

PROSPECTUS SUPPLEMENT
(To Prospectus dated November 7, 2025)**9,677,420 Shares****Cogent Biosciences, Inc.****Common Stock**

We are offering 9,677,420 shares of our common stock pursuant to this prospectus supplement and accompanying prospectus.

Our common stock is traded on the Nasdaq Global Select Market under the symbol "COGT." On November 11, 2025, the last reported sale price per share of our common stock was \$33.42.

Concurrent Transaction

Concurrently with this offering, we are conducting a public offering (the "Concurrent Convertible Notes Offering") of \$200,000,000 aggregate principal amount of our 1.625% Convertible Senior Notes due 2031 (the "convertible notes") (or up to \$230,000,000 aggregate principal amount if the underwriters in the Concurrent Convertible Notes Offering exercise their over-allotment option in full). Neither this offering nor the Concurrent Convertible Notes Offering is conditioned upon the completion of the other, so it is possible that this offering occurs and the Concurrent Convertible Notes Offering does not occur, or vice versa. We cannot assure you that the Concurrent Convertible Notes Offering will be completed on the terms described herein, on significantly different terms, or at all. The Concurrent Convertible Notes Offering is being made pursuant to a separate prospectus supplement, and nothing contained herein shall constitute an offer to sell or the solicitation of an offer to buy our notes to be issued in the Concurrent Convertible Notes Offering. See "Prospectus Supplement Summary - Recent Developments," "Use of Proceeds" and "Description of the Concurrent Convertible Notes Offering."

Investing in our securities involves a high degree of risk. You should carefully consider the risks and uncertainties described under the heading "[Risk Factors](#)" on page S-9 of this prospectus supplement and in the accompanying prospectus, as well as those contained in the other documents that are incorporated by reference into this prospectus supplement and any related free writing prospectus. You should carefully read this entire prospectus supplement and the accompanying prospectus, including any information incorporated by reference hereto and thereto, before deciding whether to purchase our securities.

	Per share	Total
Public offering price	\$ 31.00	\$300,000,020
Underwriting discounts and commissions ⁽¹⁾	\$ 1.86	\$ 18,000,001
Proceeds to Cogent Biosciences, Inc., before expenses	\$ 29.14	\$282,000,019

(1) See "Underwriting" beginning on page S-18 of this prospectus supplement for additional information regarding underwriting compensation.

The underwriters may also exercise their option to purchase up to an additional 1,451,613 shares of common stock from us, at the public offering price, less the underwriting discounts and commissions, for 30 days after the date of this prospectus supplement. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be \$20.7 million, and the total proceeds to us, before expenses, will be \$324.3 million. See "Underwriting" for more information.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The shares of common stock will be ready for delivery on or about November 13, 2025.

*Joint Book-Running Managers***J.P. Morgan****Jefferies****Leerink Partners****Guggenheim Securities***Lead Manager***LifeSci Capital***Co-Manager***Raymond James**

Prospectus Supplement dated November 11, 2025.

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We are responsible for the information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not authorized anyone to give you any other information, and we take no responsibility for any other information that others may give you. We are not making offers to sell the securities in any jurisdiction in which an offer or solicitation is not authorized or permitted or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. The information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering speaks only as of the date of this document, unless the information specifically indicates that another date applies. Neither the delivery of this prospectus supplement, the accompanying prospectus or any free writing prospectus that we have authorized for use in connection with this offering, nor any sale of securities made under these documents, will, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus supplement, the accompanying prospectus or any free writing prospectus that we have authorized for use in connection with this offering, nor that the information contained or incorporated by reference is correct as of any time subsequent to the date of such information. You should assume that the information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the date of the documents containing the information, unless the information specifically indicates that another date applies. Our business, financial condition, results of operations and prospects may have changed since those dates.

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus form part of an automatic shelf registration statement on Form S-3ASR that we filed with the U.S. Securities and Exchange Commission (the “SEC”) on November 7, 2025, which became automatically effective upon filing, as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended (the “Securities Act”), using an automatic “shelf” registration process. This document contains two parts. The first part consists of this prospectus supplement, which provides you with specific information about this offering. The second part consists of the accompanying prospectus, which provides more general information, some of which may not apply to this offering. Generally, when we refer only to the “prospectus,” we are referring to both parts combined. This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent that any statement we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus, or any documents incorporated by reference, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus, including the documents incorporated by reference therein. Information in any document we subsequently file that is incorporated by reference shall modify or supersede the information in this prospectus supplement, the accompanying prospectus and documents incorporated by reference prior to such subsequent filing.

We have not authorized, and the underwriters have not authorized, anyone to provide you with information that is different from that contained or incorporated by reference in this prospectus supplement or the accompanying prospectus. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” in this prospectus supplement and in the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” in the accompanying prospectus, respectively.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless otherwise mentioned or unless the context requires otherwise, throughout this prospectus supplement, the words “Cogent,” “we,” “us,” “our” or the “Company” refer to Cogent Biosciences, Inc., and the term “securities” refers to shares of our common stock.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement contains forward-looking statements, which reflect our current views with respect to, among other things, our operations and financial performance. All statements other than statements of historical facts contained in this prospectus supplement, including, but not limited to, statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “should,” “expects,” “might,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential,” “seek,” “would” or “continue,” or the negative of these terms or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Some of the key factors that could cause actual results to differ from our expectations include, but are not limited to, the following:

- the potential impacts of raising additional capital, including dilution to our existing stockholders, restrictions on our operations or requirements that we relinquish rights to our technologies or product candidates;
- the success, cost, and duration of our product development activities and clinical trials, including the enrollment rates in our clinical trials;
- the timing of our planned regulatory submissions to the U.S. Food and Drug Administration for our bezuclastinib product candidate and any other product candidates we may develop;
- our ability to obtain and maintain regulatory approval for our bezuclastinib product candidate and any other product candidates we may develop, and any related restrictions, limitations, and/or warnings in the label of an approved product candidate;
- the potential for our identified research priorities to advance our bezuclastinib product candidate or for our teams to discover and develop additional product candidates;
- the ability to license additional intellectual property rights relating to our bezuclastinib product candidate or future product candidates from third parties and to comply with our existing or future license agreements and/or collaboration agreements;
- our ability to commercialize our bezuclastinib product candidate and future product candidates in light of the intellectual property rights of others;
- our ability to obtain funding for our operations, including funding necessary to complete further discovery, development and commercialization of our existing and future product candidates;

- the scalability and commercial viability of our manufacturing methods and processes;
- the commercialization of our product candidates, if approved;
- our ability to attract collaborators with development, regulatory, and commercialization expertise;
- future agreements with third parties in connection with the commercialization of our product candidates and any other approved product;
- the size and growth potential of the markets for our product candidates, and our ability to serve those markets;
- the rate and degree of market acceptance of our product candidates;
- the pricing and reimbursement of our product candidates, if approved;
- regulatory developments in the United States and foreign countries, including pharmaceutical and biological product marketing regulation;
- the impact of adverse business and economic conditions including inflationary pressures, general economic slowdown or a recession, high interest rates, changes in monetary policy, banking institution instability, changes in trade policies, including tariffs or other trade restrictions or the threat of such actions, and the prospect of a, or any then ongoing, shutdown of the U.S. federal government;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;
- the development and success of competing therapies that are or may be under development in clinical trials or become available commercially;
- our ability to attract and retain key scientific and management personnel;
- our ability to satisfy the conditions, covenants, and obligations under our loan and security agreement;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing;
- our expectations regarding our use of the proceeds from any private placements, debt issuances, sales of our preferred stock and public offerings of our common stock that we may conduct from time to time;
- the fact that interim clinical data may not be indicative of future results;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our bezuclastinib product candidate and future product candidates; and
- our expectations regarding the completion of, and use of proceeds from, this offering and the Concurrent Convertible Notes Offering.

These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included in this prospectus supplement, the accompanying prospectus, information incorporated by reference herein or therein, and any related free-writing prospectus. The forward-looking statements contained in this prospectus supplement are made as of the date of this prospectus supplement, and we undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise.

PROSPECTUS SUPPLEMENT SUMMARY

The following summary of our business highlights certain of the information contained elsewhere in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that may be important to you. You should carefully read this entire prospectus supplement and the accompanying prospectus, including any information incorporated by reference, which are described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" herein and therein. In particular, you should carefully consider the risks and uncertainties described under the heading "Risk Factors" in this prospectus supplement and in the accompanying prospectus, as well as those contained in the other documents incorporated by reference herein and therein and any related free writing prospectus.

Company Overview

We are a clinical-stage biotechnology company focused on developing precision therapies for genetically defined diseases. Our approach is to design rational precision therapies that treat the underlying cause of disease and improve the lives of patients. Our most advanced program is bezucastinib, also known as CGT9486, a highly selective tyrosine kinase inhibitor that is designed to potentially inhibit the KIT D816V mutation as well as other mutations in KIT exon 17. In the vast majority of cases, KIT D816V is responsible for driving Systemic Mastocytosis, a serious and rare disease caused by unchecked proliferation of mast cells. Exon 17 mutations are also found in patients with advanced gastrointestinal stromal tumors ("GIST"), a type of cancer with strong dependence on oncogenic KIT signaling. Bezucastinib is a highly selective and potent KIT inhibitor with the potential to provide a new treatment option for these patient populations. We are developing bezucastinib to treat patients living with Non-Advanced Systemic Mastocytosis ("NonAdvSM"), Advanced Systemic Mastocytosis ("AdvSM") and GIST. We also have an ongoing Phase 1 study of our novel internally developed FGFR2 inhibitor. In addition to bezucastinib, the Cogent Research Team is developing a portfolio of novel targeted therapies to help patients fighting serious, genetically driven diseases initially targeting mutations in ErbB2, PI3Ka, KRAS, and JAK2.

For more information about our business, please see our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we have filed or will file with the SEC, and in other documents which are incorporated by reference into this prospectus supplement and the accompanying prospectus.

Recent Developments

Clinical Data

On November 10, 2025, the Company announced positive results from its bezucastinib PEAK Phase 3 Trial in GIST.

PEAK Phase 3 Trial Results

PEAK is a global, randomized Phase 3 clinical trial evaluating bezucastinib in combination with sunitinib vs. sunitinib monotherapy in patients with imatinib-resistant or intolerant GIST. In the top-line results, as of the cutoff date, September 30, 2025, the bezucastinib combination demonstrated a substantial and highly statistically significant clinical benefit on the primary endpoint of progression free survival, reducing risk of disease progression or death compared to the current standard of care by 50% (hazard ratio of 0.50, 95% CI:

0.39 – 0.65). Median progression free survival, as assessed by blinded independent central review, was 16.5 months for the bezucastatinib combination vs. 9.2 months for sunitinib monotherapy. Additionally, the bezucastatinib combination demonstrated an unprecedented objective response rate in imatinib-resistant patients, with 46% of patients treated with the bezucastatinib combination achieving an objective response compared to 26% of patients treated with sunitinib. At the time of this analysis, data for overall survival remains immature.

