UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant \boxtimes

Filed by a Party other than the Registrant \Box

Check the appropriate box:

Preliminary Proxy Statement

□ Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

□ Soliciting Material Pursuant to §240.14a-12

CABALETTA BIO, INC.

(Name of registrant as specified in its charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check all boxes that apply):

☑ No fee required.

□ Fee paid previously with preliminary materials.

Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules14a-6(i)(1) and 0-11.

PRELIMINARY PROXY - SUBJECT TO REVIEW

Cabaletta Bio

CABALETTA BIO, INC. 2929 Arch Street, Suite 600 Philadelphia, PA 19104

NOTICE OF 2025 ANNUAL MEETING OF STOCKHOLDERS To be held June 9, 2025

Notice is hereby given that the 2025 Annual Meeting of Stockholders, or Annual Meeting, of Cabaletta Bio, Inc., will be held online on June 9, 2025 at 9:00 a.m. Eastern Time. This year's Annual Meeting will be a virtual meeting, which will be conducted via live webcast. You may attend the meeting virtually via the Internet by registering at www.proxydocs.com/CABA, where you will be able to vote electronically and submit questions. You will need the control number included with the Proxy Materials (as defined below) in order to attend the Annual Meeting. The purpose of the Annual Meeting is the following:

- 1. To elect two class III directors to our board of directors, to serve until the 2028 annual meeting of stockholders and until their successor has been duly elected and qualified, or until their earlier death, resignation or removal;
- 2. To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025;
- To approve an amendment to our Third Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 150,000,000 to 300,000,000 (the "Charter Amendment Proposal");
- 4. To approve, on a non-binding, advisory basis, the compensation of our named executive officers;
- 5. To approve, on a non-binding, advisory basis, the preferred frequency of future advisory votes on compensation of our named executive officers;
- 6. To approve a proposal to adjourn the Annual Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the Charter Amendment Proposal (the "Adjournment Proposal"); and
- 7. To transact any other business properly brought before the Annual Meeting or any adjournment or postponement of the Annual Meeting.

The proposal for the election of directors relates solely to the election of two class III directors nominated by the board of directors.

Only Cabaletta Bio, Inc. stockholders of record at the close of business on May 12, 2025, will be entitled to vote at the Annual Meeting and any adjournment or postponement thereof.

Cabaletta Bio, Inc. has elected to use the full set delivery option available pursuant to Rule14a-16(n) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Under the full set delivery option, Cabaletta Bio, Inc. will deliver the proxy statement the proxy card and its Annual Report on Form 10-K for the fiscal year ended December 31, 2024 (the "2024 Annual Report", together with the proxy statement and the proxy card, the "Proxy Materials"), to its stockholders by mail. In addition to delivery of the Proxy Materials to stockholders, Cabaletta Bio, Inc. will post all Proxy Materials on a publicly-accessible website and provide information to stockholders about how to access the website. This proxy statement is dated May 13, 2025 and is first being mailed to stockholders on or about May 19, 2025.

To be admitted to the Annual Meeting and vote your shares, you must register in advance at www.proxydocs.com/CABA prior to the meeting and provide the control number as provided described in the Proxy Materials at www.proxydocs.com/CABA. Upon completing your registration, you will receive further

instructions via email, including unique links to access the Annual Meeting and to submit questions in advance of the Annual Meeting. Please see the "General Information" section of the proxy statement that accompanies this notice for more details regarding the logistics of the virtual Annual Meeting, including the ability of stockholders to submit questions during the Annual Meeting, and technical details and support related to accessing the virtual platform.

Your vote is important. Whether or not you expect to attend the virtual meeting, it is important that your shares be represented. To ensure that your vote is recorded promptly, please vote as soon as possible, even if you plan to attend the meeting, by submitting your proxy via the Internet at the address listed on the proxy card or by signing, dating and returning the proxy card. Even if you have voted by proxy, you may still vote at the virtual meeting.

Please note, however, that if your shares are held through a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

By order of the Board of Directors,

/s/ Steven Nichtberger Steven Nichtberger, M.D. President and Chief Executive Officer

Philadelphia, Pennsylvania May 13, 2025

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Cabaletta Bio

CABALETTA BIO, INC. 2929 Arch Street, Suite 600 Philadelphia, PA 19104

PROXY STATEMENT FOR THE 2025 ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD JUNE 9, 2025

This proxy statement contains information about the 2025 Annual Meeting of Stockholders, or the Annual Meeting, of Cabaletta Bio, Inc., which will be held online on June 9, 2025 at 9:00 a.m. Eastern Time. You may attend the Annual Meeting virtually via the Internet at www.proxydocs.com/CABA, where you will be able to vote electronically and submit questions. The board of directors of Cabaletta Bio, Inc. is using this proxy statement to solicit proxies for use at the Annual Meeting. In this proxy statement, the terms "Cabaletta," the "Company," "we," "us," and "our" refer to Cabaletta Bio, Inc. The mailing address of our principal executive offices is Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, PA 19104.

All properly submitted proxies will be voted in accordance with the instructions contained in those proxies. If no instructions are specified, the proxies will be voted in accordance with the recommendation of our board of directors with respect to each of the matters set forth in this proxy statement and the accompanying proxy card. You may revoke your proxy at any time before it is exercised at the meeting by giving our corporate secretary written notice to that effect.

We are mailing to our stockholders the Proxy Materials, including our 2024 Annual Report, on or about May 19, 2025.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be Held on June 9, 2025:

This proxy statement and our 2024 Annual Report to Stockholders are available for viewing, printing and downloading at www.proxydocs.com/CABA.

A copy of our 2024 Annual Report, as filed with the Securities and Exchange Commission, or the SEC, except for exhibits, will be furnished without charge to any stockholder upon written request to Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, PA 19104, Attention: Corporate Secretary. This proxy statement and our 2024 Annual Report are also available on the SEC's website at *www.sec.gov*.

CABALETTA BIO, INC. PROXY STATEMENT FOR THE 2025 ANNUAL MEETING OF STOCKHOLDERS GENERAL INFORMATION

Why are you holding a virtual Annual Meeting?

This year's Annual Meeting will be a "virtual meeting" of stockholders. We have implemented the virtual format in order to facilitate stockholder attendance at our Annual Meeting. We have designed our virtual format to enhance, rather than constrain, stockholder access, participation and communication. For example, the virtual format allows stockholders to communicate with us in advance of, and during, the Annual Meeting so they can ask questions of our board of directors or management.

How can I virtually attend the Annual Meeting?

To attend and participate in the Annual Meeting, stockholders will need to access the live webcast of the meeting. To do so, stockholders of record will need to visit www.proxydocs.com/CABA and enter the control number provided in the Proxy Materials to preregister for the Annual Meeting prior to the deadline of June 9, 2025 at 9:00 a.m. Eastern Time, and beneficial owners of shares held in street name will need to follow the instructions provided in the voting instructions form by the broker, bank or other nominee that holds their shares. Upon completing the registration, stockholders will receive further instructions via email, including a unique link to access the Annual Meeting.

The live webcast of the Annual Meeting will begin promptly at 9:00 a.m. Eastern Time on June 9, 2025. We encourage stockholders to login to this website and access the webcast before the Annual Meeting's start time by following the instructions in the email received on the morning of the Annual Meeting. You should allow ample time in advance of the meeting. Additionally, questions regarding how to attend and participate via the Internet can be answered by following the assistance instructions included at www.proxydocs.com/CABA or by calling the phone number provided in the email received on the morning of the Annual Meeting.

If you wish to submit a question during the Annual Meeting, you may log into, and submit a question on, the virtual meeting platform using the unique link provided to you via email following the completion of your registration at www.proxydocs.com/CABA and following the instructions there. Our Annual Meeting will be governed by the Annual Meeting's Rules of Conduct and Procedures, which will address the ability of stockholders to ask questions during the meeting and rules for how questions will be recognized and addressed. The Annual Meeting's Rules of Conduct and Procedures will be available on www.proxydocs.com/CABA prior to the Annual Meeting.

How can I get help if I have trouble checking in or listening to the meeting online?

If you encounter any difficulties accessing the virtual meeting during the check-in or meeting time, please refer to the email received the morning of the Annual Meeting.

When are this proxy statement and the accompanying materials scheduled to be sent to stockholders?

We are mailing to our stockholders the Proxy Materials, including our 2024 Annual Report, on or about May 19, 2025. You will need the control number included in the Proxy Materials.

Who is soliciting my vote?

Our Board of Directors, or the board of directors, is soliciting your vote for the Annual Meeting, including at any adjournments or postponements of the meeting.

When is the record date for the Annual Meeting?

The record date for determination of stockholders entitled to vote at the Annual Meeting is the close of business on May 12, 2025.

How many votes can be cast by all stockholders?

There were shares of our voting common stock, par value \$0.00001 per share, outstanding on May 12, 2025, all of which are entitled to vote with respect to all matters to be acted upon at the Annual Meeting. Each stockholder of record is entitled to one vote for each share of our common stock held by such stockholder. As the stockholder of record, you have the right to grant your voting proxy directly to the individuals listed on the proxy card or vote on your own behalf at our virtual Annual Meeting. None of our shares of preferred stock were outstanding as of May 12, 2025. As of May 12, 2025, there were no shares of non-voting common stock, par value \$0.00001 per share, outstanding. The shares of non-voting stock are not entitled to vote on the proposals presented at the Annual Meeting.

Who is entitled to vote?

Registered Stockholders. If shares of our common stock are registered directly in your name with our transfer agent, you are considered the stockholder of record with respect to those shares. As the stockholder of record, you have the right to grant your voting proxy directly to the individuals listed on the proxy card or vote on your own behalf at our virtual Annual Meeting. Throughout this proxy statement, we refer to these registered stockholders as "stockholders of record."

Street Name Stockholders. If shares of our common stock are held on your behalf in a brokerage account or by a bank or other nominee, you are considered to be the beneficial owner of shares that are held in "street name," and the proxy materials were forwarded to you by your broker or nominee, who is considered the stockholder of record with respect to those shares. As the beneficial owner, you have the right to direct your broker, bank or other nominee as to how to vote your shares. Beneficial owners are also invited to attend our virtual Annual Meeting. However, since a beneficial owner is not the stockholder of record, you may not vote your shares of our common stock on your own behalf at the Annual Meeting unless you follow your broker's procedures for obtaining a legal proxy. Note you should also be receiving a voting instruction form for you to use from your broker. Throughout this proxy statement, we refer to stockholders who hold their shares through a broker, bank or other nominee as "street name stockholders."

How do I vote?

If you are a stockholder of record, there are four ways to vote:

- By Internet. You may vote atwww.proxypush.com/CABA, 24 hours a day, seven days a week. You will need the control number included in the Proxy Materials.
- During the Annual Meeting. You may vote in person virtually by attending the meeting throughwww.proxydocs.com/CABA. To attend the Annual Meeting and vote your shares, you must register for the Annual Meeting and provide the control number located in the Proxy Materials.
- **By Telephone.** You may vote using a touch-tone telephone by calling1-866-430-8263, 24 hours a day, seven days a week. You will need the control number included in the Proxy Materials.
- **By Mail.** You may vote by completing and mailing your proxy card.

Even if you plan to participate in our virtual Annual Meeting, we recommend that you also vote by proxy so that your vote will be counted if you later decide not to participate in the Annual Meeting.

If you are a street name stockholder, you will receive voting instructions from your broker, bank or other nominee. You must follow the voting instructions provided by your broker, bank or other nominee in order to instruct your broker, bank or other nominee on how to vote your shares. Street name stockholders should generally be able to vote by returning an instruction card, or by telephone or on the Internet. However, the availability of telephone and Internet voting will depend on the voting process of your broker, bank or other nominee. As discussed above, if you are a street name stockholder, you may not vote your shares on your own behalf at the Annual Meeting unless you obtain a legal proxy from your broker, bank or other nominee.

By Proxy

If you will not be attending the Annual Meeting, you may vote by proxy. You can vote by proxy over the Internet by following the instructions provided in the enclosed proxy card. Proxies submitted by mail must be received before the start of the Annual Meeting.

If you complete and submit your proxy before the Annual Meeting, the persons named as proxies will vote the shares represented by your proxy in accordance with your instructions. If you submit a proxy without giving voting instructions, your shares will be voted in the manner recommended by the board of directors on all matters presented in this proxy statement, and as the persons named as proxies may determine in their discretion with respect to any other matters properly presented at the Annual Meeting. You may also authorize another person or persons to act for you as proxy in a writing, signed by you or your authorized representative, specifying the details of those proxies' authority. The original writing must be given to each of the named proxies, although it may be sent to them by electronic transmission if, from that transmission, it can be determined that the transmission was authorized by you.

If any other matters are properly presented for consideration at the Annual Meeting, including, among other things, consideration of a motion to adjourn the Annual Meeting to another time or place (including, without limitation, for the purpose of soliciting additional proxies), the persons named in your proxy and acting thereunder will have discretion to vote on those matters in accordance with their best judgment. We do not currently anticipate that any other matters will be raised at the Annual Meeting.

How do I revoke my proxy?

You may revoke your proxy by (1) entering a new vote by mail that we receive before the start of the Annual Meeting or over the Internet or via telephone, (2) attending and voting at the Annual Meeting online (although attendance at the Annual Meeting will not in and of itself revoke a proxy), or (3) by filing an instrument in writing revoking the proxy or another duly executed proxy bearing a later date with our Corporate Secretary. Any written notice of revocation or subsequent proxy card must be received by our Corporate Secretary prior to the taking of the vote at the Annual Meeting. Such written notice of revocation or subsequent proxy card should be hand delivered to our Corporate Secretary or sent to our principal executive offices at Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, PA 19104, Attention: Corporate Secretary.

If a broker, bank, or other nominee holds your shares, you must contact such broker, bank, or nominee in order to find out how to change your vote.

How is a quorum reached?

Our Amended and Restated Bylaws, or bylaws, provide that a majority of the shares entitled to vote, present in person or represented by proxy, will constitute a quorum for the transaction of business at the Annual Meeting.

Under the General Corporation Law of the State of Delaware, shares that are voted "abstain" or "withheld" and broket "non-votes" are counted as present for purposes of determining whether a quorum is present at the Annual Meeting. If a quorum is not present, the meeting may be adjourned until a quorum is obtained. There were



shares of common stock outstanding and entitled to vote on May 12, 2025, our record date. Therefore, a quorum will be present if shares of our common stock are present in person or represented by executed proxies timely received by us at the Annual Meeting.

How is the vote counted?

Under our bylaws, any proposal other than an election of directors is decided by a majority of the votes properly cast for and against such proposal, except where a larger vote is required by law or by our Third Amended and Restated Certificate of Incorporation, or certificate of incorporation, or bylaws. A broker "non-vote" occurs when a nominee holding shares for a beneficial owner does not vote on a particular proposal because the nominee does not have discretionary voting power with respect to that item, and has not received instructions from the beneficial owner.

If your shares are held in "street name" by a brokerage firm, your brokerage firm is required to vote your shares according to your instructions. Pursuant to the New York Stock Exchange (NYSE) rules applicable to brokerage firms, if you do not give instructions to your brokerage firm, the brokerage firm will still be able to vote your shares with respect to "discretionary" items, but will not be allowed to vote your shares with respect to "non-discretionary" items. If you do not instruct your broker how to vote your shares with respect to "Proposal No. 1, Proposal No. 4, and Proposal No. 5, your broker may not vote for these proposals, and those shares will be counted as broker "non-votes." Proposal No. 2, Proposal No. 3, and Proposal No. 6 are "discretionary" and your broker or nominee will be able to vote on those items even if it does not receive instructions from you.

To be elected, a director nominated via Proposal No. 1 must receive a plurality of the votes properly cast on the election of the director. You may vote for the director nominees or withhold authority to vote your shares with respect to the director nominees. Shares voting "withheld" have no effect on the election of the directors. Broker non-votes are not considered votes cast and will have no effect on the election of the directors.

To ratify the appointment of our independent registered public accounting firm via Proposal No. 2, the proposal must receive the affirmative vote of a majority of the votes properly cast "For" and "Against" the proposal. Proposal No. 2 is considered to be a discretionary item, and your brokerage firm will be able to vote your shares on this proposal even if it does not receive instructions from you. Abstentions and broker non-votes, if any, will not be counted "For" or "Against" this proposal and will have no effect on this proposal.

To approve the amendment to our certificate of incorporation to increase the number of authorized shares via Proposal No. 3, the proposal must receive the affirmative vote of a majority of the outstanding shares entitled to vote on the proposal. Proposal No. 3 is considered to be a discretionary item, and your brokerage firm will be able to vote your shares on this proposal even if it does not receive instructions from you. Because Proposal No. 3 requires the affirmative vote of a majority of the outstanding shares of capital stock entitled to vote on such proposal, abstentions and broker non-votes, if any, will have the same effect as a vote "Against" this proposal.

