

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM S-3  
REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933

**IBIO, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**26-2797813**  
(I.R.S. Employer  
Identification Number)

**8800 HSC Parkway**  
**Bryan, Texas 77807**  
**(979) 446-0027**

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

**Dr Martin Brenner**  
**Chief Executive Officer and**  
**Chief Scientific Officer**  
**8800 HSC Parkway**  
**Bryan, Texas 77807**  
**(979) 446-0027**

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

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**Approximate date of commencement of proposed sale to the public:** From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box

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 of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, 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, please 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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 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 that 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 this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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The information in this prospectus is not complete and may be changed. The selling stockholders named in this prospectus may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and the selling stockholders named in this prospectus are not soliciting offers to buy these securities in any state or other jurisdiction where the offer or sale is not permitted.

Subject to completion, dated April 16, 2024

PRELIMINARY PROSPECTUS



10,574,556 Shares of Common Stock

This prospectus relates to the resale from time to time of up to 10,574,556 shares of common stock, par value \$0.001 per share (the “Common Stock”), of iBio, Inc. by the selling stockholders identified in this prospectus (the “Selling Stockholders”), including their pledgees, assignees, donees, transferees or their respective successors-in-interest, which consist of 2,701,315 outstanding shares of Common Stock held by the Selling Stockholders, 2,585,963 shares of Common Stock issuable upon the exercise of outstanding pre-funded warrants (the “Pre-Funded Warrants”) held by certain of the Selling Stockholders and 5,287,278 shares of Common Stock issuable upon the exercise of outstanding warrants held by the Selling Stockholders (the “Series E Common Warrants”).

The Selling Stockholders acquired the shares of Common Stock, the Pre-Funded Warrants and the Series E Common Warrants in a private placement transaction that closed on April 1, 2024 (the “Private Placement”). We are filing the registration statement on Form S-3, of which this prospectus forms a part, to fulfill our contractual obligations with the Selling Stockholders to provide for the resale by the Selling Stockholders of the shares of Common Stock offered hereby. See “Selling Stockholders” beginning on page 8 of this prospectus for more information about the Selling Stockholders. The registration of the shares of Common Stock to which this prospectus relates does not require the Selling Stockholders to sell any of their shares of our Common Stock.

We are not offering any shares of Common Stock under this prospectus and will not receive any proceeds from the sale or other disposition of the shares covered hereby however, we will receive proceeds from the cash exercise of the Pre-Funded Warrants and the Series E Common Warrants. See “Use of Proceeds” beginning on page 7 of this prospectus.

The Selling Stockholders identified in this prospectus, or their pledgees, assignees, donees, transferees or their respective successors-in-interest, from time to time may offer and sell through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices the shares held by them directly or through underwriters, agents or broker-dealers on terms to be determined at the time of sale, as described in more detail in this prospectus. See “Plan of Distribution” beginning on page 13 of this prospectus for more information about how the Selling Stockholders may sell their respective shares of Common Stock. For a list of the selling stockholders, see the section entitled “Selling Stockholders” on page 8.

In connection with the Private Placement, we have agreed to bear all of the expenses in connection with the registration of the shares of Common Stock pursuant to this prospectus. The Selling Stockholders will pay or assume all commissions, discounts, fees of underwriters, selling brokers or dealer managers and similar expenses, if any, attributable to their sales of the shares of Common Stock.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Our Common Stock is listed on the NYSE American LLC under the symbol “IBIO.” On April 12, 2024, the last reported sale price of our Common Stock on the NYSE American LLC was \$2.02 per share.

An investment in shares of our shares of Common Stock involves risks. See the “Risk Factors” beginning on page 5 and in our filings with the Securities and Exchange Commission.

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

The date of this prospectus is \_\_\_\_\_, 2024.

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The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us and the Common Stock offered under this prospectus. The registration statement, including the exhibits, can be read on our website and the website of the Securities and Exchange Commission. See “Where You Can Find More Information.”

Information contained in, and that can be accessed through our web site, [www.ibioinc.com](http://www.ibioinc.com), shall not be deemed to be part of this prospectus or incorporated herein by reference and should not be relied upon by any prospective investors for the purposes of determining whether to purchase the Common Stock offered hereunder.

Unless the context otherwise requires, the terms “we,” “us,” “our,” “the Company,” “iBio” and “our business” refer to iBio, Inc. and “this offering” refers to the offering contemplated in this prospectus.

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission (the “SEC”). Under this registration process, the Selling Stockholders may, from time to time, sell the securities offered by them described in this prospectus. We will not receive any proceeds from the sale by the Selling Stockholders of the securities offered by them described in this prospectus.

