

PROSPECTUS

735,325 Shares



Common Stock Offered by the Selling Stockholders

This prospectus relates to the proposed resale from time to time of up to 735,325 shares, or the Shares, of our common stock, par value \$0.0001 per share, or the common stock, by the selling stockholders named herein, together with any additional selling stockholders listed in a prospectus supplement (together with any of such stockholders' transferees, pledgees, donees or successors), which consist of (i) 502,181 shares of our common stock held by certain of the selling stockholders and (ii) 233,144 shares of our common stock issuable upon the exercise of outstanding pre-funded warrants, or the Pre-Funded Warrants, to purchase shares of our common stock held by certain of the selling stockholders. We will not receive any proceeds from the sale of the shares offered by this prospectus, except the exercise price of \$0.01 per share of any of the Pre-Funded Warrants exercised for cash.

The selling stockholders acquired the Shares and the Pre-Funded Warrants from us in a private placement transaction that closed on October 9, 2025, or the Private Placement. We are filing this Registration Statement on Form S-3, of which this prospectus forms a part, to fulfill our contractual obligations with the selling stockholders to provide for the resale by the selling stockholders of the Shares. See "Selling Stockholders" beginning on page 11 of this prospectus for more information about the selling stockholders. The registration of the Shares to which this prospectus relates does not require the selling stockholders to sell any of their Shares, including any shares of common stock issuable upon the exercise of Pre-Funded Warrants.

We are not offering any shares of our common stock under this prospectus and will not receive any proceeds from the sale or other disposition of the Shares covered hereby; however, we will receive nominal proceeds from the exercise of the Pre-Funded Warrants. See "Use of Proceeds" beginning on page 10 of this prospectus.

The selling stockholders may offer and sell or otherwise dispose of the Shares described in this prospectus from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders will bear all selling commissions applicable to the sales of Shares, any transfer taxes and all fees and expenses of legal counsel for the selling stockholders, subject to certain specified exceptions. We will bear all other costs, expenses and fees in connection with the registration of the Shares. See the section titled "Plan of Distribution" for more information about how the selling stockholders may sell or dispose of their Shares.

Our common stock is traded on the Nasdaq Capital Market under the symbol "SPRB." On October 28, 2025, the last reported sales price of our common stock was \$124.51 per share.

We are an "emerging growth company" as defined by the Jumpstart Our Business Startups Act of 2012, and as such, have elected to comply with reduced public company reporting requirements for this prospectus and the documents incorporated by reference herein and may elect to comply with reduced public company reporting requirements in future filings.

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Investing in our securities involves a high degree of risk. Before making an investment decision, you should review carefully the risks and uncertainties described under the heading “Risk Factors” on page 6 of this prospectus as well as those contained in the applicable prospectus supplement and in any free writing prospectuses we may authorize for use in connection with a specific offering, 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.

The date of this prospectus is November 26, 2025.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process. Under this shelf registration process, the selling stockholders may from time to time sell the shares of common stock described in this prospectus in one or more offerings or otherwise as described under “Plan of Distribution.”

This prospectus may be supplemented from time to time by one or more prospectus supplements. Such prospectus supplement may also add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you must rely on the information in the prospectus supplement. You should carefully read both this prospectus and any applicable prospectus supplement together with additional information described under the heading “Where You Can Find Additional Information” before deciding to invest in any shares being offered.

Neither we nor the selling stockholders have authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus or in any related prospectus supplement or any free writing prospectus that we have authorized. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The Shares are not being offered in any jurisdiction where the offer is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus is accurate as of any date other than the respective dates of such document. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless otherwise stated, all references in this prospectus to “we,” “us,” “our,” “the company” and “Spruce,” and similar designations, except where the context requires otherwise, refer collectively to Spruce Biosciences, Inc. We own various U.S. federal trademark applications and unregistered trademarks, including our company name. All other trademarks or trade names referred to in this prospectus, including any relating to a selling stockholder, are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols “®” and “™”, but such references should not be construed as any indication that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

PROSPECTUS SUMMARY

This summary highlights selected information from this prospectus or incorporated by reference in this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” and under similar headings in our SEC filings, including the documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context requires otherwise, references in this prospectus to “Spruce,” “the company,” “we,” “us,” “our” or similar terms refer to Spruce Biosciences, Inc.

Company Overview

We are a biopharmaceutical company focused on developing and commercializing novel therapies for neurological disorders with significant unmet medical need. We have a diverse portfolio of product candidates aimed at addressing diseases with high unmet medical need and clear biology for treatment, for which there are either no approved therapies treating the underlying disease or suboptimal treatment options. We were founded in April 2016 and are led by a management team experienced in the development and commercialization of groundbreaking therapeutics.

