January 13, 2025

Cabaletta Bio Outlines Strategic Priorities and Anticipated Key Milestones for 2025

– Company plans to meet with the FDA to align on registrational trial designs in 1H25 based on emerging clinical profile of resecabtagene autoleucel (rese-cel, formerly referred to as CABA-201) and increased pace of enrollment with 44 active clinical trial sites –

– Favorable safety profile observed across the first 10 patients dosed with rese-cel: 90% experienced either no CRS or grade 1 (fever) CRS and 90% experienced no ICANS; latest clinical and translational data to be presented at a scientific meeting in February 2025 –

– First patient enrolled in the RESET-PV™ trial evaluating rese-cel without preconditioning –

– First site opened in the juvenile myositis cohort of RESET-Myositis™ trial –

– IND application for rese-cel cleared for the RESET-MS™ trial in multiple sclerosis with Fast Track Designation –

PHILADELPHIA, Jan. 13, 2025 (GLOBE NEWSWIRE) -- Cabaletta Bio, Inc. (Nasdaq: CABA), a clinical-stage biotechnology company focused on developing and launching the first curative targeted cell therapies designed specifically for patients with autoimmune diseases, today announced recent pipeline and operational progress and outlined its strategic priorities and anticipated key milestones for 2025.

“Our clinical execution in 2024 allowed us to accelerate timelines for registrational discussions and demonstrate the potential of rese-cel to deliver immunosuppressant-free, compelling clinical responses in patients with active, refractory autoimmune disease. During the first half of 2025, our top priorities are clinical execution and achieving alignment with the FDA on the registrational pathway for rese-cel based on rapidly emerging clinical and translational data,” said Steven Nichtberger, M.D., Chief Executive Officer of Cabaletta. “Leveraging a large and growing clinical site footprint in the U.S., recent expansion into Europe and an increased pace of patient enrollment observed across the RESET™ clinical development program since our presentations at ACR Convergence in November 2024, we look forward to building on our momentum as we move closer to realizing our vision of launching the first targeted curative cell therapy designed specifically for patients with autoimmune disease.”

Recent Pipeline and Operational Progress

- As of December 31, 2024, 21 patients have been enrolled across 44 actively recruiting clinical sites in the U.S. and Europe across the RESET clinical development program.

- In the first 10 patients dosed with rese-cel with at least one month of follow-up, 90% have experienced either no cytokine release syndrome (CRS) or grade 1 (fever) CRS and 90% have experienced no immune effector cell-associated neurotoxicity syndrome (ICANS). Data from these patients will be presented at an upcoming scientific meeting

in February 2025.

- Today, Cabaletta announced the following progress in support of its commitment to advance innovations that improve the patient and physician experience, in addition to broadening the potential of rese-cel for patients:
    - The first patient has been enrolled in the RESET-PV trial, evaluating rese-cel without preconditioning in patients with pemphigus vulgaris.
    - The first juvenile myositis clinical site in the RESET-Myositis trial is now open and actively recruiting. The U.S. Food and Drug Administration (FDA) previously granted Rare Pediatric Disease designation for rese-cel in juvenile dermatomyositis.
    - The first patient has been enrolled in the RESET-MG™ trial, evaluating rese-cel in patients with myasthenia gravis.
    - The Investigational New Drug (IND) application for rese-cel has been allowed to proceed within the routine 30-day window by the FDA for the RESET-MS trial, a Phase 1/2 study evaluating rese-cel in patients with multiple sclerosis (MS). In addition, the FDA has granted Fast Track Designation to rese-cel for the treatment of relapsing and progressive forms of MS.

- In order to expand our clinical supply to address the increasing pace of enrollment in our clinical trials as well as to prepare for registrational trial(s) across the RESET clinical development program while expanding our manufacturing options for rese-cel, Cabaletta has expanded its CDMO agreement with Lonza, a leading Contract Development and Manufacturing Organization (CDMO), to supply rese-cel clinical product under current Good Manufacturing Practices as soon as the second half of 2025.

- In November 2024, Cabaletta presented new and updated clinical data on rese-cel supporting its potential to achieve drug-free, compelling clinical responses based on eight patients dosed across the ongoing Phase 1/2 RESET-Myositis, RESET-SLE™ and RESET-SSc™ clinical trials at the American College of Rheumatology (ACR) Convergence 2024 conference.

Strategic Priorities and Anticipated Key Milestones for 2025

Gain alignment with the FDA on a path to registration for rese-cel that leverages our indication-specific trials to rapidly advance registrational programs

- The Company now plans to meet with the FDA regarding registrational trial designs for rese-cel in the first half of 2025 based on the emerging clinical and translational data and increased pace of enrollment.

Enroll patients and complete dosing in multiple disease-specific cohorts across the RESET clinical development program

- Present new and updated clinical and translational data on rese-cel throughout 2025.

Continue advancing innovations designed to expand patient access and provide streamlined and positive experiences with rese-cel for patients and providers

- **Evaluate rese-cel with no preconditioning:** Generate clinical and translational data evaluating rese-cel without preconditioning from the RESET-PV trial in 2025.