This prospectus provides you with a general description of the shares of Common Stock the Selling Stockholders may offer. A prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement made in an accompanying prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the accompanying prospectus supplement. You should read both this prospectus and any accompanying prospectus supplement together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

Neither we nor the Selling Stockholders have authorized anyone to provide you with any information or to make any representations other than those contained, or incorporated by reference, in this prospectus, any post-effective amendment, or any applicable prospectus supplement or free-writing prospectus prepared by or on behalf of us or to which we have referred you. We and the Selling Stockholders take no responsibility for and can provide no assurance as to the reliability of any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should not assume that the information contained in this prospectus or any applicable prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus or any applicable prospectus supplement is delivered, or securities are sold, on a later date.

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

This prospectus and the information incorporated herein by reference include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

## PROSPECTUS SUMMARY

*This summary highlights about us and selected information contained elsewhere in this prospectus and in the documents we incorporate by reference. This summary does not contain all of the information you should consider before investing in our Common Stock. You should read this entire prospectus and the documents incorporated by reference carefully, especially the risks of investing in our Common Stock discussed under and incorporated by reference in “Risk Factors” on page 5 of this prospectus, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus, before making an investment decision.*

### The Company

iBio, Inc., a preclinical stage biotechnology company that leverages the power of Artificial Intelligence (AI) for the development of precision antibodies. Our proprietary technology stack is designed to minimize downstream development risks by employing AI-guided epitope-steering and monoclonal antibody (mAb) optimization.

In September 2022, iBio made a strategic pivot by acquiring substantially all of the assets of RubrYc Therapeutics, Inc. (“RubrYc”). This acquisition commenced our transition to an AI-enabled biotech company and led to the divestiture of our Contract Development and Manufacturing Organization (CDMO) business. This strategic decision allowed us to focus resources on the development of AI-powered precision antibodies, positioning iBio at the forefront of this exciting field.

One of the key features of iBio’s technology stack is the patented epitope-steering AI-engine. This advanced technology allows us to target specific regions of proteins with precision enabling the creation of antibodies highly specific to therapeutically relevant regions within large target proteins, potentially improving their efficacy and safety profile. Another integral part of our technology stack is the machine learning (“ML”) based antibody-optimizing StableHu™ technology. When integrated with our mammalian display technology, StableHu has demonstrated its ability to expedite the Lead Optimization process. This integration not only potentially reduces downstream risks but also streamlines the overall development process, making it faster, more efficient, and cost-effective. As a result, optimization can be achieved in less than four weeks.

iBio also developed the EngageTx™ platform, which provides an optimized next-generation CD3 T-cell engager antibody panel. This panel is characterized by a wide spectrum of potencies, Non-Human Primate (NHP) cross-reactivity, enhanced humanness of the antibodies, and a maintained tumor cell killing capacity, all while reducing cytokine

release. These attributes are meticulously designed to fine-tune the efficacy, safety, and tolerability of our antibody products. By incorporating EngageTx into iBio's own development initiatives, our internal pre-clinical pipeline reaps the benefits of the same cutting-edge technology extended to our potential partners.

iBio recently announced the expansion of our AI-powered technology stack with the launch of ShieldTx™, a patent-pending antibody masking technology designed to enable specific, highly targeted antibody delivery to diseased tissue without harming healthy tissue. By adding ShieldTx to our technology stack, iBio uniquely integrates antibody engineering and masking in one accelerated process to potentially overcome the challenges of complex targets, safety, and developability in next-generation antibody discovery and development.

iBio's scientific team, composed of experienced AI/ML scientists and biopharmaceutical scientists, located side-by-side in our San Diego laboratory, possess the skills and capabilities to rapidly advance antibodies in house from concept to in vivo proof-of-concept (POC). This multidisciplinary expertise allows us to quickly translate scientific discoveries into potential therapeutic applications.

## Recent Developments

### *April Private Placement*

On March 26, 2024, we entered into a securities purchase agreement (the "Purchase Agreement") with several institutional investors and an accredited investor (the "Purchasers") for the issuance and sale in a Private Placement of the following securities for gross proceeds of approximately \$15.1 million: (i) 2,701,315 shares of Common Stock (the "Private Placement Shares"), (ii) Pre-Funded Warrants to purchase up to 2,585,963 shares of Common Stock at an exercise price of \$0.001 per share, and (iii) Series E Common Warrants to purchase up to 5,287,278 shares of Common Stock at an exercise price of \$2.64 per share. The Series E Common Warrants are exercisable at any time after the six-month anniversary of their issuance (the "Initial Exercise Date") at an exercise price of \$2.64 per share and have a term of exercise equal to five years from the date of issuance. On April 1, 2024, we closed the Private Placement. The combined purchase price for one share of Common Stock and the accompanying Series E Common Warrant was \$2.85 and the purchase price for one Pre-Funded Warrant and the accompanying Series E Common Warrant was \$2.849. The Company received net proceeds of approximately \$14.1 million from the Private Placement, after deducting estimated offering expenses payable by the Company, including placement agent fees and expenses.