Private Placement

On October 7, 2025, we entered into a Securities Purchase Agreement, or the Purchase Agreement, with certain institutional and other accredited investors, or the Purchasers, pursuant to which we agreed to sell and issue to the Purchasers (i) 502,181 shares of common stock and (ii) to certain Purchasers, Pre-Funded Warrants to purchase 233,144 shares of common stock in lieu of shares of common stock. The purchase price per share of common stock was \$68.00 per share, or the Purchase Price, and the purchase price for each Pre-Funded Warrant was the Purchase Price minus \$0.01. We received gross proceeds of approximately \$50.0 million from the Private Placement, before deducting fees to the placement agents and offering expenses payable by us. The closing of the Private Placement occurred on October 9, 2025, or the Closing Date.

The Pre-Funded Warrants have a per share exercise price of \$0.01, subject to proportional adjustments in the event of stock splits or combinations or similar events. The Pre-Funded Warrants are exercisable at any time after their original issuance and will expire on the date that is 60 months from their original issue date on October 9, 2025. The Pre-Funded Warrants provide that a holder of a Pre-Funded Warrant will not have the right to exercise any portion of its Pre-Funded Warrant if such holder, together with its affiliates, would beneficially own in excess of a specified initial percentage (4.99% or at such holder’s election, 9.99%) of the number of shares of common stock outstanding immediately after giving effect to such exercise, or the Beneficial Ownership Limitation; *provided, however*, that each holder may increase or decrease the Beneficial Ownership Limitation by giving 60 days’ notice to us, but not to any percentage in excess of 19.99%.

The Shares were not initially registered under the Securities Act of 1933, as amended, or the Securities Act. Based in part upon the representations of the Purchasers in the Purchase Agreement, we relied on the exemption afforded by Regulation D promulgated under the Securities Act, and corresponding provisions of state securities or “blue sky” laws. Each of the Purchasers represented in the Purchase Agreement that it was an “accredited investor” as that term is defined in Rule 501(a) of Regulation D or a “qualified institutional buyer” as that term is defined in Rule 144(a)(1) under the Securities Act and for its own account and not with a present view toward the public sale or distribution thereof, and appropriate legends were affixed to the securities. The sale of the securities did not involve a public offering and was made without general solicitation or general advertising.

Under the terms of the Purchase Agreement, we agreed to prepare and file, within 20 days after the Closing Date, or the Filing Deadline, a registration statement with the SEC to register for resale the Shares, and to cause the applicable registration statement to become effective within a specified period after the Filing Deadline, or the Effectiveness Deadline. We also agreed to use our best efforts to keep such registration statement effective until the

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earlier of (i) the third anniversary of the Closing Date or (ii) the date all Shares held by or issuable to a Holder, as defined in the Purchase Agreement, may be sold under Rule 144 without being subject to any volume, manner of sale or publicly available information requirements.

In the event the registration statement (i) has not been filed by the Filing Deadline, (ii) has not been declared effective by the SEC by the Effectiveness Deadline or (iii) after such registration statement has been declared effective, is suspended by us or ceases to remain continuously effective as to all securities for which it is required to be effective, with each such event in clauses (i), (ii) and (iii) being referred to as a Registration Default, for more than 20 consecutive days or more than 40 days in any period of 365 days during which the Registration Default remains uncured, subject to certain limited exceptions, we have agreed to pay each Purchaser as liquidated damages an amount equal to 1.0% of the Purchaser's Aggregate Purchase Price, as defined in the Purchase Agreement, per 20-day period or pro rata for any portion thereof for each such 20-day period during which such event continues, subject to certain caps set forth in the Purchase Agreement.

We granted the Purchasers customary indemnification rights in connection with the registration statement. The Purchasers have also granted us customary indemnification rights in connection with the registration statement.

The registration statement of which this prospectus is a part relates to the offer and resale of the Shares issued to the Purchasers pursuant to the Purchase Agreement, including the shares of our common stock issuable upon the exercise of outstanding Pre-Funded Warrants. When we refer to the selling stockholders in this prospectus, we are referring to the Purchasers and, as applicable, any donees, pledgees, assignees, transferees or other successors-in-interest selling the Shares received after the date of this prospectus from the selling stockholders as a gift, pledge, or other non-sale related transfer.

Following the closing of the Private Placement, as of October 10, 2025 we had 1,065,672 shares of common stock outstanding.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the section titled "Risk Factors" immediately following this prospectus summary and under similar headings in our filings with the SEC which are incorporated by reference in this prospectus. These risks include the following:

- We do not currently have sufficient working capital to fund our planned operations for the next twelve months and substantial doubt exists as to our ability to continue as a going concern.
- We will need substantial additional financing to develop our product candidates and implement our operating plan. If we fail to obtain additional financing, we may be forced to delay, reduce or eliminate our product development programs or commercialization efforts.
- We have a limited operating history, have incurred significant net losses since our inception, and anticipate that we will continue to incur significant net losses for the foreseeable future, and such net losses are expected to increase as we continue our clinical development of, and seek regulatory approvals for, our product candidates, TA-ERT, tildacerfont, and SPR202 and any future product candidates.
- If we are unable to advance our product candidates in clinical development, obtain regulatory approval, and ultimately commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed.
- Our clinical trials may fail to adequately demonstrate the safety and efficacy of our product candidates, which could prevent or delay regulatory approval and commercialization.
- We face significant competition from other biotechnology and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.