To approve, on a non-binding, advisory basis, the compensation of the Company's named executive officers via Proposal No. 4, the proposal must receive the affirmative vote of a majority of the votes properly cast "For" and "Against" the proposal. Abstentions and broker non-votes will not be counted "For" or "Against" this proposal and will have no effect on this proposal.

To approve or disapprove of the recommendation of our board of directors on the preferred frequency of future advisory votes on the compensation of our named executive officers via Proposal No. 5, the proxy card provides stockholders with the opportunity to choose among four options with respect to this proposal (holding the vote every one, two, or three years, or abstaining). The option that receives the highest number of votes properly cast will be deemed to be the frequency preferred by our stockholders. Assuming the presence of a quorum, abstentions and broker non-votes, if any, will have no effect on the outcome of the vote on this proposal. In the

absence of a quorum, abstentions and broker non-votes, if any, will have the same effect as a vote "Against" this proposal.

To approve a proposal to adjourn the Annual Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of the Charter Amendment Proposal via Proposal No. 6, the proposal must receive the affirmative vote of a majority of the votes properly cast "For" and "Against" the proposal. Proposal No. 6 is considered to be a discretionary item, and your brokerage firm will be able to vote your shares on this proposal even if it does not receive instructions from you. Abstentions and broker non-votes will not be counted "For" or "Against" this proposal and will have no effect on this proposal.

If quorum is not present, then under our bylaws, (1) the presiding officer of the Annual Meeting or (2) the holders of voting stock representing a majority of the voting power present at the Annual Meeting, shall have power to adjourn the Annual Meeting until a quorum is present or represented. If a quorum is present, then under our bylaws, (1) the presiding officer may adjourn the meeting upon direction from the Board upon determination that such adjournment is in the best interests of the Company or (2) as per the above, the affirmative vote of the holders of a majority of the votes properly cast "For" and "Against" such matter at the Annual Meeting may vote to adjourn the meeting. Notice need not be given of the adjourned meeting if the time, place, if any, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present virtually and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. However, our bylaws provide that if any such adjournment is for more than 30 days, or if after an adjournment a new record date for determining stockholders entitled to vote is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the adjourned meeting.

Who pays the cost for soliciting proxies?

We are making this solicitation and will pay the entire cost of preparing and distributing our proxy materials and soliciting votes. If you choose to access the proxy materials or vote over the Internet, you are responsible for any Internet access charges that you may incur. Our officers and employees may, without compensation other than their regular compensation, solicit proxies through further mailings, personal conversations, facsimile transmissions, e-mails, or otherwise. Proxy solicitation expenses that we will pay include those for preparation, mailing, returning, and tabulating the proxies. We have also engaged MacKenzie Partners, Inc., a professional proxy soliciting firm, to assist in the solicitation of proxies and provide related advice and informational support, for a fee of up to approximately \$15,000, plus fees for additional services, if needed, and reimbursement of certain out-of-pocket expenses, which fees will be borne by us. We have also agreed to indemnify and hold MacKenzie Partners, Inc. and its directors, officers, employees and agents harmless against losses that arise out of or relate to the services they are providing to us, except for losses that result from willful misconduct or bad faith.

How may stockholders submit matters for consideration at an Annual Meeting?

The required notice must be in writing and received by our corporate secretary at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting. However, in the event that the date of the annual meeting is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, or if no annual meeting were held in the preceding year, a stockholder's notice must be so received no earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs.

In addition, any stockholder proposal intended to be included in the proxy statement for the next annual meeting of our stockholders in 2026 must also satisfy the requirements of SEC Rule 14a-8 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and be received not later than January 13, 2026. In addition, to

comply with the SEC's new universal proxy rules, stockholders who intend to solicit proxies in support of director nominees other than our nominees must provide notice by the same deadline noted herein to present matters at the 2026 Annual Meeting of Stockholders. Such notice must comply with the additional requirements of Rule 14a-19(b). If the date of the annual meeting is moved by more than 30 days from the date contemplated at the time of the previous year's proxy statement, then notice must be received within a reasonable time before we begin to print and send proxy materials. If that happens, we will publicly announce the deadline for submitting a proposal in a press release or in a document filed with the SEC.

How can I find out the results of the voting at the Annual Meeting?

We plan to announce preliminary voting results at the Annual Meeting. Final voting results will be published in a Current Report on Form8-K, or Form 8-K, that we expect to file with the SEC within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the Annual Meeting, we intend to file a Form8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

OVERVIEW OF PROPOSALS

This Proxy Statement contains six proposals requiring stockholder action. Proposal No. 1 requests the election of two Class III directors to our board of directors. Proposal No. 2 requests the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025. Proposal No. 3 requests approval of an amendment to our certificate of incorporation to increase the number of authorized shares. Proposal No. 4 requests approval, on a non-binding, advisory basis, of the compensation of our named executive officers. Proposal No. 5 requests approval, on a non-binding, advisory basis, of future advisory votes on compensation of our named executive officers. Proposal No. 6 requests approval to adjourn the Annual Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event there are insufficient votes for, or otherwise in connection with, the Charter Amendment Proposal. Each of the proposals is discussed in more detail in the pages that follow.

PROPOSAL NO. 1 - ELECTION OF CLASS III DIRECTORS

Our board of directors currently consists of six members. In accordance with the terms of our certificate of incorporation and bylaws, our board of directors is divided into three classes, class I, class II and class III, with members of each class serving staggered three-year terms. The members of the classes are divided as follows:

- the class I directors are Scott Brun, M.D. and Shawn Tomasello, MBA, and their term will expire at the annual meeting of stockholders to be held in 2026;
- the class II directors are Catherine Bollard, MBChB, M.D., and Richard Henriques, MBA, and their terms will expire at the annual meeting
 of stockholders to be held in 2027; and
- the class III directors are Steven Nichtberger, M.D., and Mark Simon, MBA, and their terms will expire at the Annual Meeting.

Upon the expiration of the term of a class of directors, directors in that class will be eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires.

Our certificate of incorporation and bylaws provide that the authorized number of directors may be changed only by resolution of our board of directors. Our certificate of incorporation also provides that our directors may be removed only for cause by the affirmative vote of the holders of at least seventy-five percent (75%) or more of the outstanding shares then entitled to vote in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

Our board of directors has nominated Steven Nichtberger, M.D., and Mark Simon, MBA, for election as the class III directors at the Annual Meeting. The nominees are presently directors, and they have indicated a willingness to continue to serve as directors, if elected. If a nominee becomes unable or unwilling to serve, however, the properly submitted proxies may be voted for a substitute nominee selected by our board of directors.

Our nominating and corporate governance committee Policies and Procedures for Director Candidates (the "Director Guidelines"), provide that the value of diversity should be considered in determining director candidates as well as other factors such as a candidate's character, judgment, skills, education, expertise and absence of conflicts of interest. Our priority in selection of board members is identification of members who will further the interests of our stockholders through their established records of professional accomplishment, their ability to contribute positively to the collaborative culture among board members, and their knowledge of our business and understanding of the competitive landscape in which we operate and adherence to high ethical standards. The nominating and corporate governance committee and the full board of directors are committed to creating a board of directors with diversity, including diversity of expertise, experience, background and gender, and are committed to identifying, recruiting and advancing candidates offering such diversity in future searches.

In addition to the information presented below regarding each of the nominees and continuing directors' specific experience, qualifications, attributes and skills that our board of directors and our nominating and corporate governance committee considered in determining that they should serve as a director, we also believe that each of our directors has demonstrated business acumen, integrity and an ability to exercise sound judgment, as well as a commitment of service to Cabaletta Bio and our board of directors.

Nominees for Election as Class III Directors

The following table identifies our director nominees, and sets forth their principal occupation and business experience during the last five years and age as of April 28, 2025.



Positions and		
Offices Held	Director	
with Cabaletta	Since	Age
Chief Executive Officer,		
President, Chairman of the		
Board of Directors and		
Director	2017	63
Director	2018	63
	Offices Held with Cabaletta Chief Executive Officer, President, Chairman of the Board of Directors and Director	Offices Held with CabalettaDirector SinceChief Executive Officer, President, Chairman of the Board of Directors and Director2017

Class III Directors (Term Expires at Annual Meeting)

Steven Nichtberger, M.D. Dr. Nichtberger has served as our Chief Executive Officer, President and Chairman of our board of directors since our founding in 2017. He is also a Professor of Professional Practice in the Vagelos LSM program and adjunct professor at The Wharton School of the University of Pennsylvania in addition to being a member of the board of directors of the BioAdvance Greenhouse Fund. Previously, Dr. Nichtberger served as president, chief executive officer, and a member of the board of directors of Tengion, Inc. from 2004 to 2011. In 2008, his leadership was recognized nationally with the National Ernst & Young Entrepreneur of the Year Award for emerging companies. Earlier in his career, Dr. Nichtberger served as the head of global marketing for Merck and in various commercial operating roles at the company from 1995 to 2003. He has previously served as a member of the board of directors of the Bioard of overseers for the School of Arts & Sciences at the University of Pennsylvania. Dr. Nichtberger received his M.D. from the State University of New York at Buffalo, his B.S. from The Wharton School at the University of Pennsylvania and his B.A. from the University of Pennsylvania. He completed internship, residency and fellowship in the Department of Medicine and the Division of Cardiology of the Mount Sinai Medical Center in New York. We believe Dr. Nichtberger is qualified to serve as a member and Chairman of our board of directors because of his scientific and medical background as well as his corporate leadership experience.

Mark Simon, MBA. Mr. Simon joined our board of directors in October 2018. He is a Strategic Advisor since 2020 to the Founder and CEO of Sun Pharmaceutical Industries Ltd., which is the largest pharmaceutical company in India, and a board observer of Sun Pharma Advanced Research Company Ltd., both public companies in India, where Mr. Simon is focused on accelerating their innovation initiatives. He is also a consultant to Stifel Nicolaus & Company (NYSE: SF) and co-founder of Torreya Partners, LLC, a global investment banking firm serving companies in the life sciences industry that Stifel acquired in 2023. Prior to co-founding Torreya, Mr. Simon was a managing director and head of life sciences investment banking at Citigroup from 2002 to 2005 where he covered global pharmaceutical companies with a focus on large-capitalization players in the U.S., Europe and Japan. Prior to Citigroup, Mr. Simon served as a Managing Director at Robertson Stephens in San Francisco and New York where he was responsible for covering the biotechnology investment banking sector. During his tenure overseeing the group, he was involved in raising 45% of all biotechnology dollars raised in the U.S. from 1999-2001. Prior to joining the investment banking group, Mr. Simon was a senior biotechnology research analyst at Robertson Stephens, and was named a Wall Street All-Star Analyst for three years in a row. He began his career at Kidder Peabody as a biotechnology research associate in 1984 and participated in the IPO of Genzyme and the early financings of companies such as Amgen. Mr. Simon currently serves on the board of directors of Portage Biotech Inc. (Nasdaq: PRTG) until April 2024. Mr. Simon received his MBA from Harvard Business School and his B.A. from Columbia College. We believe that Mr. Simon is qualified to serve on our board of directors because of his extensive experience of over 35 years in the life sciences industry and biotechnology and specialty pharmaceutical transactions.

Vote Required and Board of Directors' Recommendation

If your shares are held in "street name" by a broker, bank or other nominee, your broker, bank or other nominee does not have authority to vote your unvoted shares held by the firm for the election of the directors. As a result, any shares not voted by you will be treated as a broker non-vote.

To be elected, the directors nominated via this Proposal must receive a plurality of the votes properly cast on the election of directors. Shares voting "withheld" and broker non-votes will have no effect on the election of directors. Shareholders do not have cumulative voting rights.

Properly submitted proxies will be voted in favor of the above nominees unless a contrary specification is made in the proxy. The nominees have consented to serve as our directors if elected. However, if a nominee is unable to serve or for good cause will not serve as a director, the proxies will be voted for the election of such substitute nominee as our board of directors may designate.

The board of directors recommends voting "FOR" the election of Steven Nichtberger, M.D. and Mark Simon, MBA, as the class III directors, to serve for a three-year term ending at the annual meeting of stockholders to be held in 2028.

Directors Continuing in Office

The following table identifies our directors, and sets forth their principal occupation and business experience during the last five years and their ages as of April 28, 2025.

N			Director	Class and Year in Which Term Will	
Name		Positions and Offices Held with Cabaletta	Since	Expire	Age
Scott Brun, M.D.	Director		2021	Class I-2026	57
Shawn Tomasello, MBA	Director		2023	Class I-2026	66
Catherine Bollard, MBChB, M.D.	Director		2019	Class II-2027	57
Richard Henriques, MBA	Director		2019	Class II-2027	69

Class I Directors (Term Expires at 2026 Annual Meeting)

Scott Brun, M.D. Dr. Brun joined our board of directors in June 2021. Dr. Brun is currently President at Gold Mast Consulting, LLC, an advisory firm he founded in 2019 to provide technical advice and strategic guidance related to biopharmaceutical research and development, pipeline portfolio management, commercialization of new therapeutics and strategic communications related to R&D activities. Dr. Brun serves as a Venture Partner at Abingworth LLP and a Senior Medical Advisor to Launch Therapeutics. Prior to his current roles, Dr. Brun had two decades of experience in various leadership roles at AbbVie, Inc., including 15 years at the predecessor company, Abbott Laboratories. The majority of his career has been focused on leading teams and clinical development organizations across a broad variety of therapeutic areas including autoimmune, neurologic, and renal among others. He was most recently Corporate Vice President of Scientific Affairs and Head of AbbVie Ventures, a corporate venture fund responsible for investment opportunities within AbbVie's R&D therapeutical Development at AbbVie from 2013 to 2016. During his tenure at AbbVie, Dr. Brun served as Corporate Vice President and Head of Pharmaceutical bevelopment at AbbVie from 2013 to 2016. During his tenure at AbbVie, Dr. Brun oversaw a global organization with responsibilities for AbbVie's entire portfolio of early and late-stage clinical pre-registration pipeline compounds as well as marketed compounds within oncology, neurology, immunology, renal, infectious disease, and women's and men's health therapeutic areas. Prior to joining AbbVie, Dr. Brun spent over 15 years at Abbott Laboratories, where he held positions of increasing leadership responsibility in drug development within the R&D organization. Dr. Brun is a member of the boards of directors of Axial Biotherapeutics, Inc. and Trishula Therapeutics, Inc., both private, clinical-stage

biopharmaceutical companies, Jasper Therapeutics, Inc. (Nasdaq: JSPR) a biotechnology company focused on targeting mast cells and stem cells to treat chronic diseases and Forte Biosciences, Inc. (Nasdaq: FBRX) a preclinical-stage company focused on autoimmune diseases. Previously, Dr. Brun served as a Senior Advisor to the business development team at Horizon Therapeutics plc (Nasdaq: HZNP) from 2020 to 2023. Dr. Brun received his B.S. in Biochemistry from the University of Illinois at Urbana-Champaign and earned his M.D. from the Johns Hopkins University School of Medicine. He completed his residency in ophthalmology at the Massachusetts Eye and Ear Infirmary, Harvard Medical School. We believe Dr. Brun is qualified to serve as a member of our board of directors because of his scientific background and significant experience in clinical and research efforts.

Shawn Tomasello, MBA, Ms. Tomasello joined our Board of Directors in July 2023, Ms. Tomasello previously served as Chief Executive Officer at CoRegen, Inc., a private company, from January 2025 until April 2025. Prior to that role, Ms. Tomasello served as the Chief Commercial Officer of Kite Pharma, where she oversaw the global commercialization of Yescarta, from 2015 to 2018 including through its acquisition by Gilead for \$11.9 billion in October 2017. She was previously Chief Commercial Officer at Pharmacyclics, where she led commercial and medical affairs activities for Imbruvica®, a first-in-class treatment for hematologic malignancies, from August 2014 until its acquisition by AbbVie for \$21.0 billion in August 2015. Prior to Pharmacyclics, Ms. Tomasello served in leading commercial roles with multiple major pharmaceutical companies, including Celgene as President of the Americas Hematology and Oncology, where she led the company through five successful product launches encompassing 11 indications and played a critical role in acquisitions. At Genentech for 14 years prior, Ms. Tomasello was the National Director of Hematology for Rituxan. She currently serves on the board of directors of 4D Molecular Therapeutics Inc. (Nasdaq: FDMT) since November 2020 and Centrexion Therapeutics Corp., a private, clinicalstage biopharmaceutical company, since 2017. She previously served as a board member of AlloVir, Inc. until March 2025, TCR2 Therapeutics Inc. (Nasdaq: TCRR) until June 2023, Urogen Pharma Ltd (Nasdaq: URGN) until 2022, Mesoblast, Ltd. (Nasdaq: MESO) until August 2022, Clementia Pharmaceuticals, Diplomat Pharmacy, Inc. until 2020, Abeona Therapeutics (Nasdaq: ABEO) until 2020, Principia Biopharma until 2020, and Gamida Cell Ltd. (Nasdaq: GMDA) until 2024, as well as several private boards. On such boards, she at various times has served and serves on the Compensation, Nominating and Corporate Governance, Compliance, and Transaction committees. Ms. Tomasello received her B.S. in Marketing from the University of Cincinnati and her M.B.A. from Murray State University in Kentucky. We believe Ms. Tomasello is qualified to serve as a member of our Board of Directors because of her experience serving in various commercial roles in the life sciences industry.