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A holder of the Pre-Funded Warrants and the Series E Common Warrants may not exercise any portion of such holder's Pre-Funded Warrants or the Series E Common Warrants to the extent that the holder, together with its affiliates, would beneficially own more than 4.99% (or, at the election of the holder, 9.99%) of our outstanding shares of Common Stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the beneficial ownership limitation to up to 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise.

The Pre-Funded Warrants are exercisable at any time after their original issuance, subject to the Beneficial Ownership Limitation (as defined below), and will not expire until exercised in full. The exercise price and number of shares of Common Stock issuable upon exercise of the Pre-Funded Warrants and Series E Common Warrants are subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Common Stock and the exercise price. If at the time of exercise on a date that is after the Initial Exercise Date, there is no effective registration statement or the prospectus contained therein is not available for the issuance of shares of Common Stock to the holder of the Series E Common Warrants, the Series E Common Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise." If at the time of exercise on a date that is after the 60<sup>th</sup> day anniversary of the Initial Exercise Date, there is no effective registration statement or the prospectus contained therein is not available for the issuance of shares of Common Stock to the holder of the Pre-Funded Warrants, the Pre-Funded Warrants may also be exercised, in whole or in part, at such time by means of a "cashless exercise."

Pursuant to the Purchase Agreement, the Company has agreed to prepare and file a registration statement with the SEC registering the resale of the shares of Common Stock issued to the Purchasers in the Private Placement and the shares underlying the Pre-Funded Warrants and the Series E Common Warrants (collectively, the "Shares") no later than 60 days after the date of the Purchase Agreement (the "Filing Date"), to use its commercially reasonable efforts to have the registration statement declared effective as promptly as practical thereafter, and in any event not more than 75 days following the date of the Purchase Agreement (or 90 days following the date of the Purchase Agreement in the event of a "full review" by the SEC) (the "Effectiveness Date"), and to keep such registration statement effective at all times for a one year period after the closing date provided that the Company will have the right to suspend the registration statement for a period of fifteen (15) days during such one year period without being in breach. In the event that the resale registration statement is not (i) filed by the Filing Date or (ii) declared effective by the SEC by the Effectiveness Date, then, in addition to any other rights the Purchasers may have under the Purchase Agreement or under applicable law, on the Filing Date or the Effectiveness Date for a maximum of six months (each such date being referred to herein as an "Event Date") and on each monthly anniversary of such Event Date (if the resale registration statement shall not have been filed or declared effective by the applicable Event Date) until the resale registration statement is filed or declared effective, the Company shall pay to each Purchaser an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 1.0% multiplied by the aggregate subscription amount paid by such Purchaser pursuant to the Purchase Agreement for each security not registered, which amount shall be capped at 6%. The registration statement of which this prospectus forms a part is registering the resale of the Shares.

Pursuant to the terms of the Purchase Agreement, the Company is prohibited from entering into any agreement to issue or announcing the issuance or proposed issuance of any shares of Common Stock or securities convertible or exercisable into Common Stock for a period commencing on March 26, 2024, and expiring 60 days from the Effective Date (as defined in the Purchase Agreement). Furthermore, the Company is also prohibited from entering into any agreement to issue Common Stock or Common Stock Equivalents (as defined in the Purchase Agreement) involving a Variable Rate Transaction (as defined in the Purchase Agreement), subject to certain exceptions, for a period commencing on March 26, 2024 and expiring one year from such Effective Date (as defined in the Purchase Agreement); provided that sixty (60) days after the Effective Date entering into an at-the-market facility shall not be deemed a Variable Rate Transaction.

### *Side Letter Agreement*

In connection with the Private Placement, the Company entered into a side letter agreement (the "Letter Agreement") with one investor, Lynx1 Capital Management LP ("Lynx1"). Subject to the terms of the Letter Agreement, Lynx1 will be entitled to nominate one individual to serve as a director on our Board of Directors for one three-year term commencing with our 2024 Annual Meeting of Stockholders.

