Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

Baudax Bio, Inc.

(Exact name of Registrant as specified in its charter)

Pennsylvania (State or other jurisdiction of incorporation or organization) 8090 (Primary Standard Industrial Classification Code Number) 47-4639500 (I.R.S. Employer Identification No.)

490 Lapp Road Malvern, PA 19355 (484) 395-2440

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Gerri A. Henwood President and Chief Executive Officer Baudax Bio, Inc. 490 Lapp Road Malvern, PA 19355 (484) 395-2440

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Rachael M. Bushey, Esq. Jennifer L. Porter, Esq. Goodwin Procter LLP 2929 Arch Street Suite #1700 Philadelphia, PA 19104 (445) 207-7800

Approximate date of commencement of the proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer □ Non-accelerated filer ⊠
 Accelerated filer
 □

 Smaller reporting company
 ⊠

 Emerging growth company
 ⊠

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(b) of the Securities Act.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated April 6, 2023

PRELIMINARY PROSPECTUS



Up to

Shares of Common Stock of Common Stock and Series A-6 Warrants to Purchase up to Shares of Common Stock

Placement Agent Warrants to Purchase up to Shares of Common Stock

We are offering up to shares of common stock, together with the Series A-5 warrants to purchase up to shares of common stock (the "Series A-5 warrants") and shares of common stock (the "Series A-6 warrants," and together with the Series A-5 warrants, the "Series A warrants"), pursuant to Series A-6 warrants to purchase up to this prospectus. The combined public offering price for each share of common stock, together with the Series A warrants, is \$. The shares of common stock and Series A warrants will be separately issued, but the shares of common stock and Series A warrants will be issued to purchasers in the ratio of one to one. Each Series A-5 warrant will have an per share, will be exercisable upon issuance and will expire five years from the date of issuance. Each Series A-6 warrant will have an exercise price of exercise price of \$ per share, will be exercisable upon issuance and will expire thirteen months from the date of issuance.

We are also offering up to pre-funded warrants, or the Series D pre-funded warrants (and collectively with the Series A warrants, the "warrants"), to those purchasers whose purchase of shares of common stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering in lieu of the shares of our common stock that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%). Each Series D pre-funded warrant will be exercisable for one share of common stock at an exercise price of \$0.01 per share. Each Series D pre-funded warrant is being issued together with the same Series A warrants described above being issued with each share of common stock. The combined public offering price for each such Series D pre-funded warrant, together with the Series A warrants, is \$. Each Series D pre-funded warrant will be exercisable upon issuance and may be exercised at any time until all of the pre-funded warrants are exercised in full. The Series D pre-funded warrants and Series A warrants are immediately separable and will be issued separately in this offering.

There is no established public trading market for the warrants, and we do not expect a market to develop. We do not intend to apply for listing of the warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the warrants will be limited.

, 2023, unless we decide to terminate the offering (which we may do at any time in our discretion) prior to that date. We will have one This offering will terminate on closing for all the securities purchased in this offering. The combined public offering price per share (or pre-funded warrant) and warrants will be fixed for the duration of this offering.

, or the placement agent, to act as our exclusive placement agent in connection with this offering. The placement agent has agreed to use its reasonable We have engaged best efforts to arrange for the sale of the securities offered by this prospectus. The placement agent is not purchasing or selling any of the securities we are offering and the placement agent is not required to arrange the purchase or sale of any specific number of securities or dollar amount. We have agreed to pay to the placement agent the placement agent fees set forth in the table below, which assumes that we sell all of the securities offered by this prospectus. There is no arrangement for funds to be received in escrow, trust or similar arrangement. There is no minimum offering requirement. We will bear all costs associated with the offering. See "Plan of Distribution" on page 42 of this prospectus for more information regarding these arrangements.

Our common stock is listed on the Nasdaq Capital Market under the symbol "BXRX." On per share. Market was \$

, 2023, the last reported sale price of our common stock on the Nasdaq Capital

The combined offering price per share and accompanying Series A warrants and the combined offering price per Series D pre-funded warrant and accompanying Series A warrants will be determined between us and investors based on market conditions at the time of pricing, and may be at a discount to the current market price of our common stock. Therefore, the recent market price used throughout this prospectus may not be indicative of the actual offering price.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE "RISK FACTORS" ON PAGE 10 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN ANY DOCUMENT INCORPORATED BY REFERENCE HEREIN CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

		Per Series D	
	Per Share	Pre-Funded	
	and	Warrant and	
	Series A	Series A	
	Warrants	Warrants	Total
Public offering price	\$	\$	\$
Placement Agent's fees(1)	\$	\$	\$
Proceeds, before expenses, to us(2)	\$	\$	\$

We have agreed to pay the placement agent a total cash fee equal to 7.0% of the gross proceeds raised in this offering. We have also agreed to pay the placement agent a (1)management fee equal to 1.0% of the gross proceeds raised in this offering and to reimburse the placement agent for its non-accountable expenses in the amount of \$20,000 and for its legal fees and expenses and other out-of-pocket expenses in an amount up to \$90,000, and for its clearing expenses in the amount of \$15,950. In addition, we have agreed to issue to the placement agent, or its designees, warrants to purchase a number of shares of our common stock equal to 6.0% of the aggregate number of shares of common stock and Series D pre-funded warrants being offered at an exercise price equal to 125% of the combined public offering price per share of common stock and Series A warrants. We refer you to "Plan of Distribution" on page 42 of this prospectus for additional information regarding placement agent compensation.

Because there is no minimum number of securities or amount of proceeds required as a condition to closing in this offering, the actual offering amount, placement agent fees, (2)and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above. We refer you to "Plan of Distribution" on page 42 of this prospectus for additional information regarding placement agent compensation

The placement agent expects to deliver the securities to the purchasers in the offering on or about , 2023, subject to satisfaction of certain conditions. 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.

> , 2023 Prospectus dated

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ABOUT THIS PROSPECTUS

The registration statement we filed with the Securities and Exchange Commission (the "SEC") includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus, the related exhibits filed with the SEC, and the documents incorporated by reference herein before making your investment decision. You should rely only on the information provided in this prospectus and the documents incorporated by reference herein or any amendment thereto. You should not assume that the information contained in this prospectus or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference herein is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus or any related free writing prospectus is delivered, or securities are sold, on a later date. This prospectus contains or incorporates by reference 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 or will be filed or have been or will be incorporated by reference as exhibits to the registration statement of which this prospectus forms a part, and you may obtain copies of those documents as described in this prospectus supplement under the heading "Where You Can Find More Information."

You should rely only on the information that we have included or incorporated by reference in this prospectus and any related free writing prospectus that we may authorize to be provided to you. Neither we, nor the placement agent, have authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus or any related free writing prospectus that we may authorize to be provided to you. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any related free writing prospectus and any related free writing prospectus or any related free writing prospectus. This prospectus and any related free writing prospectus of an offer to buy any securities other than the registered securities to which they relate, nor does this prospectus or any related free writing prospectus or any related free writing prospectus or any related free writing prospectus of an offer to sell or the solicitation of an offer to buy as sociation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation.

When we refer to "Baudax," "we," "our," "us" and the "Company" in this prospectus, we mean Baudax Bio, Inc., and its consolidated subsidiaries unless otherwise specified. When we refer to "you," we mean the potential holders of the applicable series of securities.

Solely for convenience, tradenames referred to in this prospectus appear without the \mathbb{R} and \mathbb{M} symbols, 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 that the applicable owner will not assert its rights, to these tradenames.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus or the documents incorporated herein by reference regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "will," "would," "could," "should," "potential," "seek," "evaluate," "pursue," "continue," "design," "impact," "affect," "forecast," "target," "outlook," "initiative," "objective," "designed," "priorities," "goal," or the negative of such terms and similar expressions are intended to identify forward-looking statements, although not all forwardlooking statements contain these identifying words. Such statements are based on assumptions and expectations that may not be realized and are inherently subject to risks, uncertainties and other factors, many of which cannot be predicted with accuracy and some of which might not even be anticipated.

The forward-looking statements in this prospectus and the documents incorporated herein by reference include, among other things, statements about:

- our estimates regarding expenses, revenue, capital requirements and timing and availability of and the need for additional financing;
- our ability to continue as a going concern for the next twelve months;
- our ability to operate under significant indebtedness;
- our ability to maintain the listing of our common stock on the Nasdaq Capital Market;
- our ability to obtain regulatory approval for any product candidates that we may develop, and any related restrictions, limitations, or warnings in the label of any approved product candidates;
- our ability to successfully market, commercialize and achieve broad market acceptance for any of our product candidates once approved;
- our ability and that of our third-party manufacturers to successfullyscale-up our clinical and commercial manufacturing process for future products;
- the results, timing and outcome of our clinical trials of our product candidates, and any future clinical trials and preclinical studies;
- our ability to source materials needed for our drug candidates, optimize formulations for stability and other characteristics;
- · our relationships with licensors, collaborators, other third parties and our employees;
- the effects of changes in our effective tax rate due to changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, tax impacts and net operating loss utilization related to the separation from Societal CDMO's acute care business and transfer of such assets to us, or the Separation, and changes in the tax laws;
- our ability to comply with the regulatory schemes applicable to our business and other regulatory developments in the United States and foreign countries;
- the performance of third-parties upon which we depend, including third-party contract research organizations, or CROs, and third-party suppliers, manufacturers;
- our ability to obtain and maintain patent protection and defend our intellectual property rights against third-parties;
- our ability to develop relationships with potential business development partners;
- · our ability to defend any material litigation filed against us and avoid liabilities resulting from any material litigation;

- · our ability to recruit or retain key scientific, technical, and management personnel or to retain our executive officers;
- our ability to raise future financing for continued development of our business and our product candidates and to meet any required debt payments, and any milestone payments we may owe;
- the volatility of capital markets and other macroeconomic factors, including inflationary pressures, banking stability issues, geopolitical tensions or the outbreak of hostilities or war;
- our ability to operate under leverage and comply with associated lending covenants; to pay existing required interest and principal amortization payments when due; and/or to obtain acceptable refinancing alternative; and
- our expectations regarding the impact of the ongoing COVID-19 pandemic including, but not limited to, the emergence of variants of the
 virus, the availability and efficacy of vaccines for COVID-19 and peoples' willingness to avail themselves of such vaccines, manufacturing
 and supply chain interruptions, including but not limited to manufacturing components and raw materials, adverse effects on healthcare
 systems and disruption of the global economy, and the overall impact of the COVID-19 pandemic on our business, financial condition and
 results of operations.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forwardlooking statements we make. We have included important factors in the cautionary statements included in this prospectus supplement, particularly under "Risk Factors," that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forwardlooking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, collaborations or investments we may make.

You should read this prospectus and the documents that we incorporate by reference herein completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements.

PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus and in the documents we incorporate by reference. Because it is only a summary, it does not contain all of the information that you should consider before investing in our securities and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus, any applicable free writing prospectus and the documents incorporated by reference herein. You should read all such documents carefully, especially the risk factors and our consolidated financial statements and the related notes included or incorporated by reference herein, before deciding to buy our securities. Unless the context requires otherwise, references in this prospectus to "Baudax," "we," "us" and "our" refer to Baudax Bio, Inc. and our subsidiaries.

Overview

We are a pharmaceutical company primarily focused on innovative products for hospital and related settings. We believe that we can bring valuable therapeutic options for patients, prescribers and payers to the hospital and related markets.

We hold exclusive global rights to two new molecular entities, which are centrally acting Neuromuscular Blocking Agents, or NMBs, BX1000, an intermediate duration of action NMB currently undergoing a Phase II clinical trial, and BX2000, an ultra-short acting NMB currently undergoing a Phase I dose escalation trial. In addition, BX3000 is an agent that is expected to rapidly reverse BX1000 and BX2000 blockade, which is currently being evaluated in preclinical studies intended to support an IND filing in 2023. All three agents are licensed from Cornell University. We believe these blocking agents allow for a rapid onset of centrally acting neuromuscular blockade, followed by a rapid reversal of the neuromuscular blockade with BX3000. These novel agents have the potential to meaningfully reduce time to onset of blocking and of reversal of blockade, reducing time in operating rooms or post operative suites, resulting in potential clinical and cost advantages, as well as valuable cost savings for hospitals and ambulatory surgical centers.

In mid-2020, we launched our first commercial product, ANJESO, in the United States. ANJESO is the first and only24-hour, intravenous, or IV, analgesia agent. ANJESO is a cyclooxygenase-2, or COX-2, preferential, non-steroidal anti-inflammatory, or NSAID, for the management of moderate to severe pain, which could be administered alone or in combination with other non-NSAID analgesics. We discontinued commercial sales of ANJESO in December of 2022.

Our costs have consisted primarily of expenses incurred in conducting our manufacturing and commercialization of ANJESO, which was discontinued in December of 2022, as well as public company and personnel costs, clinical trials and preclinical studies, regulatory activities and manufacturing costs for our NMB blocking and reversal agents. We expect to incur operating losses for at least the next several years. We expect substantially all of our operating losses to result from costs incurred in connection with our development programs, including our clinical, nonclinical and formulation development, preclinical and manufacturing related activities. Our expenses over the next several years are expected to primarily relate to developing our product candidates. In addition, we may incur costs associated with the acquisition or in-license of products and successful commercialization of the acquired or in-licensed products.

Recent Developments

Going Concern

Our management has concluded that substantial doubt exists about our ability to continue as a going concern for one year from the date of this prospectus. We do not expect that the net proceeds from this offering will be sufficient to allow us to continue as a going concern for one year from the date of this prospectus. If we were to receive net proceeds of \$ million from this offering, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will meet our capital needs in to . If we receive the above \$ million in this offering, we believe that we will then meet our capital needs through and . If we were to receive net proceeds of \$ million from this offering, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will meet our capital needs in to . If we were to receive net proceeds of \$ million in this offering, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will meet our capital needs through and . If we were to receive net proceeds of \$ million from this offering, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will meet our capital needs through .

Risks Associated with this Offering

This offering is subject to numerous risks and uncertainties, including those highlighted in the section entitled "Risk Factors" immediately following this prospectus summary and the similarly titled sections in the documents incorporated by reference into this prospectus. These risks include, but are not limited to, the following:

- Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.
- You will experience immediate dilution in the book value per share of the common stock purchased in the offering.
- Issuances of shares of common stock or securities convertible into or exercisable for shares of common stock following this offering, as
 well as the exercise of options outstanding, will dilute your ownership interests and may adversely affect the future market price of our
 common stock.
- A substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock.
- There is no public market for the warrants being offered in this offering.
- The holders of warrants purchased in this offering will have no rights as common shareholders until such holders exercise their warrants and acquire our common shares, except as set forth in the warrants.
- The warrants are speculative in nature.
- This is a best efforts offering, no minimum amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business plans, including our near-term business plans.