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- Preclinical and clinical drug development involves a lengthy and expensive process with uncertain outcomes, and results of earlier studies and trials may not be predictive of future trial results. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of TA-ERT, tildacerfont and our other current and future product candidates.
- If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.
- Any delays in the commencement or completion, or termination or suspension, of our clinical trials could result in increased costs to us, delay or limit our ability to generate revenue, and adversely affect our commercial prospects.
- TA-ERT and tildacerfont are, and our other current and future product candidates will be, subject to extensive regulation and compliance obligations, which are costly and time-consuming, and such regulation may cause unanticipated delays or prevent the receipt of the required approvals to commercialize TA-ERT, tildacerfont and our other current and future product candidates.
- Interim, topline, and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.
- If the market opportunities for TA-ERT, tildacerfont and our other current and future product candidates are smaller than we believe they are, our future revenue may be adversely affected and our business may suffer.
- We currently have no marketing and sales organization and have yet to commercialize a product. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell TA-ERT, tildacerfont and our other current and future product candidates, we may not be able to generate product revenues.
- Unfavorable U.S. and global economic and geopolitical conditions could adversely affect our business, financial condition or results of operations.
- International trade policies, including tariffs, sanctions and trade barriers may adversely affect our business, financial condition, results of operations and prospects.
- We are highly dependent on our key personnel, and if we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.
- Coverage and reimbursement may be limited or unavailable in certain market segments for TA-ERT, tildacerfont and our other current and future product candidates, which could make it difficult for us to sell TA-ERT, tildacerfont and our other current and future product candidates profitably.
- If we fail to develop and commercialize additional product candidates, we may be unable to grow our business.
- We depend on intellectual property licensed from others, the termination of which could result in the loss of significant rights, which would harm our business.
- We rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize TA-ERT, tildacerfont, and our other product candidates.
- We rely completely on third parties to manufacture our preclinical and clinical drug supplies and we intend to rely on third parties to produce commercial supplies of TA-ERT, tildacerfont and any future product

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candidates, if approved, and these third parties may fail to obtain and maintain regulatory approval for their facilities, fail to provide us with sufficient quantities of drug product or fail to do so at acceptable quality levels or prices.

- If we are unable to obtain and maintain sufficient intellectual property protection for TA-ERT, tildacerfont, SPR202, any future product candidates, and other proprietary technologies we develop, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize TA-ERT, tildacerfont, and SPR202, if approved, any future product candidates, and other proprietary technologies if approved, may be adversely affected.

Implications of Being an Emerging Growth Company and Smaller Reporting Company

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We may take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm under Section 404 of the Sarbanes-Oxley Act of 2002 reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments. We may take advantage of these exemptions until December 31, 2025 or until we are no longer an “emerging growth company,” whichever is earlier. We will cease to be an emerging growth company prior to the end of such period if certain earlier events occur, including if we become a “large accelerated filer” as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, or Exchange Act, our annual gross revenues exceed \$1.235 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to use this extended transition period under the JOBS Act until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act.

We are also a “smaller reporting company” as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company, which would allow us to take advantage of many of the same exemptions available to emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation. We will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than \$250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than \$100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

Corporate Information

We were incorporated in Delaware in April 2016. Our principal executive offices are located 611 Gateway Boulevard, Suite 740 South San Francisco, California 94080, and our telephone number is (415) 343-5986. Our corporate website address is www.sprucebio.com. Our website and the information contained on, or that can be accessed through, our website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus.

THE OFFERING

Common Stock Offered by the Selling Stockholders

735,325 Shares (consisting of 502,181 outstanding shares of our common stock and 233,144 shares of our common stock issuable upon the exercise of the Pre-Funded Warrants).

Use of Proceeds

The selling stockholders will receive all of the proceeds from the sale of the Shares hereunder. Accordingly, we will not receive any of the proceeds from the sale of the Shares in this offering; however, we will receive proceeds from any cash exercise of the Pre-Funded Warrants. See “Use of Proceeds.”

Risk Factors

An investment in our common stock involves a high degree of risk. See the information contained in or incorporated by reference in the section titled “Risk Factors” and under similar headings in the other documents that are incorporated by reference herein, as well as the other information included in or incorporated by reference in this prospectus.

Nasdaq Capital Market Symbol

Our common stock is listed on The Nasdaq Capital Market under the symbol “SPRB.”