Based on these data, and the number of ongoing patients receiving treatment on the bezucastatinib arm, the estimated mean duration of treatment for the bezucastatinib combination is projected to exceed 19 months.

Safety Data

As of the data cutoff, the bezucastatinib combination was generally well tolerated, and no unique risks were observed with the novel combination when compared to the known safety profile of sunitinib. The most commonly reported Grade 3+ treatment emergent adverse events in either arm (bezucastatinib combination vs. sunitinib) included: Hypertension (29.4% vs. 27.4%), Neutropenia (15.2% vs. 15.4%), ALT/AST increased (10.8% vs. 1.4%), Anemia (9.3% vs. 4.8%) and Diarrhea (7.8% vs. 7.2%). 7.4% of patients on the bezucastatinib combination and 3.8% of patients on sunitinib monotherapy discontinued study treatment(s) due to treatment related adverse events. Hepatic adverse events were predominantly transient and manageable lab abnormalities; the majority of which were low grade, non-serious, reversible and asymptomatic. In the combination arm, ALT/AST elevations led to bezucastatinib dose reductions in 12.7% of patients with only 3 subjects (1.5%) discontinuing bezucastatinib for ALT/AST elevations. All Grade 3 ALT/AST elevations resolved, and no Grade 4 elevations were reported across the study.

Potential Commercial Opportunity

The Company believes bezucastatinib represents a significant commercial opportunity across multiple indications. Based on internal analyses and external market research, the Company estimates a global annual market opportunity of over \$4 billion for bezucastatinib in combination with sunitinib as a potential second-line treatment for patients with imatinib-resistant or intolerant GIST, approximately \$3 billion for the treatment of patients with NonAdvSM, and approximately \$500 million for the treatment of patients with AdvSM.

Complete analysis of the Phase 3 PEAK data is ongoing, and the Company plans to present detailed results at a major medical conference in the first half of 2026.

Anticipated Upcoming Milestones

- Announce top-line results from the pivotal APEX trial in December 2025. APEX is a registration-directed, global, open-label trial in patients with AdvSM
- Present multiple bezucastatinib presentations at the 67th Annual Meeting of the American Society of Hematology ("ASH"), including two oral presentations from the pivotal SUMMIT trial in NonAdvSM patients
- Present initial data from the Company's novel JAK2 V617F inhibitor at ASH, showcasing its best-in-class potential
- Submit the Company's first new drug application ("NDA") for bezucastatinib in NonAdvSM patients by the end of 2025
- Submit NDA for bezucastatinib in imatinib-resistant or intolerant GIST patients in the first half of 2026

Concurrent Convertible Notes Offering

Concurrently with this offering, we are conducting the Concurrent Convertible Notes Offering of \$200,000,000 aggregate principal amount of our 1.625% Convertible Senior Notes due 2031 (or up to \$230,000,000 aggregate principal amount if the underwriters in the Concurrent Convertible Notes Offering exercise their over-allotment option in full). The Concurrent Convertible Notes Offering is being made pursuant to a separate prospectus supplement. Nothing contained herein shall constitute an offer to sell or the solicitation of an offer to buy the convertible notes in the Concurrent Convertible Notes Offering.

Neither this offering nor the Concurrent Convertible Notes Offering is conditioned upon the completion of the other, so it is possible that this offering occurs and the Concurrent Convertible Notes Offering does not occur, or vice versa. We cannot assure you that the Concurrent Convertible Notes Offering will be completed on the terms described herein, on significantly different terms, or at all. See "Description of the Concurrent Convertible Notes Offering."

Corporate Information

We were incorporated in March 2014 under the laws of the State of Delaware. We completed our initial public offering in April 2018, and in July 2020 we completed the asset acquisition of Kiq Bio LLC (formerly Kiq LLC) and shifted our development to bezuciclastinib, a selective tyrosine kinase inhibitor licensed from Plexikon, Inc. In October 2020, we changed our name to Cogent Biosciences, Inc.

Our principal executive office is located at 275 Wyman Street, 3rd Floor, Waltham, Massachusetts 02451, and our telephone number is (617) 945-5576. Our corporate website address is www.cogentbio.com. The information contained on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus supplement or the accompanying prospectus in deciding whether to purchase our securities.

THE OFFERING

Common stock offered by us pursuant to this prospectus supplement	9,677,420 shares of our common stock.
Common stock to be outstanding immediately after this offering	173,832,642 shares (on an as-converted-basis), giving effect to the conversion of 67,414 shares of our outstanding Series A Non-Voting Convertible Preferred Stock ("Series A Preferred Stock") into 16,853,500 shares of common stock, the conversion of 6,868 shares of our outstanding Series B Non-Voting Convertible Preferred Stock ("Series B Preferred Stock") into 6,868,000 shares of common stock, and the exercise of our outstanding pre-funded warrants into 606,060 shares of common stock, in each case without regard to the beneficial ownership limitations (or 175,284,255 shares of common stock if the underwriters' option to purchase additional shares of common stock is exercised in full). For more information, see "Description of Capital Stock" in the accompanying prospectus.
Option to purchase additional shares of common stock	The underwriters have a 30-day option to purchase up to 1,451,613 additional shares of common stock at the offering price from us.
Concurrent Convertible Notes Offering	Concurrently with this offering, we are conducting a public offering of \$200,000,000 aggregate principal amount of the convertible notes (or up to \$230,000,000 aggregate principal amount if the underwriters in the Concurrent Convertible Notes Offering exercise their over-allotment option in full). Neither this offering nor the Concurrent Convertible Notes Offering is conditioned upon the completion of the other, so it is possible that this offering occurs and the Concurrent Convertible Notes Offering does not occur, or vice versa. We cannot assure you that the Concurrent Convertible Notes Offering will be completed on the terms described herein, on significantly different terms, or at all.
Use of proceeds	We intend to use the net proceeds from this offering, together with the net proceeds from the Concurrent Convertible Notes Offering, to repay \$50 million of loans outstanding under our existing term loan facility, plus accrued interest and associated fees, and the remainder for development and regulatory activities relating to bezucastinib and other product candidates, the anticipated commercial launch and commercialization of bezucastinib, as well as for working capital and general corporate purposes. See "Use of Proceeds" for additional information.

Risk factors

You should read and consider the information set forth under the heading “Risk Factors” in this prospectus supplement and in the accompanying prospectus, together with the risk factors and cautionary statements described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024 and subsequent Quarterly Reports on Form 10-Q, incorporated by reference herein, before deciding to invest in shares of our common stock.

Nasdaq Global Select Market Symbol

Our common stock is listed on the Nasdaq Global Select Market under the symbol “COGT.”

The number of shares of our common stock that will be outstanding immediately after this offering as shown above is based on 164,155,222 shares of common stock outstanding as of September 30, 2025, after giving effect to the conversion of 67,414 shares of our outstanding Series A Preferred Stock into 16,853,500 shares of common stock, the conversion of 6,868 shares of our outstanding Series B Preferred Stock into 6,868,000 shares of common stock, and the exercise of our outstanding pre-funded warrants into 606,060 shares of common stock, in each case without regard to the beneficial ownership limitations, but otherwise excludes:

- 27,499,141 shares of our common stock subject to stock options outstanding as of September 30, 2025 with a weighted-average exercise price of \$8.80 per share;
- up to 3,054,000 shares of our common stock subject to outstanding and unvested performance-based restricted stock units as of September 30, 2025;
- 1,021,195 shares of our common stock reserved for future grant or issuance under the 2020 Inducement Plan as of September 30, 2025;
- 1,669,043 shares of our common stock reserved for future grant or issuance under the 2018 Stock Option and Incentive Plan as of September 30, 2025;
- 302,733 shares of our common stock reserved for future issuance under the 2018 Employee Stock Purchase Plan as of September 30, 2025;
- 2,490,253 shares of our common stock issued under the Sales Agreement, dated May 6, 2022, by and between us and Guggenheim Securities, LLC, as amended on November 7, 2025 (the “Sales Agreement”);
- Any shares issuable upon conversion of the convertible notes.

Except as otherwise noted, all information in this prospectus supplement assumes no exercise of the underwriters’ option to purchase additional shares of common stock.

RISK FACTORS

The following risk factors and other information included in this prospectus supplement should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. You should carefully consider the risks described below, as well as those contained in the other documents incorporated by reference in this prospectus supplement and accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering, before deciding whether to invest in our common stock. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In any such case, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Relating to this Offering

We have broad discretion as to the use of proceeds from this offering and may not use the proceeds effectively.

Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The failure of our management to apply these funds effectively could result in unfavorable returns and uncertainty about our prospects, each of which could cause the price of our common stock to decline.

You may experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

If you purchase shares of our common stock in this offering, you will incur immediate and substantial dilution in the amount of \$27.64 per share because the public offering price of \$31.00 per share is substantially higher than the as-adjusted net tangible book value per share of our outstanding common stock. In addition, the exercise of any outstanding options to purchase shares of our common stock, the vesting of performance-based restricted stock units, the exercise of pre-funded warrants outstanding, the issuance of common stock pursuant to the Sales Agreement (which issuances may be made at the earlier of (i) the underwriters' option to purchase additional shares of common stock has been exercised in full and (ii) the expiration of the 30-day period during which the underwriters can exercise their option to purchase additional shares of common stock), and issuances of common stock in connection with the 2020 Inducement Plan, the 2018 Stock Option and Incentive Plan, and the 2018 Employee Stock Purchase Plan would result in additional dilution. To the extent we raise additional capital by issuing equity securities, our stockholders will experience substantial additional dilution. See "Dilution" for additional information.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we expect to in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering.

Future sales of our common stock in the public market could cause our common stock price to fall.

Our common stock price could decline as a result of sales of a large number of shares of common stock after this offering or the perception that these sales could occur. These sales, or the possibility that these sales may occur, might also make it more difficult for us to sell equity securities in the future at a time and price that we deem appropriate. Upon the completion of this offering, 173,832,642 shares of our common stock will be outstanding (or 175,284,255 shares if the underwriters exercise their option to purchase additional shares from us), based on the number of shares outstanding as of September 30, 2025, after giving effect to the conversion of 67,414 shares of our outstanding Series A Preferred Stock into 16,853,500 shares of common stock, the conversion of 6,868 shares of our outstanding Series B Preferred Stock into 6,868,000 shares of common stock, and the exercise of our outstanding pre-funded warrants into 606,060 shares of common stock, in each case without regard to the beneficial ownership limitations.

All shares of common stock expected to be sold in this offering will be freely tradable without restriction or further registration under the Securities Act, unless held by our “affiliates” as defined in Rule 144 under the Securities Act. The resale of certain of our outstanding shares of common stock following this offering is currently prohibited or otherwise restricted as a result of securities law provisions or lock-up agreements entered into by certain of our stockholders with the underwriters in connection with this offering and the Concurrent Convertible Notes Offering. However, subject to applicable securities law restrictions, these shares will be able to be sold in the public market beginning 61 days after the date of this prospectus supplement.

