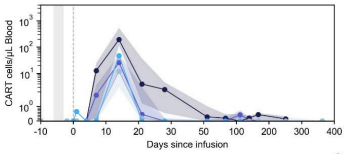
†Follow up period encompasses at least 15 years in total, ed to regulatory guidance for CAR T cell therapies.
AE, adverse event; CABA, Cabaletta Approach to B cell Ablation; FLU, fludarabine; CY, cyclophosphamide; PBMC, peripheral blood mononuclear cell; PD, pharmacodynamics; PK, pharmacokinetics; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus; SSc, systemic sclerosis.
Cabaletta Bio: Data on file; 1. Peng BJ, et al. Mol Ther Methods Clin Dev. 2024;32(2):101267.

Rese-cel expansion & B cell kinetics across indications*

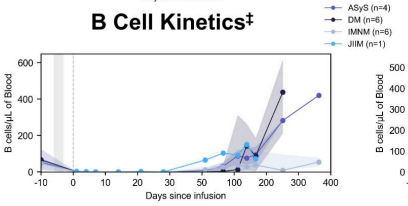
Peak rese-cel expansion and transient peripheral B cell depletion occurred by ~2 weeks post infusion

RESET-Myositis†

Rese-cel Pharmacokinetics

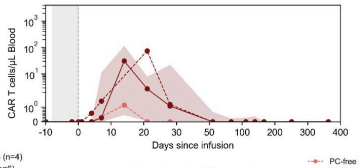


B Cell Kinetics‡

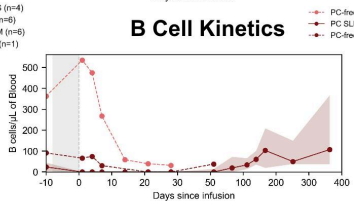


RESET-SLE

Rese-cel Pharmacokinetics

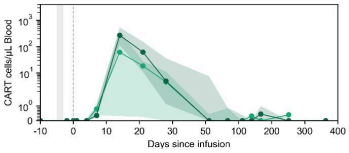


B Cell Kinetics

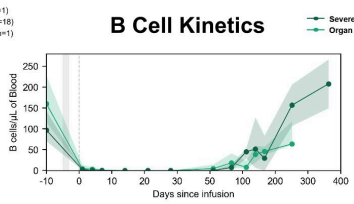


RESET-SSc

Rese-cel Pharmacokinetics§

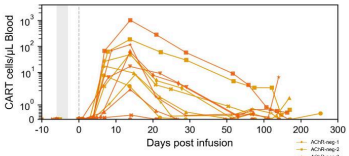


B Cell Kinetics

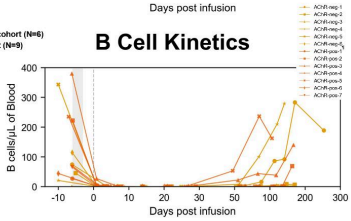


RESET-MG

Rese-cel Pharmacokinetics



B Cell Kinetics



Peripheral B cells begin repopulating ~2 to 3 months after rese-cel in patients with sufficient follow-up*

All data is as of 16 Apr 2026, except MG which is as of 6 Mar 2026.
*Data shown as median and IQR for myositis, SLE and SSc. †Note baseline (pre-preconditioning) B cell count for the JDM patient was not available. ‡B cell count data excluded from any patient after receiving B cell-depleting rescue therapy. §Median time includes subjects with depletion and repopulation; one Organ subject did not exhibit peripheral B cell depletion at the time points sampled¶AChR-pos-1: Azathioprine, a prohibited medication, was continued until the day of infusion (Day 1) that may have inhibited CAR T activity.
AChR, acetylcholine receptor; ASyS, antisynthetase syndrome; CAR, chimeric antigen receptor; DM, dermatomyositis; IMNM, immune-mediated necrotizing myopathy; IQR, interquartile range; JDM, juvenile dermatomyositis; JIIM, juvenile idiopathic inflammatory myopathy; LN, lupus nephritis; MG, myasthenia gravis; PC, preconditioning; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus, SSc, systemic sclerosis.
Cabaletta Bio: Data on file.

Demographics & CRS/ICANS in first 63 rese-cel patients by indication

Across 4 RESET™ studies, 94% of patients have either no CRS or Grade 1 (fever) and 97% have no ICANS[1]

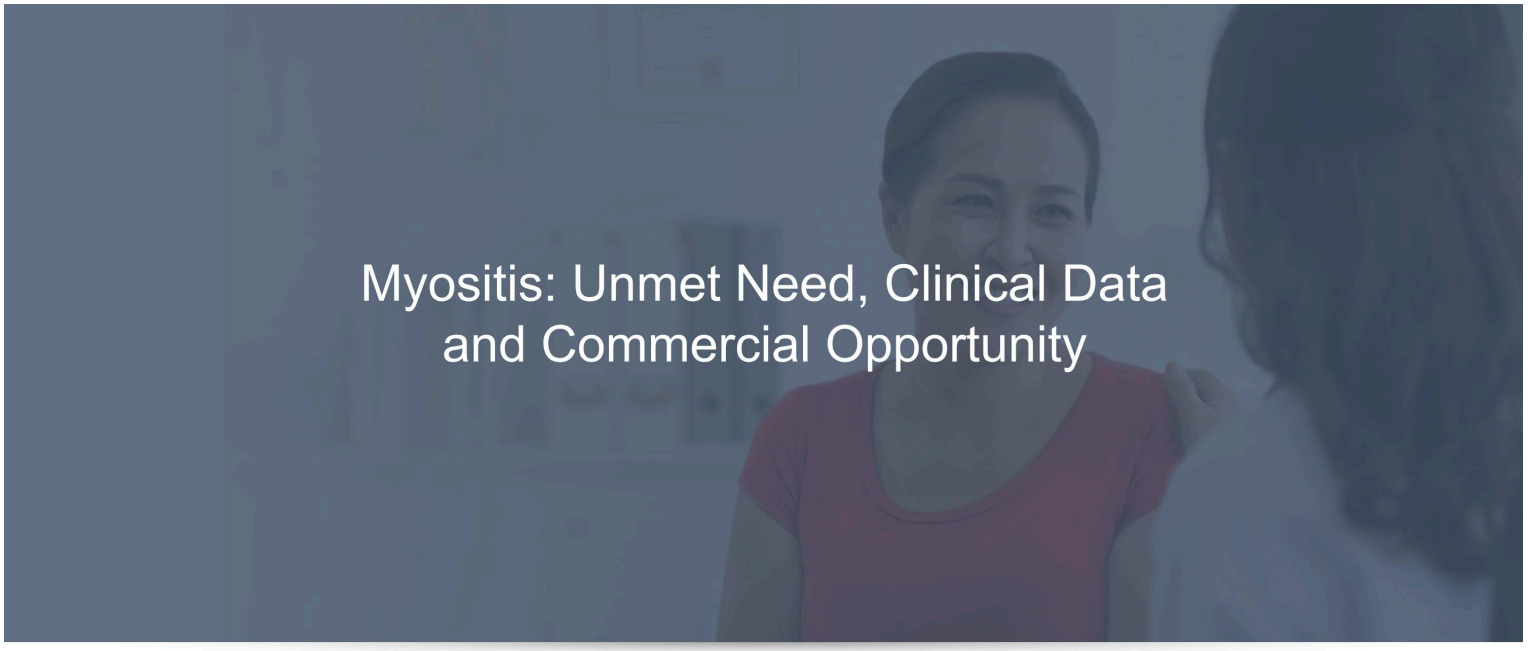
Baseline characteristics of autoimmune disease patients treated with rese-cel

	RESET-Myositis	RESET-SLE	RESET-SSc	RESET-MG
Number of patients	17	18	15	13
Age, years, mean (SD)	57.0 (15.1)	29.9 (7.4)	50.4 (14.6)	53.7 (10.0)
Sex, % female	52.9	88.9	73.3	69.2
Duration of disease, years, mean (SD)	4.9 (3.7)	10.2 (5.0)	1.9 (1.2)	7 (6.8)

Incidence, severity and onset of CRS and ICANS in the 1st 28 days in patients treated with rese-cel

	RESET-Myositis	RESET-SLE	RESET-SSc	RESET-MG	Total
CRS‡, n (%)	5 (29.4)	6 (33.3)	7 (46.7)	2 (15.4)	20 (31.7% CRS)
CRS Grade 1, n (%)	5 (29.4)	5 (27.7)	5 (33.3)	1 (7.7)	16 (25.4% G1 CRS)
CRS Grade 2, n (%)	–	1 (5.6)	2 (13.3)	1 (7.7)	4 (6.3% G2 CRS)
Time to CRS onset, days* (mean)	7.4	6.7	9.0	5.5	7.6 days
CRS duration†, days (mean)	4.6	3.0	2.9	5.0	3.6 days
ICANS‡ n (%) (Grade)	–	1 (5.6) (G4)	1 (6.7) (G3)	-	2 (3.2% ICANS)
Time to ICANS onset, days (mean)	–	9.0	8.0	-	8.5 days
ICANS duration, days (mean)	–	3.0	3.0	-	3.0 days

*Days relative to rese-cel infusion.
†Events occurring within 7 days of each other are considered as 1 episode. IMNM-3 CRS duration includes preceding event of fever which was consistent with CRS definition.
‡Graded per ASTCT Consensus Grading Criteria.
1. Presented at EULAR 2026 with data cut-off as of 16 Apr 2026 (Myositis, SLE and SSc), Presented at AAN 2026 with data cut-off as of 6 Mar 2026 (MG).



Myositis: Unmet Need, Clinical Data and Commercial Opportunity

Cabaletta Bio®

Myositis: High rates of disability & increased risk of mortality

Highly concentrated treatment network in the US; dermatomyositis represents ~75% of this market

High disease burden: disability & mortality

- Typical patient is a middle-aged female who experiences muscle weakness, fatigue, pain, shortness of breath and difficulty swallowing
  - Moderate to severe disability (40% to 65%)[1]
  - Assisted walking devices (18% to 38%)[1]
- The **risk of mortality is ~3 times higher** than the general population, primarily due to cancer and lung & cardiac complications[2]
  - ~20% mortality < 5 years with standard immunosuppressive treatment[3]

*"I find it **very difficult to get up from a regular chair**, I need boosters or assistance from somebody else. Walking, my **gait has really suffered**. My stability walking has suffered as well, and I **can't lift anything more than five or eight pounds**. So doing stuff is difficult. Bending down is very difficult. **I can't get up from the floor if I fall.**"*

"John"
61-year-old male with ASyS[4]
~10 yrs since diagnosis

*"It just **affected every aspect of my life. Just work, family, social life, own wellbeing.** It just pours into everything else with that."*

"Erica"
44-year-old female with DM[4]
~2.5 yrs since diagnosis

Subtype prevalence in the U.S.