Corporate Information

We were incorporated under the laws of the Commonwealth of Pennsylvania in September 2019. Our principal executive offices are located at 490 Lapp Road, Malvern, PA 19355, and our telephone number is (484) 395-2440.

Available Information

Our website is www.baudaxbio.com. Any information contained on, or that can be accessed through, our website is not incorporated by reference into, nor is it in any way part of this prospectus and should not be relied upon in connection with making any decision with respect to an investment in our securities. We are required to file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. You may obtain any of the documents filed by us with the SEC, at no cost from the SEC's website at *www.sec.gov*.

Implications of Being an Emerging Growth Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or JOBS Act. We will remain an emerging growth company until December 31, 2024, unless our gross revenue exceeds \$1.235 billion in any fiscal year before that date, we issue more than \$1.0 billion of non-convertible debt in any three-year period before that date or the market value of our common stock held

by non-affiliates exceeds \$700.0 million as of the last business day of the second fiscal quarter of any fiscal year before that date. We have elected to take advantage of certain of the scaled disclosure available for emerging growth companies in this prospectus as well as our filings under the Exchange Act of 1934, or the Exchange Act, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation and financial statements in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote to approve executive compensation and shareholder approval of any golden parachute payments not previously approved. We will take advantage of these reporting exemptions until we are no longer an "emerging growth company." The JOBS Act provides that an "emerging growth company" can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we are subject to the same new or revised accounting standards as other public companies that are not "emerging growth companies."

THE OFFERING Securities we are offering shares of our common stock and accompanying SeriesA-5 warrants to Up to purchase up to shares of common stock and Series A-6 warrants to purchase up to shares of common stock, or up to Series D pre-funded warrants to shares of common stock and accompanying Series A-5 warrants to purchase purchase shares up to shares of common stock and Series A-6 warrants to purchase shares of common stock. The shares, or Series D pre-funded warrants, and in up to each case the accompanying Series A warrants will be separately transferable immediately upon issuance, but the shares, or Series D pre-funded warrants, and in each case the accompanying Series A warrants will be issued to purchasers in the ratio of one to one. Description of Series A warrants Each Series A-5 warrant will have an exercise price of \$ per share, will be exercisable upon issuance and will expire five years from the date of issuance. Each Series A-6 warrant will have an exercise price of \$ per share, will be exercisable upon issuance and will expire thirteen months from the date of issuance. Description of Series D pre-funded warrants If the issuance of shares of our common stock to a purchaser in this offering would result in such purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, then such purchaser may purchase, if they so choose, in lieu of the shares of our common stock that would result in such excess ownership, a Series D pre-funded warrant to purchase shares of our common stock for a purchase price per share of common stock subject to such Series D pre-funded warrant equal to the per share public offering price for the common stock to be sold in this offering less \$0.01. Each Series D pre-funded warrant will have an exercise price of \$0.01 per share, will be exercisable upon issuance and may be exercised at any time until all of the pre-funded warrants are exercised in full. Purchasers of Series D pre-funded warrants will also receive accompanying Series A warrants as if such purchasers were buying shares of our common stock in this offering. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of these Series D pre-funded warrants. Term of the offering This offering will terminate on , 2023, unless we decide to terminate the offering (which we may do at any time in our discretion) prior to that date. Common stock outstanding before offering: shares of common stock.

Common stock outstanding after this offering	shares of common stock, assuming no sale of Series Dpre-funded warrants in this offering and no exercise of the Series A warrants being issued in this offering and assuming a combined public offering price of \$ per share and Series A warrants, which is equal to the last reported sale price per share of our common stock on the Nasdaq Capital Market on , 2023.
Use of proceeds	We currently intend to use the net proceeds from this offering for working capital, pipeline development activities and general corporate purposes. See "Use of Proceeds" on page 15 of this prospectus.
Risk factors	See "Risk Factors" beginning on page 10 and the similarly titled sections in the documents incorporated by reference into this prospectus.
Nasdaq Capital Market Symbol	Our common stock is listed on the Nasdaq Capital Market under the symbol "BXRX." There is no established trading market for the Series A warrants or the Series D pre-funded warrants, and we do not expect a trading market to develop. We do not intend to list the Series A warrants or the Series D pre-funded warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Series A warrants or Series D pre-funded warrants will be extremely limited.
The number of shares of our common stock to be outsta outstanding as of , 2023, and excludes as of su	
 shares of our common stock issu \$ per share; 	able upon the exercise of stock options outstanding, at a weighted-average exercise price of
shares of our common stock issu	able upon the vesting and settlement of restricted stock units outstanding;
shares of our common stock ava	ilable for future issuance under our 2019 Equity Incentive Plan; and
shares of our common stock issu exercise price of \$ per share.	able upon the exercise of warrants outstanding as of , 2023 with a weighted-average
Unless otherwise indicated, all information contained in	this prospectus assumes:
• no exercise of the outstanding options or w	varrants, and no settlement of the restricted stock units described in the bullets above;
• no exercise of the Series A warrants or the	Placement Agent Warrants issued in this offering; and
 no sale of Series D pre-funded warrants in 	this offering.

no sale of Series D pre-funded warrants in this offering.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should carefully consider the risks described below and those discussed under the Section captioned "Risk Factors" contained in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC and which is incorporated by reference in this prospectus, together with other information in this prospectus, the information and documents incorporated by reference herein, and in any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section above entitled "Forward-Looking Statements."

Risks Related to This Offering

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion with respect to the use of proceeds of this offering, including for any of the purposes described in the section of this prospectus entitled "Use of Proceeds." You will be relying on the judgment of our management regarding the application of the proceeds of this offering. The results and effectiveness of the use of proceeds are uncertain, and we could spend the proceeds in ways that you do not agree with or that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could harm our business, delay the development of our pipeline product candidates and cause the price of our common stock to decline.

You will experience immediate dilution in the book value per share of the common stock purchased in the offering.

Since the public offering price of our common stock in this offering is substantially higher than the net tangible book value per share of our outstanding common stock outstanding prior to this offering, you will suffer dilution in the book value of the common stock you purchase in this offering. The exercise of outstanding stock options and warrants, including warrants sold in this offering and the placement agent warrants, may result in further dilution of your investment. See the section titled "Dilution" for a more detailed discussion of the dilution you will incur if you purchase shares in this offering.

Issuances of shares of common stock or securities convertible into or exercisable for shares of common stock following this offering, as well as the exercise of options outstanding, will dilute your ownership interests and may adversely affect the future market price of our common stock.

We will need additional capital to fund the development, registration and commercialization of our product candidates. We may seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements, which may cause your ownership interest to be diluted. In addition, we have a significant number of warrants to purchase shares of our common stock outstanding. If these securities are exercised, you may incur further dilution. Moreover, to the extent that we issue additional options to purchase, or securities convertible into, exercisable or exchangeable for, shares of our common stock in the future and those options or other securities are exercised, converted or exchanged, shareholders may experience further dilution.

A substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our

common stock are, and the shares of common stock sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act of 1933, as amended, or the Securities Act.

Upon completion of this offering, based on our shares outstanding as of , 2023, we will have shares of common stock outstanding, assuming full exercise of the Series D pre-funded warrants sold in this offering, which may be resold into the public market immediately without restriction, unless owned or purchased by our "affiliates" as that term is defined in Rule 144 under the Securities Act.

As of , 2023, there were approximately shares subject to outstanding options and restricted stock unit awards or that are otherwise issuable under our equity compensation plans, all of which shares we have registered or will register under the Securities Act on a registration statement on Form S-8. The registered shares can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates, to the extent applicable. As of , 2023, we had outstanding warrants exercisable for shares of common stock with a weighted-average exercise price of \$ per share. The shares of our common stock underlying such warrants will, upon issuance, be freely tradeable without restriction or further registration under the Securities Act.

There is no public market for the warrants being offered in this offering.

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the warrants on any securities exchange or nationally recognized trading system, including the Nasdaq Capital Market. Without an active market, the liquidity of the warrants will be limited.

The holders of warrants purchased in this offering will have no rights as common shareholders until such holders exercise their warrants and acquires our common shares, except as set forth in the warrants.

Until a holder of warrants acquires the shares of common stock upon exercise of the warrants, such holder will have no rights with respect to the shares of common stock underlying such warrants, except as set forth in the warrants. Upon exercise of the warrants, holders will be entitled to exercise the rights of common shareholders only as to matters for which the record date occurs after the exercise date.

The warrants are speculative in nature.

The warrants do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price for a limited period of time. Specifically, holders of the warrants may exercise their right to acquire the common stock and pay an exercise price of \$ per share for the Series A-5 warrants, \$ per share for the Series A-6 warrants and \$0.01 per share for the Series Dpre-funded warrants, subject to certain adjustments, commencing immediately upon issuance and for the Series A-5 warrants, for a five-year period, after which period any unexercised SeriesA-6 warrants will expire and have no further value and for the Series A-6 warrants, for a thirteen month period, after which period any unexercised SeriesA-6 warrants will expire and have no further value. There can be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the warrants, and consequently, it may not ever be profitable for holders of the warrants.

The market price for our common stock has been volatile and may continue to fluctuate or may decline significantly in the future.

An active, liquid and orderly market for our common stock may not be sustained, which could depress the trading price of our common stock or cause it to continue to be highly volatile or subject to wide fluctuations. Some of the factors that could negatively affect our share price or result in fluctuations in the price or trading volume of our common stock include, among other things:

- the commencement, enrollment, or results of our current and future preclinical studies and clinical trials, and the results of trials of our competitors or those of other companies in our market sector;
- regulatory approval of our product candidates, or limitations to specific label indications or patient populations for its use, or changes or delays in the regulatory review process;
- manufacturing, supply or distribution delays or shortages;
- our ability to identify and successfully acquire orin-license new product candidates on acceptable terms;
- · FDA, state or international regulatory actions, including actions on regulatory applications any of our product candidates;
- legislative or regulatory changes;
- judicial pronouncements interpreting laws and regulations;
- changes in government programs;
- · announcements of new products, services or technologies, commercial relationships, acquisitions or other events by us or our competitors;
- market conditions in the pharmaceutical and biotechnology sectors;
- fluctuations in stock market prices and trading volumes of similar companies;
- changes in accounting principles;
- litigation or public concern about the safety of our product candidates or similar product candidates;
- sales of large blocks of our common stock, including sales by our executive officers, directors and significant shareholders;
- our ability to obtain additional financing to advance our development operations;
- our announcement of financing transactions, including debt, convertible notes, warrant exchanges, etc.;
- · our ability to regain and maintain compliance with the listing standard of Nasdaq;
- · the continued negative effects of the COVID-19 pandemic on the global economy; and
- · actions by institutional shareholders.

These broad market and industry factors may decrease the market price of our common stock, regardless of our actual operating performance. The stock market in general has from time to time experienced extreme price and volume fluctuations, including recently. For example, on March 10, 2023, the Federal Deposit Insurance Corporation took control and was appointed receiver of Silicon Valley Bank, or SVB. The financing uncertainty pharmaceutical, biotechnology and medical technology companies may now face as a result of SVB's entry into receivership may cause significant volatility with respect to pharmaceutical, biotechnology, and medical technology company stocks, which in turn could negatively impact the trading price of our common stock. In addition, in the past, following periods of volatility in the overall market and decreases in the market price of a company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

This is a best efforts offering, no minimum amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business plans, including our near-term business plans.

The placement agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities in this offering. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth herein. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to support our continued operations, including our near-term continued operations. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional fundraises may not be available on terms acceptable to us.

Risks Related to Our Finances and Capital Requirements

Our losses, negative cash flows from operations and accumulated deficit raise substantial doubt about our ability to continue as a going concern absent obtaining adequate new debt or equity financings.

Management has concluded that substantial doubt exists about our ability to continue as a going concern for the next twelve months from the date hereof. As of December 31, 2022, we had an accumulated deficit of \$190.9 million, cash and cash equivalents of \$5.3 million and current liabilities of \$21.5 million. Based on available resources, we believe that, prior to this offering, our cash and cash equivalents on hand would be sufficient to fund our currently anticipated operating and capital requirements into the second quarter of 2023, however, our current capital resources are not sufficient to support our planned operations for the next twelve months from the date hereof. We believe that if we sell the maximum amount of securities pursuant to this offering, after deducting the placement agent fees and estimated offering expenses payable by us, that our cash and cash equivalents on hand will be sufficient to fund our currently anticipated operating and capital requirements through . However, because there is no minimum offering amount and may be substantially less than the maximum amounts set forth herein.

We expect to continue to incur losses for the foreseeable future as we continue our efforts to develop our current and future product candidates. We have also incurred significant indebtedness. As of December 31, 2022, we had an outstanding balance of \$7.8 million under our credit facility with MAM Eagle Lender. These factors, individually and collectively, raise substantial doubt about our ability to continue as a going concern, and therefore, could materially limit our ability to raise additional funds through an issuance of debt or equity securities or otherwise.

There can be no assurance that we will be able to raise sufficient additional capital on acceptable terms or at all. Additionally, if we are unable to regain compliance with the listing standards of Nasdaq, our common stock may become delisted, which could have a material adverse effect on the liquidity of our common stock and our ability to raise funding. If such additional financing is not available on satisfactory terms, or is not available in sufficient amounts, we may be required to delay, limit or eliminate the development of business opportunities and our ability to achieve our business objectives, our competitiveness, and our business, financial condition and results of operations will be materially adversely affected. In addition, the impact of the ongoing COVID-19 pandemic on the global financial markets may reduce our ability to access capital, which could negatively affect our liquidity and ability to continue as a going concern. In addition, the perception that we may not be able to continue as a going concern may cause others to choose not to deal with us due to concerns about our ability to meet our contractual obligations.