Class II Directors (Term Expires at 2027 Annual Meeting)

Catherine Bollard, MBChB, M.D. Dr. Bollard joined our board of directors in April 2019. She currently serves as Senior Vice President and Chief Research Officer and Director of the Center for Cancer and Immunology Research at the Children's National Research Institute (CNRI). She is also a faculty member of the Division of the Blood and Marrow Transplantation at CNH. Since 2013, Dr. Bollard has served as a tenured Professor of Pediatrics and Microbiology, Immunology and Tropical Medicine at the George Washington University and is the Associate Center Director (ACD) for Translational Research and Innovation within the George Washington Cancer Center. Prior to her move in 2013, Dr. Bollard was Professor of Pediatrics, Medicine and Immunology at Baylor College of Medicine. She is a past president of the International Society for Cell Therapy (ISCT), and she served on the Cellular, Tissues and Gene Therapy Advisory Committee of the FDA until 2019. Dr. Bollard chaired the Non-Hodgkin's Lymphoma Committee of the Children's Oncology Group from 2012 to 2020 and in 2021 became the President of the Foundation for the Accreditation of Cellular Therapy (FACT). Dr. Bollard was the scientific co-founder of Catamaran Bio, a company developing novel, off-the-shelf chimeric antigen receptor (CAR)-NK cell therapises designed to treat a broad range of cancers and served on its Scientific Advisory Board until 2024. Dr. Bollard was proviously on the board of directors and subsequently the Scientific Advisory Board of Mana Therapeutics. She currently serves on the SAB of Minovia Tx Ltd and serves as Chair of the DSMB for SOBI. Bollard elseves on the board of directors for Alliance for Regenerative Medicine and a nonprofit organization she co-founded called Access4Kids. Dr. Bollard received her medical degree (MBChB) and her

doctor of medicine (MD) from the University of Otago Medical School in New Zealand. We believe Dr. Bollard is qualified to serve as a member of our board of directors because of her scientific background and significant experience in clinical and translational research efforts.

Richard Henriques, MBA. Mr. Henriques joined our board of directors in February 2019. Since 2015, he has been a senior fellow at the Center for High Impact Philanthropy at the University of Pennsylvania, with a focus on impact investing. From 2010 to 2014, Mr. Henriques was the Chief Financial Officer of the Bill & Melinda Gates Foundation, where he was responsible for finance and accounting, financial planning and analysis, strategic planning, measurement and evaluation, program related investments and information technology. From 1981 to 2008, Mr. Henriques held positions at Merck & Co., Inc., including as Senior Vice President of Finance for Global Human Health, Vice President and Corporate Controller, and Principal Accounting Officer. Mr. Henriques serves on the boards of directors or trustees of the Bucks County Playhouse, International Vaccine Institute, Heritage Conservancy, Delaware Canal 21, Fisherman's Mark and The Franklin Institute. Mr. Henriques served on the board of directors of Arbutus Biopharma Corporation (Nasdaq: ABUS) from December 2014 to February 2025. Mr. Henriques received his MBA from the Wharton School of the University of Pennsylvania and a BA from the University of Pennsylvania. We believe that Mr. Henriques is qualified to serve as a member of our board of directors because of his extensive corporate leadership experience and expertise in finance and investment management.

There are no family relationships between or among any of our directors or executive officers. Our executive officers are appointed by, and serve at the discretion of, our board of directors. The principal occupation and employment during the past five years of each of our directors was carried on, in each case except as specifically identified above, with a corporation or organization that is not a parent, subsidiary or other affiliate of us. There is no arrangement or understanding between any of our directors and any other person or persons pursuant to which he or she is to be selected as a director.

There are no material legal proceedings to which any of our directors, officers or affiliates, any owner of record or beneficially of more than five percent of any class of our voting securities, or any associate of any such director, officer, affiliate, or security holder is a party adverse to us or any of our subsidiaries or in which any such person has a material interest adverse to us or our subsidiaries.

PROPOSAL NO. 2 – RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG AS CABALETTA'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2025

Cabaletta's stockholders are being asked to ratify the appointment by the audit committee of the board of directors of Ernst & Young as Cabaletta's independent registered public accounting firm for the fiscal year ending December 31, 2025. Ernst & Young has served as Cabaletta's independent registered public accounting firm since 2018.

The audit committee is solely responsible for selecting Cabaletta's independent registered public accounting firm for the fiscal year ending December 31, 2025. Stockholder approval is not required to appoint Ernst & Young as Cabaletta's independent registered public accounting firm. However, the board of directors believes that submitting the appointment of Ernst & Young to the stockholders for ratification is good corporate governance. If the stockholders do not ratify this appointment, the audit committee will reconsider whether to retain Ernst & Young. If the selection of Ernst & Young is ratified, the audit committee, at its discretion, may direct the appointment of a different independent registered public accounting firm at any time it decides that such a change would be in the best interest of Cabaletta and its stockholders.

A representative of Ernst & Young is expected to be present at the Annual Meeting and will have an opportunity to make a statement if he or she desires to do so and to respond to appropriate questions from our stockholders.

Cabaletta incurred the following fees from Ernst & Young for the audit of the financial statements and for other services provided during the years ended December 31, 2024 and 2023.

	2024	2023
Audit fees(1)	\$ 646,500	\$ 830,000
Audit-Related fees(2)	—	
Tax fees(3)	66,950	65,000
All other fees(4)		
Total fees	\$ 713,450	\$ 895,000

- (1) Audit fees consist of fees for the audit of our annual financial statements, the review of our interim financial statements included in our quarterly reports on Form 10-Q, comfort letters and consents.
- (2) Audit-related fees consist of services that are reasonably related to the performance of the audit or review of our financial statements. There were no such fees incurred in 2024 or 2023.
- (3) Tax Fees consist of fees for tax compliance, advice and tax services.
- (4) There were no other fees incurred in 2024 or 2023.

Audit Committee Pre-approval Policy and Procedures

Our audit committee has adopted policies and procedures relating to the approval of all audit andnon-audit services that are to be performed by our independent registered public accounting firm. This policy provides that we will not engage our independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by our audit committee or the engagement is entered into pursuant to the pre-approval procedure described below.

From time to time, our audit committee maypre-approve specified types of services that are expected to be provided to us by our independent registered public accounting firm during the next 12 months. Any such pre-approval details the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

During our 2024 and 2023 fiscal years, no services were provided to us by Ernst & Young other than in accordance with there-approval policies and procedures described above.

Vote Required; Board Recommendation

The affirmative vote of a majority of votes properly cast for and against this Proposal is required to ratify the appointment of Ernst & Young as our independent registered public accounting firm for the fiscal year ending December 31, 2025. Abstentions and broker non-votes, if any, will have no effect on the outcome of the vote.

The Board of Directors recommends voting "FOR" Proposal No. 2 to ratify the appointment of Ernst & Young as Cabaletta's independent registered public accounting firm for the fiscal year ending December 31, 2025.

PROPOSAL NO. 3 – APPROVAL OF AN AMENDMENT TO OUR THIRD AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO INCREASE AUTHORIZED SHARES OF COMMON STOCK FROM 150,000,000 TO 300,000,000

On April 25, 2025, our board of directors declared it advisable and approved and adopted an amendment, subject to approval and adoption by our stockholders, to our Third Amended and Restated Certificate of Incorporation to increase the authorized number of shares of common stock from 150,000,000 to 300,000,000 (the "Authorized Shares Charter Amendment"). Our board of directors is requesting stockholder approval of the Authorized Shares Charter Amendment.

Form of the Amendment

If the stockholders approve this proposal, our Third Amended and Restated Certificate of Incorporation will be amended to increase the number of shares of common stock the Company is authorized to issue from 150,000,000 shares to 300,000,000 shares. The par value of the common stock will remain at \$0.00001 per share. There will be no change to the number of authorized shares of undesignated preferred stock or the non-voting common stock. The Certificate of Amendment would amend the first paragraph of ARTICLE IV of the Third Amended and Restated Certificate of Incorporation in its entirety to read as follows:

"The total number of shares of capital stock which the Corporation shall have authority to issue is three hundred and ten million (310,000,000), of which (i) two hundred and ninety three million five hundred and ninety thousand four hundred and eighty-one (293,590,481) shares shall be a class designated as voting common stock, par value \$0.00001 per share (the "Voting Common Stock"), (ii) six million four hundred and nine thousand five hundred and nineteen (6,409,519) shares shall be a class designated as non-voting common stock, par value \$0.00001 per share (the "Non-Voting Common Stock") and (iii) ten million (10,000,000) shares shall be a class designated as undesignated preferred stock, par value \$0.00001 per share (the "Undesignated Preferred Stock"). Any reference to "Common Stock" issued by the Corporation in any contract, agreement or otherwise to which the Corporation is a party, whether before or after the date of filing of this Certificate, shall refer to Voting Common Stock, unless specific reference is made to the Non-Voting Common Stock."

The remaining text of ARTICLE IV of our Third Amended and Restated Certificate of Incorporation will remain unchanged.

Purpose for the Increase in Authorized Shares

As of April 28, 2025, we were authorized to issue up to 150,000,000 shares of our common stock, of which 50,743,101 were issued and outstanding. An additional 14,954,436 shares of our common stock were reserved for issuance under our equity incentive plans, including shares of common stock issuable upon the exercise of outstanding stock options and shares of common stock reserved for future issuance under our 2019 Plan and our 2019 Employee Stock Purchase Plan. Accordingly, notwithstanding additional shares we may issue pursuant to our sales agreement with Cowen and Company, LLC (the "Sales Agreement") after adjusting for shares reserved for issuance under our equity incentive plans, the Company has only 84,302,463 shares of common stock available for future issuance out of the 150,000,000 shares of common stock currently authorized as of April 28, 2025.

In the Company's Form 10-K, filed on March 31, 2025, the Company noted that we have identified conditions that raise substantial doubt about our ability to continue as a going concern, and that if we are unable to secure additional funding beyond our current cash position that enables our operations into the first half of 2026, we may be forced to delay, reduce or discontinue our product development programs efforts or other operations. As such, we anticipate that we will need to raise additional capital to fund our operations while we implement and execute our business plan. Given the number of shares available for issuance as of the record date, our Board of Directors does not believe the currently available number of unissued shares of common stock is an adequate

number of shares to assure that there will be sufficient shares available for issuance in connection with possible equity and equity-based financings, possible future awards under equity compensation plans, and other corporate purposes. Therefore, our Board has approved the above-described increase in our authorized shares of common stock as a means of providing us with the flexibility to act with respect to the issuance of common stock or securities exercisable for, or convertible into, common stock in circumstances which they believe will advance our interests and the interests of our stockholders. The failure to approve this proposal will prevent us from continuing to pursue effective strategies to access capital in the public and private markets, and could negatively affect our ability to continue as a going concern. Other corporate purposes for which the additional authorized shares could be used include, but are not limited to, potential strategic transactions, including mergers, acquisitions, and other business combinations; future grants and awards under equity compensation plans; stock splits and stock dividends; and other general corporate working capital needs. The additional shares may be used for various purposes without further stockholder approval, except as may be required in certain cases by law or the Nasdaq rules. The discretion of our board of directors, however, would be subject to any other applicable rules and regulations in the case of any particular issuance or reservation for issuance that might require stockholders to approve such transaction.

The additional common stock to be authorized by adoption of the Authorized Shares Charter Amendment would have rights identical to our currently outstanding common stock. Adoption of the Authorized Shares Charter Amendment and issuance of additional common stock would not affect the rights of the holders of our currently outstanding common stock, except for effects incidental to increasing the number of shares of common stock outstanding, such as dilution of the voting rights of current holders of common stock. If the Authorized Shares Charter Amendment is adopted, it will become effective upon filing of a Certificate of Amendment of our Third Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware, which we currently plan to file promptly following the Annual Meeting if this proposal is approved. Other than the increase of authorized shares of Common Stock as described in this Proposal, the remainder of our Third Amended and Restated Certificate of Incorporation will remain unchanged after effectiveness of the Certificate of Amendment. If the proposed Authorized Shares Charter Amendment is not approved by our stockholders, then our Third Amended and Restated Certificate of Incorporation will remain unchanged.

Rights of Additional Authorized Shares

The additional authorized shares of common stock, if and when issued, would be part of our existing class of common stock and would have the same rights and privileges as the shares of common stock currently outstanding. The Company's stockholders do not have preemptive rights with respect to the common stock. Accordingly, should our board of directors elect to issue additional shares of common stock, existing stockholders would not have any preferential rights to purchase the shares.

Potential Adverse Effects of the Amendment

Future issuances of common stock or securities convertible into common stock could have a dilutive effect on the earnings per share, book value per share, voting power and percentage interest of holdings of current stockholders. In addition, the availability of additional shares of common stock for issuance could, under certain circumstances, discourage or make more difficult efforts to obtain control of the Company. Our board of directors is not aware of any attempt, or contemplated attempt, to acquire control of the Company. This proposal is not being presented with the intent that it be used to prevent or discourage any acquisition attempt, but nothing would prevent our board of directors from taking any appropriate actions not inconsistent with its fiduciary duties.

Effectiveness of the Amendment

The above description of the Authorized Shares Charter Amendment is only a summary and is qualified in its entirety by reference to the complete text of the Authorized Shares Charter Amendment, which is attached to this



Proxy Statement as <u>Annex A</u>. If the proposed Authorized Shares Charter Amendment is adopted, it will become effective upon the filing of the Authorized Shares Charter Amendment with the Secretary of State of the State of Delaware.

Vote Required and Board of Directors' Recommendation

To approve this Proposal, a majority of the outstanding shares of capital stock entitled to vote on such proposal must vote "FOR" the proposal. Abstentions and broker non-votes, if any, will have the same effect as a vote "AGAINST" this proposal.

The Board of Directors recommends voting "FOR" the approval of an amendment to our Third Amended and Restated Certificate of Incorporation to increase the number of authorized shares of Common Stock from 150,000,000 to 300,000,000.

PROPOSAL NO. 4 - NON-BINDING, ADVISORY VOTE ON THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

In prior years, we were an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended; therefore, we were not required to hold a non-binding advisory vote on the compensation of our named executive officers, commonly known as a "Say-on-Pay" vote. Under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), and Section 14A of the Exchange Act, our stockholders are entitled to vote to approve, on a non-binding, advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with SEC rules. Although this is a non-binding, advisory vote, because we value the opinion of our stockholders, our board of directors and our compensation committee will consider the outcome of the "Say-on-Pay" vote described in this Proposal No. 4 and the related "Say-on-Frequency" vote described in Proposal No. 5 of this proxy statement at the Annual Meeting, as well as feedback received throughout the year, when making compensation determinations for our executive officers in the future.

This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described in this proxy statement. The compensation of our named executive officers subject to the vote is disclosed under the "Executive Compensation" section, the 2024 Summary Compensation Table, and the related narrative disclosure that accompanies the compensation tables contained in this proxy statement. As discussed in those disclosures, we believe that our compensation policies and decisions are strongly aligned with our stockholders' interests and are consistent with current market practices. Compensation of our named executive officers is designed to enable us to attract and retain talented and experienced executives to lead us successfully in a competitive environment. Accordingly, we are asking our stockholders to vote for the following resolution:

RESOLVED, that the Company's stockholders hereby approve, on anon-binding, advisory basis, the compensation of the Company's named executive officers, as disclosed in the proxy statement for the 2025 Annual Meeting of Stockholders, the "Executive Compensation", the 2024 Summary Compensation Table and narrative discussion that accompanies the compensation tables.

This vote is advisory, and therefore not binding on us, the board of directors, or our compensation committee. However, our board of directors and compensation committee value your opinion and intend to consider the outcome of the vote when making compensation decisions in the future.

Vote Required and Board of Directors' Recommendation

A majority of the votes properly cast FOR this proposal is required to approve, on anon-binding, advisory basis, the compensation of our named executive officers. Abstentions and broker non-votes will have no effect on the outcome of the vote.