~60,000 pts[5,6]
Dermatomyositis (DM)

~15,000 pts[7,8]
Anti-synthetase syndrome (ASyS)

~2,000 pts[9]
Juvenile-onset disease (JDM)

1. Opinc AH, Brzezinska OE, Makowska JS. Disability in idiopathic inflammatory myopathies: questionnaire-based study. Rheumatol Int. 2019;39(7):1213-1220.
2. Marie I. Morbidity and mortality in adult polymyositis and dermatomyositis. Curr Rheumatol Rep. 2012;14(3):275-285.
3. Schiopu E, Phillips K, MacDonald PM, Crofford LJ, Somers EC. Predictors of survival in a cohort of patients with polymyositis and dermatomyositis: effect of corticosteroids, methotrexate and azathioprine. Arthritis Res Ther. 2012;14(1):R22.
4. Primary market research conducted via third-party, blinded interviews with myositis patients, conducted in 2024.
5. Khoo 2023 6. Kronzer 2023 7. Coffey 2021 8. Dahal 2022 9. Papadopoulou 2022

Dermatomyositis (DM): Limited treatment options for ~60k U.S. patients

IVIg is the only approved therapy (only for patients with the adult DM subtype)

Limited treatment options[1]

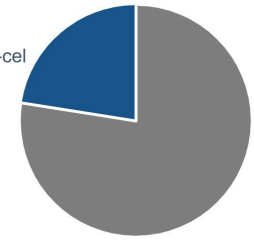
- Common therapies: steroids plus an immunomodulator (i.e. methotrexate, azathioprine, mycophenolate, rituximab)
- IVIg (intravenous immunoglobulin), the only FDA-approved therapy, is approved in adult dermatomyositis
- Therapies can carry potential long-term side effects such as serious infections and organ damage
- Despite existing therapies, disease is often refractory
- Two therapies in Phase 3 development, Brepocitinib and Vyvgart®, demonstrated improvement with chronic administration added onto existing immunomodulatory medications

Eligible U.S. adult DM patients[2]

Adult DM patients with moderate to severe, refractory disease potentially eligible for rese-cel

(per analysis of quantitative research with ~240 myositis-treating physicians)

~12k to 15k U.S. patients
potentially eligible for rese-cel



U.S. Prevalence: ~60k adult DM patients

1. Lundberg, Ingrid E., et al. "Idiopathic inflammatory myopathies." Nature Reviews Disease Primers 7.1 (2021): 86.
2. Analysis from quantitative survey of U.S. myositis-treating physicians, conducted 2Q25. N = ~240.

Myositis registrational cohort – Key design elements

Single-arm cohort including DM/ASyS patients with a primary endpoint at 16 weeks

- RESET-Myositis trial now enrolling registrational cohort in DM (14 patients) / ASyS (3 patients)
  - Plan to include JDM data in myositis BLA submission[1]
- **Primary Endpoint**: Moderate or Major TIS response @ Week 16 off all immunomodulators and off or on low-dose[3] steroids
- Weight-based single dose of rese-cel at 1 million cells/kg with safety profile appropriate for outpatient dosing
- Safety database ~100 autoimmune patients at ≥1-month of follow-up (with at least 35 myositis patients)

Inclusion of JDM in 2H27 myositis BLA submission facilitates potential for priority review voucher, pending supportive data, based on rare pediatric disease designation

JDM, juvenile dermatomyositis; TIS, total improvement score.
1. Pediatric JDM submission based on data available at the time of adult submission from ongoing Ph 1/2 study (no new study) to support pediatric label claim
2. Size of myositis registrational cohort based on key statistical parameters and estimated background remission rate in myositis.
3. Low dose steroids is defined as 50% reduction from baseline or ≤7.5 mg/day.

Baseline characteristics: First 17 patients in RESET-Myositis

All patients had active, refractory disease despite multiple medications, including IVIg and B cell-targeting therapies

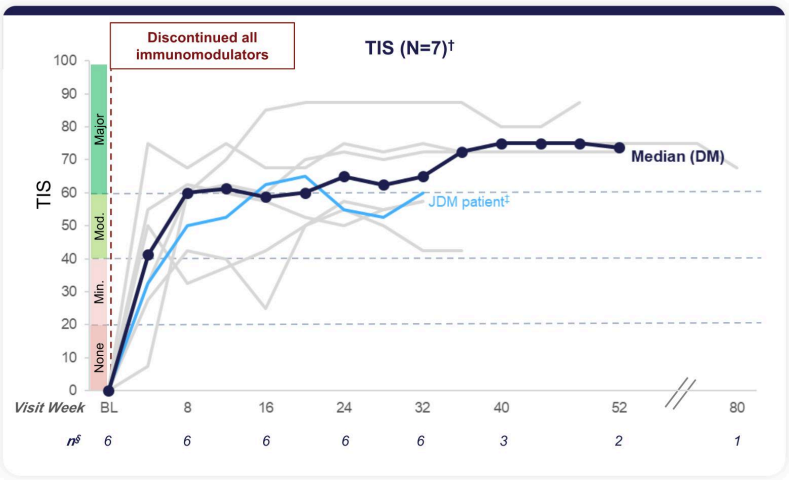
	DM N=6	ASyS N=4	IMNM N=6	JDM N=1
Age, years, median (min, max)	57 (45, 72)	44 (26, 57)	59 (33, 64)	14
Female, n (%)	5 (83)	2 (50)	1 (17)	1 (100)
Disease duration, years, median (min, max)	3.5 (2.0, 10.3)	2.7 (0.9, 14.8)	4.7 (1.4, 8.8)	8.5
Myositis-specific autoantibody	50% TIF1-γ 17%: NXP, SAE, MDA-5	100% Jo-1	67% HMGCR 33% SRP	NXP-2
Baseline disease activity, median*				
MMT-8	123.0	129.5	127.5	134.0
CK	40.0	257.5	2214.5	176.0
CDASI-A	23.5	N/A	N/A	5
Prior RTX† (%)	50%	100%	83%	100%
Prior IVIg† (%)	67%	75%	83%	100%
Therapies at Screening				
Systemic GCs	67%	75%	67%	0
≤2 IMs	67%	75%	100%	0
≥3 IMs	33%	25%	0	100%

As of 16 Apr 2026.
*Baseline disease activity = activity before preconditioning. †Reflects any exposure to RTX and IVIg prior or at time of study entry. RTX is not allowed within approximately 6 months of screening.
ASyS, antisynthetase syndrome; CDASI-A, Cutaneous Dermatomyositis Disease Area and Severity Index – Activity; CK, creatine kinase; DM, dermatomyositis; GC, glucocorticoid; HMGCR, 3-hydroxy-3-methylglutaryl-coenzyme A reductase; IM, immunomodulatory medication; IMNM, immune-mediated necrotizing myopathy; IVIg, intravenous immunoglobulin; JDM, juvenile dermatomyositis; MDA-5, melanoma differentiation-associated gene 5; MMT-8, manual muscle testing 8; NXP, nuclear matrix protein; N/A, not applicable; RESET, REstoring SElf-Tolerance; RTX, rituximab; SAE, small ubiquitin-like modifier activating enzyme; SRP, signal recognition particle; TIF1, transcription intermediary factor 1; U/L, units per liter.
Cabaletta Bio – Data on File.

Efficacy data in DM and JDM patients following rese-cel infusion

6 of 7 patients achieved moderate or major IM-free TIS response at Week 16 which was maintained through latest follow-up

Assessment at Week 16	DM and JDM patients (N=7)
Complete B cell depletion (%)	**100%**
IM-free & low-dose* or no GC (%)	**100%**
Moderate or major TIS response (%)	**86%**
Meets moderate or major TIS off IM therapy & on low-dose or no GCs* (*Pivotal primary endpoint*)	**86%**



5 of 6 adult Phase 1/2 DM patients and the JDM patient would have achieved the 16-week primary endpoint for the pivotal study and all of them maintained IM-free TIS response through latest follow-up, as long as 1.5 years

As of 16 Apr 2026.
*Low-dose steroids is defined as 50% reduction from baseline or ≤7.5 mg/day. †Missing data were imputed using last observation carried forward. ‡TIS threshold for a moderate response is ≥45 in patients with JDM; TIS scale on the Y-axis reflects adult thresholds. §Median and n numbers are based on DM patients (excluding JDM patient) not receiving rescue immunomodulatory medications.
BL, baseline; DM, dermatomyositis; GC, glucocorticoids; IM, immunomodulatory medication; JDM, juvenile dermatomyositis; mg, milligrams; rese-cel, resecabtagene autoleucel; TIS, total improvement score.
Cabaletta Bio: Data on File.

CAR T may eliminate active disease & use of expensive medications

Rese-cel safety profile facilitates outpatient administration which could allow for favorable reimbursement

Cancer CAR T: Safety profile often requires inpatient infusion, affecting reimbursement

Cancer patients experience early and frequent CRS/ICANS following CAR T therapy, which increases inpatient admissions and shifts Medicare reimbursement to the DRG system.

Majority of oncology patients treated with CAR T therapy experience CRS within first 5 days post-infusion[1]

Many cancer patients are insured under Medicare, which has inpatient **DRG-018** reimbursement

Rese-cel: Safety profile facilitates outpatient infusion, which could favorably impact reimbursement

Commercial

Myositis & SSc patients often commercially insured (60%-75%)[2,3]

CRS less frequent & severe, delayed onset → potential outpatient administration

Outpatient CAR T infrastructure exists at many centers

Medicare

Outpatient administration supports viable Part B Medicare payments

RESET clinical site footprint can be leveraged to generate early adopters

1. Ferreri, Christopher J., and Manisha Bhutani. "Mechanisms and management of CAR T toxicity." Frontiers in Oncology 14 (2024): 1396490.
2. Smoyer-Tomic KE, et al. BMC Musculoskelet. Disord. 2012 Jun 15;13:103. doi: 10.1186/1471-2474-13-103.
3. Gale, Sara L., et al. "Characterizing disease manifestations and treatment patterns among adults with systemic sclerosis: a retrospective analysis of a US healthcare claims population." Rheumatology and therapy 7.1 (2020): 89-99.