Our forecast of the period of time through which our financial resources will be adequate to support our operating requirements is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed elsewhere in this "Risk Factors" section and Part I, Item 1A "Risk Factors" of our Annual Report on Form 10-K filed with the SEC on February 23, 2023. We have based this estimate on a number of assumptions that may prove to be wrong and changing circumstances beyond our control may cause us to consume capital more rapidly than we currently anticipate. Our inability to obtain additional funding when we need it could seriously harm our business.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$ million based on the sale of shares of common stock, Series A-5 warrants to purchase combined offering price of \$ shares of common stock and Series A-6 warrants to purchase shares of common stock at an assumed per share of our common stock on the Nasdaq Capital Market on , 2023, after deducting the placement agent fees and estimated offering expenses payable by us, and assuming no sale of Series D pre-funded warrants in this offering and no exercise of the Series A warrants being issued in this offering. However, because this is a best efforts offering and there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, the placement agent's fees and net proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth on the cover page of this prospectus. The table below depicts how we plan to utilize the proceeds in the vent that 25%, 50%, 75% and 100% of the securities in this offering are sold, after deducting estimated offering expenses payable by us:

Use of Proceeds	100%	75%	50%	25%
Pipeline Development Activities	\$	\$	\$	\$
General Corporate Purposes/Working Capital	\$	\$	\$	\$
Total:	\$	\$	\$	\$

These estimates exclude the proceeds, if any, from the exercise of Series A warrants issued in this offering. If all of the SeriesA-5 warrants issued in this offering were to be exercised in cash at an assumed exercise price of \$ per share of common stock, we would receive additional proceeds of approximately \$ million and if all of the Series A-6 warrants issued in this offering were to be exercised in cash at an exercise price of \$ per share of common stock, we would receive additional proceeds of approximately \$ million. We cannot predict when or if these Series A warrants will be exercised. It is possible that these Series A warrants may expire and may never be exercised. Additionally, the Series A warrants contain a cashless exercise provision that permit exercise of Series A warrants on a cashless basis at any time where there is no effective registration statement under the Securities Act covering the issuance of the underlying shares.

We intend to use the net proceeds of this offering for pipeline development activities and general corporate purposes. General corporate purposes may include, and are not limited to, costs associated with, research and development costs, manufacturing costs, the acquisition or licensing of other businesses, products or product candidates, working capital and capital expenditures. These expected uses represent our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical trials, as well as any new collaborations that we may enter into with third parties for our product candidates, the commercialization of our products or our product candidates, if approved, and any unforeseen cash needs. As a result, our management regarding the application of the net proceeds from this offering. Pending application of the net proceeds as described above, we intend to invest the net proceeds of this offering in short-term, investment-grade, interest-bearing securities.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and our ability to pay cash dividends is currently restricted by the terms of our credit facility with MAM Eagle Lender, LLC. We currently intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends on our common stock will be made at the discretion of our board of directors and will depend on various factors, including applicable laws, our results of operations, financial condition, future prospects, anticipated cash needs, plans for expansion and any other factors deemed relevant by our board of directors.

DILUTION

If you invest in our common stock, your interest will be immediately diluted to the extent of the difference between the public offering price per share and the as adjusted net tangible book value per share of our common stock after this offering. Net tangible book value per share represents our total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding.

As of December 31, 2022, our net tangible book value was \$(26.4) million, or \$(16.24) per share of common stock, based on 1,623,913 shares of common stock outstanding as of December 31, 2022. Our pro forma net tangible book value as of December 31, 2022 was approximately \$(22.0) million, or \$(8.52) per share, after giving effect to the exercise of warrants to purchase 961,787 shares of our common stock for gross proceeds of \$4.3 million during the first quarter of 2023, or the Warrant Exercise.

After giving effect to the sale of shares of our common stock and accompanying Series A warrants at an assumed public offering price per share of common stock of \$, the last reported sale price of common stock on the Nasdaq Capital Market on , 2023, assuming no sale of any Series D pre-funded warrants in this offering, and after deducting the estimated placement agent fees and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the warrants issued in this offering, our as pro forma as adjusted net tangible book value as of December 31, 2022 would have been approximately \$ million, or approximately \$ per share. This represents an immediate increase in net tangible book value to existing shareholders of \$ per share and an immediate dilution in net tangible book value of \$ per share of our common stock to the investors purchasing securities in this offering.

The following table illustrates this per share dilution to the new investors purchasing shares of common stock in this offering:

Assumed combined public offering price per share of common stock and accompanying Series A	
warrants	\$
Historical net tangible book value (deficit) per share as of December 31, 2022	\$
Pro forma increase in net tangible book value per share attributable to the Warrant Exercise	\$
Pro forma net tangible book value per share December 31, 2022	\$
Increase in pro forma net tangible book value per share attributable to investors purchasing in	
this offering	\$
Increase in net tangible book value per share attributable to investors purchasing in this offering	\$
As adjusted net tangible book value per share as of December 31, 2022 after this offering	\$
Dilution per share to investors purchasing in this offering	\$

Each \$0.25 increase or decrease in the assumed public offering price per share of common stock and accompanying Series A warrants of \$, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2023, would increase or decrease the net proceeds to us from this offering by \$ million, assuming that the number of share of common stock and accompanying Series A warrants offered by us, as set forth on the cover page of this prospectus, remains the same, assuming no sale of any Series D pre-funded warrants and accompanying Series A warrants, after deducting the estimated placement agent fees and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the warrants issued pursuant to this offering. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering as determined between us and the placement agent at pricing.

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The foregoing table and calculations are based on 1,623,913 shares of our common stock outstanding as of December 31, 2022, and excludes:

- 1,939 shares of our common stock issuable upon the exercise of stock options outstanding, at a weighted-average exercise price of \$3,525.88 per share;
- 10,611 shares of our common stock issuable upon the vesting and settlement of restricted stock units outstanding;
- 27,997 shares of our common stock available for future issuance under our 2019 Equity Incentive Plan; and
- 1,887,772 shares of our common stock issuable upon the exercise of warrants outstanding as of December 31, 2022 with a weighted-average exercise price of \$13.25 per share.

DIRECTOR COMPENSATION

We have designed and implemented our compensation program for ournon-employee directors to attract, motivate and retain individuals who are committed to our values and goals and who have the expertise and experience that we need to achieve those goals.

COMPENSATION PROGRAM

The table below depicts our compensation program for ournon-employee directors:

COMPENSATION ELEMENTS - NON-EMPLOYEE DIRECTOR COMPENSATION PROGRAM

Cash	
Annual Cash Retainer	\$40,000
Annual Committee Chair Retainer	
Audit	\$20,000
Compensation	\$15,000
Nominating and Corporate Governance	\$9,000
Committee Member Retainer	
Audit	\$10,000
Compensation	\$7,500
Nominating and Corporate Governance	\$5,000
Annual Non-Executive Chairman of the Board Cash Retainer	\$30,000
Equity	
Initial Equity Grant	20,000 restricted stock units, vesting 50% on the first anniversary of the date of grant and 50% on the second anniversary of the date of grant.
Annual Equity Retainer	\$70,000 in restricted stock units and \$65,000 in stock options, each vesting on the first anniversary of the date of grant.

The cash fees described above are paid on a quarterly basis. Ournon-employee directors are also reimbursed for their business-related expenses incurred in connection with attendance at Board and Committee meetings and related activities. Our only employee director, Ms. Henwood, receives no separate compensation for her service in such capacity. In 2022, we suspended our annual equity retainer because we were limited in what we could issue under our 2019 Equity Incentive Plan, and instead granted each of our independent directors 986 cash-settleable restricted stock units.

2022 DIRECTOR COMPENSATION

The following table provides summary information regarding 2022 compensation to ournon-employee directors.

NAME	FEES EARNED OR Paid in Cash (\$)	OPTION AWARDS	STOCK AWARDS	TOTAL (\$)
Alfred Altomari ⁽²⁾		(\$)(1)	(\$)(1)	<u>``````</u>
Alfred Altomari ⁽²⁾	31,604	—	—	31,604
William L. Ashton	70,000		29,974	99,974
Arnold Baskies, M.D.	52,500	_	29,974	82,474
Winston Churchill	65,133	_	29,974	95,107
Andrew Drechsler	60,000	_	29,974	89,974
Wayne B. Weisman	83,617		29,974	113,591

(1) Reflects the grant date fair value determined in accordance with the Financial Accounting Standards Board Accounting Standards, Codification Topic 718, Compensation — Stock Compensation, or ASC 718. The assumptions made in these valuations are included in Note 14 of the Notes to the Annual Financial Statements included in our Annual Report on Form 10-K. As of December 31, 2022, (i) Messrs. Ashton, Churchill and Weisman had stock options to purchase 83 shares of our common stock and 986 outstanding and unvested restricted stock units, and (ii) Dr. Baskies and Mr. Drechsler had stock options to purchase 59 shares of our common stock and 986 outstanding and unvested restricted stock units.

(2) Mr. Altomari resigned from the Board of Directors on May 4, 2022. Upon Mr. Altomari's resignation, all options were accelerated and vested and remain exercisable for eight years and the vesting of outstanding restricted stock units was accelerated and vested immediately.

EXECUTIVE OFFICER COMPENSATION

In 2022, our named executive officers were Gerri Henwood, our President and CEO, Jillian Dilmore, our Corporate Controller, and Richard Casten, our former Chief Financial Officer, who departed the Company on April 16, 2022 as part of our reduction in force in an effort to reduce expenses.

This section discusses the material components of the executive compensation program for our named executive officers.

SUMMARY COMPENSATION TABLE

The following table sets forth information concerning the compensation of our named executive officers during the fiscal years ended December 31, 2022 and December 31, 2021:

NAME AND PRINCIPAL POSITION	YEAR	SALARY (\$)	Bonus (\$)	STOCK Awards (\$) ⁽¹⁾	OPTION AWARDS (\$) ⁽¹⁾	Non-EQUITY Incentive Plan Compensation (\$)	ALL OTHER COMPENSATION (\$)(4)(7)	TOTAL (\$)
Gerri Henwood	2022	618,000		29,974(8)		_	45,892	693,866
President and Chief Executive Officer	2021	618,000	—	923,099(2)	89,836	—	43,535	1,674,470
Jillian Dilmore ⁽⁵⁾	2022	229,850	—	11,734(8)	_	_	50,966	292,550
Corporate Controller	2021	204,549	_	1,820(9)	9,184	38,022	47,574	301,149
Richard S. Casten ⁽⁶⁾ Former Chief Financial Officer	2022 2021	127,500 307,500	75,000	121,000(3)	210,594	65,813	448,529 42,020	576,029 821,927

 Reflects the grant date fair value determined in accordance with ASC 718. The assumptions made in these valuations are included in Note 14 of the Notes to the Annual Financial Statements included in our 2022 Annual Report.

(2) Reflects stock grants effectuated on January 20, 2021 and December 1, 2021.

(3) Reflects stock grants effectuated on March 8, 2021.

(4) These amounts consist of 401(k) matching contributions, the cost of medical benefits and life and disability insurance premiums.

(5) Ms. Dilmore was designated as our principal financial officer and principal accounting officer, effective April 16, 2022.

(6) Mr. Casten commenced employment with us on March 8, 2021 and departed the Company on April 16, 2022.

(7) For Mr. Casten, this amount also includes severance and vacation time accrued for in 2022 upon his departure from the Company as required per his employment agreement.

(8) Reflects stock grants effectuated on June 15, 2022.

(9) Reflects stock grants effectuated on January 15, 2021.

Equity Compensation

In 2022, we awarded equity compensation under our 2019 equity incentive plan to our named executive officers in the form of restricted stock units. We determine equity award amounts based on the judgment of our Compensation Committee, taking into account information and recommendations provided by our compensation consultant. With respect to our named executive officers other than our CEO, the Compensation Committee also considers recommendations provided by our CEO. In determining the amount of awards, the Compensation Committee generally does not consider an employee's current equity ownership in our common stock or the prior awards that are fully vested, but may consider competitive market factors in our industry.

Our restricted stock unit awards typically vest in equal annual installments over a two to four-year period subject to the continued service of the employee with us. We believe these vesting arrangements encourage our named executive officers to continue service with us for a longer period of time and remain focused on our multi-year long-term drug development and commercialization programs.

Non-Equity Incentive Plan Compensation

Each of our named executive officers are eligible to receive an annual performance bonus based on the achievement of pre-established corporate and/or individual objectives as determined by our Board and our Compensation Committee, in consultation with Pay Governance and upon review of the recommendations of our CEO for our other named executive officers. The Compensation Committee and the Board retained the discretion to make adjustments to the calculated bonus amount based on unexpected or unplanned events, the overall financial condition of the Company, extraordinary performance or underperformance or other factors deemed appropriate by the Compensation Committee and the Board. Each officer is assigned a target bonus expressed as a percentage of his or her base salary. Actual bonus payments may be higher or lower than the target bonus amount, as determined by our Board or Compensation Committee, based on the achievement of corporate and individual objectives. The target bonus amounts in 2022 for Ms. Henwood, Ms. Dilmore and Mr. Casten were 60%, 25% and 37.5% of their respective base salaries.

In determining the amount of performance bonus awards, our Compensation Committee determines the level of achievement of the corporate goals and individual goals in respect of our non-CEO executive officers and our Board determines the amount of performance bonus awards for our CEO. In determining the level of achievement for our other named executive officers, our Compensation Committee reviews and considers the recommendations of our CEO. These achievement levels are used to determine each named executive officer's bonus.

For 2022, the Compensation Committee and the Board determined that each named executive officer's performance bonus should be based principally on contribution towards the achievement of corporate goals. These goals primarily included achievement of sales targets for ANJESO, raising capital to fund continued operations and managing cash to budget, out-licensing ANJESO or other pipeline candidates and completing pipeline development goals. The Compensation Committee and the Board determined that the percentage attainment of our corporate goals for 2022 was based primarily on achievement of revenue target for ANJESO, which was not achieved, and although other portions of the corporate goals for 2022 were achieved, in light of the company's cash position, payment of performance bonuses would not be in the best interests of the Company or our shareholders. As such, our named executive officers did not receive cash bonuses for the year ended December 31, 2022.

QUALIFIED AND NON-QUALIFIED PLANS

We maintain a tax-qualified savings plan under Section 401(k) of the Internal Revenue Code. Employees who participate in the plan may make elective deferrals to the plan, subject to the limitations imposed by the Internal Revenue Code. In addition, we match 100% of employee deferrals under the plan, up to a limit of 5% of the employee's eligible compensation (the eligibility compensation limit is established by the IRS annually and was \$305,000 for 2022).

