

PROSPECTUS SUPPLEMENT  
(To prospectus dated May 3, 2021)

## CATALYST BIOSCIENCES, INC.



**Up to \$50,000,000**

### **Common Stock**

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We have entered into an Equity Distribution Agreement, or the Equity Distribution Agreement, with Piper Sandler & Co., or Piper Sandler, relating to shares of our common stock offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the Equity Distribution Agreement, we may offer and sell shares of our common stock, \$0.001 par value per share, having an aggregate offering price of up to \$50,000,000 from time to time through Piper Sandler acting as our agent.

Our common stock is listed on The Nasdaq Capital Market under the symbol "CBIO" On October 13, 2021, the last reported sale price of our common stock on The Nasdaq Capital Market was \$4.10 per share.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus will be made in sales deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. Piper Sandler will act as a sales agent and will use commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Piper Sandler and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Piper Sandler will be entitled to compensation at a fixed commission rate of 3.0% of the gross sales price per share sold. See "Plan of Distribution" for additional information regarding compensation to be paid to Piper Sandler. In connection with the sale of the common stock on our behalf, Piper Sandler will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Piper Sandler will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Piper Sandler with respect to certain liabilities, including liabilities under the Securities Act and the Exchange Act of 1934, as amended, or the Exchange Act.

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**Our business and an investment in our common stock involve significant risks. These risks are described under the caption "[Risk Factors](#)" beginning on page S-6 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement and accompanying prospectus, as well as the risks and uncertainties described in other documents we file with the Securities and Exchange Commission, or SEC.**

**Neither the SEC nor any state securities commission has approved of anyone's investment in these securities or determined if this prospectus supplement or accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

## **Piper Sandler**

**The date of this prospectus supplement is October 15, 2021**

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a “shelf” registration statement on Form S-3 (File No. 253874) that we filed with the Securities and Exchange Commission, or the SEC, and is in two parts. The first part is this prospectus supplement, which describes the specific terms of offering of shares of our common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein and therein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in the accompanying prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We have not, and Piper Sandler has not, authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. 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 supplement and the accompanying prospectus do not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. The information contained in this prospectus supplement, the accompanying prospectus or any free writing prospectus, or incorporated by reference herein or therein 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 shares of 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 “Information Incorporated by Reference” in this prospectus supplement and in the accompanying prospectus.

We and Piper Sandler 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 shares of our 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 shares of our 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.

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When we refer to “Catalyst Biosciences,” “we,” “our,” “us” and the “Company” in this prospectus, we mean Catalyst Biosciences, Inc., unless otherwise specified. When we refer to “you,” we mean the holders of common stock of the Company.

Our logo, “Catalyst Biosciences” and other trademarks or service marks of Catalyst Biosciences, Inc. appearing in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein or therein are the property of Catalyst Biosciences, Inc. This prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein or therein may also include trademarks, trade names and service marks that are the property of other organizations. Solely for convenience, our trademarks and trade names referred to in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein or therein may appear without the ® and ™ symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and trade names.

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary provides a general overview of selected information and does not contain all of the information you should consider before buying our common stock. Therefore, you should read the entire prospectus supplement, accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering carefully, including the information incorporated by reference herein and therein, before deciding to invest in our common stock. Investors should carefully consider the information set forth under “Risk Factors” beginning on page S-6 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement and accompanying prospectus.*

### **Catalyst Biosciences, Inc.**

#### ***Company Overview***

We are a research and clinical development biopharmaceutical company focused on developing protease therapeutics to address unmet medical needs in disorders of the complement and coagulation systems. Proteases are the natural regulators of these biological systems. We engineer proteases to create improved or novel molecules to treat diseases that result from dysregulation of the complement and coagulation cascades. Our protease engineering platform has generated two late-stage clinical programs including marzeptacog alfa (activated), or MarzAA, a subcutaneously, or SQ, administered next-generation engineered coagulation Factor VIIa for the treatment of episodic bleeding in subjects with rare bleeding disorders. Our complement pipeline includes a preclinical C3-degrader program licensed to Biogen International GmbH for dry age-related macular degeneration, an improved complement factor I protease CB 4332 for SQ replacement therapy in patients with complement factor I deficiency and proteases from our ProTUNE™; C3b/C4b degrader and ImmunoTUNE™; C3a/C5a degrader platforms designed to target specific disorders of the complement or inflammatory pathways, as well as other discovery-stage complement programs in discovery. The product candidates generated by our protease engineering platform have improved functional properties such as longer half-life, improved specificity, higher potency and increased bioavailability. These characteristics potentially allow for improved efficacy, SQ administration of recombinant coagulation factors and complement inhibitors, or less frequently dosed intravitreal therapeutics than current therapeutics in development.

#### **Company Information**

We commenced operations in 2002 and are a Delaware corporation. On August 20, 2015, we merged with Targacept, Inc. Our corporate headquarters are located at 611 Gateway Blvd., Suite 710, South San Francisco, California 94080. Our telephone number is (650) 871-0761, and our website address is [www.catalystbiosciences.com](http://www.catalystbiosciences.com). The information contained on, or that can be accessed through, our website is not part of this prospectus supplement, and you should not consider information on our website to be part of this prospectus supplement.

## THE OFFERING

<b>Common Stock Offered by Us</b>	Shares of our common stock having an aggregate offering price of up to \$50,000,000.
<b>Common Stock Outstanding After This Offering</b>	Up to 43,544,862 shares, assuming the sale of up to 12,195,122 shares of our common stock a price of \$4.10 per share, which was the closing price of our common stock on The Nasdaq Capital Market on October 13, 2021. The actual number of shares issued will vary depending on the sales price under this offering.
<b>Plan of Distribution</b>	“At the market offering” that may be made from time to time through our sales agent, Piper Sandler. See “Plan of Distribution” on page S-13.
<b>Use of Proceeds</b>	We intend to use the net proceeds from this offering, if any, for general corporate purposes, which may include, among other things, research and development activities in our complement program, clinical and manufacturing activities for MarzAA, CB 4332 or other product candidates, including proteases from our ProTUNE™; C3b/C4b degrader and ImmunoTUNE™; C3a/C5a degrader platforms, other research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. See “Use of Proceeds” on page S-9.
<b>Risk Factors</b>	You should read the “Risk Factors” section of this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement for a discussion of factors to consider before deciding to purchase shares of our common stock.
<b>Symbol on The Nasdaq Capital Market</b>	“CBIO.”