RESET™ program designed for outpatient administration at launch

Outpatient administration reduces administrative burden and improves patient and provider accessibility

INPATIENT MODEL

Limited patient beds
and resource infrastructure

- Increases inpatient resource pressure: ↑ total cost of care, human resource and bed space demands
- Reduces eligible patients treated

OUTPATIENT MODEL

More favorable safety profile
reduces need for inpatient admission

- Reduces use of hospital resources; Increases throughput
- Reduces conflicts with cancer patient use of in-patient beds

Rese-cel commercial model – manufacturing and COGM

Health status of patient population and slower disease progression improve manufacturing cost efficiency

In oncology, disease progress & out of specification (OOS) rates increase costs and reduce margins

Late-stage oncology patients have high drop-off rate due to rapid disease progression and compromised T cell fitness, leading to higher manufacturing OOS rates[1,2,3]

- Increased OOS rates; ↑ COGM + ↓ revenue since out of spec products not reimbursed
- Disease progression reduces revenue capture because unused product is not reimbursed
- Reduced eligible patients, resulting in economies of scale not being achieved
- Manufacturing capacity constraints → delayed commercial ramp-up

In autoimmunity, less pretreated patients & automated rese-cel mfg should support lower COGM

Autoimmune patients are not heavily pretreated with chemotherapy → more fit immune cells[4] that support reliable manufacture, reducing COGM

Autoimmune patients rarely progress as rapidly as cancer patients → more reliable revenue realization for manufactured product

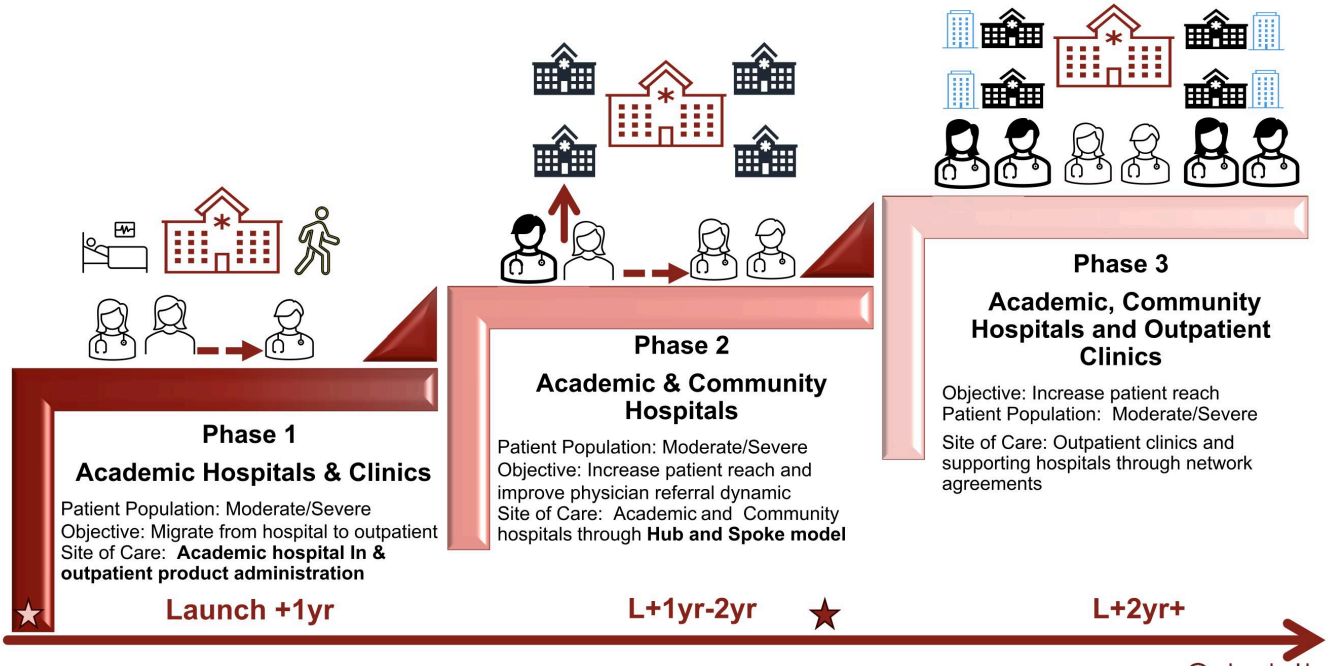
Building manufacturing capacity at CDMOs to support successful launch; Cellares automation has the potential to facilitate post-approval expansion

COGM – Cost of goods manufactured

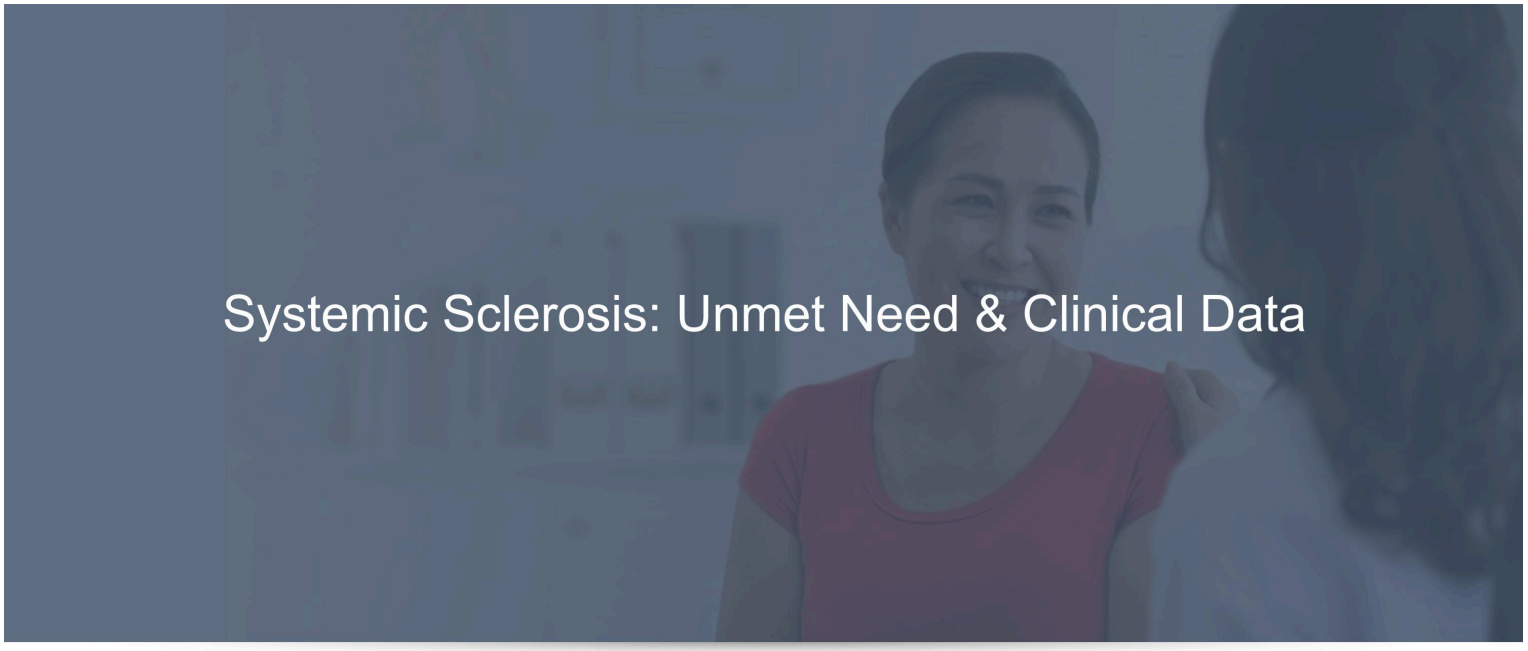
1. U.S. Food and Drug Administration. Kymriah (tisagenlecleucel) Prescribing Information. Revised 2025, U.S. Food and Drug Administration,https://www.fda.gov/media/107296/download
2. U.S. Food and Drug Administration. Breyanzi (lisocabtagene maraleucel) Prescribing Information. Revised 2025, U.S. Food and Drug Administration,https://www.fda.gov/media/145711/download
3. U.S. Food and Drug Administration. Yescarta (axicabtagene ciloleucel) Prescribing Information. Revised 2025, U.S. Food and Drug Administration,https://www.fda.gov/media/108377/download
4. Sharma, Sagar, et al. Consistency in resecabtagene autoleucel product quality across RESET phase 1/2 clinical trials and manufacturing platforms American Society of Gene & Cell Therapy (ASGCT) 2026 Annual Meeting, 12 May 2026, Boston, MA. Oral presentation.

Three-phase approach to rese-cel launch in myositis and beyond[1]

Rese-cel safety data facilitates plan to target academic centers at launch with rapid community expansion



1. Rese-cel is an investigational product candidate and has not been approved by the FDA.



Systemic Sclerosis: Unmet Need & Clinical Data

Cabaletta Bio®

Systemic sclerosis: Profound unmet need & limited options

Associated with progressive morbidity and high mortality[1,2]

Rare, potentially life-threatening autoimmune disease[1]

- Characterized by progressive skin & internal organ fibrosis[1]
- Deep, tissue-level B cell-driven autoimmunity, with activated B cells & autoantibodies, promotes inflammation & organ damage[3]

Patients experience a progressive & often fatal course

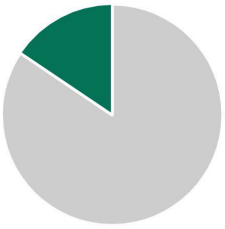
- Typically, middle age onset and more common in females[1]
- Highest mortality of all rheumatological diseases & significant burden from persistent skin & organ manifestations[4,5]
  - **Mean survival is ~12 years from diagnosis**
- Need for disease-modifying therapies across all SSc subsets[5]
  - **FDA-approved agents for SSc-ILD slow but do not stabilize or improve lung progression**
    - Approved based on 1-year primary endpoints
  - No existing treatments capable of halting SSc pathology other than AHSCT, which carries high risk

Eligible U.S. SSc patients[6]

SSc patients with early, active disease potentially eligible for rese-cel

(per quantitative research with ~100 SSc-treating physicians)

~12,000-15,000
U.S. SSc patients
potentially eligible for rese-cel



~90k SSc patients
(~40% with clinically significant ILD)

AHSCT, autologous hematopoietic stem cell transplantation; ILD, interstitial lung disease; SSc, systemic sclerosis.