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END FOR 2022

The following table summarizes the number of shares of common stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2022:

		OPTION AWAR	DS ⁽⁹⁾				ST	FOCK AWARDS		
NAME	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS (#) <u>EXERCISABLE</u> 98 276	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS (#) <u>UNEXERCISABLE</u> 33(2) 310(3)	OPTION EXERCISE PRICE (\$) \$ 8,862 \$ 2,380	OPTION EXPIRATION DATE 12/4/2029 12/21/2031	NUMBER OF TIME-BASED VESTING SHARES OR UNITS OF STOCK THAT HAVE NOT VESTED (#)	OF TI V SH UNITS THAT V	KET VALUE ME-BASED ESTING ARES OR S OF STOCK 'HAVE NOT 'ESTED (\$) ⁽¹⁾	NUMBER OF PERFORMANCE-BASED VESTING SHARES OR UNITS OF STOCK THAT HAVE NOT VESTED (#)	PER BAS SHA OF :	RKET VALUE OF RFORMANCE- SED VESTING RES OR UNITS STOCK THAT E NOT VESTED (\$) ⁽¹⁾
Gerri Henwood	270		\$ 2,500	12,21,2001	22(4) 986(5)	\$ \$	70 3,135	378(6)	\$	1,202
	4 4	2(2) 0(7)	\$ 8,862 \$ 1,568	12/4/2029 12/01/2030				270	Ψ	1,202
Jillian Dilmore	3	4(8)	\$ 1,820	1/14/2031	386(5)	\$	1,227	1(4)	\$	3

(1) The market value is based on the closing stock price of \$3.18 on December 30, 2022 (the last trading date in the 2022 fiscal year).

(2) This stock option vests in equal monthly installments over 48 months, beginning on December 5, 2019, subject to continued employment with us.

(3) This stock option vests in equal monthly installments over 48 months, beginning on January 20, 2021, subject to continued employment with us.

(4) These restricted stock units vest in four equal annual installments beginning December 5, 2019, subject to continued employment with us.

(5) These restricted stock units vest in two equal annual installments beginning June 15, 2022, subject to continued employment with us, and at our option, in cash, shares of common stock, or a combination thereof.

(6) This performance-based restricted stock unit may vest upon meeting certain future financial, clinical, and operational goals.

(7) This stock option vested in equal semi-annual installments over two years, beginning on December 2, 2020, subject to continued employment with us.

(8) This stock option vests in equal monthly installments over 48 months, beginning on January 15, 2021, subject to continued employment with us.

(9) Upon Mr. Casten's departure, all unvested options and restricted stock units were cancelled. Mr. Casten had no outstanding equity as of December 31, 2022.

EMPLOYMENT AGREEMENTS

We have entered into employment agreements with certain of our named executive officers.

Compensation

The employment agreements provide for annual base salaries for certain of our named executive officers, subject to adjustment from time to time. In addition, the employment agreements provide that certain of our named executive officers is eligible to participate in our Company's incentive bonus program. The base salaries and target bonus opportunities that were in effect for 2022 are described in the "Base Salaries" and "Annual Bonuses" sections above, although no bonuses were paid in 2022.

Restrictive Covenants

Under the employment agreements, certain of our named executive officers are bound by anon-solicitation of employees and customers and a non-compete during their employment and the one-year period thereafter.

Termination and Severance

Pursuant to each of the employment agreements, if we terminate certain of our named executive officer's employment without cause (as defined below) or such named executive officer resigns for certain reasons described below within 18 months of a change of control (as defined below), such named executive officer will generally be entitled to receive:

(i) any accrued but unused vacation and paid time off and any earned but unpaid bonus in respect of the prior year, or the Accrued Benefits;

(ii) continuation of such named executive officer's base salary and health insurance benefits (including for eligible dependents), at active employee rates, for a period of 12 months following the date of termination, with respect to Mr. Casten, and for a period of 18 months following the date of termination, with respect to Ms. Henwood;

(iii) a pro-rata annual bonus in respect of the fiscal year in which the effective date of termination occurs, to the extent such bonus is earned based on the applicable criteria, paid at the same time it would have otherwise been paid absent the named executive officer's termination of employment; and

(iv) outplacement services for a period of 12 months following the date of termination, which shall not exceed \$25,000.

In connection with Mr. Casten's termination in 2022, he was entitled to the above benefits pursuant to the terms of his employment agreement.

If Ms. Henwood's employment is terminated as a result of her disability or death, she or her estate will be entitled to receive:

(i) the Accrued Benefits;

(ii) continuation of Ms. Henwood's base salary and health insurance benefits (including for eligible dependents) at active employee rates for a period of 18 months following the date of termination;

(iii) a pro-rata target bonus in respect of the fiscal year in which the effective date of termination occurs, paid within 30 days of termination.

The severance benefits described above are generally subject to the named executive officer's execution of a release of claims in favor of the Company and its affiliates. If the severance and other benefits provided in a named executive officer's employment agreement or otherwise payable to a named executive officer would be subject to excise tax under Section 280(G) of the Code, then the named executive officer's severance benefits will be either delivered in full or delivered as to such lesser extent that would result in no portion of the severance benefits being subject to such excise tax, whichever results in the receipt by the named executive officer, on an after-tax basis, of the greatest portion of such total severance and other benefits.

Cause

For purposes of the employment agreements, "cause" generally means a named executive officer's (1) commission of an act of fraud or dishonesty against us; (2) willful failure to substantially perform his or her duties or material violation of the employment agreement, which failure or violation continues for 30 days or more following written notice to such named executive officer; (3) loss of any permit, license, accreditation or other authorization necessary for such named executive officer to perform his or her duties; (4) conviction of a

felony or a plea of "no contest" to a felony; or (5) conduct that is likely, in the judgment of our Board, to materially adversely affect our reputation that continues for 5 days or more following written notice by us of such conduct.

Change of Control

For purposes of the employment agreements, a "change of control" shall generally be deemed to have occurred upon the happening of any of the following events: (1) the consummation by us of a plan of dissolution or liquidation; (2) the consummation of the sale or disposition of all or substantially all of our assets; (3) the consummation by us of a merger, consolidation or other shareholder-approved fundamental business transaction in which we are a participant with another entity where our shareholders, immediately prior to the referenced transaction, will not beneficially own, immediately after the referenced transaction, shares or other equity interests entitling such shareholders to more than 50% of all votes to which all equity holders of the surviving entity would be entitled in the election of directors; (4) a third party shall have become the beneficial owner of, or shall have obtained voting control over, more than fifty percent (50%) of our outstanding shares of the common stock; or (5) a majority of the Board shall have been members of the Board for less than twenty-four (24) months.

A named executive officer will receive the payments and benefits described above if he or she resigns within 12 months of a change of control, because we and/or our successor: (1) materially and adversely change such named executive officer's status, responsibilities or perquisites; (2) reduce such named executive officer's base salary, except as part of an across the board decrease in which such executive officer's percentage reduction is not more than any other executive officer, or reduce such named executive officer's target bonus opportunity; or (3) require such officer to be principally based at any office or location more than 50 miles from such named executive officer's principal office prior to the change of control, subject to a 30 day cure period, in each case, if we fail to cure these circumstances within 30 days after receiving notice from the named executive officer of his or her basis to resign.

Equity Compensation Plan Information

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options and other rights	(b) Weighted- average exercise price of outstanding options and other rights ⁽¹⁾	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security			
holders	12,499(2)	\$ 3,509.06	27,997
Equity compensation plans not approved by			
security holders ⁽⁴⁾	51(3)	\$ 4,203.28	_
Total	12,550	\$ 3,525.88	27,997

(1) Represents the weighted-average exercise price of outstanding stock options and does not include restricted stock units.

(2) Consists of outstanding (i) options to purchase 1,892 shares of common stock and (ii) restricted stock units covering an aggregate of 10,607 shares of common stock. Shares of common stock in settlement of vested restricted stock units are deliverable within 30 days of the vesting date.

(3) Reflects grants of stock options to purchase 47 shares of common stock and restricted stock units covering an aggregate of 4 shares of common stock that were "inducement grants" as defined under Nasdaq Listing Rule 5635(c)(4). The terms and conditions of each inducement grant are subject to the terms and conditions of Forms of Award Agreements filed with the Company's 2020 Annual Report.

(4) Our board of directors has not established any specific number of shares that could be issued without shareholder approval. Inducement grants to new key employees are determined on a case-by-case basis. Other than possible inducement grants, we expect that all equity awards will be made under shareholder-approved plans.

Other information with respect to this item is set forth in this Form Registration Statement under the headings "Security Ownership of Certain Beneficial Owners and Management," "Executive Compensation," and "Director Compensation," and is incorporated herein by reference.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Since January 1, 2021, we have engaged in the following transactions with our directors, executive officers, holders of more than 5% of our voting securities, and affiliates or immediate family members of our directors, executive officers, and holders of more than 5% of our voting securities. We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

EMPLOYMENT OF CERTAIN RELATED PERSONS

Mr. Chris Sharr, Ms. Henwood's brother, has been our Vice President, Manufacturing since the separation between Recro Pharma, Inc. and Baudax Bio, Inc. in November 2019. Mr. Sharr earned \$346,916 in compensation in 2022, including base salary, equity compensation, which is determined in accordance with ASC 718, and any other compensation including 401(k) matching contributions, the cost of medical benefits and life and disability insurance premiums. Mr. Sharr earned \$388,109 in compensation in 2021, including base salary, bonus, equity compensation, which is determined in accordance with ASC 718, and any other compensation including 401(k) matching contributions, the cost of medical benefits and life and disability insurance premiums. Mr. Sharr earned \$388,109 in compensation in 2021, including base salary, bonus, equity compensation, which is determined in accordance with ASC 718, and any other compensation including 401(k) matching contributions, the cost of medical benefits and life and disability insurance premiums. The assumptions made in the valuation of Mr. Sharr's equity compensation are included in Note 14 of the Notes to the Annual Financial Statements included in our 2022 Annual Report. Mr. Sharr's compensation was approved by our Compensation Committee and Audit Committee.

Ms. Diane Myers, Ms. Henwood's sister, has been our Senior Vice President, Regulatory and Quality since the Separation in November 2019. Ms. Myers earned \$436,666 in compensation in 2022, including base salary, equity compensation, which is determined in accordance with ASC 718, and any other compensation including 401(k) matching contributions, the cost of medical benefits and life and disability insurance premiums. Ms. Myers earned \$436,959 in compensation in 2021, including base salary, bonus, equity compensation, which is determined in accordance with ASC 718, and any other compensation including 401(k) matching contributions, the cost of medical benefits and life and disability insurance premiums. Ms. Myers earned \$480,959 in compensation in 2021, including base salary, bonus, equity compensation, which is determined in accordance with ASC 718, and any other compensation including 401(k) matching contributions, the cost of medical benefits and life and disability insurance premiums. The assumptions made in the valuation of Ms. Myers' equity compensation are included in Note 14 of the Notes to the Annual Financial Statements included in our 2022 Annual Report. Ms. Myers' compensation was approved by our Compensation Committee and Audit Committee.

Each of Ms. Myers and Mr. Sharr participate in our general welfare and benefit plans. Ms. Henwood does not have a material interest in the employment of Ms. Myers or Mr. Sharr, nor does she share a household with any of them. Our Compensation Committee and Audit Committee approve the compensation of all related persons.

FINANCING ARRANGEMENTS WITH ARMISTICE CAPITAL

Armistice Capital Master Fund, Ltd., or Armistice, is a related party due to the fact it owns, or has the right to acquire, 9.99% of our common stock.

January 2021 Warrant Exercise and Registered Direct Offering

On January 21, 2021, we entered into an inducement offer letter agreement with Armistice, pursuant to which we offered warrants exercisable for an aggregate of 7,358 shares of common stock at an offering price of \$175 per warrant in exchange for the exercise of Armistice's warrants that were issued to it on December 21, 2020, at an exercise price of \$2,240.00 per warrant.

February 2021 Registered Direct Offering

On February 8, 2021, we entered into a Securities Purchase Agreement with certain institutional investors, including Armistice, pursuant to which we agreed to issue and sell, in a registered direct offering, 7,857 shares of our common stock, par value \$0.01 per share at an offering price of \$2,240.00 per share, including 1,786 shares that were sold to Armistice in such offering.

May 2021 Registered Direct Offering

On May 31, 2021, we entered into a Securities Purchase Agreement with certain institutional investors, including Armistice, pursuant to which we agreed to issue and sell, in a registered direct offering, 10,021 shares of our common stock, par value \$0.01 per share at an offering price of \$1,190 per share, including 6,013 shares that were sold to Armistice in such offering. We also offered and sold to Armistice warrants to purchase an aggregate of 6,013 shares of common stock, at an exercise price of \$1,260.00 per share.

December 2021 Registered Direct Offering

On December 27, 2021, we entered into a Securities Purchase Agreement with certain institutional investors, including Armistice, pursuant to which we agreed to issue and sell, in a registered direct offering, 42,289.3 shares of our Series A Preferred Stock, par value \$0.01 per share, with a stated value of \$100.00 per share, including 24,000 shares that were sold to Armistice in such offering. We also offered and sold to Armistice warrants to purchase an aggregate of 5,143 shares of common stock, at an exercise price of \$448.00 per share.

February 2022 Public Offering

On February 24, 2022, we entered into an Underwriting Agreement with H.C. Wainwright & Co., LLC, or Wainwright, pursuant to which we offered and sold, in a public offering, (i) 45,791 shares of common stock, par value \$0.01 (ii) pre-funded warrants exercisable for an aggregate of 41,929 shares of common stock and (iii) warrants exercisable for an aggregate of 87,719 shares of common stock, with an exercise price of \$130 per share at a public offering price of (i) \$114.00 per share of common stock and accompanying warrant, and (ii) \$113.60 for pre-funded warrant and accompanying warrant. Armistice participated in the offering and purchased 11,500 shares of common stock, 36,746 pre-funded warrants and 48,246 warrants to purchase common stock.

May 2022 Registered Direct Offering

On May 17, 2022, we entered into a Securities Purchase Agreement with certain institutional investors, including Armistice, pursuant to which we agreed to issue and sell, in a registered direct offering, 41,152 shares of our common stock, par value \$0.01, and, in a concurrent private placement, warrants exercisable for up to an aggregate of 41,152 shares of common stock, par value \$0.01, at a combined offering price of \$48.60 per share, at an exercise price of \$43.60 per share, and associated warrant, including 14,404 shares which were sold to Armistice in such offering and warrants to purchase an aggregate of 14,404 shares of common stock.