The number of shares of common stock to be outstanding immediately after this offering is based on 31,349,740 shares of common stock outstanding as of June 30, 2021 and excludes:

- 3,236,592 shares of common stock issuable upon exercise of options outstanding as of June 30, 2021, with a weighted average exercise price of \$7.66 per share;
- 143,750 shares of common stock issuable upon exercise of options granted after June 30, 2021, with a weighted average exercise price of \$4.36 per share;
- 85 shares of common stock issuable upon exercise of warrants outstanding as of June 30, 2021, with a weighted average exercise price of \$392.70 per share; and
- 3,104,759 shares of common stock reserved for future grant or issuance as of June 30, 2021, under our equity incentive plans, consisting of (1) 2,842,373 shares of common stock reserved for future grant or issuance under our 2018 Omnibus Incentive Plan as of June 30, 2021, and

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(2) 262,386 shares of common stock reserved for issuance under our 2018 Employee Stock Purchase Plan as of June 30, 2021.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding options and warrants.

## RISK FACTORS

*Investment in our common stock involves a high degree of risk. In addition to the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the risks described below and in the section titled “Risk Factors” in our Annual Report on Form 10-K for our most recent fiscal year filed with the SEC, subsequent Quarterly Reports on Form 10-Q, any amendment or updates thereto reflected in subsequent filings with the SEC, and in other reports we file with the SEC that are incorporated by reference herein, before making an investment decision. The following risks are presented as of the date of this prospectus supplement and we expect that these will be updated from time to time in our period and current reports filed with the SEC, which will be incorporated herein by reference. Please refer to these subsequent reports for additional information relating to the risks associated with investing in our common stock.*

*The risks and uncertainties described therein and below could materially adversely affect our business, operating results and financial condition, as well as cause the value of our common stock to decline. You may lose all or part of your investment as a result. You should also refer to the other information contained in this prospectus supplement and the accompanying prospectus, or incorporated by reference, including our financial statements and the notes to those statements, and the information set forth under the caption “Special Note Regarding Forward-Looking Statements.” Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned below. Forward-looking statements included in this prospectus supplement are based on information available to us on the date hereof, and all forward-looking statements in documents incorporated by reference are based on information available to us as of the date of such documents. We disclaim any intent to update any forward-looking statements. The risks described below and contained in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and in our other periodic reports are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also adversely affect our business operations.*

### **Risks Relating to this Offering**

***Our management team may invest or spend the proceeds of this offering in ways with which you may not agree or in ways which may not yield a significant return.***

Our management will have broad discretion over the use of proceeds from this offering. We intend to use the net proceeds, if any, from this offering for general corporate purposes, which may include, among other things, research and development activities in our complement program, clinical and manufacturing activities for MarzAA, CB 4332 or other product candidates, including proteases from our ProTUNE™; C3b/C4b degrader and ImmunoTUNE™; C3a/C5a degrader platforms, other research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. We may also use a portion of the net proceeds to license intellectual property or to make acquisitions or investments, although we have no commitments or agreements to enter into such licenses, acquisitions or investments. See “Use of Proceeds.” 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 net proceeds may be used for corporate purposes that do not increase our operating results or enhance the value of our common stock.

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

The price per share of our common stock being offered may be higher than the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 12,195,122 shares are sold at a price of \$4.10 per share, the last reported sale price of our common stock on The Nasdaq Capital Market on October 13, 2021, for aggregate proceeds of \$50,000,000 in this offering, and after deducting commissions and



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estimated aggregate offering expenses payable by us, you will suffer immediate and substantial dilution of \$1.11 per share, representing the difference between the as adjusted net tangible book value per share of our common stock as of June 30, 2021 after giving effect to this offering and the assumed offering price of \$4.10 per share. See the section entitled “Dilution” below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

***We will need additional capital. If we are unable to raise sufficient capital, we will be forced to delay, reduce or eliminate product development programs.***

Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive and we expect our capital expenditures to continue to be significant in the foreseeable future. We expect our research and development expenses to increase with our ongoing activities, particularly activities related to research and development activities in our complement program, clinical and manufacturing activities for MarzAA, CB 4332 or other product candidates, including proteases from our ProTUNE™; C3b/C4b degrader and ImmunoTUNE™; and C3a/C5a degrader platforms. We may need to raise substantial additional capital to complete the development and commercialization of MarzAA, or other product candidates, and depending on the availability of capital, may need to delay or cease development of some of our product candidates. Even if we raise additional capital, we may elect to focus our efforts on one or more development programs and delay or cease other development programs.

Until we can generate sufficient revenue from our product candidates, if ever, we expect to finance future cash needs through public or private equity offerings, debt financings, corporate collaborations and/or licensing arrangements. Additional funds may not be available when we need them on terms that are acceptable, or at all. If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate one or more of our research or development programs.

***Raising additional funds by issuing securities or through licensing arrangements may cause dilution to stockholders, restrict our operations or require us to relinquish proprietary rights.***

To the extent that we raise additional capital through the sale of equity or convertible debt securities, stockholders will be diluted, and the terms of these new securities may include liquidation or other preferences that adversely affect the rights of common stockholders.

Debt financing, if available at all, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, product candidates or future revenue streams or grant licenses on terms that are not favorable to us. We may also seek to access the public or private capital markets whenever conditions are favorable, even if we do not have an immediate need for additional capital at that time. There can be no assurance that we will be able to obtain additional funding if, and when necessary. If we are unable to obtain adequate financing on a timely basis, we could be required to delay, curtail or eliminate one or more, or all, of our development programs or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

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

In order to raise additional capital, in the future we expect to 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.