1. Allanore Y, et al. Nat Rev Dis Primers. 2015;1:15002. 2. Denton CP, et al. Lancet. 2017;390(10103):1685–1699. 3. Thoreau B, et al. Front Immunol. 2022;13:933468. 4. Truchetet ME, et al. Clin Rev Allergy Immunol. 2023;64(3):262–283. 5. Pope JE, et al. Nat Rev Rheumatol. 2023;19(4):212–226. 6. Results from quantitative survey of U.S. SSc-treating physicians (rheumatologists), conducted 3Q25. N = ~100.

Baseline characteristics: First 15 Patients in RESET-SSc

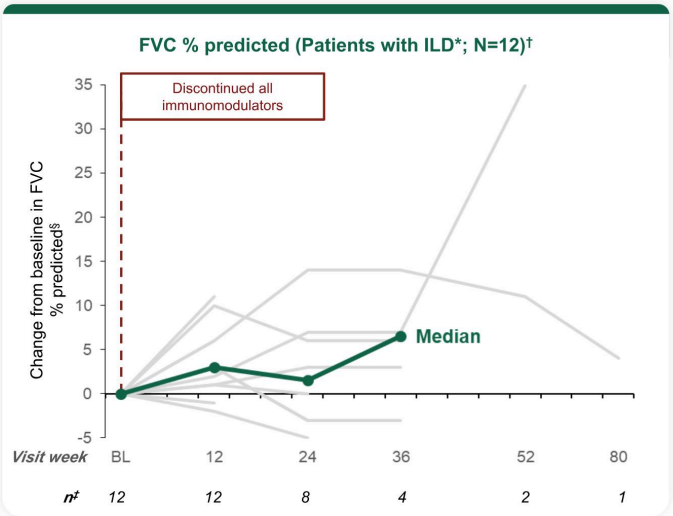
All patients had active, refractory disease despite multiple SSc therapies, and 12/15 had ILD

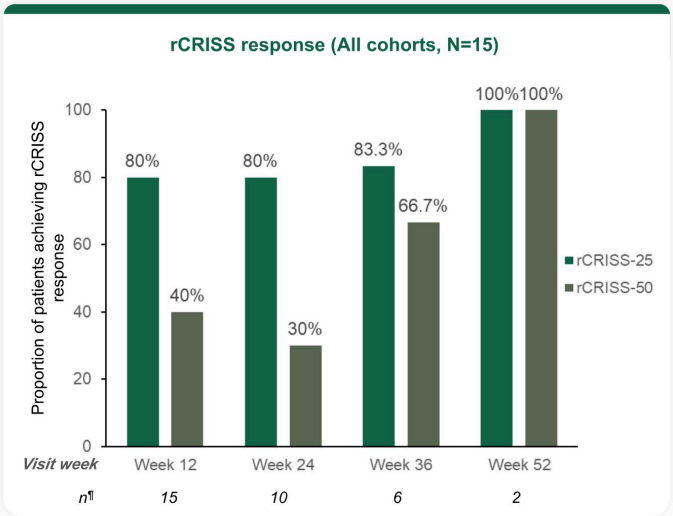
Cohort	Severe skin cohort§ (N=6)	Organ cohort§ (N=9)	All (N=15)	ILD (N=12)
Age, years, median (min, max)	57 (42, 66)	43 (19, 70)	54 (19, 70)	54.5 (19, 70)
Female, n (%)	4 (67)	7 (78)	11 (73)	9 (75)
Disease duration,* years, median (min, max)	1.6 (0.5, 2.2)	2.1 (0.4, 5.0)	1.8 (0.4, 5.0)	1.7 (0.4, 5.0)
ILD at screening,† n (%)	4 (67)	8 (89)	12 (80)	12 (100)
Cardiac involvement at screening, n (%)	0 (0)	3 (33)	3 (20)	2 (17)
Autoantibodies, %				
Scl-70	17	78	53	58
Anti-RNA pol III	83	11	40	25
Baseline disease activity, median‡				
mRSS	40	19	24	23
HAQ-DI	2.19	1.63	1.88	1.81
FVC (% predicted)	92¶	77	79	78.5
DLCO (% predicted)	75.5¶	66	72	68
PGA	6	5.5**	6**	6**
Therapies at screening, n (%)				
MMF/MPA	5 (83)	7 (78)	12 (80)	11 (92)
Tocilizumab	1 (17)	5 (56)	6 (40)	6 (50)
Prednisone	1 (17)	2 (22)	3 (20)	3 (25)
Methotrexate	1 (17)	1 (11)	2 (13)	2 (17)
HCQ	0 (0)	3 (33)	3 (20)	2 (17)
IVIg	0 (0)	2 (22)	2 (13)	2 (17)
Number of prior SSc therapies, median (min, max)	3 (2, 5)	4 (3, 6)	4 (2, 6)	3 (2, 6)

As of 16 Apr 2026.
*Time of diagnosis to screening. †Per HRCT. ‡Baseline disease activity = activity before preconditioning. §The severe skin cohort includes patients with severe skin involvement and the organ cohort includes patients with significant organ involvement (e.g., pulmonary, renal, or cardiac involvement), irrespective of skin disease severity. ¶Missing data were imputed using last observation carried forward; FVC and DLCO data for 1 patient were imputed using values from screening visit. **Missing baseline data for SSc-Organ-9.
DLCO, % predicted diffusing capacity for carbon monoxide; FVC, forced vital capacity; HAQ-DI, Health Assessment Questionnaire Disability Index; HCQ, hydroxychloroquine; HRCT, high-resolution computed tomography; ILD, interstitial lung disease; IVIg, intravenous immunoglobulin; MMF, mycophenolate mofetil; MPA, mycophenoloic acid; mRSS, modified Rodnan skin score; PGA, Physician Global Assessment; RESET™, REstoring SElf-Tolerance; RNA pol, ribonucleic acid polymerase; Scl-70, anti–topoisomerase I antibody; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

Efficacy data in SSc following rese-cel infusion

After discontinuing immunomodulators, FVC improvement or stabilization was observed in most patients with ILD*





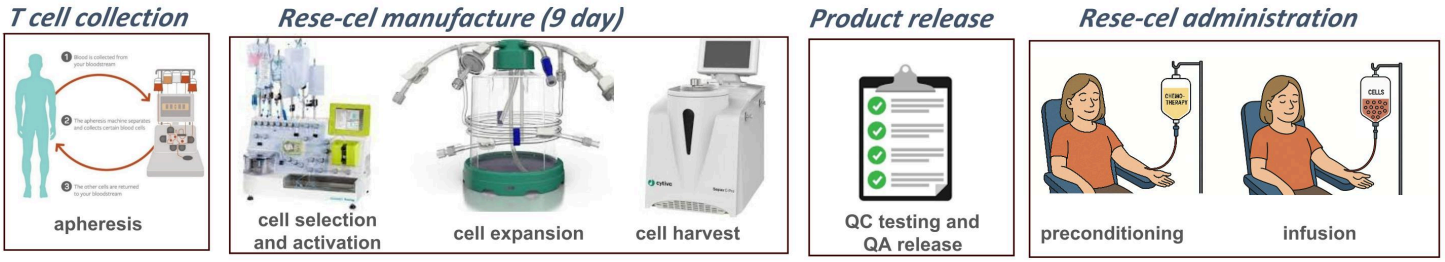
Based on these data and FDA discussions, Cabaletta plans to advance a single-arm registrational study of ~25 patients with SSc-associated ILD using an FVC-based primary endpoint at 52 weeks with initiation anticipated in 4Q26

As of 16 Apr 2026.
*Based on HRCT at screening. †Missing data were imputed using last observation carried forward. ‡Median and n numbers are based on SSc patients not receiving rescue immunomodulatory medications
§Absolute change. ¶ n numbers are based on evaluable SSc patients.
BL, baseline; FVC, forced vital capacity; ILD, interstitial lung disease; HRCT, high-resolution computed tomography; rCRISS, revised Composite Response Index in Systemic Sclerosis;rese-cel, resecabtagene autoleucel; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

Cabaletta Bio®

Rese-cel Manufacturing Process – Commercial Readiness

Partial automation anticipated at launch with full automation planned for post-launch supply



- Process B – Commercial-ready manufacturing process
  - Substantially closed and partially automated to improve process capacity and consistency over original process
  - Implemented prior to IIM registrational study, with FDA alignment on comparability[1]
  - Planned for initial launch through proven commercial CDMO partners

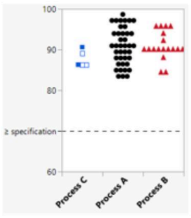
- Process C – Industrialized, automated manufacturing process with Cellares
  - Comparability data, including multiple engineering runs, supported treatment of Phase 1/2 patients[2]
  - Planning for commercial implementation ~1-year post-launch[3]

[1] Current comparability data allows use of safety data from patients treated with original process ("Process A") and Process B; additional data submission planned in 2026 to allow inclusion of efficacy data.
[2] Current comparability data allows use of safety data from patients treated with Process A, full analytical comparability between Process A, B and C pending process optimization.
[3] Following completion of process optimization, process validation work, and based on full analytical comparability data set.