August 2022 Public Offering and Warrant Reprice

On August 24, 2022, the we entered into a Placement Agent Agreement with H.C. Wainwright & Co. LLC, or Wainwright, pursuant to which we offered and sold, in a public offering, 188,872 shares of common stock, par value \$0.01, warrants to purchase 590,959 shares of common stock with an exercise price of \$21.00 per share of common stock and pre-funded warrants exercisable for an aggregate of 106,607 shares of common stock, with an exercise price of \$20.60 per share of common stock and accompanying warrant. Armistice participated in the offering and purchased 39,250 shares of common stock, 285,716 warrants to purchase common stock, with an exercise price of \$21.00 per share of common stock and 103,607 pre-funded warrants.

On August 24, 2022, the Company entered into warrant amendment agreements with Armistice's (i) Series A warrants to purchase 7,234 shares of common stock with an exercise price of \$1,680.00 per share, (ii) warrants to purchase 7,358 shares of common stock with an exercise price of \$2,240.00 per share, (iii) Warrants to purchase 6,013 shares of common stock with an exercise price of \$1,260.00 per share, (iv) warrants to purchase 5,143 shares of common stock with an exercise price of \$448.00 per share, and (v) warrants to purchase 48,246 shares of common stock with an exercise price of \$130.00 per share or the Existing August Warrants. Under the Warrant Amendment Agreements, the Company agreed to amend the Existing Warrants by lowering the exercise price of the Existing Warrants to \$23.92 per share.

December 2022 Public Offering and Warrant Reprice

On December 2, 2022, the Company entered into a warrant amendment agreement with Armistice's (i) warrants to purchase 7,234 shares of common stock with an exercise price of \$23.92 per share, (ii) warrants to purchase 7,358 shares of common stock with an exercise price of \$23.92 per share, (iii) warrants to purchase 6,013 shares of common stock with an exercise price of \$23.92 per share, (iv) warrants to purchase 6,013 shares of common stock with an exercise price of \$23.92 per share, (iv) warrants to purchase 5,143 shares of common stock with an exercise price of \$23.92 per share, (v) warrants to purchase 48,246 shares of common stock with an exercise price of \$23.92 per share, (vi) Series A-1 warrants to purchase 14,404 shares of common stock with an exercise price of \$43.60 per share, (vii) SeriesA-2 warrants to purchase 142,858 shares of common stock with an exercise price of \$21.00 per share and (viii) warrants to purchase 142,858 shares of common stock with an exercise price of \$21.00 per share, of \$40.00 per share and (ii) agreed to amend the December Existing Warrants to Purchase to December 6, 2027, in each case effective on December 6, 2022.

On December 5, 2022, we entered into a Placement Agent Agreement with H.C. Wainwright & Co. LLC, or Wainwright, pursuant to which we offered and sold, in a public offering, 54,787 shares of common stock, par value \$0.01, warrants to purchase 2,085,574 shares of common stock with an exercise price of \$4.500 per share of common stock and pre-funded warrants exercisable for an aggregate of 988,000 shares of common stock, with an exercise price of \$4.785 per share of common stock and accompanying warrant.

POLICIES AND PROCEDURES FOR RELATED PERSON TRANSACTIONS

Our Board has adopted a written related party transaction policy that governs the review and approval of related party transactions. This policy covers any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, where the amount involved exceeds \$120,000 and a related person had or will have a direct or indirect material interest. Pursuant to this policy, if we want to enter into a transaction with a related party or an affiliate of a related party, the Audit Committee will review the proposed transaction to determine, based on applicable rules of Nasdaq and the SEC, whether such transaction requires pre-approval by the Audit Committee. If pre-approval is required, the proposed transaction will be reviewed at the next regular or special meeting of the Audit Committee, and we may not enter into a related party transaction, our Audit Committee is tasked to consider all requisite corporate reviews have been obtained. In reviewing and approving any such transactions, our Audit Committee is tasked to consider all relevant facts and circumstances with respect to the transaction and shall evaluate all available options, including ratification, revision or termination of the transaction. All of the transactions described under "Certain Relationships and Related Party Transactions" in this Registration Statement either were approved or ratified in compliance with this policy.

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the beneficial ownership of common stock as of March 31, 2023 by (a) each person known by us to be the beneficial owner of more than 5% of the outstanding shares of common stock, (b) each named executive officer identified in the "Summary Compensation Table" above, (c) each director and nominee for director, and (d) all executive officers and directors as a group.

The percentage of common stock outstanding is based on shares of our common stock outstanding as March 31, 2023. For purposes of the table below, and in accordance with the rules of the SEC, we deem shares of common stock subject to options that are currently exercisable or exercisable within sixty days of March 31, 2023 to be outstanding and to be beneficially owned by the person holding the options for the purpose of computing the percentage ownership of that person, but we do not treat them as outstanding for the purpose of computing the percentage ownership of the person solution of the person. Except as otherwise noted, each of the persons or entities in this table has sole voting and investing power with respect to all of the shares of common stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise noted below, the street address of each beneficial owner is c/o Baudax Bio, Inc., 490 Lapp Road, Malvern, PA 19355.

	SHARES BENEFICIALLY OWNED	
NAME OF BENEFICIAL OWNER	NUMBER OF SHARES	Percentage
5% or Greater Shareholders		
Armistice Capital Master Fund, Ltd.(1) 510 Madison Avenue,		
22nd Floor New York, New York 10022		9.99%
Named Executive Officers and Directors		
Gerri Henwood ⁽²⁾		*
Richard S. Casten ⁽³⁾		*
Jillian Dilmore ⁽⁴⁾		*
William L. Ashton ⁽⁵⁾		*
Arnold Baskies, M.D. ⁽⁶⁾		*
Winston J. Churchill ⁽⁷⁾⁽⁸⁾		*
Andrew Drechsler ⁽⁹⁾		*
Wayne Weisman ⁽⁸⁾⁽¹⁰⁾		*
All executive officers and directors as a group (8 persons) ⁽¹¹⁾		%

* Less than 1%

(1) Amount of common stock beneficially owned includes shares of common stock, held either outright or issuable upon the exercise of warrants. The warrants held by this shareholder include provisions that limit the exercise or conversion thereof, as applicable, to the extent such exercise would cause the holder, together with its affiliates and any other person acting together with it and its affiliates, to beneficially own a number of shares of common stock which would exceed 9.99% of our then outstanding common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon the exercise of the warrant which have not been exercised. The shareholder may increase or decrease its beneficial ownership limitation upon giving notice to us, which such increase or decrease will not be effective until the 61st day after the notice is delivered to us. As a consequence of this beneficial ownership conversion cap and related limitation on the conversion and exercise of the warrants, the beneficial ownership of this shareholder is limited as indicated in the table. Armistice Capital Master Fund Ltd., is an investment advisory client of Armistice Capital, LLC. Steven Boyd is the managing member of Armistice Capital, LLC and is deemed to have dispositive and voting power with respect to the shares beneficially held by Armistice Capital Master Fund Ltd.

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- (2) Ms. Henwood holds (i) shares of our common stock, which includes shares of our common stock held by Ms. Henwood's husband, Thomas Henwood, and (ii) stock options to purchase shares of our common stock that may be exercised within 60 days of March 31, 2023. As spouses, Mr. and Ms. Henwood may be deemed to beneficially own the shares of our common stock that are held by the other spouse. Mr. and Ms. Henwood disclaim beneficial ownership of the shares of our common stock that are held by the other spouse.
- (3) Mr. Casten holds shares of our common stock and stock options to purchase shares of our common stock that may be exercised within 60 days of March 31, 2023.
- (4) Ms. Dilmore holds shares of our common stock and stock options to purchase shares of our common stock that may be exercised within 60 days of March 31, 2023.
- (5) Mr. Ashton holds shares of our common stock and stock options to purchase shares of our common stock that may be exercised within 60 days of March 31, 2023.
- (6) Dr. Baskies holds shares of our common stock and stock options to purchase shares of our common stock that may be exercised within 60 days of March 31, 2023.
- (7) Mr. Churchill holds shares of our common stock and stock options to purchase shares of our common stock that may be exercised within 60 days of March 31, 2023.
- SCP Vitalife Partners II, L.P., or SCP Vitalife Partners, SCP Vitalife Partners (Israel) II, L.P., or SCP Vitalife Israel, SCP Vitalife II Associates, L.P., (8) or SCP Vitalife Associates, SCP Vitalife II GP, LTD (SCP Vitalife GP), Winston J. Churchill, Jeffrey Dykan, and Wayne B. Weisman. SCP Vitalife Partners beneficially owns shares of common stock and SCP Vitalife Israel beneficially owns shares of common stock. As the general partner of SCP Vitalife Partners and SCP Vitalife Israel, SCP Vitalife Associates may be deemed to beneficially own 33,130 shares of common stock. As the general partner of SCP Vitalife Associates, SCP Vitalife GP may be deemed to beneficially own shares of common stock. As directors of SCP Vitalife GP, Messrs. Churchill, Dykan and Weisman may be deemed to beneficially own shares of common stock. SCP Vitalife Partners shares dispositive and voting power with respect to the shares of common stock owned. SCP Vitalife Israel shares dispositive and voting power with respect to the shares of common stock owned. SCP Vitalife Associates, SCP Vitalife GP, Messrs. Churchill, Dykan and Weisman have shared dispositive and voting power with respect to the aggregate shares of common stock owned by SCP Vitalife Partners and SCP Vitalife Israel.
- (9) Mr. Drechsler holds shares of our common stock and stock options to purchase 2,380 shares of our common stock that may be exercised within 60 days of March 31, 2023.
- (10) Mr. Weisman holds shares of our common stock and stock options to purchase shares of our common stock that may be exercised within 60 days of March 31, 2023.
- (11) Includes stock options to purchase shares of our common stock that may be exercised within 60 days March 31, 2023.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This description is summarized from, and qualified in its entirety by reference to, our amended and restated certificate of incorporation, which has been publicly filed with the SEC. For more information on how you can obtain copies of our amended and restated certificate of incorporation and amended and restated bylaws, see "Where You Can Find More Information."

Pursuant to our Amended and Restated Articles of Incorporation, our authorized capital stock consists of 190,000,000 shares of common stock, par value of \$0.01 per share, and 10,000,000 shares of preferred stock, par value \$0.01 per share, to be designated from time to time by our board of directors.

As of , 2023, there were shares of our common stock issued and outstanding and no shares of our preferred stock issued and outstanding.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of shareholders, including the election of directors, and do not have cumulative voting rights. Directors are elected by a plurality of the votes cast.

Subject to preferences that may be applicable to any then-outstanding shares of preferred stock, holders of our common stock are entitled to receive ratably dividends when, as, and if declared by our board of directors out of funds legally available therefor, subject to any preferential dividend rights of outstanding preferred stock. In the event of our liquidation, dissolution, or winding up, holders of our common stock will be entitled to ratably receive the net assets of our company available after the payments of all debts and other liabilities and subject to the prior rights of the holders of any then-outstanding shares of preferred stock.

Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights and privileges of the holders of the common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

Our board of directors has the authority, without further action by our shareholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the dividend, voting and other rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of our common stock. We have no current plans to issue any shares of preferred stock.

Anti-Takeover Effects of Our Amended and Restated Articles of Incorporation and Our Amended and Restated Bylaws

Provisions of our Amended and Restated Articles of Incorporation and Amended and Restated Bylaws may delay or discourage transactions involving an actual or potential change of control or change in our management, including transactions in which shareholders might otherwise receive a premium for their shares, or transactions that our shareholders might otherwise deem to be in their best interests. Therefore, these provisions could

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adversely affect the price of our common stock. Among other things, our Amended and Restated Articles of Incorporation and Amended and Restated Bylaws:

- divide our board of directors into three classes with staggered three-year terms;
- provide that a special meeting of shareholders may be called only by a majority of our board of directors, the chairman of our board of directors, the chief executive officer or the president;
- establish advance notice procedures with respect to shareholder proposals to be brought before a shareholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of director;
- provide that shareholders may only act at a duly organized meeting; and
- provide that members of our board of directors may be removed from office by our shareholders only for cause by the affirmative vote of 75% of the total voting power of all shares entitled to vote generally in the election of directors.

Our Amended and Restated Articles of Incorporation also provide that, unless we consent in writing to the selection of an alternative forum, a state or federal court located within the County of Philadelphia in the Commonwealth of Pennsylvania will be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of our company, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees or our shareholders, (iii) any action asserting a claim arising pursuant to any provision of the Pennsylvania Business Corporation Law, or PBCL, or (iv) any action asserting a claim peculiar to the relationships among or between our company and our officers, directors and shareholders.

The exclusive forum provision described above is intended to apply to the fullest extent permitted by law, including to actions arising under the Securities Act or the Securities Exchange Act of 1934, or the Exchange Act. However, the enforceability of exclusive forum provisions in the governing documents of other companies has been challenged in legal proceedings, and it is possible that a court could find our forum selection provision to be inapplicable or unenforceable with respect to actions arising under the Securities Act or the Exchange Act. Even if it is accepted that our exclusive forum provision applies to actions arising under the Securities will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

Anti-Takeover Provisions under Pennsylvania Law

Provisions of the PBCL applicable to us provide, among other things, that:

- we may not engage in a business combination with an "interested shareholder," generally defined as a holder of 20% of a corporation's voting stock, during the five-year period after the interested shareholder became such except under certain specified circumstances;
- holders of our common stock may object to a "control transaction" involving us (a control transaction is defined as the acquisition by a
 person or group of persons acting in concert of at least 20% of the outstanding voting stock of a corporation), and demand that they be paid a
 cash payment for the "fair value" of their shares from the "controlling person or group";
- holders of "control shares" will not be entitled to voting rights with respect to any shares in excess of specified thresholds, including 20% voting control, until the voting rights associated with such shares are restored by the affirmative vote of a majority of disinterested shares and the outstanding voting shares of the Company; and
- any "profit," as defined, realized by any person or group who is or was a "controlling person or group" with respect to us from the disposition
 of any equity securities of within 18 months after the person or group became a "controlling person or group" shall belong to and be
 recoverable by us.

Pennsylvania-chartered corporations may exempt themselves from these and other anti-takeover provisions. Our Amended and Restated Articles of Incorporation do not provide for exemption from the applicability of these or other anti-takeover provisions in the PBCL.