The Board of Directors recommends voting "FOR" Proposal No. 4 to approve, on a non-binding, advisory basis, the compensation of our named executive officers.

PROPOSAL NO. 5 – NON-BINDING, ADVISORY VOTE ON THE PREFERRED FREQUENCY OF FUTURE ADVISORY VOTES ON COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

The Dodd-Frank Act and Section 14A of the Exchange Act also provide that stockholders must be given the opportunity to vote, on anon-binding, advisory basis, for their preference as to how frequently we should hold future Say-on-Pay votes. This is commonly known as a "Say-on-Frequency" proposal. We are asking our stockholders whether our future Say-on-Pay votes should occur every one, two, or three years. Stockholders may also abstain from voting.

The vote on this proposal is advisory; therefore, it is not binding on the Company, our board of directors or our compensation committee. We may determine in the future that it is in the best interests of the Company and our stockholders to hold Say-on-Pay votes more or less frequently than the frequency indicated by stockholders in voting on this proposal or as currently recommended by our board of directors. However, we plan to consider the results of the vote on this proposal in determining the frequency of our Say-on-Pay votes because we value the opinions of our stockholders.

Currently, we believe that it is in the best interests of the Company and our stockholders to hold aSay-on-Pay vote every year, and this is the frequency recommended by our board of directors. We believe this frequency will enable our stockholders to vote, on a non-binding, advisory basis, on our most recent executive compensation practices and decisions as presented in our annual proxy statements, which will lead to greater transparency and more meaningful and timely communication between the Company and our stockholders regarding the compensation of our named executive officers. Accordingly, we ask our stockholders to indicate their preferred voting frequency by voting for every "one year," "two years," or "three years" (or abstaining from voting) in response to the following resolution at the Annual Meeting:

RESOLVED, that the alternative of every one year, two years, or three years that receives the highest number of votes cast by stockholders in person or by proxy at this meeting will be deemed the preferred frequency with which the Company is to hold an advisory vote on the compensation of the Company's named executive officers.

Vote Required and Board of Directors' Recommendation

Stockholders will not be voting to approve or disapprove of the recommendation of our board of directors. The proxy card provides stockholders with the opportunity to choose among four options with respect to this proposal (holding the vote every one, two, or three years, or abstaining). The option that receives the highest number of votes properly cast will be deemed to be the frequency preferred by our stockholders. Assuming the presence of a quorum, abstentions and broker non-votes, if any, will have no effect on the outcome of the vote on this proposal. In the absence of a quorum, abstentions and broker non-votes, if any, will have the same effect as a vote "Against" this proposal.

The Board of Directors unanimously recommends a vote, on a non-binding, advisory basis, for "ONE YEAR" as the preferred frequency for the advisory vote on the compensation of our named executed officers.

PROPOSAL NO. 6 - THE ADJOURNMENT PROPOSAL

If the Annual Meeting is convened and a quorum is present, but the Company fails to receive a sufficient number of votes to approve the Charter Amendment Proposal, or if there are insufficient votes to constitute a quorum, the Company may propose to adjourn or postpone the Annual Meeting. The Company currently does not intend to propose an adjournment or postponement at the Annual Meeting if there are sufficient votes to approve the Charter Amendment Proposal.

In this proposal, we are asking our stockholders to authorize the holder of any proxy solicited by the Board to vote in favor of adjourning the Annual Meeting to another time and place, if necessary or appropriate (as determined in good faith by the Board), to solicit additional proxies in the event there are not sufficient votes to approve the Charter Amendment Proposal. If our stockholders approve this proposal, we could adjourn the Annual Meeting and any adjourned or postponed session of the Annual Meeting and use the additional time to solicit additional proxies, including the solicitation of proxies from our stockholders that have previously voted. Among other things, approval of this proposal could mean that, even if we had received proxies representing a sufficient number of votes to defeat the Charter Amendment Proposal, we could adjourn the Annual Meeting without a vote on such proposal and seek to convince our stockholders to change their votes in favor of such proposal.

If it is necessary or appropriate (as determined in good faith by the Board) to adjourn the Annual Meeting, no notice of the adjourned meeting is required to be given to our stockholders, other than an announcement at the Annual Meeting of the time and place to which the Annual Meeting is adjourned, so long as the meeting is adjourned for 30 days or less and no new record date is fixed for the adjourned meeting. At the adjourned meeting, we may transact any business which might have been transacted at the original meeting.

Vote Required and Board of Directors' Recommendation

The affirmative vote of a majority of votes properly cast for and against this Proposal is required for its approval. Abstentions and brokemon-votes, if any, will have no effect on the outcome of the vote.

The Board of Directors unanimously recommends voting "FOR" the approval of an adjournment of the Annual Meeting if necessary, to solicit additional proxies if there are insufficient votes at the time of the Annual Meeting to approve the Charter Amendment Proposal.

CORPORATE GOVERNANCE

Director Nomination Process

Our nominating and corporate governance committee is responsible for identifying individuals qualified to serve as directors, consistent with criteria approved by our board of directors, and recommending such persons to be nominated for election as directors, except where we are legally required by contract, law or otherwise to provide third parties with the right to nominate.

The process followed by our nominating and corporate governance committee to identify and evaluate director candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates, and interviews of selected candidates by management, recruiters, members of the committee and our board of directors. The qualifications, qualities and skills that our nominating and corporate governance committee believes must be met by a committee-recommended nominee for a position on our board of directors are as follows:

- Nominees should have relevant experience and expertise to enable him or her to be able to offer germane advice and guidance to
 management.
- Nominees should have an understanding of the fiduciary responsibilities that are required of a member of the board of directors and the
 commitment to devoting time and energy to our affairs.
- Nominees should have a commitment to vigorously represent the long-term interests of our stockholders.

Stockholders may recommend individuals to the nominating and corporate governance committee for consideration as potential director candidates. Any such proposals should be submitted to our corporate secretary at our principal executive offices no later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the one-year anniversary of the date of the preceding year's annual meeting and should include appropriate biographical and background material to allow the nominating and corporate governance committee to properly evaluate the potential director candidate and the number of shares of our stock beneficially owned by the stockholder proposing the candidate. Stockholder proposals should be addressed to Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, PA 19104, Attention: Corporate Secretary. Assuming that biographical and background material has been provided on a timely basis in accordance with our bylaws, any recommendations received from stockholders will be evaluated in the same manner as potential nominees proposed by the nominating and corporate governance committee. If our board of directors determines to nominate a stockholder-recommended candidate and recommends his or her election, then his or her name will be included on our proxy card for the next annual meeting of stockholders. See "Stockholder Proposals" for a discussion of submitting stockholder proposals.

Director Independence

Applicable Nasdaq rules require a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the Nasdaq rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act and that compensation committee members satisfy independence criteria set forth in Rule 10C-1 under the Exchange Act. Under applicable Nasdaq rules, a director will only qualify as an "independent director" if, in the opinion of the listed company's board of directors, that person does not have a relationship that would interfere with the exercise of independent governite of a listed company may not, other than in his or her capacity as a member of the audit committee, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the

listed company or any of its subsidiaries. In addition, in affirmatively determining the independence of any director who will serve on a company's compensation committee, Rule 10C-1 under the Exchange Act requires that a company's board of directors must consider all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including: the source of compensation to the director, including any consulting, advisory or other compensatory fee paid by such company to the director, and whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our board of directors has determined that all members of the board of directors, except Dr. Nichtberger are independent directors, including for purposes of the rules of Nasdaq and the SEC. In making such independence determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director. In considering the independence of the directors listed above, our board of directors considered the association of our directors with the holders of more than 5% of our common stock. There are no family relationships among any of our directors or executive officers. Dr. Nichtberger is not an independent director under these rules because he is an executive officer of the Company.

Board Diversity

We believe that diversity of our directors is an important element of an effective board of directors. The nominating and corporate governance committee's evaluation of director nominees includes consideration of their ability to contribute to the diversity of personal and professional experiences, opinions, perspectives and backgrounds on the board of directors. Nominees are not discriminated against based on race, color, religion, sex, ancestry, national origin, sexual orientation, disability or any other basis prescribed by law. An assessment of the composition and diversity of the board of directors is part of the annual board of directors' self-evaluation.

Board Committees

Our board of directors has established an audit committee, a compensation committee, and a nominating and corporate governance committee. Each of the audit committee, compensation committee, and nominating and corporate governance committee operates under a charter that satisfies the applicable standards of the SEC and Nasdaq. Our board of directors has also established a science and technology committee, an advisory committee of the board of directors which operates under a charter duly adopted by the board of directors. Each such committee reviews its respective charter at least annually. A current copy of the charter for each of the audit committee, compensation committee, nominating and corporate governance and technology committee is posted on the corporate governance section of our website, *www.cabalettabio.com/investors/corporate_governance/governan*

Audit Committee

Scott Brun, M.D., Richard Henriques, MBA and Mark Simon, MBA serve on the audit committee, which is chaired by Richard Henriques, MBA. Our board of directors has determined that each member of the audit committee is "independent" for audit committee purposes as that term is defined in the rules of the SEC and the applicable Nasdaq rules, and each has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has designated Mr. Henriques as an "audit committee financial expert," as defined under the applicable rules of the SEC. During the fiscal year ended December 31, 2024, the audit committee met six times. The report of the audit committee is included in this proxy statement under "Report of the Audit Committee." The audit committee's responsibilities include:

appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;

- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending based upon the audit committee's review and discussions with management and our independent registered public accounting firm whether our audited financial statements and our related disclosures under the "Management's Discussion and Analysis" section shall be included in our 2024 Annual Report;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions;
- · reviewing quarterly earnings releases; and
- discussing the Company's risk assessment and management guidelines, including the Company's major financial risk exposures, cybersecurity risks and the steps that the Company's management has taken to monitor and control such exposures and risks.

All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Our audit committee operates under a written charter that satisfies the applicable Nasdaq listing rules and is available at *www.cabalettabio.com/investors/corporate-governance/governance-documents*.

Compensation Committee

Richard Henriques, MBA, Mark Simon, MBA and Shawn Tomasello, MBA serve on the compensation committee, which is chaired by Mark Simon, MBA. Our board of directors has determined that each member of the compensation committee is "independent" as defined in the applicable Nasdaq rules. During the fiscal year ended December 31, 2024, the compensation committee met four times. The compensation committee's responsibilities include:

- annually reviewing and recommending to the board of directors corporate goals and objectives relevant to the compensation of our chief executive officer;
- evaluating the performance of our chief executive officer in light of such corporate goals and objectives and based on such evaluation

 (i) recommending to the board of directors the cash compensation of our chief executive officer and (ii) reviewing and approving grants and
 awards to our chief executive officer under equity-based plans;
- reviewing and approving the compensation of our other executive officers;

- reviewing and establishing our overall management compensation, philosophy, and policy;
- overseeing and administering our compensation and similar plans;
- evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the applicable Nasdaq rules;
- reviewing and making recommendations to our board of directors about our policies and procedures for the grant of equity-based awards;
- · preparing the compensation committee report required by SEC rules, if and when required, to be included in our annual proxy statement;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis," if and when required, to be included in our annual proxy statement; and
- reviewing and approving the retention or termination of any consulting firm or outside advisor to assist in the evaluation of compensation matters.

The compensation committee may establish and delegate authority to one or more subcommittees consisting of one or more of its members to carry out its responsibilities. For example, to the extent permitted by applicable law and the provisions of a given equity-based plan, the compensation committee may delegate to a committee consisting of one or more of our executive officers, including the Chief Executive Officer, all or part of the authority and duties, with respect to granting stock awards, to any individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not members of the delegated committee, such power to be subject to the parameters and limitations set forth in the applicable resolutions adopted by the compensation committee. Additionally, to the extent permitted by applicable law and the provisions of any employee benefit plan, the compensation committee may delegate any of its duties, responsibilities or authority in connection with any employee benefit plan to members of management as the compensation committee deems appropriate.

Radford, an AonHewitt Company, or Radford, has served as the compensation committee's independent compensation consultant since 2019. Radford reports directly to the compensation committee, and the compensation committee has the sole authority to hire, terminate and direct the work of Radford. Radford provides various executive compensation services to the compensation committee, including an analysis of executive compensation as relates to base salary, target annual cash incentives and long-term equity incentives for executive officers and advice on evolving industry practices and market information. As part of its engagement, Radford assists our compensation committee in developing an appropriate group of peer companies to help us determine the appropriate level of overall compensation for our executive officers, as well as assess each separate element of compensation, with a goal of ensuring that the compensation of non-employee directors. The compensation committee has assessed the independence of Radford pursuant to SEC and Nasdaq rules and concluded that the work of Radford for the compensation committee does not raise any conflict of interest.

Our compensation committee operates under a written charter that satisfies the applicable Nasdaq listing rules and is available at *www.cabalettabio.com/investors/corporate-governance/governance-documents*.

Nominating and Corporate Governance Committee

Catherine Bollard, MBChB, M.D., Scott Brun, M.D., and Mark Simon, MBA, serve on the nominating and corporate governance committee, which is chaired by Scott Brun, M.D. Our board of directors has determined that each member of the nominating and corporate governance committee is "independent" as defined in the applicable Nasdaq rules. During the fiscal year ended December 31, 2024, the nominating and corporate

governance committee met two times. The nominating and corporate governance committee's responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- reviewing the composition of the board of directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- identifying individuals qualified to become members of the board of directors;
- · recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- · reviewing and discussing with the board of directors corporate succession plans for our chief executive officer and other key officers;
- developing and recommending to the board of directors a code of business conduct and ethics and a set of corporate governance guidelines; and
- overseeing the evaluation of our board of directors.

The nominating and corporate governance committee considers candidates for board of directors membership suggested by its members and the chief executive officer. Additionally, in selecting nominees for directors, the nominating and corporate governance committee will review candidates recommended by stockholders in the same manner and using the same general criteria as candidates recruited by the committee and/or recommended by our board of directors. Any stockholder who wishes to recommend a candidate for consideration by the committee as a nominee for director should follow the procedures described later in this proxy statement under the heading "Stockholder Proposals." The nominating and corporate governance committee will also consider whether to nominate any person proposed by a stockholder in accordance with the provisions of our bylaws relating to stockholder nominations as described later in this proxy statement under the heading "Stockholder Proposals."

Identifying and Evaluating Director Nominees. Our board of directors is responsible for filling vacancies on our board of directors and for nominating candidates for election by our stockholders each year in the class of directors whose term expires at the relevant annual meeting. The board of directors delegates the selection and nomination process to the nominating and corporate governance committee, with the expectation that other members of the board of directors, and of management, will be requested to take part in the process as appropriate.

Generally, the nominating and corporate governance committee identifies candidates for director nominees in consultation with management, through the recommendations submitted by stockholders or through such other methods as the nominating and corporate governance committee deems to be helpful to identify candidates. Once candidates have been identified, the nominating and corporate governance committee confirms that the candidates meet all of the minimum qualifications for director nominees established by the nominating and corporate governance committee. The nominating and corporate governance committee may gather information about the candidates through interviews, detailed questionnaires, comprehensive background checks or any other means that the nominating and corporate governance committee the nominating and corporate governance committee then meets as a group to discuss and evaluate the qualities and skills of each candidate, both on an individual basis and taking into account the overall composition and needs of our board of directors. Based on the results of the evaluation process, the nominating and corporate governance committee recommends candidates for the board of directors' approval to fill a vacancy or as director

nominees for election to the board of directors by our stockholders each year in the class of directors whose term expires at the relevant annual meeting.

Our nominating and corporate governance committee operates under a written charter that satisfies the applicable Nasdaq listing rules and is available at www.cabalettabio.com/investors/corporate-governance/governance-documents.

Science and Technology Committee

Catherine Bollard, MBChB, M.D., Scott Brun, M.D., and Shawn Tomasello, MBA, serve on the science and technology committee, which is chaired by Catherine Bollard, MBChB, M.D. The science and technology committee supports Board oversight of the Company's research and development, manufacturing and supply activities, by providing a forum for review of strategic considerations and issues in such areas, as well as to evaluate relevant emerging technology and advances in the field. The science and technology committee was formed in July 2023 and held four meetings during the fiscal year ended December 31, 2024.

Our science and technology committee operates under a written charter that satisfies the applicable Nasdaq listing rules and is available at *www.cabalettabio.com/investors/corporate-governance/governance-documents*.

Board and Committee Meetings Attendance

The full board of directors met nine times during 2024. During 2024, each member of the board of directors attended in person or participated in 90% or more of the aggregate of (i) the total number of meetings of the board of directors (held during the period for which such person has been a director) and (ii) the total number of meetings held by all committees of the board of directors on which such person served (during the periods that such person served).