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### *Ninth Amendment to Credit Agreement*

On March 28, 2024, iBio CDMO LLC, our wholly owned subsidiary, and Woodforest National Bank entered into the Ninth Amendment (the "Ninth Amendment") to the Credit Agreement, which was entered into on November 1, 2021, as previously amended as of October 11, 2022, February 9, 2023, February 20, 2023, March 24, 2023, May 10, 2023, September 18, 2023, October 4, 2023, and December 22, 2023 (the "Credit Agreement"), which Ninth Amendment among other things, amends the Credit Agreement to: (i) set the maturity date of the term loan to the *earlier of* (a) May 15, 2024, or (b) the acceleration of maturity of the term loan in accordance with the Credit Agreement.

On February 25, 2024, we entered into an Asset Purchase Agreement (the “APA”) with Otsuka Pharmaceutical Co., Ltd. (“Otsuka”) pursuant to which we sold and assigned to Otsuka, and Otsuka purchased and assumed, all intellectual property rights directly related to our PD-1 agonist assets (the “PD-1 Assets”) developed or held for development in consideration of \$1,000,000 paid at closing (the “Closing Consideration”). The APA also provides for a potential contingent payment of \$2,500,000 upon the achievement of specified developmental milestones and a second potential contingent payment of \$50,000,000 upon the achievement of specified milestones following commercialization. The sale of the PD-1 Assets closed on February 25, 2024.

### General Corporate Information

We were incorporated under the laws of the State of Delaware on April 17, 2008, under the name iBioPharma, Inc. We engaged in a merger with InB:Biotechnologies, Inc., a New Jersey corporation on July 25, 2008, and changed our name to iBio, Inc. on August 10, 2009.

Our principal executive offices are located at 8800 HSC Parkway, Bryan, Texas 77807 and our telephone number is (979) 446-0027. Our website address is [www.ibioinc.com](http://www.ibioinc.com). The information contained on, or accessible through, our website does not constitute part of this Registration Statement. We have included our website address in this Registration Statement solely as an inactive textual reference.

## THE OFFERING

This prospectus relates to the resale or other disposition from time to time by the Selling Stockholders identified in this prospectus of up to 10,574,556 shares of our Common Stock. None of the shares registered hereby are being offered for sale by us.

Shares of Common Stock offered by the Selling Stockholders	10,574,556 shares (consisting of 2,701,315 Private Placement Shares, 2,585,963 shares of our Common Stock issuable upon the exercise of the Pre-Funded Warrants and 5,287,278 shares of our Common Stock issuable upon the exercise of the Series E Common Warrants).
Terms of the offering	The Selling Stockholders and any of their pledgees, assignees and successors-in-interest will determine when and how they sell the shares offered in this prospectus and may, from time to time, sell any or all of their shares covered hereby on NYSE American LLC or any other stock exchange, market or trading facility on which the shares are traded or in privately negotiated transactions. These sales may be at fixed or negotiated prices. See “Plan of Distribution.”
Common Stock outstanding prior to this offering	8,611,449, including the Private Placement Shares
Common Stock to be outstanding after this offering, assuming we issue the additional 7,873,241 shares of our Common Stock that are issuable in connection with exercise of the Pre-Funded Warrants and Series E Common Warrants	16,484,690
Use of Proceeds	The Selling Stockholders will receive all of the proceeds of the sale of shares of Common Stock offered from time to time pursuant to this prospectus. Accordingly, we will not receive any proceeds from the sale of shares of Common Stock that may be sold from time to time pursuant to this prospectus; however, we will receive proceeds from the any cash exercise of the Pre-Funded Warrants and Series E Common Warrants. See “Use of Proceeds.” We intend to use the proceeds from the any cash exercise of the Pre-Funded Warrants and Series E Common Warrants for general corporate purposes, including for research and development and working capital.
Risk Factors	You should read the “Risk Factors” section of this prospectus and in the documents incorporated by reference in this prospectus for a discussion of factors to consider before deciding to purchase shares of our Common Stock.
NYSE American LLC symbol	Our Common Stock is listed on the NYSE American LLC under the symbol “IBIO.”

Except as otherwise indicated, the number of shares of Common Stock to be outstanding immediately after this offering is based on 8,611,449 shares of our Common Stock outstanding as of April 16, 2024, and excludes:

- 32,644 shares of Common Stock issuable upon the exercise of stock options outstanding at a weighted average exercise price of \$144.90 per share;
- 10,564,628 shares of Common Stock issuable upon the exercise of warrants outstanding at a weighted average exercise price of \$2.22 per share;
- 61,365 shares of Common Stock issuable upon the vesting of restricted stock units; and
- 1,121,200 shares of Common Stock reserved for future issuance under the 2023 Omnibus Equity Incentive Plan.