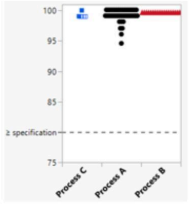
Automated manufacturing initial manufacturing & translational data

Process C: Consistent manufacturing and translational rese-cel data in 1st 2 patients vs. traditional CDMOs

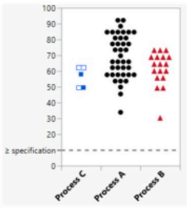
Viability [1]
(accesses T cell health)



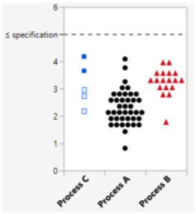
%CD45+ CD3+
(Total T cells produced)



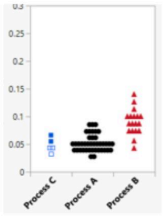
%CD3+ CAR+
(Total CAR-T cells produced)



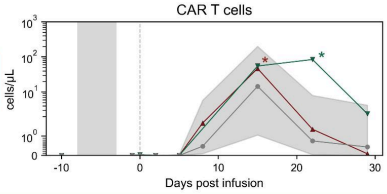
Vector copy number
(Amount of vector/transduced cell)



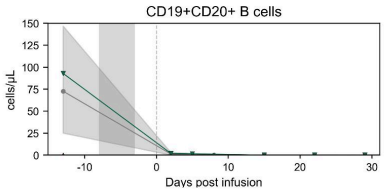
Potency
(Cytotoxicity)



CAR T Cell Expansion[2,3]



B Cell Depletion[3]

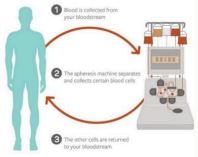
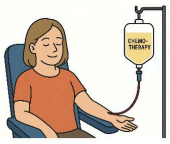
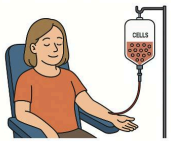
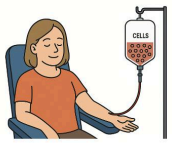


1st 2 rese-cel clinical manufacturing runs met release specifications including product quality attributes within historical ranges; initial data suggest rese-cel manufactured by Cellares exhibited comparable in vivo behavior to rese-cel products manufactured using conventional processes

1. Cellares uses Celleca for viability measurement to enable automated testing. Viability data for Process C shown in this figure were measured using NC200 to enable direct comparison with Process A and Process B, for which NC200 was also used
2. Data points with asterisks had low DNA input per assay recommendation.
3. Median and 50th percentile intervals of values from subjects manufactured with conventional manufacturing (conv) shown in gray.

Advancing breakthrough innovations to improve scalability and costs

Automation plus elimination of preconditioning and apheresis could impact patient preference & experience

	T cell collection	*Rese-cel manufacture and harvest (9 day)*			*Product release*	*Rese-cel administration*	
CURRENT							
	apheresis	cell selection and activation		cell expansion	post-production testing and QA review	preconditioning	infusion
INNOVATIONS	***Blood draw to replace apheresis[1,2]***			***Cellares Cell Shuttle[3]*** • ***Fully closed, end-to-end automation*** • ***Rapid & global scalability*** • ***Shorter turn-around-time***			***One outpatient infusion without preconditioning[4]***

1. Stratton et al, ESGCT 2024. Poster available at https://www.cabalettabio.com/technology/posters-publications
2. (https://d1io3yog0oux5.cloudfront.net/_cdcc45a1b07d9c1e0fc529e815f21ec3/cabalettabio/db/947/8240/pdf/Whole+Blood+Mfg+Poster+ESGCT+2024.pdf)
3. Automation run feasibility completed under TAP program. Video on Cellares technology can be viewed here: https://vimeo.com/947203843/cd59569f16.
4. Under evaluation in an ongoing study in Pemphigus Vulgarus (NCT004422912); presented at ESGCT Conference 2025, presentation is available at https://www.cabalettabio.com/technology/posters-publications.

Rese-cel –
PC-Free Data at Lowest Dose in PV and Lupus

Cabaletta Bio®

Summary of rese-cel without preconditioning (PC), lowest dose cohort[1]

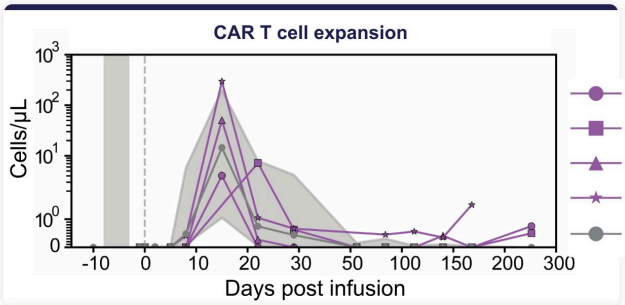
After discontinuing all immunomodulators (IM), unanticipated activity observed without PC at lowest dose

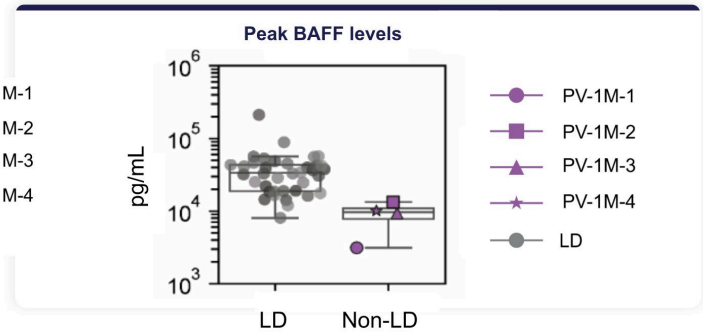
- In the RESET-PV trial, 4 refractory patients received rese-cel at the lowest dose without preconditioning and had follow-up between 24 and 36 weeks as of the data cut-off
  - 2 of 4 patients demonstrated compelling clinical activity through 6 months follow-up
  - Complete peripheral B cell elimination was observed in 3 of 4 patients
  - CRS was observed in 1 patient (Grade 1); ICANS – none
- Based on the safety profile observed at the lowest dose, multiple additional patients have been enrolled at a higher dose cohort in the RESET-PV trial and longer-term data at the higher dose is anticipated in 2H26
- In the RESET-SLE trial evaluating PC-free rese-cel in patients with lupus, 1 of 2 patients experienced deep B cell depletion as measured by flow cytometry and peak BAFF levels

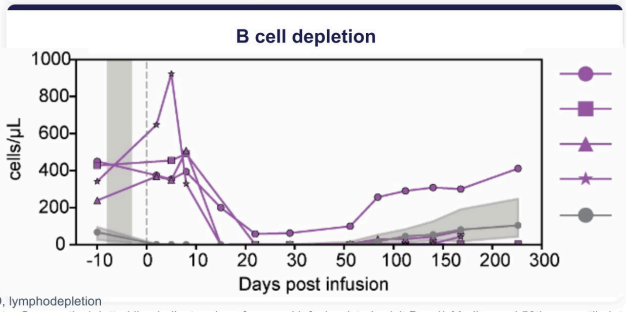
1. Data cut off as of April 2, 2026. Cabaletta Bio: Data on file.

PK / PD for PC-free rese-cel in patients with pemphigus vulgaris[1]

Similar CAR T expansion to PC-treated rese-cel pts with complete B cell depletion in 3 of 4 PC-free patients





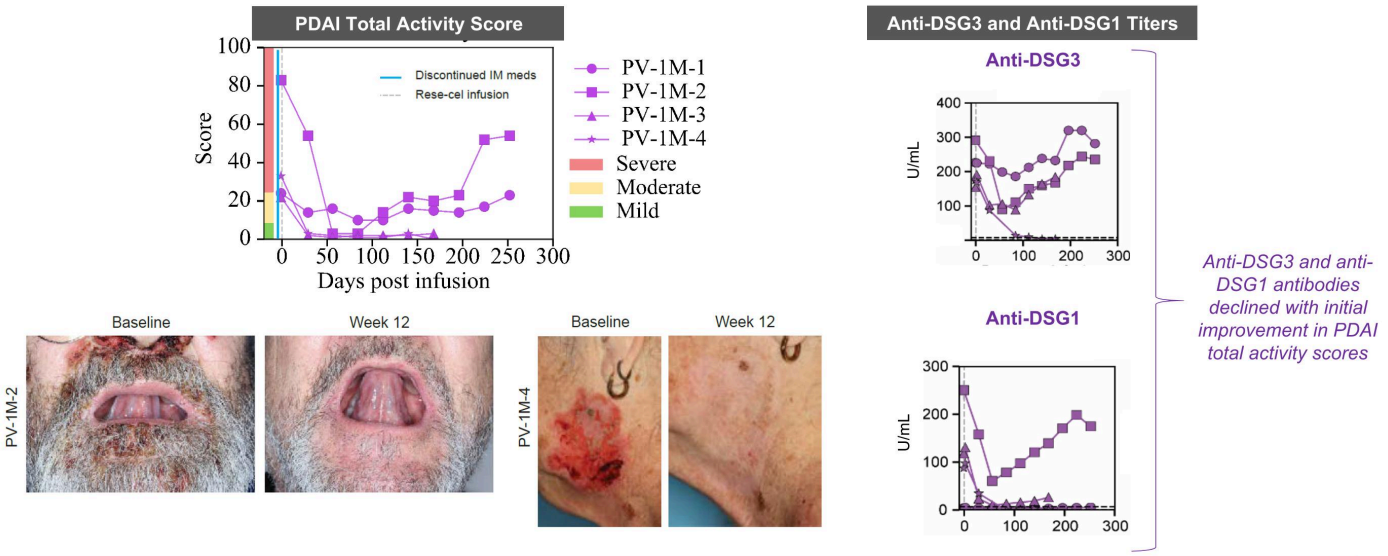


- **PV-1M-2, PV-1M-3 & PV-1M-4 had complete depletion of peripheral B cells at lowest rese-cel dose**
- **BAFF levels in these three patients were at the low end of the range observed with rese-cel with PC**

LD, lymphodepletion
Note: Gray vertical dotted line indicates day of rese-cel infusion (study visit Day 1).Median and 50th percentile intervals of values from LD subjects shown in gray. The LD group consisted of 38 rese-cel treated subjects that were evaluated across the RESET program in myositis, lupus, systemic sclerosis and myasthenia gravis.
Cabaletta Bio: Data on file.
As of 2 April 2026.
1. Nunez, Daniel, et al. "CD19 CAR T Therapy Is Feasible in Patients with Pemphigus Vulgaris Treated Without Lymphodepletion in the RESET-PV Trial." Blood Journal (2026): blood-2025032093.