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, as updated by our quarterly and other reports and documents that are incorporated by reference into this prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. Please also read carefully the section below titled “Special Note Regarding Forward-Looking Statements.”

SELECTED FINANCIAL DATA REFLECTING REVERSE STOCK SPLIT**Reverse Stock Split**

On July 23, 2025, we completed a one-for-seventy-five (1:75) reverse stock split of our outstanding common stock, effective as of August 4, 2025, or the Reverse Stock Split. Based on such Reverse Stock Split, the total number of outstanding shares of common stock was adjusted from 42,231,285 to approximately 563,042. The par value per share of the common stock remained unchanged at \$0.0001. Our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2024, and the unaudited condensed consolidated financial statements included in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2025, which are incorporated by reference into this prospectus, are presented without giving effect to the reverse stock split. Except where the context otherwise requires, share numbers in this prospectus supplement reflect the one-for-seventy-five reverse stock split of our common stock.

The following selected financial data has been derived from our audited consolidated financial statements included in our Annual Report on Form 10-K filed with the SEC on April 15, 2025, and our unaudited condensed consolidated financial statements included in our Quarterly Report on Form 10-Q filed with the SEC on May 6, 2025, as adjusted to reflect the reverse stock split for all periods presented. Our historical results are not indicative of the results that may be expected in the future and results of interim periods are not indicative of the results for the entire year.

AS REPORTED**(in thousands, except share and per share amounts)**

	Year Ended December 31,	
	2024	2023
Net loss	\$ (53,036)	\$ (47,919)
Net loss per share, basic and diluted	\$ (1.29)	\$ (1.24)
Weighted-average shares of common stock outstanding, basic and diluted	41,264,948	38,510,220
Shares of common stock outstanding at year end	42,231,285	41,029,832

	Three Months Ended March 31,	
	2025	2024
Net loss	\$ (14,041)	\$ (11,625)
Net loss per share, basic and diluted	\$ (0.32)	\$ (0.28)
Weighted-average shares of common stock outstanding, basic and diluted	43,944,946	41,096,231
Shares of common stock outstanding at period end	42,231,285	41,154,799

AS ADJUSTED FOR 1-FOR-75 REVERSE STOCK SPLIT (unaudited)
(in thousands, except share and per share amounts)

	Year Ended December 31,	
	2024	2023
Net loss	\$ (53,036)	\$ (47,919)
Net loss per share, basic and diluted	\$ (96.40)	\$ (93.33)
Weighted-average shares of common stock outstanding, basic and diluted	550,146	513,427
Shares of common stock outstanding at year end	563,042	547,019

	Three Months Ended March 31,	
	2025	2024
Net loss	\$ (14,041)	\$ (11,625)
Net loss per share, basic and diluted	\$ (23.95)	\$ (21.22)
Weighted-average shares of common stock outstanding, basic and diluted	586,142	547,899
Shares of common stock outstanding at period end	563,042	548,677

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act, and the Private Securities Litigation Reform Act of 1995, as amended, that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus and each document incorporated by reference in this prospectus, including statements regarding our future results of operations and financial position, business strategy, research and development costs; the anticipated timing, costs and conduct of our clinical trials for our product candidates; the timing and likelihood of regulatory filings and approvals for our product candidates; our ability to commercialize our product candidates, if approved; the pricing and reimbursement of our product candidates, if approved; the potential benefits of strategic collaborations and our ability to enter into strategic arrangements; the timing and likelihood of success, plans and objectives of management for future operations; future results of anticipated product development efforts; and our expected future financing needs, 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 “anticipate,” “believes,” “contemplates,” “continue,” “could,” “estimates,” “expect,” “intend,” “may,” “plan,” “potential,” “predicts,” “project,” “should,” “target,” or “will,” or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. 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. These forward-looking statements speak only as of the date of this prospectus or the documents incorporated by reference in this prospectus, as applicable, and are subject to a number of risks, uncertainties and assumptions described under the sections in this prospectus and the documents incorporated by reference herein entitled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this prospectus and the documents incorporated by reference herein. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, 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. Accordingly, we qualify all of the forward-looking statements in the foregoing documents by these cautionary statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we undertake no obligation to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should, however, read this prospectus, together with the documents we have filed with the SEC that are incorporated by reference herein and therein, completely and with the understanding that our actual future results may be materially different from what we expect. See the section titled “Where You Can Find More Information.”

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this prospectus, and while we believe such information provides a reasonable basis for these statements, such information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and you are cautioned not to unduly rely on these statements.

USE OF PROCEEDS

The selling stockholders will receive all of the proceeds from the sale of the Shares hereunder. Accordingly, we will not receive any of the proceeds from the sale of the Shares in this offering; however, we will receive nominal proceeds from any cash exercise of the Pre-Funded Warrants.