The provisions noted above may have the effect of discouraging a future takeover attempt that is not approved by our board of directors but which individual shareholders may consider to be in their best interests or in which shareholders may receive a substantial premium for their shares over the then current market price. As a result, shareholders who might wish to participate in such a transaction may not have an opportunity to do so. The provisions may make the removal of our board of directors or management more difficult. Furthermore, such provisions could result in our company being deemed less attractive to a potential acquiror and/or could result in our shareholders receiving a lesser amount of consideration for their shares of our common stock than otherwise could have been available either in the market generally and/or in a takeover.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc.

Stock Market Listing

Our shares of common stock are listed for trading on the Nasdaq Capital Market under the symbol "BXRX."

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering up to shares of common stock, together with Series A-5 warrants to purchase up to shares of common stock (the "Series A-5 warrants") and Series A-6 warrants to purchase up to shares of common stock (the "SeriesA-6 warrants," and together with the Series A-5 warrants, the "Series A warrants"). We are also offering up to Series D pre-funded warrants, together with Series A-5 warrants to purchase up to shares of common stock and Series A-6 warrants to purchase up to shares of common stock (collectively with the Series A warrants, the "warrants") to those purchasers, whose purchase of shares of common stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering in lieu of the shares of our common stock that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%). Each Series D pre-funded warrant will be exercisable for one share of common stock. Each Series Dpre-funded warrant is being issued together with the same Series A warrant described above being issued with each share common stock. The shares of common stock or Series D pre-funded warrants, as the case may be, and the Series A warrants, can only be purchased together in this offering, but the shares of common stock and Series D pre-funded warrants and Series A warrants are immediately separable and will be issued separately in this offering. We are also registering the shares of common stock and the shares of common stock issuable from time to time upon exercise of the Series D pre-funded warrants and Series A warrants offered hereby.

Common Stock

The description of our common stock under the section "Description of Our Capital Stock" in this prospectus is incorporated herein by reference.

Series A-5 Warrants

The following summary of certain terms and provisions of the Series A-5 warrants included with the shares of common stock and the Series Dpre-funded warrants that are being issued hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series A-5 warrants, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Series A-5 warrant for a complete description of the terms and conditions of the Series A-5 warrants.

Duration and Exercise Price

Each Series A-5 warrant offered hereby will have an initial exercise price equal to \$ per share of common stock. The SeriesA-5 warrants will be immediately exercisable and will expire five years from the date of issuance. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series A-5 warrants will be issued separately from the common stock, or the Series Dpre-funded warrants, as the case may be, in certificated form only.

Exercisability

The Series A-5 warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Series A-5 warrant to the extent that the holder would own more than 4.99% (or, at the election of the purchaser prior to the issuance of the Series A-5 warrants, 9.99%) of the outstanding common stock immediately after exercise. Following the issuance of the Series A-5 warrants,

upon notice from the holder to us, the holder may increase or decrease the amount of beneficial ownership of outstanding stock after exercising the holder's Series A-5 warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Series A-5 warrants and in accordance with the rules and regulations of the Securities and Exchange Commission, or the SEC, provided that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice to us.

Cashless Exercise

If, at the time a holder exercises its Series A-5 warrants, a registration statement registering the issuance of the shares of common stock underlying the Series A-5 warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series A-5 warrants.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the SeriesA-5 warrants. Rather, the number of shares of common stock to be issued will be rounded up to the next whole share or we will pay a cash adjustment equal to such fraction multiplied by the exercise price to the holder.

Transferability

Subject to applicable laws, a Series A-5 warrant may be transferred at the option of the holder upon surrender of the SeriesA-5 warrant to us together with the appropriate instruments of transfer.

Trading Market

There is no trading market available for the Series A-5 warrants on any securities exchange or nationally recognized trading system, and we do not expect a trading market to develop. We do not intend to list the Series A-5 warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Series A-5 warrants will be extremely limited. The common stock issuable upon exercise of the SeriesA-5 warrants is currently listed on the Nasdaq Capital Market.

Right as a Shareholder

Except as otherwise provided in the Series A-5 warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Series A-5 warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their SeriesA-5 warrants.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series A-5 warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Series A-5 warrants will be entitled to receive upon exercise of the Series A-5 warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series A-5 warrants immediately prior to such fundamental transaction. In addition, in the event of a fundamental transaction which is approved by our board of directors, the holders of the Series A-5 warrants have the right to require us or a

successor entity to redeem the Series A-5 warrant for cash in the amount of the Black-Scholes value of the unexercised portion of the Series A-5 warrant on the date of the consummation of the fundamental transaction. In the event of a fundamental transaction which is not approved by our board of directors, the holders of the Series A-5 warrants have the right to require us or a successor entity to redeem the Series A-5 warrant for the consideration paid in the fundamental transaction in the amount of the Black-Scholes value of the unexercised portion of the Series A-5 warrant on the date of the consummation of the fundamental transaction.

Series A-6 Warrants

The following summary of certain terms and provisions of the Series A-6 warrants included with the shares of common stock and the Series Dpre-funded warrants that are being issued hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series A-6 warrants, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Series A-6 warrant for a complete description of the terms and conditions of the Series A-6 warrants.

Duration and Exercise Price

Each Series A-6 warrant offered hereby will have an initial exercise price equal to \$ per share of common stock. The SeriesA-6 warrants will be immediately exercisable and will expire thirteen months from the date of issuance. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series A-6 warrants will be issued separately from the common stock, or the Series Dpre-funded warrants, as the case may be, in certificated form only.

Exercisability

The Series A-6 warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Series A-6 warrant to the extent that the holder would own more than 4.99% (or, at the election of the purchaser prior to the issuance of the Series A-6 warrants, 9.99%) of the outstanding common stock immediately after exercise. Following the issuance of the Series A-6 warrants, upon notice from the holder to us, the holder may increase or decrease the amount of beneficial ownership of outstanding stock after exercise, as such percentage ownership is determined in accordance with the terms of the Series A-6 warrants and in accordance with the rules and regulations of the Securities and Exchange Commission, or the SEC, provided that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice to us.

Cashless Exercise

If, at the time a holder exercises its Series A-6 warrants, a registration statement registering the issuance of the shares of common stock underlying the Series A-6 warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series A-6 warrants.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the SeriesA-6 warrants. Rather, the number of shares of common stock to be issued will be rounded up to the next whole share or we will pay a cash adjustment equal to such fraction multiplied by the exercise price to the holder.

Transferability

Subject to applicable laws, a Series A-6 warrant may be transferred at the option of the holder upon surrender of the Series A-6 warrant to us together with the appropriate instruments of transfer.

Trading Market

There is no trading market available for the Series A-6 warrants on any securities exchange or nationally recognized trading system, and we do not expect a trading market to develop. We do not intend to list the Series A-6 warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Series A-6 warrants will be extremely limited. The common stock issuable upon exercise of the SeriesA-6 warrants is currently listed on the Nasdaq Capital Market.

Right as a Shareholder

Except as otherwise provided in the Series A-6 warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Series A-6 warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their SeriesA-6 warrants.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series A-6 warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Series A-6 warrants will be entitled to receive upon exercise of the Series A-6 warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series A-6 warrants immediately prior to such fundamental transaction. In addition, in the event of a fundamental transaction which is approved by our Board, the holders of the Series A-6 warrant for cash in the amount of the Black-Scholes value of the unexercised portion of the Series A-6 warrant on the date of the consummation of the fundamental transaction. In the event of a fundamental transaction which is not approved by our board of directors, the holders of the Series A-6 warrants have the right to require us or a successor entity to redeem the Series A-6 warrant for cash in the event of a fundamental transaction which is not approved by our board of directors, the holders of the Series A-6 warrants have the right to require us or a successor entity to redeem the Series A-6 warrant for the consideration paid in the fundamental transaction in the amount of the Black-Scholes value of the series A-6 warrant on the date of the consummation of the Black-Scholes value of the unexercised portion of the consideration paid in the fundamental transaction in the amount of the Black-Scholes value of the unexercised portion of the date of the consummation of the fundamental transaction.

Series D Pre-Funded Warrants

The following summary of certain terms and provisions of the Series Dpre-funded warrants that are being issued hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series D pre-funded warrant, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Series D pre-funded warrant for a complete description of the terms and conditions of the Series D pre-funded warrants.

Duration and Exercise Price

Each Series D pre-funded warrant offered hereby will have an initial exercise price per share equal to \$0.01. The Series Dpre-funded warrants will be immediately exercisable and may be exercised at any time until all of the pre-funded warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series D pre-funded warrants will be issued separately from the accompanying Series A warrants, in certificated form only.

Exercisability

The Series D pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Series D pre-funded warrant to the extent that the holder would own more than 4.99% (or, at the election of the purchaser prior to the issuance of the Series D pre-funded warrant, 9.99%) of the outstanding common stock immediately after exercise. Following the issuance of the Series D pre-funded warrants, upon notice from the holder to us, the holder may increase or decrease the amount of beneficial ownership of outstanding stock after exercise, as such percentage ownership is determined in accordance with the truns of the Series D pre-funded warrants on the SEC. Purchasers of Series D pre-funded warrants in this offering may also elect prior to the issuance of the Series D pre-funded warrants of the SEC. Purchasers of Series D pre-funded warrants in this offering may also elect prior to the issuance of the Series D pre-funded warrants to have the initial exercise limitation set at 9.99% of our outstanding common stock, provided that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice to us.

Cashless Exercise

In lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series D pre-funded warrants.

Transferability

Subject to applicable laws, a Series Dpre-funded warrant may be transferred at the option of the holder upon surrender of the Series Dpre-funded warrant to us together with the appropriate instruments of transfer.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the Series Dpre-funded warrants. Rather, the number of shares of common stock to be issued will be rounded up to the next whole share or we will pay a cash adjustment to such fraction multiplied by the exercise price to the holder.

Trading Market

There is no trading market available for the Series Dpre-funded warrants on any securities exchange or nationally recognized trading system, and we do not expect a trading market to develop. We do not intend to list the Series D pre-funded warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Series D pre-funded warrants will be extremely limited. The common stock issuable upon exercise of the Series D pre-funded warrants is currently listed on the Nasdaq Capital Market.

Right as a Shareholder

Except as otherwise provided in the Series D pre-funded warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Series D pre-funded warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Series D pre-funded warrants. The Series D pre-funded warrants will provide that holders have the right to participate in distributions or dividends paid on our common stock.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series Dpre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other

disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Series D pre-funded warrants will be entitled to receive upon exercise of the Series D pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series D pre-funded warrants immediately prior to such fundamental transaction.

Placement Agent Warrants

The following summary of certain terms and provisions of the Placement Agent Warrants that are being issued hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Placement Agent Warrants, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Placement Agent Warrant for a complete description of the terms and conditions of the Placement Agent Warrant.

Duration and Exercise Price

Each Placement Agent Warrant offered hereby will have an initial exercise price equal to \$ per share of common stock (125% of the combined public offering price per share of common stock and Series A warrants). The Placement Agent Warrants will be immediately exercisable and will expire five years from the commencement of sales in this offering. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price.

Exercisability

The Placement Agent Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Placement Agent Warrant to the extent that the holder would own more than 4.99% (or, at the election of the purchaser prior to the issuance of the Series A-5 warrants, 9.99%) of the outstanding common stock immediately after exercise, except that upon notice from the holder to us, the holder may increase or decrease the amount of beneficial ownership of outstanding stock after exercise, as such percentage ownership is determined in accordance with the terms of the Placement Agent Warrants and in accordance with the rules and regulations of the SEC, provided that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice to us.

Cashless Exercise

If, at the time a holder exercises its Placement Agent Warrants, a registration statement registering the issuance of the shares of common stock underlying the Placement Agent Warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Placement Agent Warrants.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the Placement Agent Warrants. Rather, the number of shares of common stock to be issued will be rounded up to the next whole share or we will pay a cash adjustment equal to such fraction multiplied by the exercise price to the holder.

Transferability

Subject to applicable laws, a Placement Agent Warrant may be transferred at the option of the holder upon surrender of the Placement Agent Warrant to us together with the appropriate instruments of transfer.

Trading Market

There is no trading market available for the Placement Agent Warrants on any securities exchange or nationally recognized trading system, and we do not expect a trading market to develop. We do not intend to list the Placement Agent Warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Placement Agent Warrants will be extremely limited. The common stock issuable upon exercise of the Placement Agent Warrants is currently listed on the Nasdaq Capital Market.

Right as a Shareholder

Except as otherwise provided in the Placement Agent Warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Placement Agent Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Placement Agent Warrants.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Placement Agent Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Placement Agent Warrants will be entitled to receive upon exercise of the Placement Agent Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Placement Agent Warrants immediately prior to such fundamental transaction. In addition, in the event of a fundamental transaction which is approved by our board of directors, the holders of the Placement Agent Warrant for cash in the amount of the Black-Scholes value of the unexercised portion of the Placement Agent Warrant on the date of the consummation of the fundamental transaction. In the event of a fundamental transaction paid in the fundamental transaction which is not approved by our board of directors, the holders of a fundamental transaction which is not approved by our board of directors, the holders of a fundamental transaction which is not approved by our board of directors, the holders of the Placement Agent Warrant for cash in the amount of the Black-Scholes value of the unexercised portion of the Placement Agent Warrants have the right to require us or a successor entity to redeem the Placement Agent Warrants for the consideration paid in the fundamental transaction in the amount of the Black Scholes value of the unexercised portion of the Placement Agent Warrant on the date of the consummation of the fundamental transaction.

PLAN OF DISTRIBUTION

We have engaged , or the placement agent, to act as our exclusive placement agent to solicit offers to purchase the securities offered by this prospectus on a reasonable best efforts basis. The placement agent is not purchasing or selling any securities, nor are they required to arrange for the purchase and sale of any specific number or dollar amount of securities, other than to use their "reasonable best efforts" to arrange for the sale of the securities by us. Therefore, we may not sell the entire amount of securities being offered. There is no minimum amount of proceeds that is a condition to closing of this offering. The placement agent does not guarantee that it will be able to raise new capital in this offering. We will enter into a securities purchase agreement directly with investors in connection with this offering. The placement agent or sub-placement agents or selected dealers to assist with the offering. The placement agent is not required to sell any specific number or dollar amount of securities offered. This offering will terminate on , 2023, unless we decide to terminate the offering (which we may do at any time in our discretion) prior to that date. We will have one closing of the securities purchased in this offering. The combined public offering price per share (or pre-funded warrant) and warrants will be fixed for the duration of this offering.