Unanticipated efficacy at lowest PC-free dose supports dose escalation

Near complete resolution of clinical symptoms off all medicines in 2 of 4 patients through 6 months follow-up[1]

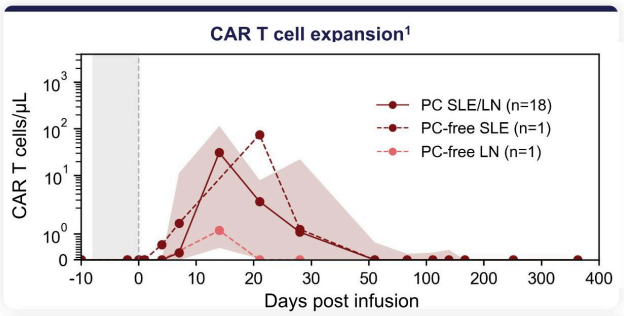


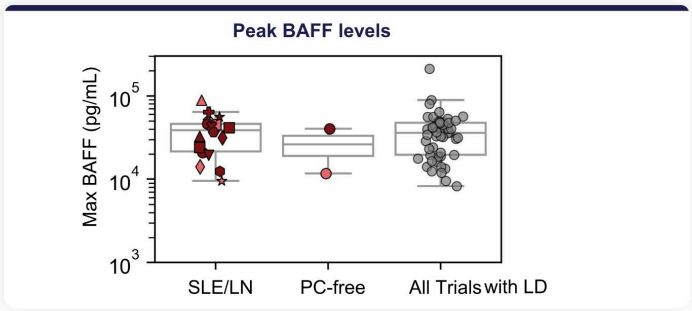
PDAI improvements were the greatest in the three patients who experienced complete peripheral B cell depletion; Next higher dose cohort enrolling based on efficacy, translational data and favorable safety profile to date

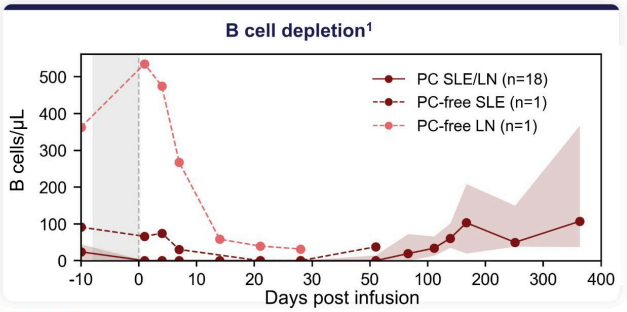
*As of 2 April 2026. Cabaletta Bio: Data on file. Disease severity intervals as defined Krain RL, et al. Br J Dermatol. 2021;184(5): 975–977.
Gray vertical dotted line indicates day of rese-cel infusion (study visit Day 1).
1. Nunez, Daniel, et al. "CD19 CAR T Therapy Is Feasible in Patients with Pemphigus Vulgaris Treated Without Lymphodepletion in the RESET-PV Trial." Blood Journal (2026): blood-2025032093.

Lupus: PC-free rese-cel PK and PD[1]

Similar CAR T expansion as PC-treated patients with deep B cell depletion in 1 of 2 PC-free patients

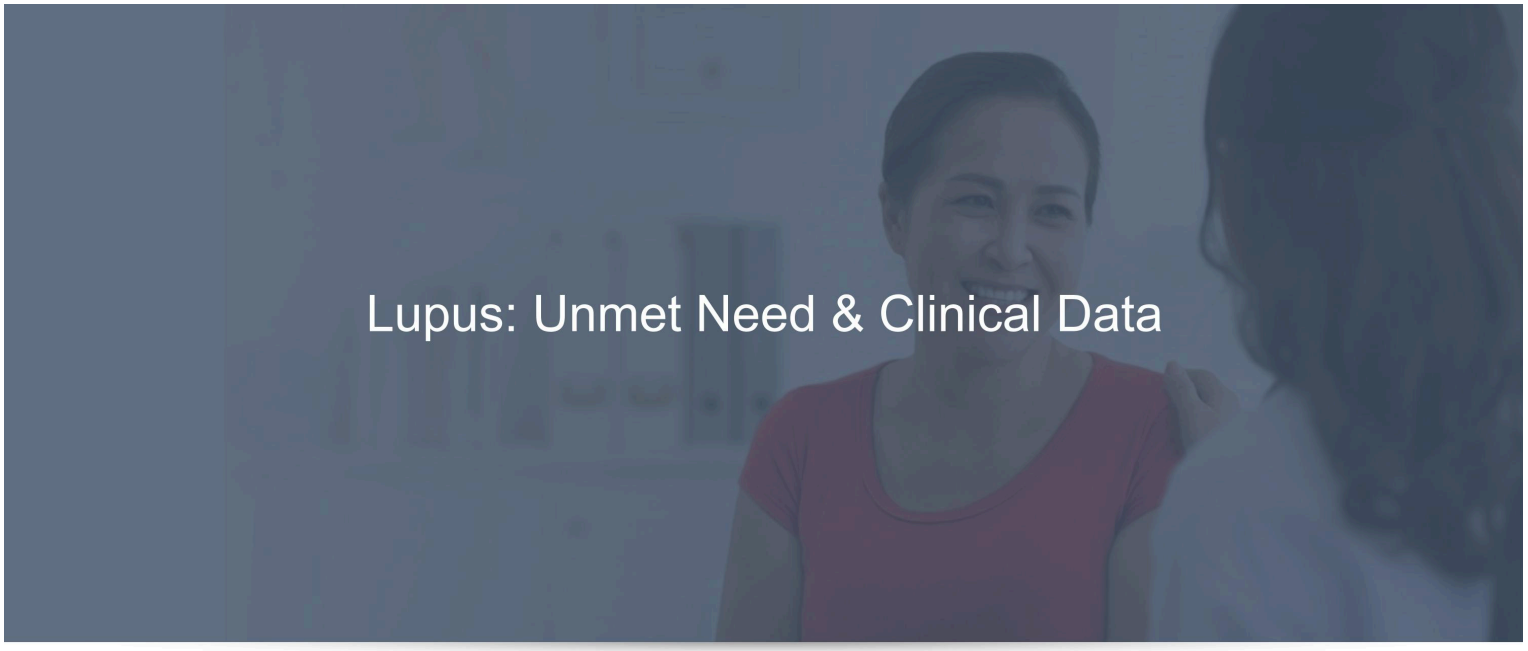






- **PK profiles with the lowest dose of PC-free rese-cel were similar to rese-cel with PC**
- **Deep B cell depletion observed in 1 of 2 patients based on flow cytometry and peak BAFF levels**
- **Gr 1 CRS observed in 1 of 2 patients; no ICANS observed**

LD, lymphodepletion
1. Shading indicates interquartile range, IQR. Individual dashed lines represent PC-free SLE and LN subjects. Rese-cel infusion shown as vertical gray dotted line and PC window represented as vertical gray shading.
Cabaletta Bio: Data on file.
As of 16 April 2026 for PC SLE/LN, as of 16 May 2026 for PC-free patients.



Lupus: Unmet Need & Clinical Data

Cabaletta Bio®

SLE & LN: Represent a high unmet clinical need

Increased mortality risk & negative impact on quality of life for patients with SLE & LN

SLE is a chronic autoimmune condition that can affect nearly every organ system[1]

- Most common in women, with disease onset generally between ages of 20-40 years
- Common symptoms include severe fatigue, joint pain and swelling, skin rashes, ulcers & Raynaud's phenomenon
- >50% of patients develop permanent widespread organ damage, caused by disease & current treatments[2]
- Standardized mortality ratio from 2.4-4.5 for SLE patients[3,4]

~30-40% of SLE patients develop LN, with inflammation & damage within the kidneys

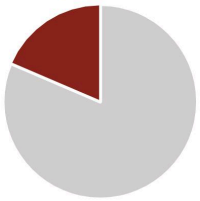
- LN may present silently or with symptoms such as proteinuria, hematuria, swelling & elevated blood pressure
- 10-30% of patients with LN will progress to ESRD, requiring dialysis or transplantation within the first decade of their disease[5,6]

Eligible U.S. Non-Renal SLE & LN patients[7]

SLE patients with moderate to severe, refractory disease & LN patients with refractory disease potentially eligible for rese-cel

(per analysis of quantitative research with ~150 lupus-treating physicians)

~40,000
U.S. non-renal SLE patients
potentially eligible for rese-cel



~210k non-renal SLE patients

~50,000
U.S. LN patients
potentially eligible for rese-cel

~110k LN patients

Market research indicates opportunity to achieve superior penetration and potentially further expand the market through introducing a PC-free CAR T alternative for patients

ESRD, end-stage renal disease; LN, lupus nephritis; SLE, systemic lupus erythematosus.

1. Zen M, et al. Eur J Intern Med. 2023;112:45–51. 2. Rahman P, et al. Lupus. 2001;10(2):93-96. 3. Singh, R, et al. Lupus 27.10 (2018): 1577-1581.4. Murimi-Worstell, I., et al. BMJ 10.5 (2020): e031850. 5. Lichtnekert, J. Nature reviews rheumatology 20.11 (2024): 699-711. 6. Tektonidou, M. Arthritis & rheumatology 68.6 (2016): 1432-1441. 7. Results from quantitative survey of U.S. lupus-treating physicians (rheumatologists & nephrologists), conducted 2Q25. N = ~150.

Baseline characteristics: First 18 patients in RESET-SLE

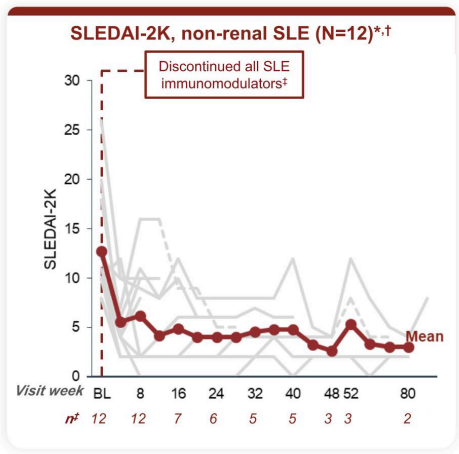
All patients had active, refractory disease and had failed multiple B cell-targeted therapies

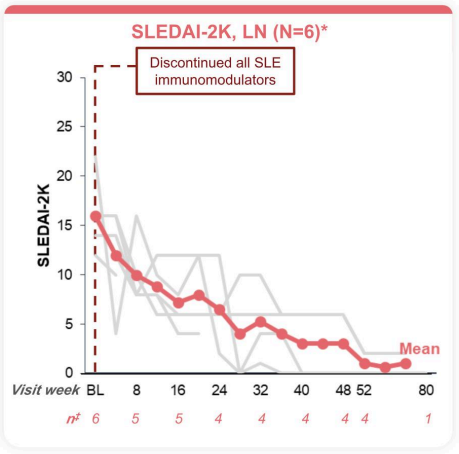
Cohort	**Non-renal SLE (N=12)**	**LN (N=6)**
Age, years, median (min, max)	31 (21, 44)	26 (18, 35)
Female, n (%)	11 (92)	5 (83)
Disease duration,* years, median (min, max)	12 (5, 17)	6 (2, 16)
Autoantibodies (%) **dsDNA** **Sm**	 75 67	 67 83
Baseline disease activity†	**SLEDAI-2K** (mean)	
	12.75	16
	UPCR (mg/mg) (mean)	
	1.7§	3.1
Therapies at screening (%): **Systemic GCs** **≤2 SLE immunomodulators‡** **≥3 SLE immunomodulators‡**	 92 50 50	 50 33 67
GC dose at screening, mg/day, mean (min, max)	13.25 (0, 30)	5.83 (0, 20)