SELLING STOCKHOLDERS

We have prepared this prospectus to allow the selling stockholders to offer and sell from time to time up to 735,325 shares of our common stock for their own account, consisting of (i) 502,181 shares of common stock issued to the selling stockholders and (ii) up to 233,144 shares of common stock issuable to certain of the selling stockholders upon the exercise of the Pre-Funded Warrants, without giving effect to any beneficial ownership limitation contained in any Pre-Funded Warrant.

We are registering the offer and sale of the Shares to satisfy certain registration obligations that we granted the selling stockholders in connection with the purchase of the Shares pursuant to the Purchase Agreement. Under the terms of the Purchase Agreement, we agreed to prepare and file by the Filing Deadline a registration statement with the SEC to register for resale the Shares, and to cause the registration statement to become effective by the Effectiveness Deadline. We also agreed to use our best efforts to keep such registration statement effective until the earlier of (i) the third anniversary of the Closing Date or (ii) the date all Shares held by or issuable to a Holder may be sold under Rule 144 without being subject to any volume, manner of sale or publicly available information requirements.

The Pre-Funded Warrants provide that a holder of the Pre-Funded Warrants will not have the right to exercise any portion of its Pre-Funded Warrant if such holder, together with its affiliates, would beneficially own in excess of the Beneficial Ownership Limitation; *provided, however*, that each holder may increase or decrease the Beneficial Ownership Limitation by giving 60 days' notice to us, but not to any percentage in excess of 19.99%.

The selling stockholders have not had any material relationship with us within the past three years, except for the ownership of our securities.

The following table sets forth, to our knowledge, information concerning the beneficial ownership of shares of our common stock by the selling stockholders as of October 10, 2025. Beneficial ownership is determined in accordance with the rules of the SEC, and includes voting or investment power with respect to our common stock. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that each selling stockholder named in the table below has sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

The number of shares of common stock beneficially owned by each selling stockholder as of October 10, 2025 includes all shares of our common stock purchased by such selling stockholder in the Private Placement. The number of shares of common stock that may be offered under this prospectus includes (i) all shares of our common stock purchased by such selling stockholder in the Private Placement and (ii) all shares of our common stock underlying Pre-Funded Warrants purchased by such selling stockholder in the Private Placement. The number of shares of common stock beneficially owned by each selling stockholder following the offering assumes all of the Shares covered hereby are sold and such stockholder does not acquire beneficial ownership of any additional shares of common stock.

The percentage of shares owned before and after the offering are based on 1,065,672 shares of our common stock outstanding as of October 10, 2025, which includes the outstanding shares of common stock offered by this prospectus but does not include any shares of common stock offered by this prospectus that are issuable pursuant to the Pre-Funded Warrants, and assumes the selling stockholders dispose of all of the Shares covered by this prospectus and do not acquire beneficial ownership of any additional shares of common stock. The registration of the Shares does not necessarily mean that the selling stockholders will sell all or any portion of the Shares covered by this prospectus.

The selling stockholders may sell some, all or none of the Shares offered by this prospectus from time to time. We do not know how long the selling stockholders will hold the Shares covered hereby before selling them and we currently have no agreements, arrangements or understandings with the selling stockholders regarding the sale or other disposition of any Shares.

As used in this prospectus, the term "selling stockholders" includes the selling stockholders listed in the table below, together with any additional selling stockholders listed in a prospectus supplement, and their donees, pledgees,

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assignees, transferees, distributees and successors-in-interest that receive Shares in any non-sale transfer after the date of this prospectus.

Except as otherwise noted below, the address for persons listed in the table is c/o Spruce Biosciences, Inc., 611 Gateway Boulevard, Suite 740, South San Francisco, California 94080.

Name of Selling Stockholder	Beneficial Ownership Prior to this Offering		Number of Shares Being Offered ⁽²⁾	Beneficial Ownership After this Offering ⁽¹⁾	
	Number of Shares	Percentage of Outstanding Common Stock		Number of Shares	Percentage of Outstanding Common Stock
ExodusPoint Partners Master Fund, LP ⁽³⁾	53,178	4.99%	144,580	—	—
Citadel CEMF Investments Ltd. ⁽⁴⁾	109,699	9.99%	110,000	—	—
Armistice Capital, LLC ⁽⁵⁾	118,276	9.99%	109,000	47,276	4.25%
Alyeska Master Fund, L.P. ⁽⁶⁾	89,999	8.37%	70,000	19,999	1.86%
Entities affiliated with Squadron Capital Management LLC ⁽⁷⁾	70,000	6.57%	70,000	—	—
Entities affiliated with ADAR1 ⁽⁸⁾	58,000	5.44%	58,000	—	—
Atlas Private Holdings (Cayman) Ltd. ⁽⁹⁾	40,000	3.75%	40,000	—	—
Point72 Associates, LLC ⁽¹⁰⁾	40,000	3.75%	40,000	—	—
Entities affiliated with Caligan ⁽¹¹⁾	36,000	3.38%	36,000	—	—
Stonepine Capital, LP ⁽¹²⁾	29,000	2.72%	29,000	—	—
Affinity Healthcare Fund, LP ⁽¹³⁾	14,000	1.31%	14,000	—	—
Entities affiliated with Wellington ⁽¹⁴⁾	8,730	*	8,730	—	—
Remsen Investors LP ⁽¹⁵⁾	6,015	*	6,015	—	—
Total Shares Being Offered			735,325		

* Represents beneficial ownership of less than 1%.