If securities or industry analysts either do not publish research about us or publish inaccurate or unfavorable research about us, our business or our market, or if they change their recommendations regarding our common stock adversely, the trading price or trading volume of our common stock could decline.

The trading market for our common stock will be influenced in part by the research and reports that securities or industry analysts may publish about us, our business, our market, or our competitors. If one or more of these analysts initiate research with an unfavorable rating or downgrade our common stock, provide a more favorable recommendation about our competitors or publish inaccurate or unfavorable research about our business, our common stock price would likely decline. If any analyst who may cover us were to cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the trading price or trading volume of our common stock to decline.

Risks Relating to the Concurrent Convertible Notes Offering

The conversion of convertible notes could impair our financial position and liquidity.

Unless we elect to deliver solely shares of our common stock to settle the conversion of the convertible notes (other than paying cash in lieu of delivering any fractional share), we must settle at least a portion of our conversion obligation in cash, and therefore, the conversion of convertible notes could materially and adversely affect our financial position and liquidity. Before August 15, 2031, noteholders will have the right to convert their convertible notes only upon the occurrence of certain events. From and after August 15, 2031, noteholders may convert their convertible notes at any time at their election until the close of business on the scheduled trading day immediately before the maturity date. However, many of the conditions that permit the conversion of convertible notes before August 15, 2031 are beyond our control. We could be required to expend a significant amount of cash to settle conversions, which could significantly harm our financial position and liquidity.

The closing of this offering is not contingent upon the closing of the Concurrent Convertible Notes Offering, and vice versa.

The closing of this offering is not contingent upon the closing of the Concurrent Convertible Notes Offering. Therefore, it is possible that this offering occurs and the Concurrent Convertible Notes Offering does not occur, and vice versa. We cannot assure you that the Concurrent Convertible Notes Offering will be completed on the terms described herein, on significantly different terms, or at all. Accordingly, if you decide to purchase shares of our common stock, you should be willing to do so whether or not we complete the Concurrent Convertible Notes Offering. This prospectus supplement is not an offer to sell or a solicitation of an offer to buy any of the convertible notes being offered in the Concurrent Convertible Notes Offering. See "Description of the Concurrent Convertible Notes Offering."

The accounting method for the convertible notes could adversely affect our reported financial condition and results.

The accounting method for reflecting the convertible notes on our balance sheet, accruing interest expense for the convertible notes and reflecting the underlying shares of our common stock in our reported diluted earnings per share may adversely affect our reported earnings and financial condition.

In accordance with applicable accounting standards, we expect that the convertible notes we are offering in the Concurrent Convertible Notes Offering will be reflected as a liability on our balance sheets, with the initial carrying amount equal to the principal amount of the convertible notes, net of issuance costs. The issuance costs will be treated as a debt discount for accounting purposes, which will be amortized into interest expense over the term of the convertible notes. As a result of this amortization, the interest expense that we expect to recognize for the convertible notes for accounting purposes will be greater than the cash interest payments we will pay on the convertible notes, which will result in lower reported income.

In addition, we expect that the shares of our common stock underlying the convertible notes will be reflected in our diluted earnings per share using the "if converted" method. Under that method, if the conversion value of the convertible notes exceeds their principal amount for a reporting period, then we will calculate our diluted earnings per share assuming that all of the convertible notes were converted at the beginning of the reporting period and that we issued shares of our common stock to settle the excess. The after-tax interest expense associated with the convertible notes will not be added back to the numerator of the diluted earnings per share calculation for these purposes. However, if reflecting the convertible notes in diluted earnings per share in this manner is anti-dilutive, or if the conversion value of the convertible notes does not exceed their principal amount for a reporting period, then the shares of our common stock underlying the convertible notes will not be reflected in our diluted earnings per share. The application of the if-converted method may reduce our reported diluted earnings per share, and accounting standards may change in the future in a manner that may adversely affect our diluted earnings per share.

Furthermore, if any of the conditions to the convertibility of the convertible notes is satisfied, then we may be required under applicable accounting standards to reclassify the liability carrying value of the convertible notes as a current, rather than a long-term, liability. This reclassification could be required even if no noteholders convert their convertible notes and could materially reduce our reported working capital.

We have not reached a final determination regarding the accounting treatment for the convertible notes nor the application of the if-converted method, and the description above is preliminary. Accordingly, we may account for the convertible notes and calculate diluted earnings per share in a manner that is significantly different than described above.

Provisions in the indenture governing the convertible notes could delay or prevent an otherwise beneficial takeover of us.

Certain provisions in the convertible notes and the indenture governing the convertible notes could make a third-party attempt to acquire us more difficult or expensive. For example, if a takeover constitutes a fundamental change (as will be defined in the indenture governing the convertible notes), then, except as described in prospectus supplement related to the Concurrent Convertible Notes Offering, noteholders will have the right to require us to repurchase their convertible notes for cash. In addition, if a takeover constitutes a make-whole fundamental change (as will be defined in the indenture governing the convertible notes), then we may be required to temporarily increase the conversion rate. In either case, and in other cases, our obligations under the convertible notes and the indenture could increase the cost of acquiring us or otherwise discourage a third party from acquiring us or removing incumbent management, including in a transaction that noteholders or holders of our common stock may view as favorable.

USE OF PROCEEDS

We estimate that we will receive net proceeds from the issuance and sale of shares of our common stock in this offering of approximately \$281.7 million (or approximately \$324.0 million if the underwriters' option to purchase up to \$30,000,000 of additional shares of common stock is exercised in full), based on the public offering price of \$31.00 per share of common stock and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We estimate we will receive net proceeds from the Concurrent Convertible Notes Offering, if it is consummated as currently contemplated, of approximately \$193.7 million (or approximately \$222.8 million if the underwriters in the Concurrent Convertible Notes Offering exercise their over-allotment option in full), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering, together with the net proceeds from the Concurrent Convertible Notes Offering, to repay \$50 million of loans outstanding under our existing term loan facility, plus accrued interest and associated fees, and the remainder for development and regulatory activities relating to bezuclastinib and other product candidates, the anticipated commercial launch and commercialization of bezuclastinib, as well as for working capital and general corporate purposes.

The loans outstanding under our existing term loan facility mature on June 1, 2030 and bear interest at an annual rate equal to 4.75% plus the greater of (i) one-month term Secured Overnight Financing Rate, and (ii) 4.15% per annum. The proceeds of the loans under the existing term loan facility were used for development and regulatory activities relating to bezuclastinib and other product candidates, the anticipated commercial launch and commercialization of bezuclastinib, as well as for working capital and general corporate purposes.

Our expected use of proceeds from this offering represents our current intentions based on our present plans and business condition. As of the date of this prospectus supplement, we cannot predict with certainty all of the particular uses for the proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above.

Based on our current business plans, we believe that the net proceeds from this offering, together with the net proceeds from the Concurrent Convertible Notes Offering and our existing cash will be sufficient to fund our planned operations into 2028. The amount and timing of our actual expenditures will depend on numerous factors, including the pace and results of our research and development efforts, the timing and success of clinical trials, the timing and costs associated with the manufacture and supply of product candidates, the timing of regulatory submissions and any unforeseen cash needs. For additional information regarding our potential capital requirements, including factors that could cause actual costs to vary from the estimates set forth above, see "Risk Factors" in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein.

Pending the use of the net proceeds, we may invest the proceeds in interest-bearing, investment-grade securities, certificates of deposit or government securities.

DESCRIPTION OF THE CONCURRENT CONVERTIBLE NOTES OFFERING

Concurrently with this offering, we are offering \$200,000,000 aggregate principal amount of our 1.625% Convertible Senior Notes due 2031 (or up to \$230,000,000 aggregate principal amount if the underwriters in the Concurrent Convertible Notes Offering exercise their over-allotment option in full) pursuant to a separate prospectus supplement in an underwritten public offering. The convertible notes will mature on November 15, 2031, unless earlier converted, redeemed or repurchased by us. The convertible notes will bear interest at a rate of 1.625% per year, payable semi-annually in arrears on May 15 and November 15 of each year, beginning on May 15, 2026. Holders of the convertible notes may convert their convertible notes at their option only under the following circumstances: (1) during any calendar quarter (and only during such calendar quarter) commencing after the calendar quarter ending on March 31, 2026, if the last reported sale price per share of our common stock exceeds 130% of the conversion price for each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter; (2) during the five consecutive business days immediately after any 10 consecutive trading day period (such 10 consecutive trading day period, the "measurement period") in which the trading price per \$1,000 principal amount of convertible notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price per share of our common stock on such trading day and the conversion rate on such trading day; (3) upon the occurrence of certain corporate events or distributions on our common stock; (4) if we call such convertible notes for redemption; and (5) at any time from, and including, August 15, 2031 until the close of business on the scheduled trading day immediately before the maturity date. We will settle conversions by paying or delivering, as applicable, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election, based on the applicable conversion rate(s). The initial conversion rate is 22.2469 shares of common stock per \$1,000 principal amount of convertible notes, which represents an initial conversion price of approximately \$44.95 per share, and is subject to adjustment to be set forth in the indenture governing the convertible notes. If a "make-whole fundamental change" (as will be defined in the indenture governing the convertible notes) occurs, then we will in certain circumstances increase the conversion rate for a specified period of time.

The convertible notes will be redeemable, in whole or in part (subject to certain limitations to be described in the indenture governing the convertible notes), at our option at any time, and from time to time, on or after November 20, 2029 and on or before the 26th scheduled trading day immediately before the maturity date, at a cash redemption price equal to the principal amount of the convertible notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if the last reported sale price per share of our common stock exceeds 130% of the conversion price on (1) each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the trading day immediately before the date we send the related redemption notice; and (2) the trading day immediately before the date we send such notice. In addition, calling any convertible note for redemption will constitute a make-whole fundamental change with respect to that convertible note, in which case the conversion rate applicable to the conversion of that convertible note will be increased in certain circumstances if it is converted after it is called for redemption.

If a "fundamental change" (as will be defined in the indenture governing the convertible notes) occurs, then, subject to a limited exception, noteholders may require us to repurchase their convertible notes at a cash repurchase price equal to the principal amount of the convertible notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date.

The convertible notes will be our general, unsecured, senior obligations and will be senior in right of payment to our future indebtedness that is expressly subordinated in right of payment to the notes, equal in right of payment with our existing and future indebtedness that is not expressly subordinated to the notes and

effectively subordinated to our existing and future secured indebtedness, to the extent of the value of the collateral securing that indebtedness. The notes will be structurally subordinated to all existing and future indebtedness and other liabilities, including trade payables, and (to the extent we are not a holder thereof) preferred equity, if any, of our current or future subsidiaries.