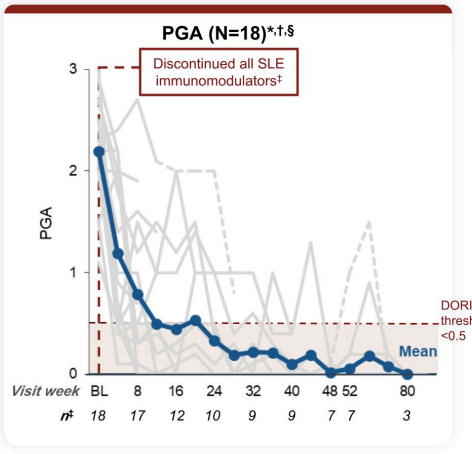
As of 16 Apr 2026.
*Time from diagnosis to screening.
†Baseline disease activity = activity before preconditioning.
‡SLE medications may include biologics, antimalarials, and immunosuppressants.
§Four patients in the non-renal SLE cohort had renal involvement that did not meet criteria for the LN cohort.
dsDNA, double-stranded DNA; GC, glucocorticoid; LN, lupus nephritis; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus; SLEDAI-2K, SLE Disease Activity Index 2000; Sm, Smith; UPCR, urine protein-to-creatinine ratio.
Cabaletta Bio: Data on File.

Efficacy data in SLE following rese-cel infusion

Improvements in SLEDAI-2K and PGA over time after discontinuing immunomodulators







These data suggest the potential for rese-cel to reset the immune system and achieve meaningful clinical responses off immunomodulators with no or low-dose GCs in non-renal SLE and LN

As of 16 Apr 2026.
*Missing data were imputed using last observation carried forward.
†Dashed single patient trend lines represent patients receiving rescue immunomodulatory medications.
‡Mean/median and n numbers are based on SLE/LN patients not receiving prohibited rescue immunomodulators.
§PGA measured on a 0–3 scale.
CAR, chimeric antigen receptor; DORIS, definition of remission in SLE; GC, glucocorticoid; LN, lupus nephritis; PD, pharmacodynamic; PGA, Physician Global Assessment; PK, pharmacokinetic; rese-cel, resecabtagene autoleucel; SLE, systemic lupus erythematosus; SLEDAI-2K, Systemic Lupus Erythematosus Disease Activity Index 2000.
Cabaletta Bio: Data on File.

Myasthenia Gravis: Unmet Need & Clinical Data

Cabaletta Bio®

Myasthenia gravis: Significant disease & treatment burden

High impact of disease due to patient symptoms & cost burden, particularly for refractory patients

Serious, chronic autoimmune neuromuscular disorder[1]

- Characterized by defective transmission at the neuromuscular junction, resulting in weakness of the skeletal muscles
- Typically associated with autoantibodies (e.g. AChR, MuSK, LRP4)
- Symptoms range from ocular involvement, including double vision and ptosis, to severe weakness of the limb, bulbar, trunk, and respiratory muscles, which is worsened with exertion
- Mortality rate estimated to be 5-9%, primarily driven by myasthenic crises, or respiratory crises requiring ventilation[2]

Treatments have transient effect & involve long-term broad immunosuppression[1]

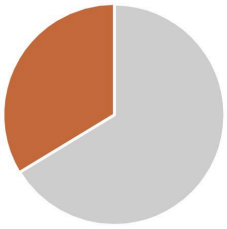
- Available therapeutic options focus on specific symptoms and can be associated with serious long-term side effects
- Mainstays include steroids, immunosuppressants (e.g., mycophenolate), FcRn antagonists, complement inhibitors and rituximab
- MG represents a significant healthcare cost burden in the US, particularly for patients whose disease is inadequately controlled

Eligible U.S. MG patients[3]

Generalized MG patients with refractory disease potentially eligible for rese-cel

(per quantitative research with ~100 MG-treating physicians)

~35,000
U.S. MG patients
potentially eligible for rese-cel



~100k MG patients

1. Gilhus NE, et al. *Eur J Neurol.* 2024 2. Dresser L, et al. *J Clin Med.* May 2021. 3. Results from quantitative survey of U.S. MG-treating physicians (neurologists), conducted 3Q25. N = ~100.

Baseline Characteristics: 13 RESET-MG Patients*

All patients had active, refractory disease despite multiple immunomodulatory agents

	AChR Positive (n=7)	AChR Negative (n=6)
Age, years, mean (min, max)	54.0 (41, 65)	53.3 (37, 70)
Female, n (%)	3 (42.9%)	6 (100.0%)
Time from diagnosis to screening, years, mean (min, max)	7.10 (1.4, 19.1)	6.83 (0.6, 16.2)
Autoantibodies (%)	AChR: 100%	Seronegative: 50% MuSK: 33.3% LRP4: 16.7%
Baseline disease activity†	**MG-ADL (mean)**	
	12.3	12.8
	QMG (mean)	
	14.1	16.8
Prior MG therapies (excluding GCs), mean (min, max)	4.6 (0, 8)	3.5 (1, 6)
Therapies at screening: **Systemic GCs** **≤2 MG therapies‡** **≥3 MG therapies‡**	 57% 71% 29%	 50% 83% 17%
GC dose at screening§, mg/day, mean (min, max)	10 (0, 25)	10.8 (0, 30)

*As of 6 March, 2026.
†Baseline disease activity = activity before preconditioning.
‡MG therapies include acetylcholinesterase inhibitors, FcRn inhibitors, biologics, IVIg, and immunosuppressants.
§GC dose = glucocorticoid dose expressed in equivalent dose of prednisone (mg/day).
AChR, acetylcholine receptor; FcRn, neonatal Fc receptor; GC, glucocorticoid; IVIg, intravenous immunoglobulin; LRP4, low-density lipoprotein receptor-related protein 4; MG, myasthenia gravis; MG-ADL, MG – Activities of Daily Living; MuSK, muscle-specific tyrosine kinase; QMG, Quantitative Myasthenia Gravis Score; RESET, REstoring SElf-Tolerance; rese-cel, resecabtagene autoleucel.
Cabaletta Bio – Data on File.

Cabaletta Bio®

Incidence of Relevant and Related Serious Adverse Events*

No CRS was observed in 11 of 13 patients; CRS was mild and resolved with no sequelae; no ICANS observed

Cohort	AChR Positive							AChR Negative					
Patient	AChR-pos-1	AChR-pos-2	AChR-pos-3	AChR-pos-4	AChR-pos-5	AChR-pos-6	AChR-pos-7	AChR-neg-1	AChR-neg-2	AChR-neg-3	AChR-neg-4	AChR-neg-5	AChR-neg-6
CRS†	None	Grade 2‡	None	None	None	None	Grade 1‡	None	None	None	None	None	None
ICANS†	None	None	None	None	None	None	None	None	None	None	None	None	None
Serious infections§	None	None	None	None	None	None	None	None	None	None	None	None	None
Related SAEs¶ **(Grade)** (Excluding CRS/ICANS)	None	Physical deconditioning, anorexia (3)	None	None	None	None	None	None	None	None	None	Neutropenic fever (3)	None

*As of 6 March, 2026; (N=13 dosed); primary endpoint is incidence and severity of adverse events through Day 29.
†Graded per ASTCT Consensus Grading Criteria.
‡The median time to onset of observed CRS was 5 days (range 2–8 days) relative to the rese-cel infusion (events occurring within 7 days of each other were considered a single event).
§Coded in System Organ Class of Infections and Infestations and meets seriousness criteria.
¶As assessed per US Food and Drug Administration guidelines.
AChR, acetylcholine receptor; AE, adverse event; ASTCT, American Society for Transplantation and Cellular Therapy; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; SAE, serious adverse event.
Cabaletta Bio – Data on File.

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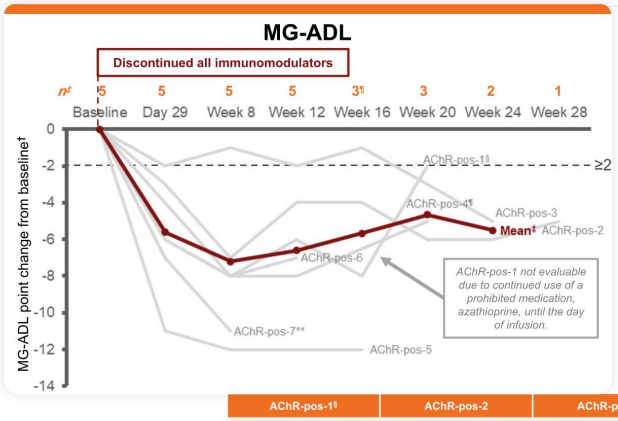
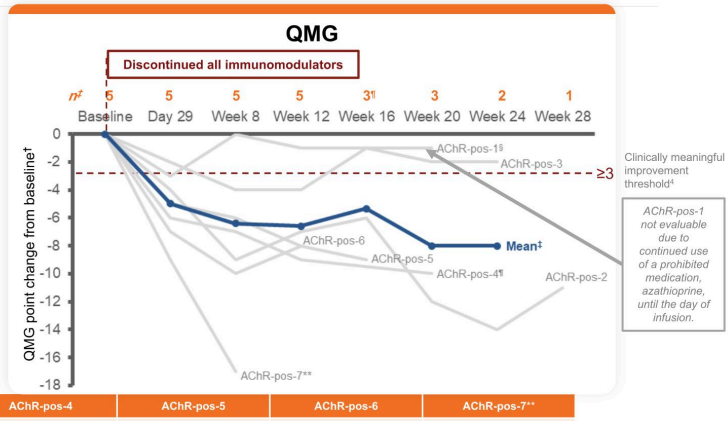
Efficacy data in AChR-positive patients following rese-cel infusion[1]*