- (1) Assumes each selling stockholder sells the maximum number of shares of our common stock possible in this offering.
- (2) Represents all of the shares of our common stock that the selling stockholders may offer and sell from time to time under this prospectus without giving effect to the beneficial ownership limitation in the Pre-Funded Warrants.
- (3) Consists of (i) 53,154 shares of common stock issued in the Private Placement and (ii) 24 shares of common stock issuable upon exercise of Pre-Funded Warrants purchased in the Private Placement, in each case held by ExodusPoint Partners Master Fund, LP. Such amount does not include 91,402 shares of common stock issuable upon exercise of Pre-Funded Warrants purchased by ExodusPoint Partners Master Fund, LP in the Private Placement. The Pre-Funded Warrants are subject to a beneficial ownership limitation of 4.99%, which limitation restricts ExodusPoint Partners Master Fund, LP from exercising that portion of the Pre-Funded Warrants that would result in ExodusPoint Partners Master Fund, LP and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. ExodusPoint Capital Management, LP acts as the investment manager to ExodusPoint Partners Master Fund, LP. Michael Gelband, the co-founder and chief executive officer of ExodusPoint Capital Management, LP and Hyung Lee (the other co-founder of ExodusPoint Capital Management, LP), have voting and investment control of the securities held by ExodusPoint Capital Management, LP. The address of ExodusPoint Partners Master Fund, LP is c/o ExodusPoint Capital Management, LP, 65 East 55th Street, 5th Floor, New York, NY 10022.
- (4) Consists of (i) 77,282 shares of common stock issued in the Private Placement and (ii) 32,417 shares of common stock issuable upon exercise of Pre-Funded Warrants purchased in the Private Placement, in each case held by Citadel CEMF Investments Ltd. Such amount does not include 301 shares of common stock issuable upon exercise of Pre-Funded Warrants purchased by Citadel CEMF Investments Ltd. in the Private Placement. The Pre-Funded Warrants are subject to a beneficial ownership limitation of 9.99%, which limitation restricts Citadel CEMF Investments Ltd. from exercising that portion of the Pre-Funded Warrants that would result in Citadel CEMF Investments Ltd. and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. Citadel Advisors LLC

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is the portfolio manager of Citadel CEMF Investments Ltd. Citadel Advisors Holdings LP, or CAH, is the sole member of Citadel Advisors LLC. Citadel GP LLC, or CGP, is the general partner of CAH. Kenneth Griffin owns a controlling interest in CGP. Mr. Griffin, as the owner of a controlling interest in CGP, may be deemed to have shared power to vote or direct the vote of, and/or shared power to dispose or to direct the disposition of, the securities held by Citadel CEMF Investments Ltd. The address of Citadel CEMF Investments Ltd. is c/o Citadel Enterprise Americas LLC, 830 Brickell Plaza, Floor 15, Miami, FL 33131.