Neither this offering nor the Concurrent Convertible Notes Offering is conditioned upon the completion of the other, so it is possible that this offering occurs and the Concurrent Convertible Notes Offering does not occur, or vice versa. We cannot assure you that the Concurrent Convertible Notes Offering will be completed on the terms described herein, on significantly different terms or at all. The Concurrent Convertible Notes Offering is being made pursuant to a separate prospectus supplement, and nothing contained herein shall constitute an offer to sell or the solicitation of an offer to buy the convertible notes to be issued in the Concurrent Convertible Notes Offering.

DILUTION

Dilution represents the difference between the amount per share of common stock paid by purchasers of shares of common stock in this offering and the as-adjusted net tangible book value per share of our common stock immediately after this offering. The data in this section is derived from our balance sheet as of September 30, 2025. Net tangible book value per share of common stock is equal to our total tangible assets less the amount of our total liabilities, divided by the sum of the number of shares of common stock outstanding as of September 30, 2025, excluding shares of common stock underlying outstanding options. Our net tangible book value as of September 30, 2025 was \$302.5 million, or \$2.16 per share of common stock. For purposes of this “Dilution” section, except as otherwise noted, all subsequent share and per share information assumes the conversion of 67,414 shares of our outstanding Series A Preferred Stock into 16,853,500 shares of common stock, the conversion of 6,868 shares of our outstanding Series B Preferred Stock into 6,868,000 shares of common stock, and the exercise of our outstanding pre-funded warrants into 606,060 shares of common stock, in each case without regard to the beneficial ownership limitations (collectively, the “Conversion”) (for more information, see “Description of Capital Stock” in the accompanying prospectus). Assuming such Conversion, our pro forma net tangible book value as of September 30, 2025 was \$302.5 million, or \$1.84 per share of common stock.

We present dilution on a pro forma as-adjusted basis to give effect to the assumed conversion of all outstanding shares of our Series A Preferred Stock and Series B Preferred Stock and exercise of all outstanding pre-funded warrants as described above and our receipt of the estimated net proceeds from the sale of shares of our common stock in this offering, based on the public offering price of \$31.00 per share of common stock and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. On a pro forma as-adjusted basis, our net tangible book value as of September 30, 2025 would have been \$584.1 million, or \$3.36 per share of common stock. This represents an immediate increase in pro forma as-adjusted net tangible book value to existing stockholders of \$1.52 per share of common stock and immediate dilution in pro forma as-adjusted net tangible book value to purchasers of shares of common stock in this offering of \$27.64 per share of common stock. The following table illustrates this dilution per share of common stock:

Public offering price per share of common stock	\$31.00
Net tangible book value per share of common stock as of September 30, 2025 (excluding the assumed Conversion)	\$2.16
Pro forma net tangible book value per share as of September 30, 2025, after giving effect to the Conversion	\$1.84
Increase in pro forma net tangible book value per share of common stock attributable to purchasers of shares of common stock in this offering	\$1.52
Pro forma as-adjusted net tangible book value per share of common stock immediately after this offering	\$ 3.36
Dilution per share of common stock to purchasers of shares of common stock in this offering	\$27.64

If the underwriters fully exercise their option to purchase additional shares of common stock, the pro forma as-adjusted net tangible book value after this offering would increase by approximately \$1.73 per share of common stock, and there would be an immediate dilution of approximately \$27.43 per share of common stock to purchasers of shares of common stock in this offering.

The foregoing excludes:

- 27,499,141 shares of our common stock subject to stock options outstanding as of September 30, 2025 with a weighted-average exercise price of \$8.80 per share;
- up to 3,054,000 shares of our common stock subject to outstanding and unvested performance-based restricted stock units as of September 30, 2025;
- 1,021,195 shares of our common stock reserved for future grant or issuance under the 2020 Inducement Plan as of September 30, 2025;
- 1,669,043 shares of our common stock reserved for future grant or issuance under the 2018 Stock Option and Incentive Plan as of September 30, 2025;
- 302,733 shares of our common stock reserved for future issuance under the 2018 Employee Stock Purchase Plan as of September 30, 2025;
- 2,490,253 shares of our common stock issued under the Sales Agreement; and
- Any shares issuable upon conversion of the convertible notes.

UNDERWRITING

We are offering the shares of common stock described in this prospectus supplement through a number of underwriters. J.P. Morgan Securities LLC, Jefferies LLC, Leerink Partners LLC and Guggenheim Securities, LLC are acting as joint book-running managers of the offering and as representatives of the underwriters. We have entered into an underwriting agreement with the representatives. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

Underwriters	Number of shares
J.P. Morgan Securities LLC	3,193,549
Jefferies LLC	2,129,032
Leerink Partners LLC	1,935,484
Guggenheim Securities, LLC	1,451,613
LifeSci Capital LLC	483,871
Raymond James & Associates, Inc.	483,871
Total	9,677,420

The underwriters are committed to purchase all the shares of common stock offered by us if they purchase any securities. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$1.116 per share of common stock. Any such dealers may resell shares to certain other brokers or dealers at a discount of up to \$0.372 per share of common stock from the public offering price. After the offering of the shares of common stock to the public, if all of the shares of common stock are not sold at the public offering price, the underwriters may change the offering price and the other selling terms. Sales of any shares of common stock made outside of the United States may be made by affiliates of the underwriters.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Option to Purchase Additional Shares

The underwriters have an option to buy up to 1,451,613 additional shares of common stock from us to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus supplement to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

Commissions and Expenses

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The following table shows the public offering price, the

underwriting discounts and commissions that we are to pay to the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share		Total	
	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares
Public offering price	\$ 31.00	\$ 31.00	\$300,000,020	\$345,000,023
Underwriting discounts and commissions paid by us	\$ 1.86	\$ 1.86	\$ 18,000,001	\$ 20,700,001
Proceeds to us, before expenses	\$ 29.14	\$ 29.14	\$282,000,019	\$324,300,022

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$337,500. We have also agreed to reimburse the underwriters for certain of their expenses up to \$30,000.

Electronic Distribution

A prospectus supplement and accompanying prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

No Sales of Similar Securities

We have agreed that we will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, or submit to, or file with, the SEC a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exercisable or exchangeable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, loan, disposition or filing, or (ii) enter into any swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any shares of common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of the representatives for a period of 45 days after the date of this prospectus, other than the shares of our common stock to be sold in this offering.

The restrictions on our actions, as described above, do not apply to certain transactions, including (i) the securities to be sold hereunder, (ii) the issuance of common stock upon the exercise of an option or warrant or the conversion of a security outstanding on the date of this prospectus supplement pursuant to stock plans existing as of the date of this prospectus supplement, (iii) the filing of a registration statement on Form S-8 or a successor form thereto in respect of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock issued under or the grant of any award pursuant to stock plans existing as of the date of this prospectus supplement, (iv) sales of shares of common stock pursuant to the Sales Agreement or any replacement "at the market offering" program; provided that in the case of clause (iv), no such sales may be made prior to 30 days from the date of this prospectus supplement unless the underwriters have exercised their option to purchase additional shares in full and all such additional shares have been

issued, (v) convertible notes to be issued and sold pursuant to the Concurrent Convertible Note Offering, (vi) the entry into an agreement providing for the issuance of shares of common stock or any security convertible into or exercisable for common stock in connection with the acquisition of the securities, business, property or other assets of another person or entity or pursuant to an employee benefit plan assumed in connection with such acquisition, and the issuance of any such securities pursuant to any such agreement, or (vii) the entry into an agreement providing for the issuance of shares of common stock or any security convertible into or exercisable for shares of common stock in connection with joint ventures, commercial relationships or other strategic transactions, and the issuance of any such securities pursuant to any such agreement; provided that in the case of (vi) or (vii), the aggregate number of shares of common stock or any security convertible into or exercisable for common stock (on an as-converted, as-exercised or as-exchanged basis) that we may sell or issue or agree to sell or issue do not exceed 5% of the total number of shares of our common stock issued and outstanding immediately following the completion of this offering and all recipients of shares of common stock or any security convertible into or exercisable for common stock enter into a lock-up agreement with respect to the remaining portion of the 45-day lock-up period.

Our directors and executive officers, and certain stockholder (such persons, the "lock-up parties") have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each lock-up party, with limited exceptions, for a period of 45 days after the date of this prospectus supplement, may not (and may not cause any of their direct or indirect affiliates to), without the prior written consent of the representatives, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such lock-up parties in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant (collectively with the common stock, the "lock-up securities")), (ii) enter into any hedging, swap or other agreement or transaction that transfers, in whole or in part, any of the economic consequences of ownership of the lock-up securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of lock-up securities, in cash or otherwise, (iii) make any demand for, or exercise any right with respect to, the registration of any lock-up securities, or (iv) publicly disclose the intention to do any of the foregoing. Such persons or entities have further acknowledged that these undertakings preclude them from engaging in any hedging or other transactions or arrangements (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) designed or intended, or which could reasonably be expected to lead to or result in, a sale or disposition or transfer (by any person or entity, whether or not a signatory to such agreement) of any economic consequences of ownership, in whole or in part, directly or indirectly, of any lock-up securities, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of lock-up securities, in cash or otherwise.

The restrictions described in the immediately preceding paragraph and contained in the lock-up agreements between the underwriters and the lock-up parties do not apply, subject in certain cases to various conditions, to certain transactions, including (a) transactions relating to shares of common stock or other securities acquired in this offering or acquired in open market transactions after the completion of this offering; (b) transfers of shares of common stock or any security convertible into or exercisable or exchangeable for common stock as a bona fide gift, including without limitation to a charitable organization; (c) distributions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock to limited partners, general partners, managers, directors, officers, employees, members, stockholders or trust beneficiaries of the lock-up party or its affiliates (as defined in Rule 405 promulgated under the Securities Act) or to any investment fund or other entity controlled or managed by the lock-up party; (d) transfers or dispositions of shares of

common stock or any security convertible into or exercisable or exchangeable for common stock by will or other testamentary document or by intestacy; (e) transfers or dispositions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock to any trust for the direct or indirect benefit of the lock-up party or the immediate family of the lock-up party in a transaction not involving a disposition for value; (f) the exercise of options to purchase shares of common stock granted under a stock incentive plan or stock purchase plan and outstanding as of the date of this prospectus supplement or the exercise of warrants to purchase shares of common stock (or any security convertible into or exercisable or exchangeable for common stock) and outstanding as of the date of this prospectus supplement; (g) transfers of shares of common stock or any security convertible into or exercisable or exchangeable for common stock that occur by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement; (h) transfers or dispositions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock to the Company pursuant to any contractual arrangement disclosed to the representatives and in effect on the date of this prospectus supplement that provides for the repurchase of the lock-up party's shares of common stock or such other securities by the Company solely in connection with the termination of the lock-up party's employment with the Company; (i) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock; (j) transfers to the Company of shares of common stock upon a vesting of the lock-up party's common stock or upon the exercise of options or warrants to purchase common stock, in each case on a "cashless" or "net exercise" basis solely to cover tax withholding obligations of the undersigned in connection with such vesting or exercise; and (k) transfers in connection with a bona fide third party tender offer, merger, consolidation or other similar transaction involving a change of control of the Company that is approved by the Board of Directors of the Company, made to all holders of the common stock and occurring after the closing of this offering, provided that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the shares of common stock owned by the lock-up party remain subject to lock-up.