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*The common stock offered hereby will be sold in “at the market offerings” and investors who buy shares at different times will likely pay different prices.*

Investors who purchase shares in this offering at different times will likely pay different prices, and accordingly may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices and number of shares sold in this offering. In addition, subject to the final determination by our board of directors or any restrictions we may place in any applicable placement notice, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

*The actual number of shares of common stock we may issue under the Equity Distribution Agreement and the aggregate proceeds resulting from those sales, at any one time or in total, is uncertain.*

Subject to certain limitations in the Equity Distribution Agreement and compliance with applicable law, we have the discretion to deliver a placement notice to Piper Sandler at any time throughout the term of the Equity Distribution Agreement. The number of shares that are sold through Piper Sandler after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the sales period, the limits we set with Piper Sandler in any applicable placement notice, and the demand for our common stock during the sales period. Because the price of each share sold will fluctuate during the sales period, it is not currently possible to predict the number of shares of common stock that will ultimately be issued by us under the Equity Distribution Agreement or aggregate proceeds to be raised in connection with those sales.

*Sales of a significant number of shares of our common stock in the public markets, or the perception that such sales could occur, could depress the market price of our common stock.*

Sales of a significant number of shares of our common stock in the public markets, or the perception that such sales could occur as a result of our utilization of our shelf registration statement, the Equity Distribution Agreement or otherwise could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We cannot predict the effect that future sales of our common stock or the market perception that we are permitted to sell a significant number of our securities would have on the market price of our common stock.

*We do not anticipate paying dividends on our common stock in the foreseeable future.*

We currently plan to invest all available funds, including the proceeds from this offering and future earnings, if any, in the development and growth of our business. We currently do not anticipate paying any cash dividends on our common stock in the foreseeable future. As a result, a rise in the market price of our common stock, which is uncertain and unpredictable, will be your sole source of potential gain in the foreseeable future, and you should not rely on an investment in our common stock for dividend income.

### **Risks Related to Our Business**

*If we experience delays or difficulties in the enrollment of patients in clinical trials, or product supply constraints our regulatory approvals could be delayed or prevented, and we could elect to cease clinical trial enrollment and development of some or all of our product candidates.*

We or our collaborators may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate, enroll and maintain enrollment of a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. In particular, there is a relatively small number of individuals with hemophilia, which may cause delays in enrollment of clinical trials of MarzAA in individuals with hemophilia A and B with an inhibitor to enroll in our MAA-304 study, there are a

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limited number of individuals with Factor VII deficiency, Glanzmann thrombasthenia, and Hemophilia A with inhibitor on prophylaxis Hemlibra who would be eligible to enroll in our MAA-302 study, and there are a limited number of individuals with CFI deficiency for whom CB 4332 can be used in clinical trials. Competitive products or products that reduce the frequency of bleeding among patients treated with our drugs have reduced the likelihood that patients will enroll in our clinical trials for MarzAA. Some of our competitors have ongoing clinical trials for product candidates that treat the same indications as our product candidates and thus compete with us to enroll patients in their clinical trials. The availability of other approved products and other products in clinical trials may limit the number of patients willing to participate in our clinical trials.

Patient enrollment is affected by other factors including:

- the severity of the disease under investigation;
- the eligibility criteria for the study in question;
- the perceived risks and benefits of the product candidate under study;
- the availability of competitive products;
- the efforts to facilitate timely enrollment in clinical trials;
- laboratory testing and turnaround time of samples needed for eligibility assessments;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

For our MAA-304 study of MarzAA, the first review of the trial by the independent data safety monitoring board will occur after patients who have been treated with MarzAA have experienced a combined total of thirty (30) bleeding episodes, which we expect will occur in the first quarter of 2022, although there can be no assurance that this will not be delayed. Each individual patient can only contribute five treated bleeds to the data set. Our inability to enroll a sufficient number of patients for our clinical trials could result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in clinical trials conducted by us may also result in increased development costs for our product candidates, which would cause the value of the Company to decline and limit our ability to obtain additional financing or lead us to cease developing particular product candidates.

***If we do not effectively manage the supply of products for our clinical trials, our trials could be delayed.***

Our clinical trials for MarzAA are being conducted at multiple sites internationally. Providing drug product or other materials to the clinical trial sites is logistically complex and involves compliance with a variety of federal and local regulatory requirements, non-compliance with which can lead to delays or shortages of materials needed at the clinical trials sites. Failure to adequately supply drug product or other materials to the clinical trial sites when required to initiate therapy or maintain patient dosing could adversely affect enrollment or progress of the MarzAA trials, which could have a material adverse effect on our business.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, and any free writing prospectus that we have authorized for use in connection with this offering, contain forward-looking statements concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our business operations and financial performance and condition. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would” and other similar expressions that are predictions or indicate future events and future trends, or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to: any projections of financial information; any statements about historical results that may suggest trends for our business; statements about future financial and operating results, plans, objectives, expectations and intentions, costs and expenses, outcome of contingencies, financial condition, results of operations, liquidity, objectives of management, business strategies, financing, the timing, plans and expected results of our current and future clinical trials, the extent to which we will be able to advance development of our product candidates using the proceeds of this offering together with our existing cash resources; our focus on specific product candidates, the progress, outcomes, scope or duration of the development of product candidates or programs, the benefits that may be derived from product candidates or the commercial or market opportunity in any target indication, the progress of our third-party collaborations, including estimated milestones, the advancement of our technologies and our product candidates, approvals and commercialization of product candidates, the impacts of the COVID-19 pandemic; and any statements of assumptions underlying any of the foregoing. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein completely and with the understanding that our actual results may differ materially from what we expect as expressed or implied by our forward-looking statements. In light of the significant risks and uncertainties to which our forward-looking statements are subject, you should not place undue reliance on or regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all. We discuss many of these risks in greater detail in the documents incorporated by reference herein, including under the heading “Risk Factors.” These forward-looking statements represent our estimates and assumptions only as of the dates of this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein and therein, and any free writing prospectus, as applicable, regardless of the time of delivery of this prospectus supplement or any sale of our common stock and, except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus supplement. For all forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

## USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$50,000,000 from time to time under this prospectus supplement and accompanying prospectus. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold, and will be reduced by commissions and other expenses of this offering. There can be no assurance that we will be able to sell any shares under or fully utilize the Equity Distribution Agreement with Piper Sandler as a source of financing. We intend to use the net proceeds, if any, from this offering for general corporate purposes, which may include, among other things, research and development activities in our complement program, clinical and manufacturing activities for MarzAA, CB 4332 or other product candidates, including proteases from our ProTUNE™; C3b/C4b degrader and ImmunoTUNE™; C3a/C5a degrader platforms, other research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs.