The placement agent expects to deliver the shares and securities to the purchasers in the offering on or about , 2023, subject to satisfaction of certain conditions

Fees and Expenses

The following table shows the per share and Series A warrants and Series Dpre-funded warrant and Series A warrant placement agent fees and total placement agent fees we will pay in connection with the sale of the securities in this offering, assuming the purchase of all of the securities we are offering.

Per share and Series A warrants placement agent cash fees	\$
Per Series D pre-funded warrant and Series A warrants placement agent cash fees	\$
Total	\$

We have agreed to pay the placement agent a total cash fee equal to 7.0% of the gross proceeds of this offering and a management fee equal to 1.0% of the gross proceeds raised in this offering. We will also pay the placement agent a non-accountable expense allowance of \$20,000, \$15,950 for the expenses of its clearing firm, and will reimburse the placement agent's legal fees and expenses in an amount up to \$90,000. We estimate the total offering expenses of this offering that will be payable by us, excluding the placement agent fees and expenses, will be approximately \$ million. After deducting the placement agent fees and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$ million.

Placement Agent Warrants

We have agreed to grant Placement Agent Warrants to the placement agent to purchase a number of shares of our common stock equal to 6.0% of the aggregate number of shares of common stock and Series D pre-funded warrants sold to the investors in this offering. The Placement Agent Warrants will have an exercise price of \$ (125% of the combined public offering price per share of common stock and Series A warrants) and will terminate on the five year anniversary of commencement of sales in this offering. The Placement Agent Warrants are registered on the registration statement of which this prospectus is a part. The form of the Placement Agent Warrants is included as an exhibit to this registration statement of which this prospectus forms a part.

Tail

We have also agreed to pay the placement agent a tail fee equal to the cash and warrant compensation in this offering, if any investor, who was contacted or introduced to us by the placement agent during the term of its

engagement, provides us with capital in any public or private offering or other financing or capital raising transaction during the 12-month period following expiration or termination of our engagement of the placement agent.

Other Relationships

From time to time, the placement agent may provide in the future, various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which it may receive customary fees and commissions. Except as disclosed in this prospectus, we have no present arrangements with the placement agent for any services.

Determination of Offering Price

The combined offering price per share and accompanying Series A warrant and the combined offering price per Series Dpre-funded warrant and accompanying Series A warrant we are offering and the exercise prices and other terms of the warrants were negotiated between us and the investors, in consultation with the placement agent based on the trading of our common stock prior to this offering, among other things. Other factors considered in determining the offering prices of the securities we are offering and the exercise prices and other terms of the warrants include the history and prospects of our company, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Lock-up Agreements

We and each of our officers and directors have agreed with the Placement Agent to be subject to alock-up period of 60 days following the date of closing of the offering pursuant to this prospectus. This means that, during the applicable lock-up period, we and such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any of our shares of common stock or any securities convertible into, or exercisable or exchangeable for, shares of common stock, subject to customary exceptions. The Placement Agent may waive the terms of these lock-up agreements in its sole discretion and without notice. In addition, we have agreed to not issue any securities at a future determined price for a period of one year following the closing date of this offering, subject to an exception. The Placement Agent may waive this prohibition in its sole discretion and without notice.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc.

Nasdaq Listing

Our common stock is currently listed on the Nasdaq Capital Market under the symbol "BXRX." On , 2023, the reported closing price per share of our common stock was \$. We do not plan to list the warrants on the Nasdaq Capital Market or any other securities exchange or trading market.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the placement agent may be required to make with respect to any of these liabilities.

Regulation M

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act and any fees received by it and any profit realized on the sale of the securities by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. The placement agent will be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent. Under these rules and regulations, the placement agent may not (i) engage in any stabilization activity in connection with our securities; and (ii) bid for or purchase any of our securities to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

Electronic Offer, Sale and Distribution of Securities

A prospectus in electronic format may be made available on the websites maintained by the placement agent, if any, participating in this offering and the placement agent may distribute prospectuses electronically. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or the placement agent, and should not be relied upon by investors.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Goodwin Procter LLP. The placement agent is being represented by in connection with this offering.

EXPERTS

The consolidated balance sheets of Baudax Bio, Inc. and Subsidiaries as of December 31, 2022, and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for the year then ended, and the retrospective adjustments to the 2021 financial statements discussed in Notes 1 and 3(1) to the financial statements, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. 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.

KPMG LLP, independent registered public accounting firm, audited the consolidated financial statements as of December 31, 2021, and for the year then ended, before the effects of the retrospective adjustment, which financial statements are not incorporated by reference herein. EisnerAmper LLP, an independent registered public accounting firm, audited the retrospective adjustment. The consolidated financial statements of Baudax Bio, Inc, as of December 31, 2021, and for the year then ended, have been incorporated by reference herein in reliance upon the reports of (1) KPMG LLP, solely with respect to the financial statements before the effects of the retrospective adjustment, and (2) EisnerAmper LLP, solely with respect to the retrospective adjustment, incorporated by reference herein, and upon the authority of said firms as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus forms part of a registration statement on FormS-1 that we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement or the documents incorporated by reference herein and therein. For further information with respect to us and the securities that we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement and the documents incorporated by reference herein and therein. You should rely only on the information contained in this prospectus or incorporated by reference herein or therein. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or any sale of the securities offered hereby. We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy statements and other information with the SEC, including Baudax Bio. The address of the SEC website is *www.sec.gov*.

We maintain a website at www.baudaxbio.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes

information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- Our Annual Report on Form 10-K for the year ended December 31, 2022 filed with the SEC on February 23, 2023;
- Our Current Reports on Form 8-K filed with the SEC (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form8-K and exhibits accompanying such reports that are related to such items) on January 9, 2023, January 24, 2023, March 3, 2023, March 27, 2023, March 31, 2023 and April 4, 2023; and
- The description of our common stock contained in our<u>Form 10</u> filed with the SEC on November 8, 2019 (File No. 001-39101), including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

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 or phone number below. You may also access this information on our website at www.baudaxbio.com by viewing the "Financial & Filings" subsection of the "News & Investors" menu. No additional information is deemed to be part of or incorporated by reference into this prospectus.

Baudax Bio, Inc. 490 Lapp Road Malvern, PA 19355 (484) 395-2440

Baudax BIO

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Placement Agent Warrants to Purchase up to

Shares of Common Stock

Preliminary Prospectus

, 2023

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the fees and expenses in connection with the issuance and distribution of the securities being registered (excluding the underwriting discount). Except for the Securities and Exchange Commission registration fee and the FINRA filing fee, all amounts are estimates.

	Am	ount Paid
	or t	to be Paid
SEC registration fee	\$	551.00
FINRA filing fee		*
Legal fees and expenses		*
Accounting fees and expenses		*
Printing expenses		*
Transfer agent fees and expenses		*
Miscellaneous		*
Total		*

* To be completed by amendment

Item 14. Indemnification of Directors and Officers.

Our Amended and Restated Bylaws and Amended and Restated Articles of Incorporation provide that, to the fullest extent permitted by Pennsylvania law, any of our officers or directors who was or is a party or is threatened to be made a party to, any threatened, or pending or completed action, suit or proceeding, whether civil, criminal, administrative, investigative or through arbitration, by reason of fact that he/she is or was our director or officer, or is or was serving in any capacity at the request or for our benefit as a director, officer, employee, agent, partner, or fiduciary of, or in any other capacity for, another corporation or any partnership, joint venture, trust, employee benefit plan or other enterprise, shall be indemnified by us for any expense, liability and loss (including, without limitation, attorneys' fees, judgments, fines, taxes, penalties, and amounts paid or to be paid in settlement) reasonably incurred in connection with such proceeding, unless where the individual's act or failure to act giving rise to the claim for indemnification is determined by a court to have constituted self-dealing, willful misconduct or recklessness. Indemnification shall not be made in respect of any claim, issue or matter as to which the person has been adjudged to be liable to us unless and only to the extent that a court determines that, despite the adjudication of liability but in view of all the circumstances of the case, the person is fairly and reasonably entitled to indemnify for the expenses that the court deems proper.

Pennsylvania law requires that to the extent that one of our directors or officers has been successful on the merits or otherwise in defense of any action or proceeding referred to above or in defense of any claim, issue or matter therein, that director or officer shall be indemnified against expenses (including attorney fees) actually and reasonably incurred by him in connection therewith. Our Amended and Restated Bylaws further provide that the right to indemnification includes the right to have expenses reasonably incurred in defending any action or proceeding described above paid by us in advance of the final disposition of the action or proceeding to the fullest extent permitted by Pennsylvania law; provided that, if required by Pennsylvania law, the payment of such expenses incurred in advance of the final disposition of the action or proceeding shall be made only upon delivery to us of an undertaking to repay all amounts so advanced without interest if it is ultimately determined that the director or officer is not entitled to be indemnified.

We have entered into indemnification agreements with each of our directors and executive officers. These agreements require us to, among other things, indemnify each director and officer to the fullest extent permitted by law and advance expenses to each indemnite in connection with any proceeding in which indemnification is available.

Item 15. Recent Sales of Unregistered Securities

May Offering

In May 2022, we and certain accredited investors, or the Investors, entered into a securities purchase agreement, pursuant to which we agreed to issue and sell, in a registered direct offering, or the May Offering, 41,152 shares of our common stock, par value \$0.01 per share, and, in a concurrent private placement, or the Private Placement, to issue and sell to the Investors warrants exercisable for up to an aggregate of 41,152 shares of our commons stock, par value \$0.01 per share, or the May Warrants, and together with the shares of Common Stock underlying the May Warrants, the Securities, at a combined offering price of \$48.60 per share and associated warrant. The May Warrants have an exercise price of \$43.60 per share. Each Warrant is exercisable for one share of Common Stock and were exercisable immediately upon issuance. The Warrants have a term of five years from the issuance date.

As compensation to H.C. Wainwright & Co., LLC, or the Placement Agent as placement agent in connection with the May Offering, we agreed to pay to the Placement Agent a cash fee of 7.0% of the aggregate gross proceeds raised in the May Offering, plus a management fee equal to 1.0% of the gross proceeds raised in the May Offering and certain expenses. We also issued to designees of the Placement Agent warrants to purchase up to 6.0% of the aggregate number of shares of Common Stock sold in the transactions, or warrants to purchase up to 2,469 shares of Common Stock, or the Placement Agent Warrants. The Placement Agent Warrants have substantially the same terms as the May Warrants, except that the Placement Agent Warrants have an exercise price of \$60.75. The Placement Agent Warrants will expire on May 17, 2027. We received gross proceeds of approximately \$2.0 million in connection with the May Offering, before deducting placement agent fees and related offering expenses.

Neither the issuance of the May Warrants, the Placement Agent Warrants nor the shares of Common Stock issuable upon the exercise of the May Warrants or the Placement Agent Warrants are registered under the Securities Act or any state securities laws. The May Warrants, the Placement Agent Warrant and the shares of Common Stock issuable upon the exercise of the May Warrants and the Placement Agent Warrants were, or will be, as the case may be, issued in reliance on the exemptions from registration provided by Section 4(a)(2) under the Securities Act.

Marathon Warrants

In March 2023, we issued warrants to MAM Eagle Lender, LLC to purchase an aggregate of 785,026 shares of Common Stock, at an exercise price equal to \$1.8951 per share, or the Marathon Warrants. The Marathon Warrants are exercisable until the tenth anniversary of the issuance date. The holder of each Marathon Warrant has the right to net exercise the Marathon Warrant for shares of Common Stock upon exercise. A holder (together with its affiliates) may not exercise any portion of the Marathon Warrant to the extent that the holder would own more than 9.99% of our outstanding Common Stock immediately after exercise. However, upon at least 61 days' prior notice from the holder to us, a holder with a 9.99% ownership blocker may increase or decrease the maximum amount of ownership of outstanding Common Stock after exercising the holder's Warrant to any other percentage not in excess of 9.99% of the number of our Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Warrants.

We relied on the exemption from registration contained in Section 4(2) of the Securities Act, and Regulation D, Rule 506 thereunder, for the issuance of the Marathon Warrants and the Marathon Warrant Shares. Prior to receiving the Marathon Warrants and the Marathon Warrant Shares, each of lenders under the credit agreement represented that it is an "accredited investor" as defined in Regulation D of the Securities Act and that the securities purchased by it will be acquired solely for its own account for investment and not with a view to or for sale or distribution of the Marathon Warrants or the Marathon Warrant Shares or any part thereof.

Item	16.	Exhibits.

(a) Exhibits

Exhibit No.	Description	Method of Filing			
2.1	Separation Agreement, dated November 20, 2019, by and between Recro Pharma, Inc. and Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on November 26, 2019 (File No. 001-39101).			
3.1	Amended and Restated Articles of Organization of Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on November 26, 2019 (File No. 001-39101).			
3.2	Articles of Amendment to the Amended and Restated Articles of Incorporation of Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on August 11, 2021 (File No. 001-39101).			
3.3	<u>Articles of Amendment to the Amended and Restated Articles of</u> <u>Incorporation of Baudax Bio, Inc.</u>	Incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed February 15, 2022 (File No. 001-39101).			
3.4	Amended and Restated Bylaws of Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on November 26, 2019 (File No. 001-39101).			
4.1+	Form of Series A-5 Warrant				
4.1+	Form of Series A-6 Warrant				
4.2+	Form of Series D Pre-Funded Warrant				
4.3+	Form of Placement Agent Warrant				
5.1+	Opinion of Goodwin Procter LLP				
10.1•	Form of Indemnification Agreement between Baudax Bio, Inc. and individual directors and officers.	Incorporated herein by reference to Exhibit 10.4 to the Company's Registration Statement on Form 10 filed on November 5, 2019 (File No. 001-39101).			
10.2†	Purchase and Sale Agreement, dated March 7, 2015, by and among Recro Pharma, Inc., Recro Pharma LLC, Daravita Limited, Alkermes Pharma Ireland Limited and Eagle Holdings USA, Inc.	Incorporated herein by reference to Exhibit 10.5 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).			
10.3	First Amendment, dated December 8, 2016 to Purchase and Sale Agreement, dated March 7, 2015, by and among Recro Pharma, Inc., Recro Pharma LLC, Daravita Limited, Alkermes Pharma Ireland Limited and Eagle Holdings USA, Inc.	Incorporated herein by reference to Exhibit 10.6 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).			