The representatives, in their sole discretion, may release the securities subject to any of the lock-up agreements with the underwriters described above, in whole or in part at any time.

Listing

Our common stock is listed on the Nasdaq Global Select Market under the symbol "COGT."

Stabilization

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' option to purchase additional shares referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that

could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq Global Select Market, in the over-the-counter market or otherwise.

Other Activities and Relationships

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future. Certain of the underwriters are also acting as joint bookrunning managers in the Concurrent Convertible Notes Offering.

Selling Restrictions

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus supplement in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement may not be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement. This prospectus supplement does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement in any jurisdiction in which such an offer or a solicitation is unlawful.

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area (each, a "Member State"), no securities have been offered or will be offered pursuant to the offering to the public in that Member State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Member State, all in accordance with the Prospectus Regulation, except that offers of securities may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

- to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the underwriters for any such offer; or

- in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of securities shall require the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to any securities in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Notice to Prospective Investors in the United Kingdom

In relation to the United Kingdom, no securities have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the securities which has been approved by the Financial Conduct Authority, or (ii) is to be treated as if it had been approved by the Financial Conduct Authority in accordance with the transitional provision in Regulation 74 of the Prospectus (Amendment etc.) (EU Exit) Regulations 2019, except that offers of securities may be made to the public in the United Kingdom of any securities at any time under the following exemptions under the UK Prospectus Regulation:

- to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- in any other circumstances falling within Section 86 of the FSMA, provided that no such offer of the securities shall require the Company or any of the underwriters to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to the securities in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

In addition, this prospectus supplement and the accompanying prospectus are only being distributed to, and is only directed at, and any investment or investment activity to which this prospectus supplement and the accompanying prospectus relate is available only to, and will be engaged in only with, persons who are outside the United Kingdom or persons in the United Kingdom (i) having professional experience in matters relating to investments who fall within the definition of “investment professionals” in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, or the Order; or (ii) who are high net worth entities falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). Persons who are not relevant persons should not take any action on the basis of this prospectus supplement and the accompanying prospectus and should not act or rely on them.

Notice to Prospective Investors in Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than: (i) to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or (ii) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the “SFO”) and any rules made under that Ordinance; or in other

circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong (the “CO”) or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities that are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made under that Ordinance.

This prospectus supplement and the accompanying prospectus have not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus supplement and the accompanying prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus supplement and accompanying prospectus and that he is not acquiring, and has not been offered, any securities in circumstances that contravene any such restrictions.

Notice to Prospective Investors in Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended, the “FIEL”) and the underwriters will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (the term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Notice to Prospective Investors in Singapore

This prospectus supplement and the accompanying prospectus have not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and the accompanying prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of common stock offered hereby may not be circulated or distributed, nor may the shares of common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than: (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the “SFA”); (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA; or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares of common stock are subscribed or purchased under Section 275 of the SFA by a relevant person that is:

- a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)), the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries’ rights and interest (howsoever described) in that trust

shall not be transferred within six months after that corporation or that trust has acquired the shares of common stock pursuant to an offer made under Section 275 of the SFA except:

- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Notice to Prospective Investors in Canada

Resale Restrictions

The offering of the shares of common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the shares of common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Representations of Canadian Purchasers

By purchasing shares of common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the shares of common stock without the benefit of a prospectus qualified under those securities laws, as it is an “accredited investor” as defined under National Instrument 45-106—Prospectus Exemptions;
- the purchaser is a “permitted client” as defined under National Instrument 31-103—Registration Requirements, Exemptions and Ongoing Registrant Obligations;
- where required by law, the purchaser is purchasing as principal and not as agent; and
- the purchaser has reviewed the text above under “Resale Restrictions.”

Conflicts of Interest

Canadian purchasers are hereby notified that the underwriters relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105—Underwriting Conflicts, do not provide certain conflict of interest disclosures in this document.

Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the offering memorandum (including any amendment thereto) such as this document

contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada, and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets, and the assets of those persons may be located outside of Canada, and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment

Canadian purchasers of the shares of common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares of common stock in their particular circumstances and about the eligibility of the shares of common stock for investment by the purchaser under relevant Canadian legislation.

Notice to Prospective Investors in Australia

This prospectus supplement and the accompanying prospectus is not a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia (the "Corporations Act"), has not been lodged with the Australian Securities and Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus supplement and the accompanying prospectus in Australia, you confirm and warrant that you are either:

- a "sophisticated investor" under Section 708(8)(a) or (b) of the Corporations Act;
- a "sophisticated investor" under Section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to the Company that complies with the requirements of Section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;
- a person associated with the Company under Section 708(12) of the Corporations Act; or
- a "professional investor" under Section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act, any offer made to you under this prospectus supplement and the accompanying prospectus is void and incapable of acceptance.

Further, you warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus supplement and the accompanying prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under Section 708 of the Corporations Act.

Notice to Prospective Investors in Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968 (the "Israeli Securities Law"), and has not been filed with or approved by the Israel Securities Authority. In Israel, this

prospectus supplement and the accompanying prospectus is being distributed only to, and is directed only at, and any offer of the shares of common stock offered hereby is directed only at: (i) a limited number of persons in accordance with the Israeli Securities Law; and (ii) investors listed in the first addendum to the Israeli Securities Law, as it may be amended from time to time (the "Addendum"), consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals," each as defined in the Addendum, collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of the Addendum and agree to it.

Notice to Prospective Investors in Switzerland

The shares of common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This prospectus supplement and the accompanying prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus supplement and the accompanying prospectus, nor any other offering or marketing material relating to the shares of common stock or the offering, may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus supplement and the accompanying prospectus, nor any other offering or marketing material relating to the offering, the Company or the shares of common stock offered hereby, have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus supplement and the accompanying prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (the "CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares of common stock offered hereby.

Notice to Prospective Investors in the United Arab Emirates

The securities have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre ("DIFC")) other than in compliance with the laws of the United Arab Emirates (and the DIFC) governing the issue, offering and sale of securities. Further, this prospectus supplement and the accompanying prospectus do not constitute a public offer of securities in the United Arab Emirates (including the DIFC) and is not intended to be a public offer. This prospectus supplement and the accompanying prospectus have not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority, Financial Services Regulatory Authority or the Dubai Financial Services Authority.

Notice to Prospective Investors in Saudi Arabia

This document may not be distributed in the Kingdom of Saudi Arabia except to such persons as are permitted under the Rules on the Offer of Securities and Continuing Obligations Regulations as issued by the board of the Saudi Arabian Capital Market Authority ("CMA"), pursuant to resolution number 3-123-2017 dated 27 December 2017, as amended. The CMA does not make any representation as to the accuracy or completeness of this

document and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. Prospective purchasers of the securities offered hereby should conduct their own due diligence on the accuracy of the information relating to the securities. If you do not understand the contents of this document, you should consult an authorized financial adviser.

LEGAL MATTERS

The validity of the common stock being offered in this prospectus supplement will be passed on by Gibson, Dunn & Crutcher LLP, San Francisco, California. Certain legal matters in connection with this offering will be passed upon for the underwriters by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control Over Financial Reporting) incorporated in this Prospectus Supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2024 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

The Company is subject to the informational requirements of the Exchange Act, and in accordance therewith, files annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that site is www.sec.gov. Statements contained in this prospectus supplement as to the contents of any contract or other document are not necessarily complete, and in each instance, we refer you to the copy of the contract or document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file after the date hereof with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below:

- Annual Report on [Form 10-K](#) for the year ended December 31, 2024 filed with the SEC on February 25, 2025, including the Part III information incorporated by reference from our Definitive Proxy Statement on [Schedule 14A](#) filed with the SEC on April 22, 2025;
- Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025 filed with the SEC on [May 6, 2025](#), June 30, 2025 filed with the SEC on [August 5, 2025](#), and September 30, 2025 filed with the SEC on [November 7, 2025](#);
- Current Reports on Form 8-K filed with the SEC on [June 5, 2025](#), [June 11, 2025](#), [July 7, 2025](#), [July 10, 2025](#), [September 11, 2025](#) and [November 10, 2025](#); and
- The description of our common stock contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on February 25, 2025, including any amendments or reports filed for the purposes of updating this description.

All documents we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act shall be deemed incorporated by reference in this prospectus supplement and to be a part of this prospectus supplement from the date of filing of those documents, with the exception of any portion of any report or document that is not deemed “filed” under such provisions on or after the date of this prospectus supplement, until the earlier of the date on which: (1) all of the securities registered hereunder have been sold; or (2) the registration statement of which this prospectus supplement is a part has been withdrawn.

Under no circumstances will any information filed under current Item 2.02 or Item 7.01 (and exhibits filed pursuant to Item 9.01 of Form 8-K that are related to such items) be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Upon written or oral request, we will provide without charge to each person to whom a copy of the prospectus supplement is delivered a copy of the documents incorporated by reference herein (other than exhibits to such documents unless such exhibits are specifically incorporated by reference herein). You may request a copy of these filings, at no cost, by writing, calling or emailing us at the contact information set forth below. We have authorized no one to provide you with any information that differs from that contained in this prospectus supplement. Accordingly, we take no responsibility for any other information that others may give you. You should not assume that the information in this prospectus supplement is accurate as of any date other than the date of the front cover of this prospectus supplement.

Cogent Biosciences, Inc.
275 Wyman Street, 3rd Floor
Waltham, Massachusetts 02451
Attn: Corporate Secretary
(617) 945-5576
info@cogentbio.com

PROSPECTUS



**COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
WARRANTS
UNITS**

From time to time, we may issue, in one or more series or classes, an indeterminate number of shares of our common stock, preferred stock, debt securities, warrants and/or units, at prices and on terms that we will determine at the time of the offering.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. We may not sell any securities under this prospectus without delivery of the applicable prospectus supplement. If information in any prospectus supplement is inconsistent with the information in this prospectus, then the information in that prospectus supplement will apply and will supersede the information in this prospectus.

You should read this prospectus, the applicable prospectus supplement and any related free writing prospectus carefully, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

Our shares of common stock are listed on the Nasdaq Global Select Market under the symbol "COGT". The last reported sale price of our common stock on the Nasdaq Global Select Market on November 6, 2025 was \$14.72 per share. We recommend that you obtain current market quotations for our common stock prior to making an investment decision.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "[Risk Factors](#)" contained in this prospectus beginning on page 5 and any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Prospectus dated November 7, 2025

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ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf registration statement on Form S-3ASR that we filed with the Securities and Exchange Commission (the “SEC” or the “Commission”), as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended (the “Securities Act”) utilizing a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus from time to time in one or more offerings. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should carefully read both this prospectus and any prospectus supplement together with additional information under the headings “Where You Can Find More Information” and “Incorporation by Reference.”