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The amounts and timing of our actual expenditures will depend on numerous factors, including our development efforts with respect to our product candidates, as well as the amount of cash used in our operations. We therefore cannot estimate with certainty the amount of net proceeds to be used for the purposes described above. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds. Pending the uses described above, we plan to invest the net proceeds, if any, from this offering in short-term investments.

**DIVIDEND POLICY**

We have never paid cash dividends on our common stock and we do not anticipate paying cash dividends in the foreseeable future, but intend to retain our capital resources for reinvestment in our business. Any future determination to pay cash dividends on our common stock will be at the discretion of our board of directors and will be dependent upon our financial condition, results of operations, capital requirements and other factors as the board of directors deems relevant.

## DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of common stock after this offering.

The net tangible book value of our common stock as of June 30, 2021 was approximately \$82.1 million, or, approximately \$2.62 per tangible book value per share represents the amount of our total tangible assets less total liabilities divided by the total number of shares of our common stock outstanding.

Dilution per share to new investors represents the difference between the amount per share paid by purchasers for our common stock in this offering and the net tangible book value per share of our common stock immediately following the completion of this offering.

After giving effect to the sale of shares of common stock offered by this prospectus at an assumed public offering price of \$4.10 per share (the last reported sale price of our common stock on The Nasdaq Capital Market on October 13, 2021), and after deducting commissions and estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2021 would have been approximately \$130.3 million, or approximately \$2.99 per share. This represents an immediate increase in net tangible book value of approximately \$0.37 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately \$1.11 per share to purchasers of our common stock in this offering, as illustrated by the following table:

Assumed public offering price per share		\$4.10
Net tangible book value per share as of June 30, 2021	\$2.62	
Increase in net tangible book value per share attributable to investors	<u>\$0.37</u>	
As adjusted net tangible book value per share as of June 30, 2021 after giving effect to this offering		\$2.99
Dilution per share to investors purchasing our common stock in this offering		<u>\$1.11</u>

The table above assumes for illustrative purposes that an aggregate of 12,195,122 shares of our common stock are sold at a price of \$4.10 per share, the last reported sale price of our common stock on The Nasdaq Capital Market on October 13, 2021, for aggregate gross proceeds of approximately \$50,000,000. The shares sold in this offering, if any, will be sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price (i.e., to \$5.10 per share), assuming all of our common stock in the aggregate amount of \$50,000,000 is sold at that price, would decrease the number of shares sold in the offering to 9,803,922 shares, increase our as adjusted net tangible book value per share after the offering to \$3.17 per share and would increase the dilution in net tangible book value per share to new investors to \$1.93 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed offering price (i.e., to \$3.10 per share), assuming all of our common stock in the aggregate amount of \$50,000,000 is sold at that price, would increase the number of shares sold in the offering to 16,129,032 shares, decrease our as adjusted net tangible book value per share after the offering to \$2.74 per share and would decrease the dilution in net tangible book value per share to new investors to \$0.36 per share, after deducting commissions and estimated aggregate offering expenses payable by us.

To the extent that outstanding options to purchase common stock are exercised, investors purchasing our common stock in this offering will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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The information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

The number of shares of common stock to be outstanding immediately after this offering is based on 31,349,740 shares of common stock outstanding as of June 30, 2021 and excludes:

- 3,236,592 shares of common stock issuable upon exercise of options outstanding as of June 30, 2021, with a weighted average exercise price of \$7.66 per share;
- 143,750 shares of common stock issuable upon exercise of options granted after June 30, 2021, with a weighted average exercise price of \$4.36 per share;
- 85 shares of common stock issuable upon exercise of warrants outstanding as of June 30, 2021, with a weighted average exercise price of \$392.70 per share; and
- 3,104,759 shares of common stock reserved for future grant or issuance as of June 30, 2021, under our equity incentive plans, consisting of (1) 2,842,373 shares of common stock reserved for future grant or issuance under our 2018 Omnibus Incentive Plan as of June 30, 2021, and (2) 262,386 shares of common stock reserved for issuance under our 2018 Employee Stock Purchase Plan as of June 30, 2021.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding options and warrants.

## PLAN OF DISTRIBUTION

We have entered into the Equity Distribution Agreement with Piper Sandler, under which we may offer and sell up to \$50,000,000 of our shares of common stock from time to time through Piper Sandler acting as agent. Sales of our shares of common stock, if any, under this prospectus supplement and the accompanying prospectus will be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act.

Each time we wish to issue and sell our shares of common stock under the Equity Distribution Agreement, we will notify Piper Sandler of the number of shares to be issued, the time period during which such sales are requested to be made, any limitation on the number of shares to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed Piper Sandler, unless Piper Sandler declines to accept the terms of such notice, Piper Sandler has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Piper Sandler under the Equity Distribution Agreement to sell our shares of common stock are subject to a number of conditions that we must meet.