Director Attendance at Annual Meeting of Stockholders

Directors are responsible for attending the annual meeting of stockholders to the extent practicable. Five out of six of our directors then in office attended our 2024 annual meeting of stockholders.

Policy on Trading, Pledging and Hedging of Company Stock

Certain transactions in our securities (such as purchases and sales of publicly traded put and call options, and short sales) create a heightened compliance risk or could create the appearance of misalignment between management and stockholders. In addition, securities held in a margin account or pledged as collateral may be sold without consent if the owner fails to meet a margin call or defaults on the loan, thus creating the risk that a sale may occur at a time when an officer or director is aware of material, non-public information or otherwise is not permitted to trade in Company securities. Our insider trading policy expressly prohibits short sales and derivative transactions of our stock by our executive officers, directors, employees and certain designated consultants and contractors, including short sales of our securities. Our insider trading policy expressly prohibits, without the advance approval of our audit committee, purchases or sales of puts, calls, or other derivative securities of the company or any derivative securities that provide the economic equivalent of ownership.

Compensation Recovery Policy (Clawback Policy)

On September 12, 2023, we adopted a Compensation Recovery Policy (the "Clawback Policy"), in compliance with the requirements of the Dodd-Frank Act, final SEC rules and applicable Nasdaq listing standards (the "final clawback rules"), which covers our current and former executive officers, including all of our named executive officers. Under the Clawback Policy, in the event that we are required to prepare a restatement of our previously issued financial statements due to our material noncompliance with any financial reporting requirement under securities laws, we are required to recover (subject to certain limited exceptions described in the Clawback Policy and permitted under the final clawback rules) any cash or equity incentive-based compensation received by any current or former executive officer after the effective date of the Clawback Policy and in the three years prior to the date we are required to restate our financial statements that is in excess of the amount that would have been received based on the restated financial statements.

Compensation Committee Interlocks and Insider Participation

Each of Richard Henriques, Mark Simon, and Shawn Tomasello, served on the compensation committee during fiscal year 2024. No member of the compensation committee has ever been an officer or employee of the Company.

None of our executive officers serve, or have served during the last fiscal year, as a member of the board of directors, compensation committee, or other board committee performing equivalent functions of any other entity that has one or more executive officers serving as one of our directors or on our compensation committee.

Policy on the Timing of Awards of Options and Other Option-Like Instruments

Our compensation committee has generally granted annual equity awards, including stock option grants to our named executive officers, in the first quarter of each fiscal year. In addition, new hires receive stock option grants at the time of their hiring. Eligible employees, including our named executive officers, may voluntarily enroll in our Employee Stock Purchase Plan and receive an option to purchase shares at a discount using payroll deductions accumulated during the prior six months, with purchase dates occurring in May and November. During 2024, our compensation committee did not take into account any material nonpublic information when determining the timing and terms of equity incentive awards, and we did not time the disclosure of material nonpublic information for the purpose of affecting the value of executive compensation. During 2024, we did not grant stock options to our named executive officers during any period beginning four business days before and ending one business day after the filing or furnishing of a Form 10-Q, 10-K or 8-K that discloses material nonpublic information.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A current copy of the code is posted on the corporate governance section of our website, which is located at *www.cabalettabio.com/investors/corporate-governance/governance-documents*. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

Insider Trading Policies and Procedures

We have adopted an insider trading policy that governs the purchase, sale, and/or other transactions of our securities by our directors, officers, employees and designated consultants that we believe is reasonably designed to promote compliance with applicable insider trading laws, rules and regulations, and listing standards applicable to us. A copy of our insider trading policy is filed as Exhibit 19.1 to our 2024 Annual Report. In addition, with regard to trading in our own securities, it is our policy to comply with the federal securities laws and the applicable exchange listing requirements.

Our insider trading policy prohibits our directors, officers, employees and certain designated consultants, and their affiliated persons, from trading in company securities while in possession of material nonpublic information about our company. The policy also prohibits tipping (i.e., disclosing material nonpublic information about our



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company to others who may trade of the basis of that information). Under our insider trading policy, designated insiders may only trade in company securities at a time when they do not possess material nonpublic information about our company. We also require our directors, officers and certain other employees to receive approval before trading in company securities. Our insider trading policy also expressly prohibits short sales; purchases or sales of puts, calls, or other derivative securities or hedging transactions; using company securities as collateral in a margin account; or pledging company securities as collateral for a loan. Any waiver of the provisions of this policy requires the approval of our Audit Committee. To date, no such requests have been made or approved. We have also adopted an additional policy that governs adoption, modification and termination of written securities trading plans, known as Rule 10b5-1 plans, by our directors, executive officers and certain other persons. Our policy provides that all Rule10b5-1 plans must comply with SEC rules applicable to the Rule 10b5-1 safe harbor and imposes additional requirements and limitations.

Board Leadership Structure and Board's Role in Risk Oversight

We believe that effective board leadership structure can depend on the experience, skills, and personal interaction between persons in leadership roles and the needs of our company at any point in time. Our corporate governance guidelines support flexibility in the structure the board of directors by not requiring the separation of the roles of chairman of the board of directors and chief executive officer. Our board of directors currently believes that it is in the best interests of our company to have our chief executive officer also serve as the chairman of the board of directors. We believe that our chairman and chief executive officer provides strong, clear, and unified leadership that is critical in our relationships with our shareholders, employees, customers, suppliers, and other stakeholders. The extensive knowledge of the chief executive officer regarding our operations and industries and the markets in which we compete uniquely positions him to identify strategies and prioritize matters for board review and deliberation. Additionally, we believe the combined role of chairman and chief executive officer serves as a bridge between management and the board of directors, ensuring that both groups act with a common purpose. This structure also eliminates conflict between two leaders and minimizes the possibility of two spokespersons sending different messages.

The board of directors does not believe that combining the position creates significant risks, including any risk that the chairman and chief executive officer will have excessive or undue influence over the agenda or deliberations of the board of directors. We believe we have effective and active oversight by experienced independent directors and independent committee chairs, and the independent directors meet together in executive session at virtually every board of directors meeting. The chairman of the board of directors provides guidance to the board of directors; facilitates an appropriate schedule for board of directors meetings; sets the agenda for board of directors meeting; presides over meetings of the board of directors; and facilitates the quality, quantity, and timeliness of the flow of information from management that is necessary for the board to effectively and responsibly perform its duties. The chief executive officer is responsible for the day-to-day leadership of our company and setting our company's strategic direction.

Risk is inherent to every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including risks relating to our financial condition, development and commercialization activities, operations, strategic direction, and intellectual property. Management is responsible for the day-to-day management of risks we face, while our board of directors, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

The role of the board of directors in overseeing the management of our risks is conducted primarily through committees of the board of directors, as disclosed in the descriptions of each of the committees above and in the charters of each of the committees. The full board of directors (or the appropriate board committee in the case of risks that are under the purview of a particular committee) discusses with management our major risk exposures,

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their potential impact on us, and the steps we take to manage them. When a board committee is responsible for evaluating and overseeing the management of a particular risk or risks, the chairman of the relevant committee reports on the discussion to the full board of directors during the committee reports portion of the next board meeting. This enables the board of directors and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

Communication with the Directors of Cabaletta

Any interested party with concerns about our company may report such concerns to the board of directors or the chairman of our board of directors or the chairman of our nominating and corporate governance committee, by submitting a written communication to the attention of such director at the following address:

c/o Cabaletta Bio, Inc. 2929 Arch Street, Suite 600 Philadelphia, PA 19104 United States

You may submit your concern anonymously or confidentially by postal mail. You may also indicate whether you are a stockholder, customer, supplier, or other interested party.

A copy of any such written communication may also be forwarded to Cabaletta's legal counsel and a copy of such communication may be retained for a reasonable period of time. The director may discuss the matter with Cabaletta's legal counsel, with independent advisors, with non-management directors, or with Cabaletta's management, or may take other action or no action as the director determines in good faith, using reasonable judgment, and applying his or her own discretion.

Communications may be forwarded to other directors if they relate to important substantive matters and include suggestions or comments that may be important for other directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances, and matters as to which we tend to receive repetitive or duplicative communications.

The audit committee oversees the procedures for the receipt, retention, and treatment of complaints received by Cabaletta regarding accounting, internal accounting controls, or audit matters, and the confidential, anonymous submission by employees of concerns regarding questionable accounting, internal accounting controls or auditing matters. Cabaletta has also established a toll-free telephone number for the reporting of such activity, which +1-800-916-7037 (company identifier: 2222).

EXECUTIVE OFFICERS

The following table identifies our executive officers, and sets forth their current positions at Cabaletta and their ages as of April 28, 2025.

		Officer	
Name	Position Held with Cabaletta	Since	Age
Steven Nichtberger, M.D.	Chief Executive Officer, President, Chairman of the Board of Directors and Director	2017	63
Gwendolyn K. Binder, Ph.D.	President, Science and Technology	2019	50
Anup Marda, MBA	Chief Financial Officer	2019	47
David J. Chang, M.D., M.P.H.	Chief Medical Officer	2019	62
Michael Gerard, J.D.	General Counsel and Secretary	2021	45
Arun Das, M.D.	Chief Business Officer	2022	35

You should refer to "Class III Directors" above for information about our Chief Executive Officer and President, Dr. Nichtberger. Biographical information for our other executive officers, as of April 28, 2025, is set forth below.

Gwendolyn K. Binder, Ph.D. Dr. Binder joined our company in February 2019 as our Executive Vice President, Science and Technology and was appointed President, Science and Technology in January 2022. Dr. Binder is an R&D executive with specialized expertise in the discovery and early clinical development and optimization of engineered T cell therapies. Prior to joining Cabaletta, Dr. Binder was the Chief Technology Officer of Adaptimmune Therapeutics Plc from March 2016 to January 2019, where she ultimately led the research team focusing on understanding mechanisms of tumor response and resistance and translating this understanding to next generation products and clinical study designs. In prior roles, from March 2011 to February 2016, she established and led the translational research group, in addition to the manufacturing and quality teams including oversight of the buildout of an in-house manufacturing facility. Earlier in her career, Dr. Binder served as Director of Operations for the Translational Research Program at the University of Pennsylvania, where she progressed multiple investigational new drug submissions for novel engineered T-cell therapies in HIV and oncology, including the CD19 CAR IND acquired by Novartis (now Kymriah), the first human gene editing IND, and three TCR engineered T cell therapy studies in oncology and HIV. Prior to that, she served as the Director of Scientific Affairs at VIRxSYS Corporation in Gaithersburg Maryland where she supported the development of the first clinical lentiviral vector used in humans, for the application of engineered T cell therapy for HIV. In addition, Dr. Binder has served on the Board of Directors of Instil Bio (Nasdaq: TIL), a clinical-stage biopharmaceutical company focused on developing a pipeline of novel therapies including a lead PD-L1xVEGF bispecific antibody for solid tumors, since July 2020, and as a member of the Scientific Advisory Board for Immatics, which is a publicly traded company developing engineered T cell immunotherapy for cancer, since July 2020. Dr. Binder studied viral immunology and translational research at the Johns Hopkins University in Baltimore, Maryland where she earned a Ph.D. in Cellular and Molecular Medicine in 2002. She has authored over 30 publications in the field, including top international journals such as "Science", and "Nature Medicine". She is a recognized leader in the biotechnology sector for the translational and clinical advancement of novel T cell therapies for patients with serious diseases.

Anup Marda, MBA. Mr. Marda joined our company in January 2019 as our Chief Financial Officer. From April 2001 to January 2019, Mr. Marda held positions at Bristol-Myers Squibb, including, most recently, as Vice President, Head of Global Corporate Financial Planning & Analysis, and previously as Head of Finance, R&D Operations and Head of Finance, R&D Portfolio Management and Global Medical from 2014 to 2018. Prior to this, Mr. Marda held the role of Executive Director, U.S. Pharmaceuticals from 2012 to 2014 and Assistant Treasurer, Capital Markets from 2008 to 2012. Mr. Marda received his MBA from the Krannert School of Business of Purdue University and his B.Tech in Chemical Engineering from the Indian Institute of Technology Bombay.

David J. Chang, M.D., M.P.H. Dr. Chang joined our company in June 2019 as our Chief Medical Officer. From June 2015 to May 2019, he was Senior Vice President and Head, Inflammation, Autoimmunity & Neuroscience, or IA&NS, Global Medicines Development at AstraZeneca Pharmaceuticals LP, where he oversaw development projects of both biologics and small molecules in a variety of indications and led the late-stage clinical development organization for IA&NS. From October 2007 to June 2015, Dr. Chang served in various positions at GlaxoSmithKline plc, including VP and Head, Immuno-Inflammation, Clinical Development. While at AstraZeneca and GlaxoSmithKline, he provided leadership in driving the clinical development and registration of the only two products approved for systemic lupus erythematosus in the US in over 60 years. He received his M.D. from New York University School of Medicine, his M.P.H. from Emory University and his B.S. from Yale University. Dr. Chang completed his internship and residency in internal medicine at the New York Hospital—Cornell University Medical Center and fellowship in rheumatology at the Hospital for Special Surgery—Cornell University Medical Center.

Michael Gerard, J.D. Mr. Gerard joined our company in September 2021 as our General Counsel and Secretary. Prior to joining Cabaletta, Mr. Gerard served as Associate General Counsel of Spark Therapeutics, Inc., or Spark, from September 2020 to August 2021. Prior to Spark, Mr. Gerard served in various legal roles at Sandoz, Inc., a division of the Novartis Group, beginning in 2013, with the most recent role being Executive Director, Associate General Counsel, Business Development and Licensing, Strategy and Portfolio. Earlier in his career, Mr. Gerard served as Assistant General Counsel at Aramark and as a litigator at the law firms of Morrison & Foerster, LLP and K&L Gates, LLP in New York. Mr. Gerard received a B.A. in Political Science from the University of Michigan, Ann Arbor and a J.D. from Cornell Law School.

Arun Das, M.D. Dr. Das joined our company in July 2019 after serving as a consultant to the company since 2017, and served in several roles, most recently Executive Director of New Product Planning and Business Development, prior to being appointed Chief Business Officer in January 2022. He is also a Lecturer in the Health Care Management Department at the Wharton School of the University of Pennsylvania. Prior to joining Cabaletta, Dr. Das was a resident physician in General Pediatrics at the Children's Hospital of Philadelphia from June 2018 to June 2019. Previously, he was an investment banking analyst in the healthcare group at Goldman Sachs from 2010 to 2012. In addition, Dr. Das has spent multiple years consulting in business development and operations for several start-ups in the biotechnology space. Dr. Das received his M.D. from Johns Hopkins University School of Medicine and a B.A. and B.S. dual degree from the University of Pennsylvania.

The principal occupation and employment during the past five years of each of our executive officers was carried on, in each case except as specifically identified above, with a corporation or organization that is not a parent, subsidiary or other affiliate of us. There is no arrangement or understanding between any of our executive officers and any other person or persons pursuant to which he or she was or is to be selected as an executive officer.

There are no material legal proceedings to which any of our executive officers is a party adverse to us or in which any such executive officer has a material interest adverse to us.

EXECUTIVE COMPENSATION

Our named executive officers for the year ended December 31, 2024 are:

- Steven Nichtberger, M.D., our President and Chief Executive Officer;
- · Gwendolyn Binder, Ph.D., our President, Science and Technology; and
- David J. Chang, M.D., M.P.H., our Chief Medical Officer.

2024 Summary Compensation Table

The following table presents the compensation awarded to, earned by or paid to each of our named executive officers for the years indicated. Dr. Nichtberger also serves as a member of our board of directors but does not receive any additional compensation for his service as a director.

	Year	Salary (\$)	Bonus (\$)	Option Awards (\$)(1)	Non-Equity Incentive Plan Compensation (\$)(2)	All Other Compensation (\$)(3)	Total (\$)
Steven Nichtberger, M.D.	2024	646,328	_	7,008,417	428,157	14,045	8,096,947
President and Chief Executive Officer	2023	597,417	—	3,784,529	412,288	14,045	4,808,279
Gwendolyn K. Binder, Ph.D.	2024	496,917(4)	_	2,581,003	246,869		3,324,789
President, Science and Technology	2023	477,417	_	1,618,263	245,203		2,340,883
David J. Chang, M.D., M.P.H.	2024	496,833	_	2,581,003	268,290		3,346,126
Chief Medical Officer	2023	476,910	—	1,379,202	244,940	—	2,101,052

- (1) Amounts reflect the grant date fair value of option awards granted in 2024 and 2023 in accordance with the Financial Accounting Standards Board's Accounting Standards Codification Topic 718, or ASC 718. Such grant date fair value does not take into account any estimated forfeitures related to service-vesting conditions. For information regarding assumptions underlying the valuation of equity awards, see Note 10 to our financial statements for the year ended December 31, 2024. These amounts do not correspond to the actual value that may be recognized by the named executive officers upon vesting of applicable awards.
- (2) The amounts represent bonuses earned in 2024 and 2023 and paid in 2025 and 2024, respectively, pursuant to the Company's cash incentive plan based on the factors described under "Non-Equity Incentive Plan Compensation" below.
- (3) Amount includes reimbursements for life insurance premiums.
- (4) Salary adjusted from that included in Part III of the Company's 2024 Annual Report on Form10-K to remove a \$32,770 reimbursement of excess tax withholding on stock option exercises.