- (5) Consists of (i) 47,276 shares of common stock issuable upon exercise of warrants purchased in a private placement on February 16, 2023, or the 2023 Warrants, held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company, or the Master Fund, and (ii) 71,000 shares of common stock issuable upon exercise of Pre-Funded Warrants purchased in the Private Placement by the Master Fund. Such amount does not include 38,000 shares of common stock issuable upon exercise of Pre-Funded Warrants purchased in the Private Placement by the Master Fund. The Pre-Funded Warrants and the 2023 Warrants are subject to a beneficial ownership limitation of 9.99% and 4.99%, respectively, which limitations restrict the Master Fund from exercising that portion of the Pre-Funded Warrants and/or the 2023 Warrants, as applicable, that would result in the Master Fund and its affiliates owning, after exercise, a number of shares of common stock in excess of the applicable beneficial ownership limitation. The securities are directly held by the Master Fund, and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC, or Armistice Capital, as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.
- (6) Consists of (i) 10,000 shares of common stock, (ii) 70,000 shares of common stock issued in the Private Placement and (iii) 9,999 shares of common stock issuable upon exercise of the 2023 Warrants, in each case held by Alyeska Master Fund, L.P. The 2023 Warrants are subject to a beneficial ownership limitation of 9.99%, which limitation restricts Alyeska Master Fund, L.P. from exercising that portion of the 2023 Warrants that would result in Alyeska Master Fund, L.P. and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. Alyeska Investment Group, L.P., the investment manager of Alyeska Master Fund, L.P., has voting and investment control of the shares held by Alyeska Master Fund, L.P. Anand Parekh is the Chief Executive Officer of Alyeska Investment Group, L.P. and may be deemed to be the beneficial owner of such shares. Mr. Parekh, however, disclaims any beneficial ownership of the shares held by Alyeska Master Fund, L.P. The registered address of Alyeska Master Fund, L.P. is at c/o Maples Corporate Services Limited, P.O. Box 309, Ugland House, South Church Street George Town, Grand Cayman, KY1-1104, Cayman Islands. Alyeska Investment Group, L.P. is located at 77 W. Wacker, Suite 700, Chicago IL 60601.
- (7) Consists of (i) 62,000 shares of common stock issued in the Private Placement to Squadron Master Fund LP and (ii) 8,000 shares of common stock issued in the Private Placement to Squadron Fund LP. Squadron Capital Management LLC serves as investment adviser to Squadron Master Fund LP and Squadron Fund LP and may be deemed to be the beneficial owner of all securities held by the funds. Matthew Sesterhenn and William F. Blank III, as Partners of Squadron Capital Management LLC, with the power to exercise investment and voting discretion, may be deemed to be the beneficial owner of all securities held by the funds. Squadron Capital Management LLC and Messrs. Sesterhenn and Blank disclaim beneficial ownership over any of the securities. The address of Squadron Capital Management LLC is 999 Oakmont Plaza Drive, Suite 600, Westmont, IL 60559.
- (8) Consists of (i) 50,170 shares of common stock issued in the Private Placement to ADAR1 Partners, LP, or ADAR1 LP, and (ii) 7,830 shares of common stock issued in the Private Placement to Spearhead Insurance Solutions IDF, LLC-Series, or Spearhead. As the investment manager of ADAR1 LP and as the sub-advisor of Spearhead, ADAR1 Capital Management, LLC, or ADAR1, may be deemed to indirectly beneficially own securities held by ADAR1 LP and Spearhead. Mr. Daniel Schneeberger is the Manager of ADAR1 and may be deemed to indirectly beneficially own securities held by ADAR1 LP and Spearhead. The address of ADAR1 is 3503 Wild Cherry Drive, Building 9, Austin, TX 78738. The address of Spearhead is 3828 Kennett Pike, Suite 202, Greenville, DE 19807.
- (9) Consists of 40,000 shares of common stock issued in the Private Placement to Atlas Private Holdings (Cayman) Ltd., or Atlas. Balyasny Asset Management L.P. is Atlas' investment adviser. Dmitry Balyasny, via intermediate entities, manages Balyasny Asset Management L.P. and has voting and investment control over the reported securities. The address of Balyasny Asset Management L.P. is 444 W. Lake Street, 50th Floor, Chicago IL 60606.
- (10) Consists of 40,000 shares of common stock issued in the Private Placement to Point72 Associates, LLC. Point72 Asset Management, L.P. maintains investment and voting power with respect to the securities held by certain investment funds it manages, including Point72 Associates, LLC. Point72 Capital Advisors, Inc. is the general partner of Point72 Asset Management, L.P. Mr. Steven A. Cohen controls each of Point72 Asset Management, L.P. and Point72 Capital Advisors, Inc. By reason of the provisions of Rule 13d-3 of the Exchange Act, each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen may be deemed to beneficially own the securities held by Point72 Associates, LLC that are disclosed herein. Each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen disclaims beneficial ownership of any such securities. The address of Point72 Associates is c/o Point72 Asset Management, L.P., 72 Cummings Point Road, Stamford, CT 06902.
- (11) Consists of (i) 24,554 shares of common stock issued in the Private Placement to Caligan Partners Master Fund LP, or Caligan Fund, (ii) 7,021 shares of common stock issued in the Private Placement to Caligan Partners LP, or Caligan, as the investment manager to a managed account, (iii) 3,250 shares of common stock issued in the Private Placement to Caligan as the investment manager to a managed account and (iv) 1,175 shares of common stock issued in the Private Placement to Caligan as the investment manager to a managed account. Caligan serves indirectly as the investment manager to Caligan Fund. David Johnson is the Managing Partner of Caligan and Managing Member of Caligan Partners GP LLC, the general partner of Caligan, and may be deemed to have voting and investment power over the securities held by Caligan Fund. The address of Caligan is 780 Third Avenue, 30th Floor, New York, NY 10017.
- (12) Consists of 29,000 shares of common stock issued in the Private Placement to Stonepine Capital, LP. The shares held by Stonepine Capital, LP may be deemed to be beneficially owned by Jon Plexico. Mr. Plexico disclaims beneficial ownership of the securities except to the extent

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of his pecuniary interests therein. The address of Stonepine Capital, LP is c/o Stonepine Capital Management, 2900 NW Clearwater Drive, Ste 100-11, Bend, OR 97703.