The settlement of sales of shares between us and Piper Sandler is generally anticipated to occur on the second full business day following the date on which the sale was made. Sales of our shares of common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and Piper Sandler may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Piper Sandler a commission of 3.0% of the aggregate gross proceeds we receive from each sale of our shares of common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse Piper Sandler for the fees and disbursements of its counsel, payable upon execution of the Equity Distribution Agreement, in an amount not to exceed \$50,000 in connection with the establishment of this at-the-market offering program. In accordance with Financial Industry Regulatory Authority, Inc. Rule 5110, these reimbursed fees and expenses are deemed sales compensation in connection with this offering. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Piper Sandler under the terms of the Equity Distribution Agreement, will be approximately \$260,500. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Piper Sandler will provide written confirmation to us before the open on The Nasdaq Capital Market on the day following each day on which our shares of common stock are sold under the Equity Distribution Agreement. Each confirmation will include the number of shares sold on that day, the volume-weighted average price of the shares sold and the proceeds to us of such shares. We will report at least quarterly the number of shares of common stock sold through Piper Sandler under the Equity Distribution Agreement, the net proceeds to us and the compensation paid by us to Piper Sandler in connection with the sales of our common stock.

In connection with the sale of our shares of common stock on our behalf, Piper Sandler will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Piper Sandler will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Piper Sandler against certain civil liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments Piper Sandler may be required to make in respect of such liabilities.

The offering of our shares of common stock pursuant to the Equity Distribution Agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the Equity Distribution Agreement and (ii) the termination of the Equity Distribution Agreement as permitted therein. We and Piper Sandler may each terminate the Equity Distribution Agreement at any time upon specified prior notice.



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This summary of the material provisions of the Equity Distribution Agreement does not purport to be a complete statement of its terms and conditions. A copy of the Equity Distribution Agreement is filed as an exhibit to a current report on Form 8-K filed under the Exchange Act and incorporated by reference in this prospectus supplement.

Piper Sandler and its affiliates have provided, and may in the future provide, various investment banking, commercial banking, financial advisory and other financial services for us and our affiliates, for which services they have received, and may in the future receive, customary fees. In the course of its business, Piper Sandler may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Piper Sandler may at any time hold long or short positions in such securities.

A prospectus supplement and the accompanying prospectus in electronic format may be made available on a website maintained by Piper Sandler, and Piper Sandler may distribute the prospectus supplement and the accompanying prospectus electronically.

### **LEGAL MATTERS**

The validity of the issuance of the securities offered hereby will be passed upon by our counsel, Orrick, Herrington & Sutcliffe LLP, New York, New York. Piper Sandler is being represented in connection with this offering by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York .

### **EXPERTS**

The consolidated balance sheets of Catalyst Biosciences, Inc. as of December 31, 2020 and 2019, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such consolidated financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

### **WHERE YOU CAN FIND MORE INFORMATION**

We have filed with the SEC a registration statement on Form S-3 (File No. 253874) under the Securities Act, of which this prospectus forms a part. The rules and regulations of the SEC allow us to omit from this prospectus supplement and the accompanying prospectus certain information included in the registration statement. For further information about us and the securities we are offering under this prospectus supplement and the accompanying prospectus, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus supplement and the accompanying prospectus regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

We file reports, proxy statements and other information with the SEC under the Exchange Act. The SEC maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is [www.sec.gov](http://www.sec.gov).

## INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement and the accompanying prospectus. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus, and later information that we file with the SEC will automatically update and supersede this information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement. We incorporate by reference the documents listed below and any future information filed (rather than furnished) with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act between the date of this prospectus and the termination of this offering, provided, however, that we are not incorporating any information furnished under Item 2.02 or Item 7.01 of any current report on Form 8-K:

- our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on [March 4, 2021](#);
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2020, from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on [April 27, 2021](#);
- our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2021, filed with the SEC on [May 6, 2021](#), and for quarter ended June 30, 2021, filed with the SEC on [August 5, 2021](#);
- our Current Reports on Form 8-K and 8-K/A, as applicable, filed with the SEC on [January 26, 2021](#), [January 27, 2021](#), [April 21, 2021](#), [May 18, 2021](#), [June 10, 2021](#), [June 30, 2021](#), [July 15, 2021](#), [July 16, 2021](#), [July 22, 2021](#), [August 16, 2021](#), [September 8, 2021](#), [September 29, 2021](#), and [October 13, 2021](#); and
- the description of our Common Stock contained in our Registration Statement on Form 8-A12G, filed with the SEC on [April 6, 2006](#), including any amendments or reports filed for the purpose of updating such description.

These documents may also be accessed on our website at [www.catalystbiosciences.com](http://www.catalystbiosciences.com). Except as otherwise specifically incorporated by reference in this prospectus supplement and the accompanying prospectus, information contained in, or accessible through, our website is not a part of this prospectus supplement and the accompanying prospectus.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents by writing or telephoning us at the following address:

Catalyst Biosciences, Inc.  
611 Gateway Blvd. Suite 710  
South San Francisco, CA 94080  
(650) 871-0761

PROSPECTUS

**\$150,000,000**



**Common Stock  
Preferred Stock  
Debt Securities  
Warrants  
Units**

From time to time, we may offer and sell any combination of the securities described in this prospectus in one or more offerings. The securities we may offer may be convertible into or exercisable or exchangeable for other securities. We may offer the securities separately or together, in separate classes, series and in amounts, at prices and on terms that will be determined at the time the securities are offered.

This prospectus describes some of the general terms that may apply to these securities. Each time securities are sold, the specific terms and amounts of the securities being offered, and any other information relating to the specific offering will be set forth 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. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement.

Our common stock is traded on the Nasdaq Capital Market under the symbol “CBIO.” The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, of the securities covered by the applicable prospectus supplement.

We may offer and sell our securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis. The names of any underwriters, dealers or agents and the terms of the arrangements with such entities will be stated in the accompanying prospectus supplement. See the sections of this prospectus entitled “About this Prospectus” and “Plan of Distribution” for more information.

**Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the heading “[RISK FACTORS](#)” on page 2 of this prospectus as well as those contained in the applicable prospectus supplement and any related free writing prospectus, and in the other documents that are incorporated by reference into this prospectus or the applicable prospectus supplement.**

**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 May 3, 2021.**

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We are responsible for the information contained and incorporated by reference in this prospectus, in any accompanying prospectus supplement, and in any related free writing prospectus we prepare or authorize. 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. If you are in a jurisdiction where offers to sell, or solicitations of offers to purchase, the securities offered by this documentation are unlawful, or if you are a person to whom it is unlawful to direct these types of activities, then the offer presented in this document does not extend to you. The information contained in this document speaks only as of the date of this document, unless the information specifically indicates that another date applies. Neither the delivery of this prospectus or any accompanying prospectus supplement, 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, any accompanying prospectus supplement or any free writing prospectus we may provide you in connection with an offering or 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 in this prospectus or any accompanying prospectus supplement, as well as the information incorporated by reference in this prospectus or any accompanying prospectus supplement, 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

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission (SEC), as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended (the Securities Act), using a “shelf” registration process. Under this process, we may sell any combination of the securities described in this prospectus from time to time in one or more offerings. Before purchasing any securities, you should read this prospectus and any applicable prospectus supplement together with the additional information described under the heading “Where You Can Find Additional Information” and “Incorporation of Certain Information by Reference.”

This prospectus only provides you with a general description of the securities we may offer. Each time we sell a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of the offering, including the specific amounts, prices and terms of the securities offered. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. Each such prospectus supplement and any 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 documents incorporated by reference into this prospectus. If this prospectus is inconsistent with the prospectus supplement, you should rely upon the prospectus supplement.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find Additional Information.”

This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any prospectus supplement or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

Unless otherwise mentioned or unless the context requires otherwise, throughout this prospectus, any applicable prospectus supplement and any related free writing prospectus, the terms “Catalyst”, “we”, “us”, “our”, the “company” or similar references refer to Catalyst Biosciences, Inc.; and the term “securities” refers collectively to our common stock, preferred stock, warrants, debt securities, or any combination of the foregoing securities.

We own various U.S. federal trademark registrations and applications and unregistered trademarks, including our corporate logo. This prospectus and the information incorporated herein by reference contains references to trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks and trade names referred to in this prospectus and the information incorporated herein, including logos, artwork, and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, service marks and

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trade names. We do not intend our use or display of other companies' trade names, service marks or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

### **OUR COMPANY**

We are a research and clinical development biopharmaceutical company focused on addressing unmet medical needs in disorders of the complement and coagulation systems. Proteases are the natural regulators of these biological systems. We engineer proteases to create both improved or novel molecules to treat diseases that result from dysregulation of the complement and coagulation cascades.

Additional details of our development or clinical programs and related strategic agreements are contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

We commenced operations in 2002 and are a Delaware corporation. On August 20, 2015, we merged with Targacept, Inc. Our corporate headquarters are located at South San Francisco, California 94080. Our telephone number is (650) 871-0761, and our website address is [www.catalystbiosciences.com](http://www.catalystbiosciences.com). The information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website to be part of this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

### **RISK FACTORS**

Investing in our securities involves a high degree of risk. Before making a decision to invest in our securities, you should carefully consider the risks described under the heading "Risk Factors" in the applicable prospectus supplement and any related free writing prospectus, and discussed under "Part I, Item 1A. Risk Factors" contained in our most recent Annual Report on Form 10-K, as well as any amendments thereto, which are incorporated by reference into this prospectus and the applicable prospectus supplement in their entirety, together with other information in this prospectus and the applicable prospectus supplement, the documents incorporated by reference herein and therein, and any free writing prospectus that we may authorize for use in connection with a specific offering. See "Where You Can Find Additional Information."

### **CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, any prospectus supplement and any related free writing prospectus, including the information incorporated by reference herein and therein, 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 Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but are not always, made through the use of words or phrases such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "seek," "should," "target," "will," "would," or the negative of these words or other comparable terminology. Accordingly, these statements involve estimates, assumptions and uncertainties which could cause actual results to differ materially from those expressed in them.

Given these uncertainties, you should not place undue reliance on these forward-looking statements as actual events or results may differ materially from those projected in the forward-looking statements due to various factors, including, but not limited to, those set forth under the heading "Risk Factors" in any applicable

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prospectus supplement, the documents incorporated by reference therein or any free writing prospectus that we authorized. Our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements contained in this prospectus, in the documents incorporated by reference herein and in any prospectus supplement by these cautionary statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Although we undertake no obligation to revise or update any forward-looking statements, whether as a result of new information, future events or otherwise, you are advised to review any additional disclosures we make in the documents we subsequently file with the SEC that are incorporated by reference in this prospectus and any prospectus supplement. See “Where You Can Find Additional Information.”

## **USE OF PROCEEDS**

Unless otherwise indicated in a prospectus supplement, we intend to use the net proceeds from the sale of securities offered by this prospectus and any applicable prospectus supplement for general corporate purposes. Until we apply the proceeds from a sale of securities to their intended purposes, we may invest those proceeds in short- and long-term, interest-bearing, investment-grade, securities or hold as cash.



## DESCRIPTION OF OUR CAPITAL STOCK

### General

The following is a summary of the rights of our common stock and preferred stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws as they are currently in effect, which we refer to in this section as our amended and restated certificate of incorporation and amended and restated bylaws, respectively. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, copies of which have been filed with the SEC.

### Common Stock

Under our amended and restated certificate of incorporation, we have authority to issue 100,000,000 shares of our common stock, par value \$0.001 per share. As of December 31, 2020, 22,097,820 shares of our common stock were issued and outstanding. All shares of our common stock will, when issued, be duly authorized, fully paid and nonassessable.

**Dividends.** Subject to preferential dividend rights of any other class or series of stock, the holders of shares of our common stock are entitled to receive dividends, including dividends of our stock, as and when declared by our board of directors, subject to any limitations imposed by law and to the rights of the holders, if any, of our preferred stock. We have never paid cash dividends on our common stock. We do not anticipate paying periodic cash dividends on our common stock for the foreseeable future. Any future determination about the payment of dividends will be made at the discretion of our board of directors and will depend upon our earnings, if any, capital requirements, operating and financial conditions and on such other factors as the board of directors deems relevant.