Narrative to 2024 Summary Compensation Table

Our board of directors and compensation committee review compensation annually for our chief executive officer and his direct reports. In setting executive base salaries and bonuses, and granting equity incentive awards, our board of directors considers compensation for comparable positions in the market, the historical compensation levels of our executives, individual performance as compared to our expectations and objectives, our desire to motivate our employees to achieve short-and long-term results that are in the best interests of our stockholders, and a long-term commitment to our company. We target a general competitive position, based on independent third-party benchmark analytics to inform the mix of compensation of base salary, bonus or long-term incentives.

Our board of directors has historically determined our executives' compensation. Our compensation committee typically reviews and discusses management's proposed compensation with the chief executive officer for his direct reports. Based on those discussions and its discretion, taking into account the factors noted above, the

compensation committee determines the compensation for each executive officer other than the chief executive officer. Our board of directors discusses the compensation committee's recommendations and ultimately approves the compensation of our chief executive officer without the chief executive officer and chief financial officer present.

In 2024, the compensation committee continued to retain the services of Radford, an AON Hewitt company, as its external compensation consultant and the board of directors and the compensation committee considered Radford's input on certain compensation matters as they deemed appropriate. Radford reports directly to the compensation committee, and the compensation committee has the sole authority to hire, terminate and direct the work of Radford. Radford provides various executive compensation services to the compensation committee, including an analysis of executive compensation as relates to base salary, target annual cash incentives and long-term equity incentives for executive officers and advice on evolving industry practices and market information. The compensation committee has assessed the independence of Radford pursuant to SEC and Nasdaq rules and concluded that the work of Radford for the compensation committee does not raise any conflict of interest

Annual base salary

Each named executive officer's base salary is a fixed component of annual compensation for performing specific duties and functions, and has been established by our board of directors taking into account each individual's role, responsibilities, skills, and experience. Base salaries for our named executive officers are reviewed annually by our compensation committee, typically in connection with our annual performance review process, and adjusted from time to time, based on the recommendation of the compensation committee, to realign salaries with market levels after taking into account individual responsibilities, performance, and experience. The base salary of each named executive officer in 2024 is noted below:

	2024 Base Salary		
	through		Base Salary
	February 29,		Effective
Name	2024	Ma	rch 1, 2024
Steven Nichtberger, M.D.	\$ 602,200	\$	638,300
Gwendolyn K. Binder, Ph.D.	\$ 480,500	\$	500,200
David J. Chang, M.D., M.P.H.	\$ 480,000	\$	500,200

Non-Equity Incentive Plan Compensation

Annual cash awards are determined based on company performance, which is assessed based on predetermined annual objectives, and on individual performance. When determining the individual component of our annual incentive awards, the compensation committee considers each executive's contributions to the company's strategic achievements and financial and operational performance. In addition, the compensation committee considers how each executive demonstrates Cabaletta behaviors.

Each of our named executive officers was eligible to receive a bonus with respect to 2024 as a percentage of base salary listed below, modified by company and individual performance.

	2024 Target Bonus Rate
Name	(% of base salary)
Steven Nichtberger, M.D.	55%
Gwendolyn K. Binder, Ph.D.	40%
David J. Chang, M.D., M.P.H.	40%

Company performance was assessed as achievement of 2024 company objectives, including certain clinical development, business development and financial and operational goals and development of a strong team culture. As a result, the compensation committee recommended and our board of directors approved 2024 company achievement at 108%.

The compensation committee recommended (and/or approved) and the board of directors approved (as applicable, in the instance of the chief executive officer), a further adjustment of bonuses based on the individual achievement of each of the named executive officers, as noted below:

	Individual
	Achievement
Name	(%)
Steven Nichtberger, M.D.	114%
Gwendolyn K. Binder, Ph.D.	115%
David J. Chang, M.D., M.P.H.	125%

Long-term equity incentives

Our equity grant program is intended to align the interests of our named executive officers with those of our stockholders and to motivate them to make important contributions to our performance. In 2024, we granted stock options to each of our named executive officers, as reflected in the "Outstanding Equity Awards at 2024 Fiscal Year End Table" below.

Employment arrangements with our named executive officers

In October 2019, we entered into amended and restated employment agreements with each of our named executive officers. Each of our named executive officers is employed at will.

Steven Nichtberger, M.D.

Under his amended and restated employment agreement, Dr. Nichtberger is entitled to an annual base salary, which is subject to review and redetermination by our board of directors or our compensation committee, and he is eligible to receive an annual bonus determined by our board of directors or the compensation committee (subject to the terms of any applicable incentive compensation plan that may be in effect from time to time), with a target amount calculated as a percentage of his annual base salary. Dr. Nichtberger is also eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans, and is reimbursed for his existing, personal life insurance policy premiums.

Dr. Nichtberger's employment agreement provides that, in the event that his employment is terminated by us without "cause" or by him for "good reason," then subject to the execution and effectiveness of a separation agreement and release and compliance with his continuing obligations, he will be entitled to receive (i) an amount equal to (x) 12 months of base salary payable on our normal payroll cycle if such termination occurs outside of the period commencing 60 days before and ending 12 months after the occurrence of the first event constituting a "change in control" (the "Change in Control Period"), or (y) 1.5 times the sum of his base salary plus his target bonus for the then-current year payable on our or our successor's normal payroll cycle over 18 months if such termination occurs within Change in Control Period; (ii) payment of the monthly employer COBRA premium for the same level of group health coverage as in effect for Dr. Nichtberger on the date of termination for up to (x) 12 months if such termination occurs within the Change in Control Period; and (iii) full acceleration of all stock options and other stock-based awards held by Dr. Nichtberger if such termination occurs within the Change in Control Period. In addition to standard good reason triggers, Dr. Nichtberger provides written notice of his reasonable dissatisfaction with such charge in Control Period, subject to the board of directors, Dr. Nichtberger provides written notice of a resignation for good reason outside of the Change in Control Period, subject to the execution and effectiveness of a separation of good reason outside of the Change in Control Period. In the event of such a resignation for good reason outside of the Change in Control Period, subject to the execution and effectiveness of a separation agreement and release and compliance with his continuing obligations, in addition to the severance benefits described above, all stock options and other stock-based awards held by Dr. Nichtberger will accelerate and become fully exerc

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The payments and benefits provided to Dr. Nichtberger under his employment agreement in connection with a sale event may not be eligible for a federal income tax deduction for the company pursuant to Section 280G of the Code. These payments and benefits also may be subject to an excise tax under Section 4999 of the Code. If the payments or benefits payable to Dr. Nichtberger in connection with a sale event would be subject to the excise tax on golden parachutes imposed under Section 4999 of the Code, then those payments or benefits will be reduced if such reduction would result in a higher net after tax benefit to Dr. Nichtberger.

In addition, Dr. Nichtberger has entered into anon-competition, non-solicitation, confidentiality and assignment agreement with us that contains, among other things, non-competition and non-solicitation provisions that apply during the term of Dr. Nichtberger's employment and for 12 months thereafter.

Gwendolyn K. Binder, Ph.D.

Under her amended and restated employment agreement, Dr. Binder is entitled to an annual base salary, which is subject to review and redetermination by our board of directors or our compensation committee, and she is eligible to earn an annual bonus with a target amount calculated as a percentage of her base salary. Dr. Binder is also eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans.

Dr. Binder's employment agreement provides that, in the event that her employment is terminated by us without "cause" or by her for "good reason," then subject to the execution and effectiveness of a separation agreement and release and compliance with her continuing obligations, she will be entitled to receive (i) an amount equal to (x) nine months of base salary payable on our normal payroll cycle if such termination occurs outside of the Change in Control Period or (y) a lump sum in cash in the amount of 1.0 times the sum of her base salary plus her target bonus for the then-current year payable on our or our successor's normal payroll cycle over 12 months if such termination is occurs within the Change in Control Period; (ii) payment of the same level of group health coverage as in effect for Dr. Binder on the date of termination up to (x) nine months if such termination occurs within the Change in Control Period; and (iii) full acceleration of all stock options and other stock-based awards subject to time-based vesting held by Dr. Binder if such termination occurs within the Change in Control Period.

The payments and benefits provided to Dr. Binder under her employment agreement in connection with a sale event may not be eligible for a federal income tax deduction for the company pursuant to Section 280G of the Code. These payments and benefits also may be subject to an excise tax under Section 4999 of the Code. If the payments or benefits payable to Dr. Binder in connection with a sale event would be subject to the excise tax on golden parachutes imposed under Section 4999 of the Code, then those payments or benefits will be reduced if such reduction would result in a higher net after-tax benefit to such officer.

In addition, Dr. Binder has entered into a non-competition, non-solicitation, confidentiality and assignment agreement with us that contains, among other things, non-competition and non-solicitation provisions that apply during the term of Dr. Binder's employment and for 12 months thereafter.

David J. Chang, M.D., M.P.H.

Under his amended and restated employment agreement, Dr. Chang is entitled to an annual base salary, which is subject to review and redetermination by our board of directors or our compensation committee, and he is eligible to earn an annual bonus with a target amount calculated as a percentage of his base salary. Dr. Chang is also eligible to participate in the employee benefit plans available to our employees, subject to the terms of those plans.

Dr. Chang's employment agreement provides that, in the event that his employment is terminated by us without "cause" or by him for "good reason," then subject to the execution and effectiveness of a separation agreement

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and release and compliance with his continuing obligations, he will be entitled to receive (i) an amount equal to (x) nine months of base salary payable on our normal payroll cycle if such termination occurs outside of the Change in Control Period or (y) a lump sum in cash in the amount of 1.0 times the sum of his base salary plus his target bonus for the then-current year payable on our or our successor's normal payroll cycle over 12 months if such termination occurs within the Change in Control Period; (ii) payment of the monthly employer COBRA premium for the same level of group health coverage as in effect for Dr. Chang on the date of termination up to (x) nine months if such termination occurs outside of the Change in Control Period; and (ii) full acceleration of all stock options and other stock-based awards subject to time-based vesting held by Dr. Chang if such termination occurs within the Change in Control Period.

The payments and benefits provided to Dr. Chang under his employment agreement in connection with a sale event may not be eligible for a federal income tax deduction for the company pursuant to Section 280G of the Code. These payments and benefits also may be subject to an excise tax under Section 4999 of the Code. If the payments or benefits payable to Dr. Chang in connection with a sale event would be subject to the excise tax on golden parachutes imposed under Section 4999 of the Code, then those payments or benefits will be reduced if such reduction would result in a higher net after-tax benefit to such officer.

In addition, Dr. Chang has entered into a non-competition, non-solicitation, confidentiality and assignment agreement with us that contains, among other things, non-competition and non-solicitation provisions that apply during the term of Dr. Chang's employment and for 12 months thereafter.

Outstanding Equity Awards at 2024 Fiscal Year End Table

The following table presents information regarding all outstanding stock awards and stock options held by each of our named executive officers as of December 31, 2024.

		Option awards				awards
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested (#)	Market Value of Shares or Units of Stock that Have Not Vested (\$)
Steven Nichtberger, M.D.	186,451		1.01	10/28/2028		
	229,677	— (1)	1.01	10/28/2028	_	
	99,714	-(2)	11.00	10/23/2029	_	
	300,000	— (3)	14.94	2/28/2030	—	
	312,656	20,844(7)	11.47	2/28/2031		
	261,250	118,750(8)	3.21	1/17/2032		
	180,075	231,525(9)	11.09	1/17/2033		
		353,000(10)	23.97	2/28/2034		
Gwendolyn K. Binder, Ph.D.	100,756	— (4)	1.01	10/28/2028	_	
	66,667	— (5)	9.54	8/21/2029	—	—
	29,908	— (2)	11.00	10/23/2029	—	—
	117,188	7,812(7)	11.47	2/28/2031	—	—
	110,000	50,000(8)	3.21	1/17/2032	—	—
	77,000	99,000(9)	11.09	1/17/2033		
	_	130,000(10)	23.97	2/28/2034	—	_
David J. Chang, M.D., M.P.H.	185,709	— (6)	6.30	6/23/2029		—
	48,836	— (2)	11.00	10/23/2029	—	—
	38,238	— (3)	14.94	2/28/2030	—	—
	106,406	7,094(7)	11.47	2/28/2031	—	—
	92,813	42,187(8)	3.21	1/17/2032	—	—
	65,625	84,375(9)	11.09	1/17/2033	—	—
	—	130,000(10)	23.97	2/28/2034	—	—

(1) These options vest over four years, with 25% vesting on October 11, 2019, and the remaining shares vesting in 36 equal monthly installments thereafter, subject to a continued service relationship with us.

(2) These options vest over four years, with 25% vesting on October 24, 2020, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(3) These options vest over four years, with 25% vesting on March 1, 2021, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(4) These options vest over four years, with 25% vesting on October 11, 2019 and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(5) These options vest over four years, with 25% vesting on August 22, 2020, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(6) These options vest over four years, with 25% vesting on June 17, 2020, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(7) These options vest over four years, with 25% vesting on March 1, 2022, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(8) These options vest over four years, with 25% vesting on January 18, 2023, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(9) These options vest over four years, with 25% vesting on January 18, 2024, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

(10) These options vest over four years, with 25% vesting on March 1, 2025, and the remaining shares vesting in 12 equal quarterly installments thereafter, subject to a continued service relationship with us.

Additional Narrative Disclosure

401(k) Savings Plan. We participate in a retirement savings plan, or 401(k) plan, that is intended to qualify for favorable tax treatment under Section 401(a) of the Code, and contains a cash or deferred feature that is intended to meet the requirements of Section 401(k) of the Code. U.S. employees who are at least 21 years of age are generally eligible to participate in the 401(k) plan, subject to certain criteria. Participants may make pre-tax and certain after-tax (Roth) salary deferral contributions to the plan from their eligible earnings up to the statutorily prescribed annual limit under the Code. Participants who are 50 years of age or older may contribute additional amounts based on the statutory limits for catch-up contributions. Participant contributions are held in trust as required by law. An employee's interest in his or her salary deferral contributions is 100% vested when contributed. We have the ability to make discretionary contributions under the plan and all eligible employees will receive a Safe Harbor matching contribution up to 4% of eligible pay for the 2024 plan year.

Health and Welfare Benefits. All of our full-time employees, including our executive officers are eligible to participate in certain medical, disability and life insurance benefit programs offered by us. We pay the premiums for term life insurance and long-term disability for all of our employees, including our executive officers. We also provide all employees, including executive officers, with a flexible spending account plan and paid time off benefits including, vacation, sick time and holidays. We do not sponsor any qualified or non-qualified defined benefit plans for any of our employees or executives.

Compensation Risk Assessment

We believe that although a portion of the compensation provided to our executive officers and other employees is performance-based, our executive compensation program does not encourage excessive or unnecessary risk taking. Our compensation programs are designed to encourage our executive officers and other employees to remain focused on both short-term and long-term strategic goals, in particular in connection with our pay-for-performance compensation programs are reasonably likely to have a material adverse effect on us.

Equity Compensation Plan Information

The following table provides information as of December 31, 2024 regarding shares of common stock that may be issued under our equity compensation plans, consisting of the 2018 Plan, the 2019 Plan and the 2019 Employee Stock Purchase Plan, or the ESPP. We have no equity compensation plans that were not approved by security holders.

Plan Category	Number of securities to be issued upon exercise of outstanding options, units and rights (#)	Weighted- average exercise price of outstanding options, units and rights (\$)	Number of securities remaining available for future issuance under equity compensation plan (excluding securities referenced in first column)
Equity compensation plans approved by security holders(1)	11,231,148(2)	\$ 10.63	1,693,564(3)(4)
Equity compensation plans not approved by security holders		• 10.05 	
Total	11,231,148	\$ 10.63	1,693,564

(1) Consists of our 2019 Stock Option and Incentive Plan, 2018 Stock Option and Grant Plan, and 2019 Employee Stock Purchase Plan. Following our initial public offering, we have not and will not grant any

awards under our 2018 Stock Option and Grant Plan, but all outstanding awards under the 2018 Stock Option and Grant Plan will continue to be governed by their existing terms. The shares of common stock underlying any awards granted under the 2018 Stock Option and Grant Plan or 2019 Stock Option and Incentive Plan that are forfeited, canceled, reacquired by us prior to vesting, satisfied without the issuance of stock, or otherwise terminated (other than by exercise) and the shares of common stock that are withheld upon exercise of a stock option or settlement of such award to cover the exercise price or tax withholding will be added to the shares of common stock available for issuance under the 2019 Stock Option and Incentive Plan.