We have not authorized anyone to provide you with any information other than that contained or incorporated by reference in this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

Unless the context otherwise requires, we use the terms “Cogent,” “Company,” “we,” “us,” and “our” in this prospectus to refer to Cogent Biosciences, Inc. and, where appropriate, our subsidiaries.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities and Exchange Act of 1934, as amended (the “Exchange Act”). All statements, other than statements of historical facts contained in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plan, objectives of management and expected market growth are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “should,” “expects,” “might,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential,” “seek,” “would” or “continue,” or the negative of these terms or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Some of the key factors that could cause actual results to differ from our expectations include, but are not limited to, the following:

- the potential impacts of raising additional capital, including dilution to our existing stockholders, restrictions on our operations or requirements that we relinquish rights to our technologies or product candidates;
- the success, cost, and duration of our product development activities and clinical trials, including the enrollment rates in our clinical trials;
- the timing of our planned regulatory submissions to the U.S. Food and Drug Administration for our bezucastinib product candidate and any other product candidates we may develop;
- our ability to obtain and maintain regulatory approval for our bezucastinib product candidate and any other product candidates we may develop, and any related restrictions, limitations, and/or warnings in the label of an approved product candidate;
- the potential for our identified research priorities to advance our bezucastinib product candidate or for our teams to discover and develop additional product candidates;
- the ability to license additional intellectual property rights relating to our bezucastinib product candidate or future product candidates from third parties and to comply with our existing or future license agreements and/or collaboration agreements;
- our ability to commercialize our bezucastinib product candidate and future product candidates in light of the intellectual property rights of others;
- our ability to obtain funding for our operations, including funding necessary to complete further discovery, development and commercialization of our existing and future product candidates;
- the scalability and commercial viability of our manufacturing methods and processes;
- the commercialization of our product candidates, if approved;
- our ability to attract collaborators with development, regulatory, and commercialization expertise;
- future agreements with third parties in connection with the commercialization of our product candidates and any other approved product;

- the size and growth potential of the markets for our product candidates, and our ability to serve those markets;
- the rate and degree of market acceptance of our product candidates;
- the pricing and reimbursement of our product candidates, if approved;
- regulatory developments in the United States and foreign countries, including pharmaceutical and biological product marketing regulation;
- the impact of adverse business and economic conditions including inflationary pressures, general economic slowdown or a recession, high interest rates, changes in monetary policy, banking institution instability, changes in trade policies, including tariffs or other trade restrictions or the threat of such actions, and the prospect of a, or any then ongoing, shutdown of the U.S. federal government;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;
- the development and success of competing therapies that are or may be under development in clinical trials or become available commercially;
- our ability to attract and retain key scientific and management personnel;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing;
- our use of the proceeds from our private placements, sales of our preferred stock and other public offerings of our common stock from time to time;
- the fact that interim clinical data may not be indicative of future results; and
- our expectations regarding our ability to obtain and maintain intellectual property protection for our bezuclastinib product candidate and future product candidates.

These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included in this prospectus, any accompanying prospectus supplement, information incorporated by reference herein or therein, and any related free-writing prospectus. The forward-looking statements contained in this prospectus are made as of the date of hereof and we undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise.

THE COMPANY

We are a clinical-stage biotechnology company focused on developing precision therapies for genetically defined diseases. Our approach is to design rational precision therapies that treat the underlying cause of disease and improve the lives of patients. Our most advanced program is bezucastinib, also known as CGT9486, a highly selective tyrosine kinase inhibitor that is designed to potently inhibit the KIT D816V mutation as well as other mutations in KIT exon 17. In the vast majority of cases, KIT D816V is responsible for driving Systemic Mastocytosis (“SM”), a serious and rare disease caused by unchecked proliferation of mast cells. Exon 17 mutations are also found in patients with advanced gastrointestinal stromal tumors (“GIST”), a type of cancer with strong dependence on oncogenic KIT signaling. Bezucastinib is a highly selective and potent KIT inhibitor with the potential to provide a new treatment option for these patient populations. We are developing bezucastinib to treat patients living with Non-Advanced Systemic Mastocytosis (“Non-AdvSM”), Advanced Systemic Mastocytosis (“AdvSM”) and GIST. We also have an ongoing Phase 1 study of our novel internally developed FGFR2 inhibitor. In addition to bezucastinib, the Cogent Research Team is developing a portfolio of novel targeted therapies to help patients fighting serious, genetically driven diseases initially targeting mutations in ErbB2, PI3K, KRAS, and JAK2.

For more information about our business, please see our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we have filed or will file with the SEC, and in other documents which are incorporated by reference into this prospectus.

Corporate Information

We were incorporated in March 2014 under the laws of the State of Delaware. We completed our initial public offering in April 2018, and in July 2020 we completed the asset acquisition of Kiq Bio LLC (formerly Kiq LLC) and shifted our development to bezucastinib, a selective tyrosine kinase inhibitor licensed from Plexxikon, Inc. In October 2020, we changed our name to Cogent Biosciences, Inc.

Our principal executive office is located at 275 Wyman Street, 3rd Floor, Waltham, Massachusetts 02451, and our telephone number is (617) 945-5576. Our corporate website address is www.cogentbio.com. The information contained on our website is not incorporated by reference into this prospectus or any accompanying prospectus supplement, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or any accompanying prospectus supplement in deciding whether to purchase our securities.

RISK FACTORS

Investing in our securities involves risks. You should carefully consider the risks, uncertainties and other factors described in our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we have filed or will file with the SEC, and in other documents which are incorporated by reference into this prospectus, as well as the risk factors and other information contained in or incorporated by reference into any accompanying prospectus supplement before investing in any of our securities. Our business, financial condition, results of operations, cash flows or prospects could be materially and adversely affected by any of these risks. The risks and uncertainties described in the documents incorporated by reference herein are not the only risks and uncertainties that you may face.

For more information about our SEC filings, please see “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Unless otherwise specified in a prospectus supplement accompanying this prospectus, the net proceeds from the sale by us of the securities to which this prospectus relates will be used for development and regulatory activities relating to bezuclastinib and other product candidates, the anticipated commercial launch and commercialization of bezuclastinib, as well as for working capital and general corporate purposes. Our expected use of proceeds from the sale of the securities offered hereby represents our current intentions based on our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the proceeds to be received from the sale of the securities offered hereby or the amounts that we will actually spend on the uses set forth above.

Pending the use of the net proceeds, we may invest the proceeds in interest-bearing, investment-grade securities, certificates of deposit or government securities. When we offer and sell the securities to which this prospectus relates, the prospectus supplement related to such offering will set forth our intended use of the proceeds, if any, received from the sale of such securities.

SECURITIES WE MAY OFFER

This prospectus contains summary descriptions of the securities we may offer from time to time. These summary descriptions are not meant to be complete descriptions of each security. The particular terms of any security will be described in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following is a summary of the material terms of our capital stock, as well as other material terms of certain provisions of Delaware law, our fourth amended and restated certificate of incorporation (as amended from time to time, our “certificate of incorporation”), and our amended and restated bylaws (“bylaws”), both of which are filed as exhibits to our most recent Annual Report on Form 10-K, filed with the SEC, and are incorporated by reference herein. This summary does not purport to be complete and is qualified in its entirety by the provisions of our certificate of incorporation and bylaws. For more information on how you can obtain our certificate of incorporation and bylaws, see the heading “Where You Can Find More Information.”

Our authorized capital stock consists of 300,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share, 1,000,000 of which are designated as Series A Non-Voting Convertible Preferred Stock (“Series A Preferred Stock”), 20,580 of which are designated as Series B Non-Voting Convertible Preferred Stock (the “Series B Preferred Stock”) and 8,979,420 of which shares of preferred stock are undesignated.

Common Stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights, or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution, or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. The shares to be issued by us in this offering will be, when issued and paid for, validly issued, fully paid and non-assessable.

All outstanding shares of common stock are validly issued, fully paid and non-assessable, and any issued shares of common stock will be validly issued, fully paid and non-assessable.

Series A Preferred Stock

Holders of Series A Preferred Stock are entitled to receive dividends on shares of Series A Preferred Stock equal to, on an as-if-converted-to-common-stock basis, and in the same form as dividends actually paid on shares of the common stock. Except as otherwise required by law, the Series A Preferred Stock does not have voting rights. However, as long as any shares of Series A Preferred Stock are outstanding, we will not, without the affirmative vote of the holders of a majority of the then outstanding shares of the Series A Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock, (b) alter or amend the certificate of designations of Series A Preferred Stock (“Series A Certificate of Designations”), (c) amend its certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders of Series A Preferred Stock, (d) increase the number of authorized shares of Series A Preferred Stock, (e) prior to the stockholder approval of the conversion of the Series A Preferred Stock into shares of common stock (which stockholder approval has been received) or at any time while at least 40% of the originally issued Series A Preferred Stock remains issued and outstanding, consummate a Fundamental Transaction (as defined in the Certificate of Designation) or (f) enter into any agreement with respect to any of the foregoing. The Series A Preferred Stock does not have a preference upon any liquidation, dissolution or winding-up of the Company, and are not be redeemable.

Each share of Series A Preferred Stock is convertible into shares of common stock at any time at the option of the holder thereof, into 250 shares of common stock, subject to certain limitations, including that a holder of

Series A Preferred Stock is prohibited from converting shares of Series A Preferred Stock into shares of common stock if, as a result of such conversion, such holder, together with its affiliates, would beneficially own more than a specified percentage (as established by the holder between 4.9% and 19.9%) of the total number of shares of common stock issued and outstanding immediately after giving effect to such conversion.

As of September 30, 2025, 95,911 shares of Series A Preferred Stock have been converted to common stock and 67,414 shares of Series A Preferred Stock were issued and outstanding.

Series B Preferred Stock

Holders of Series B Preferred Stock are entitled to receive dividends on shares of Series B Preferred Stock equal to, on an as-if-converted-to-common stock basis, and in the same form as dividends actually paid on shares of the common stock. Except as otherwise required by law, the Series B Preferred Stock does not have voting rights. However, as long as any shares of Series B Preferred Stock are outstanding, we will not, without the affirmative vote of each of the holders of the then outstanding shares of the Series B Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock, (b) alter or amend the certificate of designations of Series B Preferred Stock (“Series B Certificate of Designations”), or (c) amend its certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders of Series B Preferred Stock. The Series B Preferred Stock does not have a preference upon any liquidation, dissolution or winding-up of the Company.

Each share of Series B Preferred Stock is convertible into 1,000 shares of common stock, subject to certain limitations, including that a holder of Series B Preferred Stock is prohibited from converting shares of Series B Preferred Stock into shares of common stock if, as a result of such conversion, such holder, together with its affiliates, would beneficially own more than a specified percentage (to be established by the holder between 0% and 19.9%) of the total number of shares of common stock issued and outstanding immediately after giving effect to such conversion.