**Liquidation.** In the event we are liquidated, dissolved or our affairs are wound up, after we pay or make adequate provision for all of our known debts and liabilities, each holder of our common stock will be entitled to share ratably in all assets that remain, subject to any rights that are granted to the holders of any class or series of preferred stock.

**Voting Rights.** For all matters submitted to a vote of stockholders, each holder of our common stock is entitled to one vote for each share registered in his or her name. Except as may be required by law and in connection with some significant actions, such as mergers, consolidations, or amendments to our amended and restated certificate of incorporation that affect the rights of stockholders, holders of our common stock vote together as a single class. There is no cumulative voting in the election of our directors, which means that, subject to any rights to elect directors that are granted to the holders of any class or series of preferred stock, a plurality of the votes cast at a meeting of stockholders at which a quorum is present is sufficient to elect a director.

**Other Rights and Restrictions.** Subject to the preferential rights of any other class or series of stock, all shares of our common stock have equal dividend, distribution, liquidation and other rights, and have no preference, appraisal or exchange rights, except for any appraisal rights provided by Delaware law. Furthermore, holders of our common stock have no conversion, sinking fund or redemption rights, or preemptive rights to subscribe for any of our securities. Our amended and restated certificate of incorporation and our amended and restated bylaws do not restrict the ability of a holder of our common stock to transfer his or her shares of our common stock.

The rights, powers, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of holders of shares of any series of preferred stock which we may designate and issue in the future.

**Listing.** Our common stock is listed on the Nasdaq Capital Market under the symbol "CBIO."

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**Listing.** The transfer agent for our common stock is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, NY 11219.

### **Preferred Stock**

Under our amended and restated certificate of incorporation, we have authority, subject to any limitations prescribed by law and without further stockholder approval, to issue from time to time up to 5,000,000 shares of preferred stock, par value \$0.001 per share, in one or more series. As of December 31, 2020, we had no shares of preferred stock issued and outstanding.

Pursuant to our amended and restated certificate of incorporation, we are authorized to issue “blank check” preferred stock, which may be issued from time to time in one or more series upon authorization by our board of directors. Our board of directors, without further approval of the stockholders, is authorized to fix the designation, powers, preferences, relative, participating optional or other special rights, and any qualifications, limitations and restrictions applicable to each series of the preferred stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes could, among other things, adversely affect the voting power or rights of the holders of our common stock and, under certain circumstances, make it more difficult for a third party to gain control of us, discourage bids for our common stock at a premium or otherwise adversely affect the market price of the common stock.

### **Certain Effects of Authorized but Unissued Stock**

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may issue these additional shares for a variety of corporate purposes, including future public or private offerings to raise additional capital or to facilitate corporate acquisitions or for payment as a dividend on our capital stock. The existence of unissued and unreserved preferred stock may enable our board of directors to issue shares of preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock and the likelihood that holders of common stock will receive dividend payments or payments upon liquidation.

### **Anti-Takeover Effects of Provisions of Our Certificate of Incorporation and Bylaws**

Our amended and restated certificate of incorporation provides for our board of directors to be divided into three classes serving staggered terms. Approximately one-third of our board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of the outstanding voting stock from obtaining control of the board of directors until the second annual stockholders meeting following the date the acquirer obtains the controlling stock interest. The classified board provision could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of the Company and could increase the likelihood that incumbent directors will retain their positions. Our amended and restated certificate of incorporation provides that directors may be removed with or without cause by the affirmative vote of the holders of at least 66 2/3% of the voting power of all outstanding stock.

Our amended and restated certificate of incorporation requires that certain amendments to the amended and restated certificate of incorporation and amendments by the stockholders of our amended and restated bylaws require the affirmative vote of at least 66 2/3% of the voting power of all outstanding stock. These provisions could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of the Company and could delay changes in management.

Our amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual stockholders meeting, including proposed nominations of persons for election to our

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board of directors. At an annual stockholders meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to the Secretary of the Company timely written notice, in proper form, of his or her intention to bring that business before the annual stockholders meeting. Our amended and restated bylaws do not give our board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, our amended and restated bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.

Our amended and restated bylaws provide that only our board of directors, the chairperson of the board, the President or the Chief Executive Officer may call a special meeting of stockholders. Because our stockholders do not have the right to call a special meeting, a stockholder could not force stockholder consideration of a proposal over the opposition of our board of directors by calling a special meeting of stockholders prior to such time as a majority of our board of directors, the chairperson of the board, the President or the Chief Executive Officer believed the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next annual stockholders meeting.

Our amended and restated certificate of incorporation does not allow stockholders to act by written consent without a meeting. Without the availability of stockholder's actions by written consent, a holder controlling a majority of our capital stock would not be able to amend our amended and restated bylaws or remove directors without holding a stockholders' meeting.

### **Anti-Takeover Effects of Provisions of Delaware Law**

We are subject to the provisions of Section 203 of the Delaware General Corporation Law, or Section 203. Under Section 203, we would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to this time, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that 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 shares owned by persons who are directors and also officers, and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time, the business combination is approved by our board of directors and authorized at a special or annual stockholders meeting, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder, subject to limited exceptions;

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- 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; or
- 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 an 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 such entity or person.

### **Limitation of Liability and Indemnification**

Our amended and restated certificate of incorporation provides that our directors shall not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability for breach of the director's duty of loyalty to us or our stockholders, for acts or omissions not in good faith or involving intentional misconduct or a knowing violation of law, for payment of dividends or approval of stock purchases or redemptions that are prohibited by the Delaware General Corporation Law, or the DGCL, or for any transaction from which the director derived an improper personal benefit. Under the DGCL, our directors have a fiduciary duty to us that is not eliminated by this provision of our amended and restated certificate of incorporation and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available. This provision also does not affect our directors' responsibilities under any other laws, such as federal securities laws or state or federal environmental laws.