- (2) Includes 11,231,148 shares of common stock issuable upon the exercise of outstanding options, of which 1,235,458 are subject to our 2018 Stock Option and Grant Plan and 9,995,690 are subject to our 2019 Stock Option and Incentive Plan.
- (3) As of December 31, 2024, there were 1,379,305 shares available for grant under the 2019 Stock Option and Incentive Plan and 314,259 shares available for grants under the 2019 Employee Stock Purchase Plan.
- (4) The 2019 Stock Option and Incentive Plan provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning on January 1, 2020, by 4% of the outstanding number of shares of our common stock on the immediately preceding December 31. The 2019 Employee Stock Purchase Plan provides that the number of shares reserved and available for issuance will automatically increase each January 1, beginning on January 1, 2020, through January 1, 2029, by the least of 234,229 shares of our common stock, 1% of the outstanding number of shares of our common stock on the immediately preceding December 31, or such lesser number of shares as determined by our compensation committee.

Pay Versus Performance

As required by Section 953(a) of the Dodd-Frank Act and Item 402(v) of RegulationS-K, we are providing information about the relationship between executive compensation actually paid to our PEO and the other NEOs (as calculated in accordance with Item 402(v) of Regulation S-K).

Pay-Versus-Performance Table

			Average Summary Compensation Table Total	Average Compensation Actually Paid	Value of Initial Fixed \$100 Investment Based On:	
	Summary Compensation	Compensation	for Non-PEO Named	to Non-PEO Named	Total	Net
Year (a)	Table Total for PEO(\$) ₍₁₎ (b)	Actually Paid to PEO(\$) (2) (c)	Executive Officers(\$) ₍₃₎ (d)	Executive Officers(\$) ₍₄₎ (e)	Shareholder Return (\$) ₍₅₎	Income(\$) ₍₆₎ (in millions) (h)
2024	\$ 8,096,947	\$ (8,634,793)	\$ 3,351,843	\$ (3,023,223)	\$ 24.54	\$ (115.86)
2023	\$ 4,808,279	\$ 14,466,565	\$ 2,220,968	\$ 5,851,276	\$ 245.41	\$ (67.68)

(1) The dollar amounts reported in column (b) represent the amount of total compensation reported forSteven Nichtberger, M.D. (the "PEO"), for each corresponding covered fiscal year in the "Total" column of the Summary Compensation Table for each applicable fiscal year.

(2) The Compensation Actually Paid to our PEO reflects the following adjustments required by applicable SEC rules from total compensation reported in the Summary Compensation Table:

PE	0		2023	2024
	Summary Compensation Table - Total Compensation	(a)	\$ 4,808,279	\$ 8,096,947
-	Grant Date Fair Value of Stock Awards and Option Awards Granted in Fiscal Year	(b)	\$ (3,784,529)	\$ (7,008,417)
+	Fair Value at Fiscal Year End of Outstanding and Unvested Stock Awards and Option Awards			
	Granted in Fiscal Year	(c)	\$ 8,297,093	\$ 477,468
+	Change in Fair Value of Outstanding and Unvested Stock Awards and Option Awards Granted in			
	Prior Fiscal Years	(d)	\$ 4,320,037	\$ (7,049,758)
+	Fair Value at Vesting of Stock Awards and Option Awards Granted in Fiscal Year That Vested			
	During Fiscal Year	(e)	\$ 0	\$ 0
+	Change in Fair Value as of Vesting Date of Stock Awards and Option Awards Granted in Prior			
	Fiscal Years For Which Applicable Vesting Conditions Were Satisfied During Fiscal Year	(f)	\$ 825,685	\$ (3,151,033)
-	Fair Value as of Prior Fiscal Year End of Stock Awards and Option Awards Granted in Prior			
	Fiscal Years That Failed to Meet Applicable Vesting Conditions During Fiscal Year	(g)	\$ 0	\$ 0
=	Compensation Actually Paid		\$ 14,466,565	\$ (8,634,793)

For purposes of the adjustments to determine "Compensation Actually Paid", we computed the fair value of equity awards in accordance with ASC 718. The valuation assumptions used to calculate fair values did not materially differ from those disclosed at the time of grant.

(3) The dollar amounts reported in column (d) represent the average of the amounts of total compensation reported for our named executive officers (collectively, our NEOs) as a group (excluding our PEO) for each covered fiscal year in the "Total" column of the Summary Compensation Table for each applicable fiscal year. The NEOs (excluding our PEO) for fiscal years 2024 and 2023 were Gwendolyn Binder, Ph.D. and David J. Chang, M.D., M.P.H.. (4) The Compensation Actually Paid to our NEOs (excluding our PEO) on average reflects the following adjustments required by applicable SEC rules from total compensation reported in the Summary Compensation Table:

NE	O Average		2023	2024
	Summary Compensation Table - Total Compensation	(a)	\$ 2,220,968	\$ 3,351,843
-	Grant Date Fair Value of Stock Awards and Option Awards Granted in Fiscal Year	(b)	\$ (1,498,733)	\$ (2,581,003)
+	Fair Value at Fiscal Year End of Outstanding and Unvested Stock Awards and Option Awards			
	Granted in Fiscal Year	(c)	\$ 3,285,778	\$ 175,838
+	Change in Fair Value of Outstanding and Unvested Stock Awards and Option Awards Granted in			
	Prior Fiscal Years	(d)	\$ 1,565,975	\$ (2,758,684)
+	Fair Value at Vesting of Stock Awards and Option Awards Granted in Fiscal Year That Vested			
	During Fiscal Year	(e)	\$ 0	\$ 0
+	Change in Fair Value as of Vesting Date of Stock Awards and Option Awards Granted in Prior			
	Fiscal Years For Which Applicable Vesting Conditions Were Satisfied During Fiscal Year	(f)	\$ 277,288	\$ (1,211,216)
-	Fair Value as of Prior Fiscal Year End of Stock Awards and Option Awards Granted in Prior Fiscal			
	Years That Failed to Meet Applicable Vesting Conditions During Fiscal Year	(g)	\$ 0	\$ 0
=	Compensation Actually Paid		\$ 5,851,276	\$ (3,023,223)

For purposes of the adjustments to determine "Compensation Actually Paid", we computed the fair value of equity awards in accordance with ASC 718. The valuation assumptions used to calculate fair values did not materially differ from those disclosed at the time of grant.

- (5) Total shareholder return is calculated by assuming that a \$100 investment was made on the close of trading on December 31, 2022. Our company did not pay any dividends during fiscal years 2023 and 2024.
- (6) The dollar amounts reported represent the amount of net income reflected in the Company's audited financial statements for the applicable fiscal year.

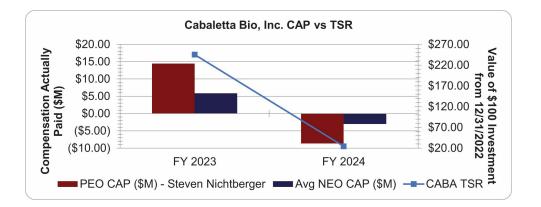
Analysis of the Information Presented in the Pay Versus Performance Table

Narrative Disclosure

As discussed above, we use a combination of short-term cash incentive compensation opportunities for our Executives, in the form of annual cash bonuses to incentivize and award delivery of the Company's strategy and corporate objectives, and long-term equity incentive compensation consisting of stock options. These equity awards strongly align our executive officers' interests with those of our stockholders by providing a continuing financial incentive to maximize long-term value for our stockholders and by encouraging our executive officers to continue in our employment for the long-term.

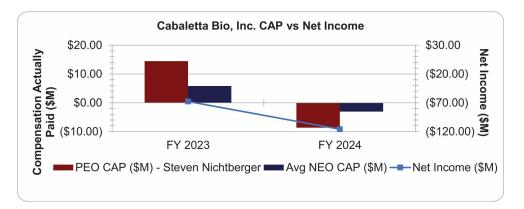
Compensation Actually Paid and Company Total Shareholder Return

The following graph reflects the relationship between the PEO and averagenon-PEO NEO "compensation actually paid" ("CAP") and our cumulative Total Shareholder Return ("TSR"), assuming an initial fixed investment on December 31, 2022 of \$100, for the fiscal years ended December 31, 2024 and 2023.



Compensation Actually Paid and Net Income

The following graph reflects the relationship between the PEO and averagenon-PEO NEO CAP, and our net income (loss) for the fiscal years ended December 31, 2024 and 2023. Because we are not a commercial-stage company, we did not have any revenue during the years ending 2024 and 2023. Consequently, our company has not historically looked to net income (loss) as a performance measure for our executive compensation program.



DIRECTOR COMPENSATION

The following table presents the total compensation for each person who served as anon-employee member of our board of directors and received compensation for such service during the fiscal year ended December 31, 2024. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our board of directors in 2024. We reimburse members of our board of directors for reasonable travel expenses. Dr. Nichtberger, our Chief Executive Officer and President, did not receive any compensation for his service as a member and Chairman of our board of directors in 2024. Dr. Nichtberger's compensation for service as an employee for fiscal years 2024 and 2023 is presented in "Executive Compensation—2024 Summary Compensation Table."

	Fees Earned or Paid	Option Awards	All Other	
Name	In Cash (\$)	(1)(2)	Compensation	Total (\$)
Catherine Bollard, MBChB, M.D.	60,000	181,810		241,810
Scott Brun, M.D.	65,000	181,810	_	246,810
Richard Henriques, MBA	60,500	181,810	_	242,310
Mark Simon, MBA	63,500	181,810	_	245,310
Shawn Tomasello, MBA	53,000	181,810		234,810
Richard Henriques, MBA Mark Simon, MBA	60,500 63,500	181,810 181,810		242 245

- (1) Amount shown reflects the grant date fair value of an option award granted during 2024. The grant date fair value was computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation—Stock Compensation, or FASB ASC Topic 718, disregarding the effect of estimated forfeitures related to service-based vesting. See Note 10 to the financial statements in our 2024 Annual Report on Form 10-K regarding assumptions we made in determining the fair value of option awards.
- (2) As of December 31, 2024, the aggregate number of shares subject to option awards held by ournon-employee directors were: Dr. Bollard: 134,428; Dr. Brun: 110,000; Mr. Henriques: 134,428; Mr. Simon: 134,428 and Ms. Tomasello 66,000. As of December 31, 2024, the aggregate number of unvested shares outstanding held by our non-employee directors were: Dr. Bollard: 22,000; Dr. Brun: 22,000; Mr. Henriques: 22,000; Mr. Simon: 22,000 and Ms. Tomasello 47,667.

Amended and Restated Non-Employee Director Compensation Policy

Under our director compensation policy, we pay ournon-employee directors a cash retainer for service on the board of directors and for service on each committee on which the director is a member. The chairman of each committee receives a higher retainer for such service. These fees are payable in arrears in four equal quarterly installments on the last day of each quarter, *provided that* the amount of such payment is prorated for any portion of such quarter that the director is not serving on our board of directors.

The fees paid to non-employee directors for service on the board of directors and for service on each committee of the board of directors on which the director is a member for 2024 are as follows:

	Member Annual Retainer (\$)	Chairperson Annual Retainer (\$)
Board of Directors	40,000	
Audit Committee	7,500	15,000
Compensation Committee	5,500	11,000
Nominating and Corporate Governance Committee	5,000	10,000
Science and Technology Committee	7,500	15,000

In February 2025, we amended our director compensation policy. Accordingly, the fees paid tonon-employee directors for service on the board of directors and for service on each committee of the board of directors on which the director is a member for 2025 are as follows:

	Member Annual Retainer (\$)	Chairperson Annual Retainer (\$)
Board of Directors	40,000	
Audit Committee	10,000	20,000
Compensation Committee	6,250	12,500
Nominating and Corporate Governance Committee	5,000	10,000
Science and Technology Committee	7,500	15,000

We also reimburse our non-employee directors for reasonable out-of-pocket expenses incurred in connection with attending our board of director and committee meetings.

In addition, each new non-employee director elected to our board of directors will be granted an initial,one-time award of a stock option to purchase 44,000 shares, which shall vest in equal quarterly installments over a three-year period from the date of vesting commencement, subject to continued service as a director through each such vesting date. In addition, on the date of each annual meeting of stockholders of our company, each non-employee director will receive an annual stock option award of 22,000 shares, which shall vest in full upon the earlier to occur of the first anniversary of the date of grant or the date of the next annual meeting provided, however, that all vesting shall cease if the director resigns from the board of directors or otherwise ceases to serve as a director, unless the board of directors determines that the circumstances warrant continuation of vesting.

This program is intended to provide a total compensation package that enables us to attract and retain qualified and experienced individuals to serve as directors and to align our directors' interests with those of our stockholders.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Certain Relationships and Transactions

Other than the compensation agreements and other arrangements described under "Executive compensation" and "Director compensation" in this proxy statement and the transactions described below, since January 1, 2023, there has not been and there is not currently proposed, any transaction or series of similar transactions to which we were, or will be, a party in which the amount involved exceeded, or will exceed, \$120,000 (or, if less, 1% of the average of our total assets amounts at December 31, 2023 and 2024) and in which any director, executive officer, holder of five percent or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

May 2023 Offering

In May 2023, we issued 8,337,500 shares of our common stock at a price of \$12.00 per share in connection with an underwritten public offering. Certain existing holders of five percent or more of a class of our capital stock participated in the transaction, as evidenced by the table below.

Greater than Five Percent Holder	Aggregate Common Stock Purchased	Aggregate Purchase Price	
Adage Capital Partners LP	725,000	\$ 8,700,000	
Fred Alger Management Inc.	400,000	\$ 4,800,000	
Cormorant Global Healthcare Master Fund LP	400,000	\$ 4,800,000	
Commodore Capital LP	400,000	\$ 4,800,000	

Limitation of Liability and Indemnification of Officers and Directors

Our certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

- any breach of their duty of loyalty to our company or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which they derived an improper personal benefit.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, we adopted bylaws which provide that we will indemnify, to the fullest extent permitted by law, any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of our directors or officers or is or was serving at our request as a director or officer of another corporation, partnership, joint venture, trust, or other enterprise. Our bylaws provide that we may indemnify to the fullest extent permitted by law any person who is or was a party or is threatened to be made

a party to any action, suit, or proceeding by reason of the fact that he or she is or was one of our employees or agents or is or was serving at our request as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise. Our bylaws also provide that we must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to very limited exceptions.

We have entered into and in the future plan to enter into agreements to indemnify our directors and executive officers. These agreements, among other things, require us to indemnify these individuals for certain expenses (including attorneys' fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on behalf of our company or that person's status as a member of our board of directors to the maximum extent allowed under Delaware law.

Related person transaction policy

Our board of directors adopted a written related person transaction policy providing that transactions with our directors, officers and holders of five percent or more of our voting securities and their affiliates, each a related person, must be approved by our audit committee. This policy became effective on October 29, 2019, the date our registration statement for our initial public offering became effective. Pursuant to this policy, the audit committee has the primary responsibility for reviewing and approving or disapproving "related person transactions," which are transactions between us and related persons in which the aggregate amount involved exceeds or may be expected to exceed \$120,000 and in which a related person has or will have a direct or indirect material interest. For purposes of this policy, a related person is defined as a director, executive officer, nominee for director, or greater than 5% beneficial owner of our common stock, in each case since the beginning of the most recently completed year, and their immediate family members.

As appropriate for the circumstances, the audit committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar amount involved in the related person transaction;
- the approximate dollar amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the related-party transaction; and
- any other information regarding the related-party transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

PRINCIPAL STOCKHOLDERS

The following table sets forth information, to the extent known by us or ascertainable from public filings, with respect to the beneficial ownership of our common stock as of April 28, 2025 by:

- each of our directors;
- each of our named executive officers;
- all of our directors and executive officers as a group; and
- each person, or group of affiliated persons, who is known by us to beneficially owngreater-than-5.0% of our common stock.

The column entitled "Shares Beneficially Owned" is based on a total of 50,743,101 shares of our common stock outstanding as of April 28, 2025.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options or warrants that are currently exercisable or exercisable within 60 days of April 28, 2025 are considered outstanding and beneficially owned by the person holding the options or warrants for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise indicated in the table below, addresses of named beneficial owners are in care of Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, Pennsylvania 19104.