As of September 30, 2025, 13,712 shares of Series B Preferred Stock have been converted to common stock and 6,868 shares of Series B Preferred Stock were issued and outstanding.

Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue up to 8,979,420 additional shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of the Company or other corporate action. Other than the outstanding Series A Preferred Stock and Series B Preferred Stock, no shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

Certain Provisions of Delaware Law and Our Certificate of Incorporation and Bylaws

Anti-Takeover Effects of our Certificate of Incorporation and Bylaws and Delaware Law

Certain provisions of the Delaware General Corporation Law and of our certificate of incorporation and by laws could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover

practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our board of directors. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, we believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our certificate of incorporation and bylaws:

- permit our board of directors to issue up to an additional 8,979,420 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution adopted by a majority of the board of directors;
- provide that the board of directors or any individual director may only be removed with cause and the affirmative vote of the holders of at least 66.67% of the voting power of all of our then outstanding common stock;
- divide our board of directors into three classes;
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through the corporation;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by the chairperson of the board, our chief executive officer, or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exists any vacancies); and
- provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws, or (iv) any action asserting a claim against us governed by the internal affairs doctrine.

The amendment of any of these provisions, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences, and privileges thereto, would require the affirmative vote of the holders of at least 66.67% of the voting power of all of our then outstanding common stock.

Transfer Agent and Registrar

Computershare Trust Company, N.A. serves as the transfer agent and registrar for our common stock.

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities under an indenture to be entered into between us and a trustee chosen by us, qualified to act as such under the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”) and appointed under the indenture. The indenture will consist of a base indenture (the “base indenture”) as supplemented by a supplemental indenture or authorizing resolution setting forth the specific terms of any debt securities we may issue. References below to an “indenture” are references to the base indenture, as supplemented, under which a particular series of debt securities is issued. The indenture will be governed by the Trust Indenture Act unless otherwise specified in the applicable prospectus supplement. We will set forth the terms of any such debt securities in the applicable prospectus supplement.

The following is a summary of the base indenture. It does not restate the base indenture entirely. We urge you to read the indenture. We have filed the form of base indenture as an exhibit to the registration statement of which this prospectus is a part, and we will file the base indenture we enter into and the supplemental indentures or authorizing resolutions with respect to particular series of debt securities as exhibits to current or other reports we file with the SEC. See “Where You Can Find More Information” for information on how to obtain copies of the base indenture and the supplemental indentures or authorizing resolutions. You may also inspect copies of the documents for the particular series at the office of the trustee.

Terms of the Debt Securities

Our debt securities will be general obligations of Cogent Biosciences, Inc. We may issue them in one or more series. Supplemental indentures or authorizing resolutions will set forth the specific terms of each series of debt securities. We will provide a prospectus supplement for each series of debt securities that will describe:

- the title of the series;
- the aggregate principal amount (or any limit on the aggregate principal amount) of the series and, if any securities of a series are to be issued at a discount from their face amount, or with a premium, the method of computing the accretion of such discount or computing such premium;
- the interest rate or method of calculation of the interest rate;
- the date from which interest will accrue;
- the record dates for interest payable on securities of the series;
- the dates when, places where and manner in which principal and interest are payable;
- if there is more than one trustee or a trustee other than the trustee under the base indenture, the identity of the trustee and, if not the trustee, the identity of each registrar, paying agent or authenticating agent with respect to such securities;
- the terms of any mandatory (including any sinking fund requirements) or optional redemption by the company;
- the terms of any redemption at the option of holders;
- the permissible denominations in which securities of such series are issuable, if different from minimum denominations of \$2,000 and multiples of \$1,000 in excess thereof;
- whether securities of such series will be issued in registered or bearer form and the terms of any such forms of securities;
- whether the securities of the series shall be issued in whole or in part in the form of a global security or securities, the terms and conditions, if different from those contained in the base indenture, upon which such global security or securities may be exchanged in whole or in part for definitive securities;
- the depositary for such global security or securities;

- the form of any legend or legends, if any, to be borne by any such global security or securities in addition to or in lieu of the legends referred to the base indenture;
- the currency or currencies (including any composite currency) in which principal or interest or both may be paid;
- if payments of principal or interest may be made in a currency other than that in which securities of such series are denominated, the manner for determining such payments, including the time and manner of determining the exchange rate between the currency in which such securities are denominated and the currency in which such securities or any of them may be paid, and any deletions from or modifications of or additions to the terms of the indenture to provide for or to facilitate the issuance of securities denominated or payable, at the election of the company or a holder thereof or otherwise, in a foreign currency;
- whether the amount of payments of principal of or any interest on, such securities may be determined with reference to an index, formula, financial or economic measure or other method or methods (which index, formula, measure or method or methods may be based, without limitation, on one or more currencies, commodities, equity indices or other indices) and if so, the terms and conditions upon which and the manner in which such amounts shall be determined and paid or be payable;
- provisions for electronic issuance of securities or issuance of securities of such series in uncertificated form;
- any events of default, covenants, defined terms and/or other terms in addition to or in lieu of those set forth in the base indenture;
- whether and upon what terms securities of such series may be defeased or discharged if different from the provisions set forth in the base indenture;
- the form of the securities of such series;
- any terms that may be required by or advisable under applicable law;
- the percentage of the principal amount of the securities of such series which is payable if the maturity of the securities of such series is accelerated in the case of securities issued at a discount from their face amount;
- whether securities of such series will or will not have the benefit of guarantees and, if applicable, the terms and conditions upon which such guarantees may be subordinated to other indebtedness of the respective guarantors;
- whether the securities of such series are senior or subordinated debt securities, and if subordinated debt securities, the terms of such subordination;
- whether the securities of the series will be convertible into or exchangeable for other securities, common stock, other securities, cash or property of any kind of the company or another person or persons, and, if so, the terms and conditions upon which such securities will be so convertible or exchangeable, including the initial conversion or exchange price or rate or the method of calculation, how and when the conversion price or exchange ratio may be adjusted, whether conversion or exchange is mandatory, at the option of the holder or at the company's option, the conversion or exchange period, and any other provision in relation thereto; and
- any other terms in addition to or different from those contained in the base indenture applicable to such series.

The applicable prospectus supplement will also describe any material covenants to which a series of debt securities will be subject and the applicability of those covenants to any of our subsidiaries to be restricted thereby, which are referred to herein as "restricted subsidiaries." The applicable prospectus supplement will also describe provisions for restricted subsidiaries to cease to be restricted by those covenants.

Events of Default and Remedies

Unless otherwise described in the applicable prospectus supplement, an event of default with respect to any series of debt securities will be defined in the indenture as being:

- our failure to pay interest on any debt security of such series when the same becomes due and payable and the continuance of any such failure for a period of 30 days;
- our failure to pay the principal or premium of any debt security of such series when the same becomes due and payable at maturity, upon acceleration, redemption or otherwise;
- our failure to comply with any of our agreements or covenants in, or provisions of, the debt securities of such series or the indenture (as they relate thereto) and such failure continues for a period of 90 days after our receipt of notice of the default from the trustee or from the holders of at least 25 percent in aggregate principal amount of the then outstanding debt securities of that series; and
- certain events of bankruptcy, insolvency or reorganization occur with respect to us.

The base indenture will provide that the trustee shall be protected in withholding notice to the holders of any series of debt securities of any default, except a default in payment of principal or interest, if any, with respect to such series of debt securities, if the trustee determines that it is in the interest of the holders of such series of debt securities to do so.

The base indenture will provide that if any event of default has occurred and is continuing with respect to any series of debt securities (other than an event of default resulting from certain events of bankruptcy, insolvency or reorganization), the trustee or the holders of not less than 25% in principal amount of such series of debt securities then outstanding (with a copy to the trustee if given by the holders) may declare all the debt securities of such series to be due and payable immediately. If an event of default resulting from certain events of bankruptcy, insolvency or reorganization occur, all amounts due and payable on the debt securities of such series will become and be immediately due and payable without any declaration, notice or other act on the part of the trustee, us or any holder.

The holders of a majority in principal amount of the debt securities of such series then outstanding by notice to the trustee may waive any existing default and its consequences with respect to such series of debt securities, other than a default in respect of a covenant or a provision of the indenture that cannot be modified or amended without the consent of all holders of the applicable series of debt securities.

At any time after such a declaration of acceleration with respect to any series of debt securities has been made, the holders of a majority in principal amount of the outstanding debt securities of that series, by written notice to the us and the trustee, may rescind and annul such declaration and its consequences, if the rescission would not conflict with any judgment or decree and if:

- we have paid or deposited with the trustee a sum sufficient to pay all overdue interest on all debt securities of that series, the principal of (and premium, if any, on) any debt securities of that series which have become due otherwise than by such declaration of acceleration and any interest thereon at the rate or rates prescribed therefor in such debt securities, to the extent that payment of such interest is lawful, interest upon overdue interest at the rate or rates prescribed therefor in such debt securities, and all sums paid or advanced by the trustee and the reasonable compensation, expenses, disbursements and advances of the trustee, its agents and counsel; and
- all events of default with respect to the debt securities of that series, other than the non-payment of the principal and interest, if any, of the debt securities of that series which have become due solely by such declaration of acceleration, have been cured or waived.

The holders of a majority of the outstanding principal amount of the debt securities of any series will have the right to direct the time, method and place of conducting any proceedings for any remedy available to the trustee with respect to such series, subject to limitations specified in the indenture.

Defeasance, Satisfaction and Discharge

Unless otherwise described in the applicable prospectus supplement, the indenture will permit us to terminate all our obligations under the indenture as they relate to any particular series of debt securities (“legal defeasance”), other than the right of the holders of the debt securities of such series to receive payments solely from the trust fund described below in respect of the principal and interest on such debt securities and certain other obligations, at any time by:

- depositing in trust with the trustee, under an irrevocable trust agreement, money, government obligations or a combination thereof in an amount sufficient to pay principal of and interest, if any, on the debt securities of such series to their maturity or redemption; and
- complying with other conditions, including delivery to the trustee of an opinion of counsel to the effect that (A) we have received from, or there has been published by, the Internal Revenue Service a ruling, or (B) since the date such series of debt securities were originally issued, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such opinion of counsel shall state that, holders will not recognize income, gain or loss for federal income tax purposes as a result of our exercise of such right and will be subject to federal income tax on the same amount and in the same manner and at the same times as would have been the case otherwise.