- (13) Consists of 14,000 shares of common stock issued in the Private Placement to Affinity Healthcare Fund, LP, or Affinity. Affinity Asset Advisors, LLC, or Affinity Advisor, is the investment manager of Affinity and exercises investment discretion with regard to the shares of Common Stock owned by Affinity. Affinity and Affinity Advisor have the shared power to vote or to direct the vote and to dispose or direct the disposition of such shares of Common Stock owned by Affinity. Affinity Advisor may be deemed to be the beneficial owner of such shares of Common Stock owned by Affinity by virtue of its position as investment manager of Affinity. The address of Affinity is 450 Park Avenue, Suite 1403, New York, NY 10022.
- (14) Consists of (i) 274 shares of common stock issued in the Private Placement to Fiducian Technology Fund, (ii) 1,695 shares of common stock issued in the Private Placement to Wellington Trust Company, National Association Multiple Collective Investment Funds Trust, Biotechnology Portfolio, (iii) 3,482 shares of common stock issued in the Private Placement to Wellington Biotechnology Long/Short Fund, L.P. and (iv) 3,279 shares of common stock issued in the Private Placement to Wellington Biotechnology Long/Short Fund (Bermuda) L.P. Wellington Management Company LLP, or WMC, has the power to vote and dispose of the securities held by the foregoing selling stockholders pursuant to WMC's investment management relationship with such selling stockholders. WMC is a subsidiary of Wellington Management Group LLP, or WMG. WMG is a Massachusetts limited liability partnership, privately held by 181 partners (as of July 1, 2025). There are no external entities with any ownership interest in the firm. Individual percentages of ownership are confidential. However, no single partner owns or has the right to vote more than 5% of the partnership's capital. Additional information about WMC is available in Form ADV filed with the SEC. The address of WMC is 280 Congress Street, Boston, MA 02210.
- (15) Consists of 6,015 shares of common stock issued in the Private Placement to Remsen Investors LP, or Remsen LP. Remsen Investors GP, or Remsen GP, is the general partner of Remsen LP. Edmund Sullivan, as the owner of the controlling interest in Remsen GP, may be deemed to have shared power to vote or direct the vote of, and/or shared power to dispose or to direct the disposition over, the securities held by Remsen LP. The address of Remsen is 45 Pineapple St. #8B, Brooklyn NY 11201.

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. The selling stockholders may sell their shares of our common stock pursuant to this prospectus at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- one or more underwritten offerings;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales and settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees, donees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities

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which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(a)(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. We or the selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to use our best efforts to cause the registration statement of which this prospectus is a part to remain continuously effective until the earlier of (i) the third anniversary of the Closing Date or (ii) the date all Shares held by or issuable to a Holder may be sold under Rule 144 without being subject to any volume, manner of sale or publicly available information requirements.

LEGAL MATTERS

Certain legal matters in connection with the offering and the validity of the securities offered by this prospectus will be passed upon by Cooley LLP, Santa Monica, California.

EXPERTS

The financial statements of Spruce Biosciences, Inc. (the Company) as of December 31, 2024 and 2023 and for the years then ended incorporated by reference in this prospectus and in the registration statement have been so incorporated in reliance on the report of BDO USA, P.C., an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting. The report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. We have not authorized any person to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including our company, Spruce Biosciences, Inc. The address of the SEC website is www.sec.gov.

Copies of certain information filed by us with the SEC are also available on our website at www.sprucebio.com. Information contained in or accessible through our website does not constitute a part of this prospectus and is not incorporated by reference into this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We also incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part but prior to the effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of all offerings of securities covered by this prospectus:

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024, filed with the SEC on April 15, 2025;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025 and June 30, 2025, filed with the SEC on [May 6, 2025](#) and [August 14, 2025](#), respectively;

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- our Current Reports on Form 8-K filed with the SEC on [April 25, 2025](#), [May 29, 2025](#), [June 12, 2025](#), [July 24, 2025](#), [October 8, 2025](#) and [October 17, 2025](#) (each to the extent the information in such reports is filed and not furnished); and
- the description of our common stock in our registration statement on [Form 8-A](#) filed with the SEC on October 5, 2020, including any amendments or reports filed for the purpose of updating such description, including [Exhibit 4.4](#) to the Annual Report on Form 10-K for the year ended December 31, 2020, which was filed with the SEC on March 22, 2021.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us 611 Gateway Boulevard, Suite 740 South San Francisco, California 94080, or by telephoning us at (415) 343-5986.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

735,325 Shares



Common Stock

PROSPECTUS