After discontinuation of all immunomodulators





	AChR-pos-1§	AChR-pos-2	AChR-pos-3	AChR-pos-4	AChR-pos-5	AChR-pos-6	AChR-pos-7**
MG medications (screening visit)	AZA, IVIg, GC, PYR	EFG, PYR	EFG, MMF, GC	EFG, MMF, GC, PYR	PYR	GC, PYR	IVIg
GC-free (latest follow-up)	*Taper*	✓	*Taper*	✓	✓	*Taper*	✓
AChEI-free (latest follow-up)	*Ongoing*	✓	✓	✓	*Taper*	✓	✓
MG-ADL response	Received IVIg	✓	✓	✓	✓	✓	Received IVIg

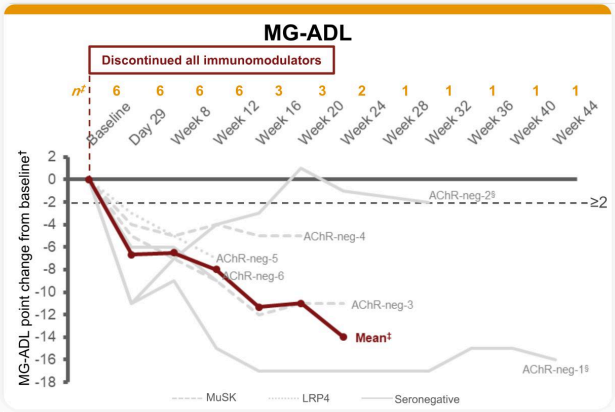
After discontinuation of all immunomodulators,
5 of 7 AChR-positive patients showed clinically meaningful improvements on the MG-ADL scale

*As of 6 March, 2026.
†Baseline disease activity = activity before preconditioning. ‡Mean and n numbers are based on dosed patients not receiving rescue medication for MG. §AChR-pos-1: AZA, a prohibited medication, was continued until the day of infusion (Day 1). IVIg was stopped prior to rese-cel infusion and restarted 4 weeks after infusion for continued MG symptoms; patient discontinued study at Week 20 due to visit refusal. AChR-pos-1, Day 29 visit data unavailable. ¶AChR-pos-4 missed Week 16 visit. **AChR-pos-7 received rescue IVIg due to MG exacerbation 3 days post rese-cel infusion; IVIg rescue therapy ongoing.
AChEI, acetylcholinesterase inhibitors (i.e PYR); AChR, acetylcholine receptor; AZA, azathioprine; EFG, efgartigimod; GC, glucocorticoid; IM, immunomodulatory medication; IVIg, intravenous immunoglobulin; MG, myasthenia gravis; MG-ADL, MG – Activities of Daily Living; MMF, mycophenolate mofetil; PYR, pyridostigmine; QMG, Quantitative Myasthenia Gravis Score; rese-cel, resecabtagene autoleucel.

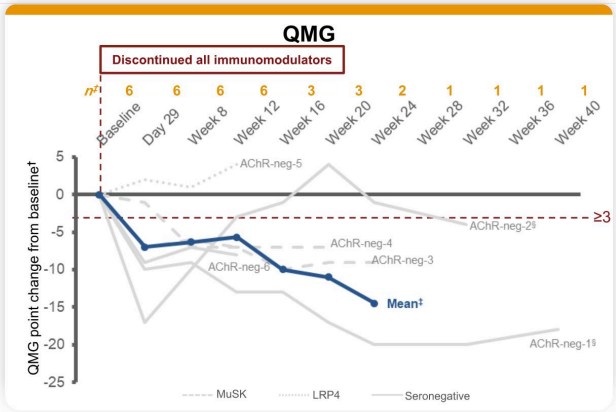
1. Cabaletta Bio – Data on File. 2. Muppidi S, et al. Muscle Nerve. 2022;65(6):630–639.
3. EMA. Available at: www.ema.europa.eu/en/documents/overview/soliris-epar-medicine-overview_en.pdf (accessed April 2026). 4. Barnett C, et al. Neurol Clin. 2018;36(2):339–353.

Efficacy data in AChR-negative patients following rese-cel infusion[1]*

After discontinuation of all immunomodulators



Clinically meaningful improvement threshold[2,3]



Clinically meaningful improvement threshold[4]

	AChR-neg-1§ (seronegative)	AChR-neg-2§ (seronegative)	AChR-neg-3 (MuSK)	AChR-neg-4 (MuSK)	AChR-neg-5 (LRP4)	AChR-neg-6 (seronegative)
MG medications (screening visit)	PLA, GC, PYR	MMF, ROZ, PYR	PLA,GC	AZA	EFG	EFG, GC, PYR
GC-free (latest follow-up)	✓	✓	No¶	✓	✓	*Taper*
AChEI-free (latest follow-up)	✓	✓	✓	✓	✓	*Taper*
MG-ADL response	✓	Received EFG and IVIg	✓	✓	✓	✓

After discontinuation of all immunomodulators,
5 of 6 AChR-negative patients showed clinically meaningful improvements on the MG-ADL scale

*As of 6 March, 2026.
†Baseline disease activity = activity before preconditioning. ‡Mean and n numbers are based on dosed patients not receiving rescue medication for MG. §AChR-neg-1, no Week 44 QMG performed (unrelated AE prevented assessment being completed); AChR-neg-2, no Week 28 visit data available (missed visit).¶AChR-neg-1 receiving low dose IVIg for ongoing hypogammaglobinemia every 2 months from Week 8; AChR-neg-2 received rescue EFG from Week 13 through Week 16 and IVIg every 3 weeks from Week 24 visit due to MG symptoms; AChR-neg-3 receiving chronic GC for adrenal insufficiency. AChEI, acetylcholinesterase inhibitors (i.e PYR); AChR, acetylcholine receptor; AZA, azathioprine; EFG, efgartigimod; GC, glucocorticoid; IM, immunomodulatory medication; IVIg, intravenous immunoglobulin; LRP4, low-density lipoprotein receptor-related protein 4; MG, myasthenia gravis; MG-ADL, MG – Activities of Daily Living; MMF, mycophenolate mofetil; MuSK, muscle-specific tyrosine kinase; PLA, plasmapheresis; PYR, pyridostigmine; QMG, Quantitative Myasthenia Gravis Score; rese-cel, resecabtagene autoleucel; ROZ, rozanolixizumab.

1. Cabaletta Bio – Data on File. 2. Muppidi S, et al. Muscle Nerve. 2022;65(6):630–639. 3. EMA. Available at: www.ema.europa.eu/en/documents/overview/soliris-epar-medicine-overview_en.pdf (accessed April 2026).
4. Barnett C, et al. Neurol Clin. 2018;36(2):339–353.

Corporate Summary

Cabaletta Bio®

Cabaletta Bio leadership

Track record of operational success evaluating & developing novel cell therapy candidates in autoimmunity

LEADERSHIP TEAM

Steven Nichtberger, M.D.
President, CEO & Chairman

Samik Basu, M.D.
Chief Scientific Officer

Gwendolyn Binder, Ph.D.
President, Science & Technology

David J. Chang, M.D., M.P.H., FACR
Chief Medical Officer

Arun Das, M.D.
Chief Business Officer

Steve Gavel
Chief Commercial Officer

Michael Gerard
General Counsel

Heather Harte-Hall
Chief Compliance Officer

Anup Marda
Chief Financial Officer

Nicolette Sherman
Chief HR Officer

Sarah Yuan
Chief Technology Officer

SCIENTIFIC ADVISORY BOARD

Aimee Payne, M.D., Ph.D.
Co-Founder and Co-Chair

Carl June, M.D.

Iain McInnes, Ph.D., FRCP, FRSE, FMedSci

Francisco Ramírez-Valle, M.D., Ph.D.

Michael C. Milone, M.D., Ph.D.
Co-Founder and Co-Chair

Georg Schett, M.D.

Jay Siegel, M.D.

Immune reset with a single infusion and a favorable safety profile

Beyond myositis and scleroderma, advancing innovation with PC-free rese-cel & industrialized automated mfg

Elimination of PC

- Expands the market
- Catalyzes outpatient use
- Reduces resource utilization
- Improves patient and provider experience

Automated Manufacturing

- Minimal capital investment
- Scalability to produce thousands of patient runs per year
- Substantially reduced COGS
- Facilitates global expansion

Transformative Value Proposition

- Differentiated product profile
- Typical 'biologic' margins
- Potential to address larger autoimmune indications including UC, T1D and RA

PC-free rese-cel can expand access while automated manufacturing can reduce COGS & increase scale

COGS – Cost of goods sold; PC – Preconditioning; PV – Pemphigus vulgaris; SLE – Systemic lupus erythematosus; RA – Rheumatoid arthritis; T1D – Type 1 diabetes; UC – Ulcerative colitis.

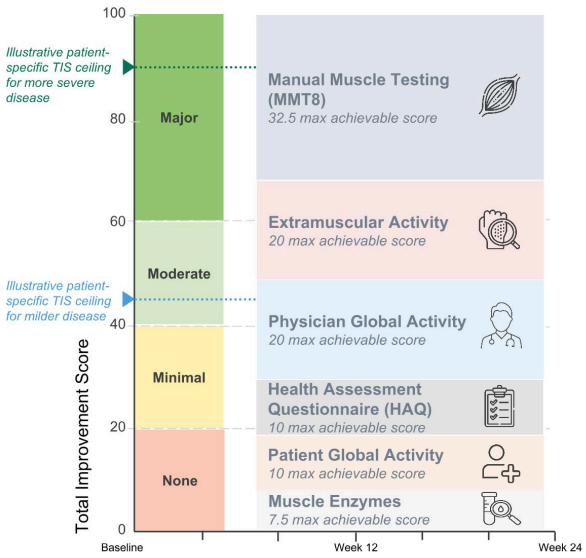
Appendix

Cabaletta Bio®

Myositis outcomes captured through validated composite endpoint

TIS is a composite tool measuring a patient's relative improvement from their baseline

Total improvement score (TIS) components



- TIS developed via conjoint analysis based continuous model using **absolute percentage change** in 6 core set measures (CSM): MMT8, Extramuscular Activity, Physician Global Activity, Health Assessment Questionnaire, Patient Global Activity, and Muscle Enzymes
- TIS is the sum of improvement scores in the 6 CSMs, with **ceiling of potential effect likely higher in DM and ASyS than in IMNM given minimal extramuscular involvement**

1. ASyS – antisynthetase syndrome; CSM – core set measure; DM – dermatomyositis; IMNM – immune-mediated necrotizing myopathy; IVIg – intravenous immunoglobulin.
2. Aggarwal R et al. NEJM. 2022;387(14):1264-1278.

Cabaletta Bio®

Corporate Presentation

JUNE 2026