Section 145 of the DGCL empowers a corporation to indemnify its directors and officers against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by them in connection with any action, suit or proceeding brought by third parties by reason of the fact that they were or are directors or officers of the corporation, if they acted in good faith, in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe that their conduct was unlawful. The DGCL provides further that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. Our amended and restated certificate of incorporation provides that, to the fullest extent permitted by Section 145 of the DGCL, we shall indemnify any person who is or was a director or officer of us, or is or was serving at our request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against the expenses, liabilities or other matters referred to in or covered by Section 145 of the DGCL. Our amended and restated bylaws provide that we will indemnify any person who was or is a party or threatened to be made a party to any proceeding by reason of the fact that such person is or was a director or officer of us or is or was serving at our request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise to the fullest extent permitted by the DGCL.

In addition, we have entered into indemnification agreements with each of our directors and with certain of our executive officers. Pursuant to the indemnification agreements, we has agreed to indemnify and hold harmless these directors and officers to the fullest extent permitted by the DGCL. The agreements generally cover expenses that a director or officer incurs or amounts that a director or officer becomes obligated to pay because of any proceeding to which he or she is made or threatened to be made a party or participant by reason of his or her service as a current or former director, officer, employee or agent of the Company. The agreements also provide for the advancement of expenses to the directors and officers subject to specified conditions. There are certain exceptions to our obligation to indemnify the directors and officers, including any intentional malfeasance or act where the director or officer did not in good faith believe he or she was acting in our best interests, with respect to "short-swing" profit claims under Section 16(b) of the 1934 Act and, with certain exceptions, with respect to proceedings that he or she initiates.

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Section 145 of the DGCL also empowers a corporation to purchase insurance for its officers and directors for such liabilities. We maintain liability insurance for our officers and directors.

### **Choice of Forum**

Our amended and restated bylaws provides that the Court of Chancery of the State of Delaware is the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, any action asserting a claim against us arising pursuant to any provisions of the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws, any action or proceeding asserting a claim as to which the DGCL confers jurisdiction upon the Court of Chancery of the State of Delaware or any action asserting a claim against us that is governed by the internal affairs doctrine, subject in each case to the Court of Chancery having personal jurisdiction over the parties named as defendants therein. The exclusive forum provision does not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

In addition, our amended and restated bylaws provides that the U.S. federal district courts are the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Our exclusive forum provision will not relieve us of our duties to comply with the federal securities laws and the rules and regulations thereunder, and our stockholders will not be deemed to have waived our compliance with these laws, rules and regulations. While the Delaware Supreme Court recently determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring such a claim arising under the Securities Act against us, our directors, officers, or other employees in a venue other than in the U.S. federal district courts. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation, and this may require significant additional costs associated with resolving such action in other jurisdictions

## **DESCRIPTION OF OUR DEBT SECURITIES**

The debt securities will constitute either senior or subordinated debt of Catalyst Biosciences, Inc. The debt securities that are sold may be exchangeable for and/or convertible into shares of common stock or any of the other securities that may be sold under this prospectus. The debt securities will be issued under one or more separate indentures between us and a designated trustee. We will include in a prospectus supplement the specific terms of each series of senior or subordinated debt securities being offered, including the terms, if any, on which a series of senior or subordinated debt securities may be convertible into or exchangeable for other securities. In addition, the material terms of any indenture, which will govern the rights of the holders of our senior or subordinated debt securities will be set forth in the applicable prospectus supplement.

## **DESCRIPTION OF OUR WARRANTS**

We may issue warrants to purchase our debt or equity securities or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

**DESCRIPTION OF OUR UNITS**

As specified in the applicable prospectus supplement, we may issue units consisting of one or more shares of common stock, shares of preferred stock, debt securities or warrants or any combination of such securities.

## PLAN OF DISTRIBUTION

We may offer and sell the securities being offered hereby in one or more of the following ways from time to time:

- to or through underwriters;
- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions other than on these exchanges or systems or in the over-the-counter market;
- in “at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, to or through market makers or into an existing market for the securities;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- 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;
- a combination of any of these methods of sale; and
- any other method permitted pursuant to applicable law.

We will identify the specific plan of distribution, including any underwriters, dealers, agents or other purchasers, persons or entities, and any applicable compensation, in a prospectus supplement, in an amendment to the registration statement of which this prospectus is a part, or in other filings we make with the SEC under the Exchange Act, which are incorporated by reference.

## **LEGAL MATTERS**

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities being offered by this prospectus will be passed upon by Orrick, Herrington & Sutcliffe LLP, Menlo Park, 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 consolidated balance sheets of Catalyst Biosciences, Inc. as of December 31, 2020 and 2019, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

## **WHERE YOU CAN FIND ADDITIONAL INFORMATION**

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public at the SEC's website at [www.sec.gov](http://www.sec.gov).

We have filed with the SEC a registration statement on Form S-3 relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all the information in the registration statement. Other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement or documents incorporated by reference in the registration statement. Whenever a reference is made in this prospectus to a contract or other document of ours, the reference is only a summary and you should refer to the exhibits that are a part of the registration statement for a copy of the contract or other document. You may review a copy of the registration statement through the SEC's website, as provided above.



## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information from other documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate 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 on or after the date of this prospectus (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules) until the termination of the registration statement of which this prospectus is a part:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2020, filed with the SEC on March 4, 2021; and
- filings we make with the SEC pursuant to the Exchange Act after the date of the initial registration statement, of which this prospectus is a part, and prior to the effectiveness of the registration statement.

Any statement contained in this prospectus, or in a document all or a portion of which is incorporated by reference, shall be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus or any document incorporated by reference modifies or supersedes such statement. Any such statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this prospectus.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following:

Catalyst Biosciences, Inc.  
611 Gateway Blvd. Suite 710  
South San Francisco, CA 94080  
(650) 871-0761

You may also access these documents, free of charge on the SEC’s website at [www.sec.gov](http://www.sec.gov) or on the “Investors” page of our website at [www.catalystbiosciences.com](http://www.catalystbiosciences.com). Information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information on, or that can be accessed from, our website as part of this prospectus or any accompanying prospectus supplement.

SHARES



**Catalyst Biosciences, Inc.**

**Common Stock**

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**PROSPECTUS SUPPLEMENT**

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**Piper Sandler**

October 15, 2021