10.4	Second Amendment, dated December 20, 2018 to Purchase and Sale Agreement, dated March 7, 2015, by and among Recro Pharma, Inc., Recro Pharma LLC, Daravita Limited, Alkermes Pharma Ireland Limited and Eagle Holdings USA, Inc.	Incorporated herein by reference to Exhibit 10.7 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.5	Third Amendment to the Purchase and Sale Agreement, dated August 17, 2020 by and among Alkermes Pharma Ireland Limited, Daravita Limited, Alkermes US Holdings, Inc. and Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 21, 2020 (File No. 001-39101).
10.6†	Dexmedetomidine License Agreement, dated August 22, 2008, by and between Recro Pharma, Inc. and Orion Corporation.	Incorporated herein by reference to Exhibit 10.8 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.7†	First Amendment to Dexmedetomidine License Agreement, dated January 17, 2009, by and between Recro Pharma, Inc., and Orion Corporation.	Incorporated herein by reference to Exhibit 10.9 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.8†	Dexmedetomidine API Supply Agreement, dated August 22, 2008, by and between Recro Pharma, Inc., and Orion Corporation.	Incorporated herein by reference to Exhibit 10.10 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.9•	Baudax Bio, Inc. 2019 Equity Incentive Plan.	Incorporated herein by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on November 26, 2019 (File No. 001-39101).
10.10†	Asset Transfer and License Agreement, dated as of April 10, 2015, by and between Alkermes Pharma Ireland Limited and DV Technology LLC.	Incorporated herein by reference to Exhibit 10.12 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.11	Amendment to Asset Transfer and License Agreement, dated December 23, 2015, by and between Alkermes Pharma Ireland Limited and Recro Gainesville LLC.	Incorporated herein by reference to Exhibit 10.13 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.12	Second Amendment to Asset Transfer and License Agreement, dated December 20, 2018, by and between Alkermes Pharma Ireland Limited and Recro Gainesville LLC.	Incorporated herein by reference to Exhibit 10.14 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.13	Third Amendment to Asset Transfer and License Agreement, dated August 17, 2020, by and among Alkermes Pharma Ireland Limited, Recro Gainesville LLC and Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on August 21, 2020 (File No. 001-39101).
10.14†	Development, Manufacturing and Supply Agreement, dated July 10, 2015, by and between Alkermes Pharma Ireland Limited and Recro Pharma, Inc.	Incorporated herein by reference to Exhibit 10.15 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).

10.15†	First Amendment to the Development, Manufacturing and Supply Agreement, dated October 19, 2016, by and between Alkermes Pharma Ireland Limited and Recro Pharma, Inc.	Incorporated herein by reference to Exhibit 10.16 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.16†	Second Amendment to the Development, Manufacturing and Supply Agreement, dated February 1, 2017, by and between Alkermes Pharma Ireland Limited and Recro Pharma, Inc.	Incorporated herein by reference to Exhibit 10.17 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.17†	Third Amendment to the Development, Manufacturing and Supply Agreement, dated June 15, 2017, by and between Alkermes Pharma Ireland Limited and Recro Pharma, Inc.	Incorporated herein by reference to Exhibit 10.18 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.18	Assignment, Assumption and Bifurcation Agreement, dated November 20, 2019, by and among Alkermes Pharma Ireland Limited, Recro Gainesville LLC, Recro Pharma, Inc. and Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed on November 26, 2019 (File No. 001-39101).
10.19†	License Agreement, dated June 30, 2017, by and between Cornell University and Recro Pharma, Inc.	Incorporated herein by reference to Exhibit 10.19 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.20†	Amendment to License Agreement, dated October 31, 2018, by and between Cornell University and Recro Pharma, Inc.	Incorporated herein by reference to Exhibit 10.20 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.21†	Amendment to License Agreement, dated October 21, 2019, by and between Cornell University and Recro Pharma, Inc.	Incorporated herein by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K filed on February 13, 2020 (File No. 001-39101).
10.22†	Master Manufacturing Services Agreement, dated July 14, 2017, by and between Patheon UK Limited and Recro Ireland Limited.	Incorporated herein by reference to Exhibit 10.21 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.23†	Product Agreement, dated July 14, 2017, by and between Patheon UK Limited and Recro Ireland Limited.	Incorporated herein by reference to Exhibit 10.22 to the Company's Registration Statement on Form 10 filed on October 22, 2019 (File No. 001-39101).
10.24•	Form of Employment Agreement to be entered into between Baudax Bio, Inc. and its executive officers.	Incorporated herein by reference to Exhibit 10.23 to the Company's Registration Statement on Form 10 filed on November 5, 2019 (File No. 001-39101).
10.25†	Credit Agreement, dated as of May 29, 2020, among the Company, the lenders party thereto and Wilmington Trust, National Association.	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 2, 2020 (File No. 001-39101).
10.26	Security Agreement, dated as of May 29, 2020, by and among the Company, Baudax Bio N.A. LLC, Baudax Bio Limited and Wilmington Trust, National Association.	Incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on June 2, 2020 (File No. 001-39101).

10.27	Intellectual Property Security Agreement, dated as of May 29, 2020, by and among the Company, Baudax Bio N.A. LLC, Baudax Bio Limited and Wilmington Trust, National Association.	Incorporated herein by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on June 2, 2020 (File No. 001-39101).
10.28•	Employment Agreement, dated February 12, 2020, between Baudax Bio, Inc. and Gerri Henwood.	Incorporated herein by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K filed on February 13, 2020 (File No. 001-39101).
10.29•	Employment Agreement, dated March 8, 2021, between Baudax Bio, Inc. and Richard S. Casten.	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 11, 2021 (File No. 001-39101).
10.30•	Form of Stock Option Award Agreement.	Incorporated herein by reference to Exhibit 10.34 to the Company's Annual Report on Form 10-K filed on February 16, 2021 (File No. 001-39101).
10.31•	Form of Restricted Stock Unit Award Agreement.	Incorporated herein by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K filed on February 16, 2021 (File No. 001-39101).
10.32•	Form of Performance-Based Restricted Stock Unit Award Agreement.	Incorporated herein by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K filed on February 16, 2021 (File No. 001-39101).
10.33•	Form of Award Agreement for Option Inducement Award.	Incorporated herein by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K filed on February 16, 2021 (File No. 001-39101).
10.34•	Form of Award Agreement for Restricted Stock Unit Inducement Award.	Incorporated herein by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K filed on February 16, 2021 (File No. 001-39101).
10.35+	Form of Securities Purchase Agreement, by and between Baudax Bio, Inc. and the purchasers party thereto.	
10.36†	Amendment No. 1 and Waiver to Credit Agreement, dated August 1, 2022, by among and Baudax Bio, Inc., Baudax Bio N.A. LLC, Baudax Bio Limited, Wilmington Trust, National Association, and the Lenders party thereto	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 3, 2022 (File No. 001-39101).
10.37	Amendment No. 2 to Credit Agreement, dated October 24, 2022, by among and Baudax Bio, Inc., Baudax Bio N.A. LLC, Baudax Bio Limited, Wilmington Trust, National Association, and the Lenders party thereto	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 28, 2022 (File No. 001-39101).
10.38	Amendment No. 3 to Credit Agreement, dated December 1, 2022, by among and Baudax Bio, Inc., Baudax Bio N.A. LLC, Baudax Bio Limited, Wilmington Trust, National Association, and the Lenders party thereto	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 1, 2022 (File No. 001-39101).

10.39	Amendment No. 4 to Credit Agreement, dated January 5, 2023, by and among Baudax Bio Inc., Baudax Bio N.A. LLC, Baudax Bio Limited, Wilmington Trust, National Association, and the Lenders party thereto	Incorporated herein by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K filed on February 23, 2023 (File No. 001-39101).
10.40	Amendment No. 5 to Credit Agreement, dated March 29, 2023, by and among Baudax Bio, Inc., Baudax Bio N.A. LLC, Baudax Bio Limited, Wilmington Trust, National Association, and the Lenders party thereto	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 31, 2023 (File No. 001-39101).
10.41	Registration Rights Agreement between the Baudax Bio, Inc. and MAM Eagle Lender, LLC, dated March 29, 2023	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 31, 2023 (File No. 001-39101).
10.42†	Asset Transfer Agreement among Alkermes Pharma Ireland Limited and Baudax Bio, Inc., dated March 29, 2023	Incorporated herein by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K/A filed on April 4, 2023 (File No. 001-39101).
21.1	Subsidiaries of Baudax Bio, Inc.	Incorporated herein by reference to Exhibit 21.1 to the Company's Annual Report on Form 10-K filed on February 16, 2021 (File No. 001-39101).
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm.	Filed herewith.
23.2	Consent of EisnerAmper LLP, Independent Registered Public Accounting Firm.	Filed herewith.
23.3+	Consent of Goodwin Procter LLP (included in Exhibit 5.1)	(included in Exhibit 5.1)
24.1	Power of Attorney	(contained on the signature page to the Registration Statement)
107	Filing Fee Table	Filed herewith.

· Management contract or compensatory plan or arrangement.

+ To be filed by amendment.

† Certain identified information in the exhibit has been omitted because it is both (i) not material and (ii) would likely cause competitive harm to the Company if publicly disclosed.

(b) Financial Statement Schedules

All financial statement schedules have been omitted because they are not required or because the required information is given in the financial statements or notes to those statements.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(a)(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a

fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(5) That, for purposes of determining any liability under the Securities Act:

(i) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective; and

(ii) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the indemnification provisions described herein, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Malvern, Commonwealth of Pennsylvania on April 6, 2023.

Baudax Bio, Inc.

By:	/s/ Gerri A. Henwood
Name:	Gerri A. Henwood
Title:	President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Baudax Bio, Inc., hereby severally constitute and appoint Gerri A. Henwood and Jillian Dilmore, our true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution in her or him for her or him and in her or his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as she or he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or her or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Gerri A. Henwood Gerri A. Henwood	President, Chief Executive Officer and Director (Principal Executive Officer)	April 6, 2023
/s/ Jillian Dilmore Jillian Dilmore	Corporate Controller (Principal Financial Officer and Principal Accounting Officer)	April 6, 2023
/s/ Wayne B. Weisman Wayne B. Weisman	Director and Chairman of the Board	April 6, 2023
/s/ William L. Ashton William L. Ashton	Director	April 6, 2023
/s/ Arnold Baskies, M.D. Arnold Baskies, M.D.	Director	April 6, 2023
Winston J. Churchill Winston J. Churchill	Director	April 6, 2023
/s/ Andrew Drechsler Andrew Drechsler	Director	April 6, 2023

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated March 16, 2022, with respect to the consolidated financial statements of Baudax Bio, Inc., incorporated herein by reference, and to the reference to our firm under the heading "Experts" in the prospectus.

/s/ KPMG LLP

Philadelphia, Pennsylvania April 6, 2023

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement of Baudax Bio, Inc. on FormS-1 to be filed on or about April 6, 2023 of our report dated February 23, 2023, on our audit of (i) the financial statements as of December 31, 2022 and for the year then ended, and (ii) the retrospective adjustments to the 2021 financial statements discussed in Notes 1 and 3(1) to the financial statements, which report was included in the Annual Report on Form 10-K filed February 23, 2023. Our report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. We also consent to the reference to our firm under the caption "Experts" in this Registration Statement.

/s/ EisnerAmper LLP

EISNERAMPER LLP Philadelphia, Pennsylvania April 6, 2023

Calculation of Filing Fee Tables

Form S-1

(Form Type)

Baudax Bio, Inc. (Exact Name of Registrant as Specified in its Charter) Table 1: Newly Registered Securities and Carry Forward Securities

Table 1: New	ly Registe	red Securities and	Carry Fo	rward Se	curities			
	Security type	Security class title	Fee calculation or carry forward rule	Amount registered	Proposed maximum offering price per unit	Maximum aggregate offering price(1)(2)	Fee rate	Amount of registration fee(1)
Fees to Be Paid	Equity	Common Stock, par value \$0.0001 per share(3)	457(o)		_	\$	0.00011020	\$
Fees to Be Paid	Equity	Series D pre-funded warrants(3)(4)	Other	_	_	Included above		_
Fees to Be Paid	Equity	Shares of Common Stock issuable upon exercise of Series D pre-funded warrants(3)	457(o)			Included above		
Fees to Be Paid	Equity	Series A-5 warrants(4)	Other	_		Included above	_	
Fees to Be Paid	Equity	Series A-6 warrants(4)	Other	_	_	Included above	_	
Fees to Be Paid	Equity	Shares of Common Stock issuable upon exercise of Series A5 Warrants	457(0)		_	\$	0.00011020	\$
Fees to Be Paid	Equity	Shares of Common Stock issuable upon exercise of Series A-6 warrants	457(0)		_	\$	0.00011020	\$
Fees to Be Paid	Equity	Placement agent warrants (4)(5)	Other		_	_		
Feeds to Be Paid	Equity	Shares of Common Stock issuable upon exercise of Placement agent warrants(4)	457(0)			\$	0.00011020	\$
	Equity		Offering /	Amounts		\$5,000,000		\$551.00
			ees Previou			\$5,000,000		
		Total I	Total Fee					\$—
				Fee Due				\$551.00
$[1] \qquad \qquad$			- 457(-)			A - + - £ 1022		,

(1) Estimated solely for the purpose of calculating the registration fee pursuant Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act").

(2) Pursuant to Rule 416(a) under the Securities Act, this registration statement shall also cover an indeterminate number of shares that may be issued and resold resulting from stock splits, stock dividends or similar transactions.

(3) The proposed maximum aggregate offering price of the common stock will be reduced on adollar-for-dollar basis based on the offering price of any Series D pre-funded warrants issued in the offering, and the proposed maximum aggregate offering price of the Series Dpre-funded warrants to be issued in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any common stock issued in the offering. Accordingly, the proposed maximum aggregate offering price of the common stock, Series D pre-funded warrants, Series A-5 and Series A-6 warrants (including the common stock issuable upon exercise of the Series C pre-funded warrants), if any, is \$5,000,000.

(4) No fee pursuant to Rule 457(g) of the Securities Act.

(5) Represents warrants issuable to H.C. Wainwright & Co., LLC, or its designees, to purchase a number of shares of common stock equal to 6.0% of the aggregate number of shares of common stock and shares of common stock issuable upon exercise of the Series D pre-funded warrants being offered at an exercise price equal to 125% of the combined public offering price per share of common stock and Series A-5 and Series A-6 warrants.