- **Align with FDA on whole blood replacement for apheresis:** Continue to advance the whole blood manufacturing program as a potential replacement for apheresis and seek to align with FDA on a strategy to incorporate it into the RESET clinical development program.

Financial Guidance

Cabaletta ended the fourth quarter of 2024 with unaudited cash and cash equivalents of $164 million. The Company expects that this cash position as of December 31, 2024 will enable it to fund its updated operating plan, including recently accelerated clinical assumptions, into the first half of 2026.

About the RESET-MS™ Trial
The RESET-MS™ trial is a Phase 1/2 open-label, dose escalation study of rese-cel in subjects with relapsing and progressive forms of multiple sclerosis (MS), evaluated in separate cohorts. Subjects will receive a one-time infusion of rese-cel following a preconditioning regimen of fludarabine and cyclophosphamide. Key inclusion criteria for the relapsing MS cohort include patients between ages 18 to 60 (inclusive), evidence of clinical relapse during the previous 2 years, and prior treatment with a high efficacy therapy for at least 6 months. Key progressive MS inclusion criteria include patients between ages 18 to 60 (inclusive) and evidence of objective disease worsening during the prior year while on standard of care therapy for at least 6 months. Key exclusion criteria for both cohorts include history of fulminant MS within 5 years, a prior history of seizures or other clinically significant concomitant CNS pathology, history of progressive multifocal leukoencephalopathy, as well as treatment with a B cell depleting agent within the prior approximately 20 weeks.

About rese-cel (formerly referred to as CABA-201)
Rese-cel is a 4-1BB-containing fully human CD19-CAR T cell investigational therapy for patients with autoimmune diseases where B cells contribute to the initiation and/or maintenance of disease. Following a one-time infusion of a weight-based dose, rese-cel is designed to transiently and completely deplete all CD19-positive cells. This approach has the potential to reset the immune system and result in compelling clinical responses without chronic therapy requirements in patients. Cabaletta is currently evaluating rese-cel in the RESET™ (REstoring SElf-Tolerance) clinical development program which includes multiple disease-specific, company-sponsored clinical trials across growing portfolios of autoimmune diseases in a broad range of therapeutic areas, including rheumatology, neurology and dermatology.

About Cabaletta Bio
Cabaletta Bio (Nasdaq: CABA) is a clinical-stage biotechnology company focused on developing and launching the first 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 the first curative targeted cell therapy designed specifically for patients with autoimmune diseases; 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 Cabaletta's clinical trials and its ability to conduct and complete clinical trials; expectation that clinical results will support rese-cel's safety and activity profile; statements regarding the timing of interactions with regulatory authorities, including such authorities' review of safety information from Cabaletta's ongoing clinical trials and potential registrational pathway for rese-cel; Cabaletta's expectations around the potential success and therapeutic benefits of rese-cel, including its belief that rese-cel has the potential to reset the immune system and result in compelling clinical responses without chronic therapy requirements in patients; the Company's advancement of separate Phase 1/2 clinical trials of rese-cel in patients with SLE, myositis, SSc and gMG and advancement of the RESET-PV and RESET-MS trials, including updates related to status, safety data, efficiency of clinical trial design and timing of data read-outs or otherwise; the clinical significance of the clinical data read-out at upcoming scientific meetings; Cabaletta's ability to expand its clinical supply for registrational trial(s) across the RESET clinical development program as well as to expand its manufacturing options for rese-cel; Cabaletta's ability to increase enrollment in its US and Europe clinical networks; Cabaletta's ability to leverage its growing clinical trial network to accelerate development of its therapy for patients and to generate clinical and translational data; Cabaletta's advancement of the whole blood manufacturing program as a potential replacement for apheresis as well as its potential alignment with FDA in connection thereto; and Cabaletta's use of capital, expense and other financial results in the future and its ability to fund operations into the first half of 2026.

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 and potential clearance; the risk that signs of biologic activity or persistence may not inform long-term results; Cabaletta's ability to demonstrate sufficient evidence of safety, efficacy and tolerability in its preclinical studies and clinical trials of rese-cel; the risk that the results observed with the similarly-designed construct employed in academic publications, including due to the dosing regimen, are not indicative of the results we seek to achieve with rese-cel; 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; risks related to clinical trial site activation, delays in enrollment generally or enrollment rates that are lower than expected; delays related to assessment of clinical trial results; risks related to unexpected safety or efficacy data observed during clinical studies; risks related to volatile market and economic conditions and public health crises;

Cabaletta's ability to retain and recognize the intended incentives conferred by Orphan Drug Designation and Fast Track Designation or other designations for its product candidates, as applicable; risks related to Cabaletta's ability to protect and maintain its intellectual property position; risks related to fostering and maintaining successful relationships with Cabaletta's collaboration and manufacturing partners; uncertainties related to the initiation and conduct of studies and other development requirements for its product candidates; the risk that any one or more of Cabaletta's product candidates will not be successfully developed and/or commercialized; and the risk that the initial or interim results of preclinical studies or clinical studies will not be predictive of future results in connection with future studies. 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 other 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.

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