	Shares benefi	Shares beneficially owned		
Name and address of beneficial owner(1)	Number	Percentage		
> 5% Stockholders:				
BlackRock, Inc.(2)	3,397,260	6.7%		
Entities Affiliated with Adage Capital Partners, L.P.(3)	3,634,475	7.2%		
T. Rowe Price Investment Management, Inc.(4)	3,673,724	7.2%		
Entities affiliated with Prudential Financial, Inc.(5)	2,798,863	5.5%		
Bain Capital Life Sciences Opportunities III, LP(6)	2,760,888	5.4%		
The Vanguard Group(7)	2,553,710	5.0%		
Named Executive Officers and Directors:				
Steven Nichtberger, M.D.(8)	3,149,413	5.99%		
Gwendolyn K. Binder, Ph.D.(9)	611,956	1.19%		
David Chang, M.D., M.P.H.(10)	620,971	1.21%		
Catherine Bollard, MBChB, M.D.(11)	135,428	0.27%		
Scott Brun, M.D.(12)	110,000	0.22%		
Richard Henriques, MBA(13)	134,428	0.26%		
Mark Simon, MBA(14)	277,572	0.55%		
Shawn Tomasello, MBA(15)	47,667	0.09%		
All executive officers and directors as a group (11 persons)(15)	6,213,257	11.25%		

* Represents beneficial ownership of less than one percent.

(1) Unless otherwise indicated, the address for each beneficial owner is c/o Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, Pennsylvania 19104.

(2) The information reported is based on information in a Schedule 13G/A, as filed by BlackRock, Inc. with the SEC on February 5, 2025. In that filing, BlackRock, Inc. reports sole voting power with respect to 3,329,097



shares of common stock and sole dispositive power with respect to 3,397,260 shares, and lists its address as 50 Hudson Yards, New York, New York 10001.

- (3) The information is based on a Schedule 13G/A filed with the SEC on November 12, 2024. Consists of 3,036,645 shares of common stock and 597,830 shares of common stock issuable upon the exercise of pre-funded warrants held by Adage Capital Partners, L.P., or ACP. Adage Capital Partners GP, L.L.C., or ACPGP, is the general partner of ACP. Adage Capital Management, L.P., or ACM, is the investment manager of ACP. Adage Capital Advisors, L.L.C., or ACA, is managing member of ACPGP. Adage Capital Partners LLC, or ACPLLC, is the general partner of ACPM, with respect to the shares of voting common stock directly held by ACP. Robert Atchinson and Phillip Gross are managing members of ACA and ACPGP and are general partners of ACP. Each of ACP, ACPGP, ACA, ACM, Robert Atchinson, and Phillip Gross have shared voting and dispositive power over all of the shares. The ability of the Adage entities to exercise their pre-funded warrants is subject to a beneficial ownership limitation, which prevents the Adage entities from exercising any portion of the warrants to the extent such exercise would result in the Adage entities exceeding a certain percentage of the total number of issued and outstanding shares of our common stock following such exercise. The address for Adage Capital Partners, L.P. is 200 Clarendon Street, 52nd Floor, Boston, Massachusetts 02116.
- (4) The information reported is based on information in a Schedule 13G/A, as filed by T. Rowe Price Investment Management, Inc. (Price Investment Management) with the SEC on November 14, 2024. In that filing, T. Rowe Price Investment Management, Inc. (Price Investment Management) reports sole voting power with respect to 3,666,024 shares of common stock and sole dispositive power with respect to 3,673,724 shares, and lists its address as 101 E. Pratt Street, Baltimore, MD 21201.
- (5) The information reported is based on information in a Schedule 13G/A, as filed by Prudential Financial, Inc. with the SEC on December 5, 2024. In that filing, Prudential Financial, Inc. reports shared voting and dispositive power over (i) 2,796,053 shares of our common stock, being 2,512,053 shares held through its subsidiary Jennison Associates LLC and 284,000 shares held through its subsidiary PGIM, Inc., and (ii) sole voting and dispositive power over 2,810 shares of our common stock held through its subsidiary PGIM Quantitative Solutions LLC. The address provided for Prudential Financial, Inc. is 751 Broad Street, New Jersey 07102.
- (6) The information reported is based on information in a Schedule 13G, as filed by Bain Capital Life Sciences Opportunities III, LP with the SEC on August 22, 2024. In that filing, Bain Capital Life Sciences Opportunities III, LP reports shared voting power and shared dispositive power with respect to 2,760,888 shares of common stock. Bain Capital Life Sciences Investors, LLC, or BCLSI, is the manager of Bain Capital Life Sciences III General Partner, LLC, which is the general partner of Bain Capital Life Sciences Fund III, L.P., which is the sole member of Bain Capital Life Sciences Opportunities III GP, LLC, which is the general partner of Bain Capital Life Sciences Opportunities III, LP. As a result, BCLSI may be deemed to share voting and dispositive power with respect to the securities held by Bain Capital Life Sciences Opportunities III, LP. The address of BCLSI is 200 Clarendon Street, Boston, MA 02116.
- (7) The information reported is based on information in a Schedule 13G/A, as filed by The Vanguard Group with the SEC on November 12, 2024. In that filing, The Vanguard Group reports shared voting power with respect to 31,135 shares of common stock, sole dispositive power with respect to 2,500,994 shares and shared dispositive power with respect to 52,716 shares, and lists its address as 100 Vanguard Blvd., Malvern, PA 19355.
- (8) Consists of (i) 986,483 shares of common stock held by Dr. Nichtberger, (ii) 363,000 shares of common stock held by the 2017 Nichtberger Family Trust, (the "Trust Shares"), and (iii) 1,799,930 shares of common stock underlying options exercisable within 60 days of April 28, 2025 Dr. Nichtberger may be deemed to beneficially own the Trust Shares. Dr. Nichtberger disclaims beneficial ownership of the Trust Shares and this shall not be deemed an admission that he is the beneficial owner of the Trust Shares.
- (9) Consists of (i) 20,000 shares of common stock held and (ii) 591,956 shares of common stock underlying options exercisable within 60 days of April 28, 2025.
- (10) Consists of 620,971 shares of common stock underlying options exercisable within 60 days of April 28, 2025.

- (12) Consists of 110,000 shares of common stock underlying options exercisable within 60 days of April 28, 2025.
- (13) Consists of 134,428 shares of common stock underlying options exercisable within 60 days of April 28, 2025.
- (14) Consists of (i) 143,144 shares of common stock held and (ii) 134,428 shares of common stock underlying options exercisable within 60 days of April 28, 2025.
- (15) Consists of 47,667 shares of common stock underlying options exercisable within 60 days of April 28, 2025.
- (16) See notes (7) through (14); also includes an aggregate of (i) 50,000 shares of common stock and (ii) 1,093,822 shares of common stock subject to options exercisable within 60 days of April 28, 2025 held by Anup Marda, our Chief Financial Officer, Michael Gerard, our General Counsel and Secretary, and Arun Das, M.D., our Chief Business Officer.

⁽¹¹⁾ Consists of (i) 1,000 shares of common stock held and (ii) 134,428 shares of common stock underlying options exercisable within 60 days of April 28, 2025.

REPORT OF THE AUDIT COMMITTEE

The audit committee is appointed by the board of directors to assist the board of directors in fulfilling its oversight responsibilities with respect to (1) the integrity of Cabaletta's financial statements and financial reporting process and systems of internal controls regarding finance, accounting, and compliance with legal and regulatory requirements, (2) the qualifications, independence, and performance of Cabaletta's independent registered public accounting firm, (3) the performance of Cabaletta's internal audit function, if any, and (4) other matters as set forth in the charter of the audit committee approved by the board of directors.

Management is responsible for the preparation of Cabaletta's financial statements and the financial reporting process, including its system of internal control over financial reporting and its disclosure controls and procedures. The independent registered public accounting firm is responsible for performing an audit of Cabaletta's financial statements in accordance with the standards of the Public Company Accounting Oversight Board (PCAOB) and issuing a report thereon. The audit committee's responsibility is to monitor and oversee these processes.

In connection with these responsibilities, the audit committee reviewed and discussed with management and the independent registered public accounting firm the audited financial statements of Cabaletta for the fiscal year ended December 31, 2024. The audit committee also discussed with the independent registered public accounting firm the matters required to be discussed by the applicable requirements of the PCAOB and the SEC. In addition, the audit committee has received written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of PCAOB regarding the independent registered public accounting firm's communications with the audit committee concerning independence and has discussed with the independent registered public accounting firm their independence.

Based on the reviews and discussions referred to above, the audit committee recommended to the board of directors that the audited financial statements of Cabaletta be included in Cabaletta's 2024 Annual Report, that was filed with the SEC. The information contained in this report shall not be deemed to be (1) "soliciting material," (2) "filed" with the SEC, (3) subject to Regulations 14A or 14C of the Exchange Act, or (4) subject to the liabilities of Section 18 of the Exchange Act. This report shall not be deemed incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent that we specifically incorporate it by reference into such filing.

THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS OF CABALETTA BIO, INC.

Richard Henriques, MBA, Chairperson Scott Brun, M.D. Mark Simon, MBA

May 13, 2025

HOUSEHOLDING

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our documents, including the Annual Report to stockholders and proxy statement, may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you upon written or oral request to Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, PA 19104, Attention: Corporate Secretary, telephone: 267-759-3100 x1100. If you want to receive separate copies of the proxy statement or Annual Report to stockholders in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker or other nominee record holder, or you may contact us at the above address and phone number.

STOCKHOLDER PROPOSALS

A stockholder who would like to have a proposal considered for inclusion in our 2025 proxy statement must submit the proposal in accordance with the procedures outlined in Rule 14a-8 of the Exchange Act so that it is received by us no later than January 13, 2026. However, if the date of the 2026 Annual Meeting of Stockholders is changed by more than 30 days from the date of the previous year's meeting, then the deadline is a reasonable time before we begin to print and send our proxy statement for the 2025 Annual Meeting of Stockholders. SEC rules set standards for eligibility and specify the types of stockholder proposals that may be excluded from a proxy statement. Stockholder proposals must be delivered by mail to and should be addressed to Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, PA 19104, Attention: Corporate Secretary. We also encourage you to submit any such proposals via email to proxyproposal@cabalettabio.com.

If a stockholder wishes to propose a nomination of persons for election to our board of directors or present a proposal at an annual meeting but does not wish to have the proposal considered for inclusion in our proxy statement and proxy card, our bylaws establish an advance notice procedure for such nominations and proposals. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely notice in proper form to our corporate secretary of the stockholder's intention to bring such business before the meeting.

The required notice must be in writing and received by our corporate secretary at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting. However, in the event that the date of the annual meeting is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received no earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs. For stockholder proposals to be brought before the 2026 Annual Meeting of Stockholders, the required notice must be received by our corporate secretary at our principal executive offices no earlier than February 9, 2026 and no later than March 11, 2026. Stockholder proposals and the required notice should be addressed to Cabaletta Bio, Inc., 2929 Arch Street, Suite 600, Philadelphia, PA 19104, Attention: Corporate Secretary.

In addition, to comply with the SEC's new universal proxy rules, stockholders who intend to solicit proxies in support of director nominees other than our nominees must provide notice by the same deadline noted herein to submit a notice of nomination for the 2025 Annual Meeting of Stockholders. Such notice must comply with the additional requirements of Rule 14a-19(b).

OTHER MATTERS

Our board of directors does not know of any other matters to be brought before the Annual Meeting. If any other matters not mentioned in this proxy statement are properly brought before the meeting, or any adjournment thereof, the individuals named in the enclosed proxy intend to use their discretionary voting authority under the proxy to vote the proxy in accordance with their best judgment on those matters.

ANNEX A

CERTIFICATE OF AMENDMENT - INCREASE IN AUTHORIZED SHARES

CERTIFICATE OF AMENDMENT TO THE THIRD AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF CABALETTA BIO, INC.

Cabaletta Bio, Inc. (the "Corporation"), a corporation duly organized and existing under the laws of the State of Delaware pursuant to Section 242 of the General Corporation Law of the State of Delaware (the "DGCL"), hereby certifies as follows:

1. The Third Amended and Restated Certificate of Incorporation, as heretofore amended, is hereby amended by replacing the first paragraph of Article IV in its entirety to read as follows:

"The total number of shares of capital stock which the Corporation shall have authority to issue is three hundred and ten million (310,000,000), of which (i) two hundred and ninety three million five hundred and ninety thousand four hundred and eighty-one (293,590,481) shares shall be a class designated as voting common stock, par value \$0.00001 per share (the "Voting Common Stock"), (ii) six million four hundred and nine thousand five hundred and nineteen (6,409,519) shares shall be a class designated as non-voting common stock, par value \$0.00001 per share (the "Non-Voting Common Stock") and (iii) ten million (10,000,000) shares shall be a class designated preferred stock, par value \$0.00001 per share (the "Undesignated Preferred Stock"). Any reference to "Common Stock" issued by the Corporation in any contract, agreement or otherwise to which the Corporation is a party, whether before or after the date of filing of this Certificate, shall refer to Voting Common Stock, unless specific reference is made to the Non-Voting Common Stock."

- 2. The Board of Directors of the Corporation has adopted a resolution approving and declaring advisable the foregoing amendment set forth in this Certificate of Amendment in accordance with the provisions of Section 242 of the DGCL.
- 3. The stockholders of the Corporation, at a meeting duly called and held pursuant to Section 222 of the DGCL, duly adopted the amendments set forth in this Certificate of Amendment in accordance with the provisions of Section 242 of the DGCL.
- 4. The foregoing amendments were duly adopted in accordance with Section 242 of the DGCL.

IN WITNESS WHEREOF, the undersigned, as a duly authorized officer of the Corporation, has executed this Certificate of Amendment on 2025.

CABALETTA BIO, INC.

By:

Name Steven Nichtberger, M.D. Title: Chief Executive Officer

A-1



Your vote matters!

Have your ballot ready and please use one of the methods below for easy voting:

Your control number

Have the 12 digit control number located in the box above available when you access the website and follow the instructions



This proxy is being solicited on behalf of the Board of Directors

The undersigned hereby appoints Steven Nichtberger, M.D. and Anup Marda, the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes them to vote all the shares of common stock of Cabaletta Bio, Inc. which the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment thereof, conferring authority upon such rue and lawful attorneys to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given.

THE SHARES REPRESENTED BY THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, SHARES WILL BE VOTED IN ACCORDANCE THE RECOMMENDATIONS OF THE BOARD OF DIRECTORS. THE PROXIES WILL VOTE IN THEIR DISCRETION ON ANY OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE MEETING AND ANY ADJOURNMENT THEREOF.

You are encouraged to specify your choice by marking the appropriate box (SEE REVERSE SIDE) but you need not mark any box if you wish to vote in accordance with the Board of Directors' recommendation. The named proxies cannot vote your shares unless you sign (on the reverse side) and return this card.

PLEASE BE SURE TO SIGN AND DATE THIS PROXY CARD AND MARK ON THE REVERSE SIDE

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at www.proxydocs.com/CABA

Cabaletta Bio®

Please make your marks like this:

The Board of Directors Recommends a Vote FOR the director nominees listed in Proposal 1, FOR Proposals 2, 3, 4 and 6 and 1 YEAR for Proposal 5.

	PROPOSAL YOUR VOTE					DIRECTORS RECOMMENDS
1.	To elect two class III directors to our board of directors, to serve until the 2028 annual meeting of stockholders and until their successor has been duly elected and qualified, or until their earlier death, resignation or removal. 1.01 Steven Nichtberger, M.D. 1.02 Mark Simon, MBA					FOR
2.	To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025.					FOR
3.	To approve an amendment to our Third Amended and Restated Certificate of Incorporation to increase the number of authorized shares of Common Stock from 150,000,000 to 300,000,000.					FOR
4.	To approve, on a non-binding, advisory basis, the compensation of our named executive officers.					FOR
5.	Non-binding, advisory vote on the frequency of future non-binding, advisory votes on the compensation of our named executive officers.		2YR	3YR		1 YEAR
6.	To approve a proposal to adjourn the Annual Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation and vote of proxies in the event that there are insufficient votes for, or otherwise in connection with, the approval of Proposal 3.					FOR

You must pre-register to attend the meeting online at www.proxydocs.com/CABA

Authorized Signatures - Must be completed for your instructions to be executed. Please sign exactly as your name(s) appears on your stock certificate. If held in joint tenancy, all persons should sign. Trustees, administrators, etc., should include title and authority. Corporations should provide full name of corporation and title of authorized officer signing the proxy.

Signature (Title and name of Corporation if applicable) Date

Signature (if held jointly)

Date