Unless otherwise described in the applicable prospectus supplement, the indenture will also permit us to terminate all of our obligations under covenants in the indenture as they relate to any particular series of debt securities, and the debt securities of such series shall thereafter be deemed to be not “outstanding” for the purpose of any direction, waiver, consent or declaration or act of holders of such series in connection with such covenants (“covenant defeasance”), at any time by:

- depositing in trust with the trustee, under an irrevocable trust agreement, money or government obligations in an amount sufficient to pay principal and interest, if any, on the debt securities of such series to their maturity or redemption; and
- complying with other conditions, including delivery to the trustee of an opinion of counsel to the effect that holders will not recognize income, gain or loss for federal income tax purposes as a result of our exercise of such right and will be subject to federal income tax on the same amount and in the same manner and at the same times as would have been the case otherwise.

The indenture will be discharged and will cease to be of further effect with respect to a series of debt securities when either:

- all outstanding debt securities of such series, other than any securities that have been destroyed, lost, or stolen and that have been replaced or paid as provided in the indenture, have been delivered to the trustee for cancellation; or
- all outstanding debt securities of such series that have not been delivered to the trustee for cancellation have become due and payable or will become due and payable at maturity within one year or are to be called for redemption within one year under arrangements satisfactory to the trustee for the giving of notice of redemption, and we shall have irrevocably deposited with the trustee as trust funds the entire amount, in money or governmental obligations, or a combination thereof, sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay at maturity or upon redemption of all securities of such series, including principal of and any premium and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be.

In each case, we will also pay all other sums payable by us under the indenture with respect to the securities of such series, deliver irrevocable instructions to the trustee to apply the deposited money toward the payment of the debt securities of such series at maturity or redemption, as the case may be, and deliver to the trustee an opinion of counsel and an officers’ certificate, each stating that all conditions precedent to satisfaction and discharge with respect to the securities of such series have been complied with.

Transfer and Exchange

A holder will be able to transfer or exchange debt securities only in accordance with the indenture. The registrar may require a holder, among other things, to furnish appropriate endorsements and transfer documents, and to pay any taxes and fees required by law or permitted by the indenture.

Amendment, Supplement and Waiver

Without notice to or the consent of any holder, we and the trustee may amend or supplement the indenture or the debt securities of a series to:

- cure any ambiguity or to correct or supplement any provision of the indenture which may be defective or inconsistent with any other provision in the indenture;
- comply with the provisions of the indenture regarding the consolidation, merger, sale, lease, conveyance or other disposition of all or substantially all of our assets;
- create a series and establish its terms;
- provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- add to our covenants for the benefit of the holders of all or any series of debt securities or to surrender any right or power conferred upon us by the indenture;
- add any additional events of default for the benefit of holders of all or any series of debt securities;
- add a guarantor in respect of any series of debt securities;
- secure any series of debt securities;
- comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act;
- evidence and provide for the acceptance of appointment of a successor trustee and to add to or change any of the provisions of the indenture or any supplemental indenture as shall be necessary to provide for or facilitate the administration of the trusts under such indenture or supplemental indenture by more than one trustee pursuant to the requirements set forth in the indenture;
- make any change that does not adversely affect the rights of any holder in any material respect; or
- conform the provisions of the indenture to the final offering document in respect of any series of debt securities.

With the exceptions discussed below, we and the trustee may amend or supplement the indenture or the debt securities of a series with the written consent of the holders of at least a majority in principal amount of the debt securities of each series then outstanding affected by the amendment or supplement (voting as one class). In addition, the holders of a majority in principal amount of the debt securities of each series then outstanding affected by the waiver (voting as one class) may, without notice to any holder, waive any existing default under, or compliance with, any provision of the debt securities of each such series or of the indenture relating to each such series. These consents and waivers may be obtained in connection with a purchase of, or tender offer or exchange offer for, debt securities.

However, without the consent of each holder affected, we and the trustee may not:

- change the stated maturity of the principal of, or any installment of principal of or interest thereon, or reduce the principal amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof, or change the coin or currency in which, such debt securities or any premium or interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the stated maturity thereof (or, in the case of redemption, on or after the redemption date);

- make any change to the provision of the indenture relating to the waiver of past defaults, except to increase the percentage in principal amount of debt securities of any series the consent of whose holders is required for any waiver or to provide that certain other provisions of the indenture cannot be modified or waived without the consent of the holder of each outstanding note affected thereby;
- waive a continuing default or event of default in the payment of principal of or interest on the debt securities; or
- reduce the percentage in principal amount of debt securities of any series the consent of whose holders is required for any amendment, supplement or waiver.

Any supplemental indenture which changes or eliminates any covenant or other provision of the indenture which shall have been included expressly and solely for the benefit of one or more particular series of debt securities, or which modifies the rights of the holders of debt securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights of the holders of debt securities of any other series.

The right of any holder to participate in any consent required or sought pursuant to any provision of the indenture, and our obligation to obtain any such consent otherwise required from such holder, may be subject to the requirement that such holder shall have been the holder of record of debt securities with respect to which such consent is required or sought as of a record date fixed by us in accordance with the indenture.

Concerning the Trustee

The indenture will contain limitations on the rights of the trustee, should it become our creditor, to obtain payment of claims in specified cases or to realize on property received in respect of any such claim as security or otherwise. The indenture will permit the trustee to engage in other transactions; however, if it acquires any conflicting interest, it must eliminate such conflict or resign.

The indenture will provide that in case an event of default occurs and is not cured, the trustee will be required, in the exercise of its power, to use the degree of care of a prudent person in similar circumstances in the conduct of such person's own affairs. The trustee shall be under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders pursuant to the indenture, unless such holders shall have offered to the trustee security or indemnity satisfactory to the trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Repurchases in the Open Market

We or any of our affiliates may at any time or from time to time repurchase any of the debt securities in the open market or otherwise. Such debt securities may, at our or the applicable affiliate's option, be held, resold or surrendered to the trustee for cancellation.

No Recourse against Others

The indenture will provide that a director, officer, employee or stockholder, as such, of the Company shall not have any liability for any obligations of the Company under the debt securities or the indenture or for any claim based on, in respect of or by reason of, such obligations or their creation.

Governing Law

The laws of the State of New York will govern the indenture and the debt securities.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

General

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the periods during which, and places at which, the warrants are exercisable;
- the manner of exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

DESCRIPTION OF UNITS

We may issue units comprised of shares of common stock, shares of preferred stock, debt securities and warrants in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement;
- the price or prices at which such units will be issued;
- the applicable United States federal income tax considerations relating to the units;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities” and “Description of Warrants” will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements.

Issuance in Series

We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of your series will be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement:

Modification without Consent

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder:

- to cure any ambiguity, including modifying any provisions of the governing unit agreement that differ from those described below;
- to correct or supplement any defective or inconsistent provision; or
- to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect.

We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

Modification with Consent

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would:

- impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or
- reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval:

- if the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series; or
- if the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not Be Qualified under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed

to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

Governing Law

The unit agreements and the units will be governed by Delaware law.

Form, Exchange and Transfer

Unless the accompanying prospectus supplement states otherwise, we will issue each unit in global—i.e., book-entry—form only. Units in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depositary's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depositary and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Unless the accompanying prospectus supplement states otherwise, each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

- Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement.

Only the depositary will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell equity securities covered by this registration statement in an “at the market offering” as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of the Nasdaq Global Select Market or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker otherwise than on the Nasdaq Global Select Market or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to offerings pursuant to this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than our shares of common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on the Nasdaq Global Select Market may engage in passive market making transactions in the securities on the Nasdaq Global Select Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Certain legal matters, including the legality of the securities offered, will be passed upon for us by Gibson, Dunn & Crutcher LLP, San Francisco, California. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control Over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2024 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC, and we have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which forms part of the registration statement, does not contain all of the information included in the registration statement, including its exhibits and schedules. For further information about us and the securities described in this prospectus, you should refer to the registration statement, its exhibits and schedules and our reports, proxies, information statements and other information filed with the SEC.

Our filings are available to the public on the Internet, through a database maintained by the SEC at <http://www.sec.gov>. We also maintain a website at www.cogentbio.com. We have included our website address for the information of prospective investors and do not intend it to be an active link to our website. Information contained on our website does not constitute a part of this prospectus or any applicable prospectus supplement (or any document incorporated by reference herein or therein).

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus.

Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) following the filing of this prospectus until the offering of the securities under this prospectus is terminated or completed, except that we are not incorporating by reference any information furnished (and not filed) with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2024 filed with the SEC on February 25, 2025, including the Part III information incorporated by reference from our [Definitive Proxy Statement](#) on Schedule 14A filed with the SEC on April 22, 2025;
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2025](#) filed with the SEC on May 6, 2025, [June 30, 2025](#) filed with the SEC on August 5, 2025 and [September 30, 2025](#) filed with the SEC on November 7, 2025;
- our Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on [June 5, 2025](#), [June 11, 2025](#), [July 7, 2025](#), [July 10, 2025](#) and [September 11, 2025](#); and
- the description of our common stock contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on February 25, 2025, including any amendments or reports filed for the purposes of updating this description.

You may request a copy of these filings, at no cost, by contacting us, either orally or in writing, at the following:

Cogent Biosciences, Inc.
275 Wyman Street, 3rd Floor
Waltham, Massachusetts 02451
(617) 945-5576

We maintain a website at www.cogentbio.com. Information about us, including our reports filed with the SEC, is available through that site. Such reports are accessible at no charge through our website and are made available as soon as reasonably practicable after such material is filed with or furnished to the SEC. Our website and the information contained on that website, or connected to that website, are not incorporated by reference in this prospectus.

You may read and copy any materials we file with the SEC at the SEC's website mentioned under the heading "Where You Can Find More Information." The information on the SEC's website is not incorporated by reference in this prospectus.

9,677,420 Shares



Common Stock

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

J.P. Morgan

Jefferies

Leerink Partners

Guggenheim Securities

Lead Manager

LifeSci Capital

Co-Manager

Raymond James

November 11, 2025

Calculation of Filing Fee Tables

S-3

Cogent Biosciences, Inc.

Table 1: Newly Registered and Carry Forward Securities

☐ Not Applicable

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to be Paid	1 Equity	Common stock, par value \$0.001 per share	457(r)	11,129,033	\$ 31.00	345,000,023.00	\$ 0.0001381	\$ 47,644.50				
Fees Previously Paid												
Carry Forward Securities												
Carry Forward Securities												
Total Offering Amounts:						\$ 345,000,023.00		\$ 47,644.50				
Total Fees Previously Paid:								\$ 0.00				
Total Fee Offsets:								\$ 0.00				
Net Fee Due:								\$ 47,644.50				

Offering Note

¹ (1) Assumes exercise in full of the underwriters' option to purchase up to 1,451,613 additional shares of common stock. (2) The registration fee is calculated in accordance with Rule 457(r) of the Securities Act and represents deferred payment of the registration fees in connection with the Registrant's registration statement on Form S-3ASR (Registration No. 333-291384) paid with the filing of this prospectus supplement.

Table 2: Fee Offset Claims and Sources

☒ Not Applicable

		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rule 457(p)												
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3: Combined Prospectuses

☒ Not Applicable

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A