## RISK FACTORS

*Investing in our shares of Common Stock involves a high degree of risk. Before deciding whether to invest in our Common Stock, you should consider carefully the risks and uncertainties described below, together with all of the other information included or incorporated by reference in this prospectus, including the risks and uncertainties discussed under “Risk Factors” in our most recent Annual Report on Form 10-K, which is incorporated by reference in this prospectus, as well as any updates thereto contained in subsequent filings with the SEC or any free writing prospectus, before deciding whether to purchase our Common Stock in this offering. All of these risk factors are incorporated herein in their entirety. The risks described below and incorporated by reference are material risks currently known, expected or reasonably foreseeable by us. However, the risks described below and incorporated by reference are not the only ones that we face. Additional risks not presently known to us or that we currently deem*

*immaterial may also affect our business, operating results, prospects or financial condition. If any of these risks actually materialize, our business, prospects, financial condition, and results of operations 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. For more information, see the section entitled "Where You Can Find More Information."*

## **Risks Related to this Offering**

***Resales of our Common Stock in the public market by our stockholders as a result of this offering may cause the market price of our Common Stock to fall.***

We are registering Common Stock issuable upon the exercise of the Pre-Funded Warrants and Series E Common Warrants. Sales of substantial amounts of our Common Stock in the public market, or the perception that such sales might occur, could adversely affect the market price of our Common Stock. The issuance of new shares of Common Stock could result in resales of our Common Stock by our current stockholders concerned about the potential ownership dilution of their holdings. Furthermore, in the future, we may issue additional shares of Common Stock or other equity or debt securities exercisable or convertible into Common Stock. Any such issuance could result in substantial dilution to our existing stockholders and could cause our stock price to decline.

***Investors who buy shares at different times will likely pay different prices.***

Investors who purchase shares in this offering at different times will likely pay different prices, and so may experience different levels of dilution and different outcomes in their investment results. The Selling Stockholders may sell such shares at different times and at different prices.

***Our management will have broad discretion over the use of the net proceeds from the exercise of the Pre-Funded Warrants and Series E Common Warrants, you may not agree with how we use the proceeds, and the proceeds may not be invested successfully.***

We have not designated any portion of the net proceeds from the exercise of the Pre-Funded Warrants and Series E Common Warrants to be used for any particular purpose. Accordingly, our management will have broad discretion as to the use of the net proceeds and you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that, pending their use, we may invest the net proceeds in a way that does not yield a favorable, or any, return for our company. Our management's judgment may not result in positive returns on your investment and you will not have the opportunity to evaluate the economic, financial or other information upon which our management bases its decisions.

***We have additional securities available for issuance, which, if issued, could adversely affect the rights of the holders of our Common Stock.***

We may from time-to-time issue additional shares of Common Stock or preferred stock. In addition, as opportunities present themselves, we may enter into financing or similar arrangements in the future, including the issuance of debt securities, Common Stock or preferred stock. Any future issuances of Common Stock or securities convertible into Common Stock, would further dilute the percentage ownership of us held by holders of Common Stock. In addition, the issuance of certain securities, may be used as an "anti-takeover" device without further action on the part of our stockholders, and may adversely affect the holders of the Common Stock.

***Because we will not declare cash dividends on our Common Stock in the foreseeable future, stockholders must rely on appreciation of the value of our Common Stock for any return on their investment.***

We have never declared or paid cash dividends on our Common Stock. We currently anticipate that we will retain all available funds and future earnings, if any, to fund the development and growth of our business and will not declare or pay any cash dividends in the foreseeable future. As a result, only appreciation of the price of our Common Stock, if any, will provide a return to investors in this offering.

## **FORWARD-LOOKING STATEMENTS**

This prospectus, including the documents that we incorporate by reference herein, contain, and any applicable prospectus supplement or free writing prospectus including the documents we incorporate by reference therein may contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including statements regarding our future financial condition, business strategy and plans and objectives of management for future operations. Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terminology such as "believe," "will," "may," "estimate," "continue," "anticipate," "intend," "should," "plan," "might," "approximately," "expect," "predict," "could," "potentially" or the negative of these terms or other similar expressions. Forward-looking statements appear in a number of places throughout this prospectus and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things:

- our plans to develop and commercialize our product candidates;
- the timing of our planned clinical trials for our product candidates;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- expectations regarding clinical trial data;
- our intellectual property position;
- our competitive position and the development of and projections relating to our competitors or our industry;
- our ability to identify, recruit and retain key personnel;
- the impact of laws and regulations;
- our plans to identify additional product candidates with significant commercial potential that are consistent with our commercial objectives;
- our estimates regarding future revenue, expenses and needs for additional financing; and
- the industry in which we operate and the trends that may affect the industry or us.

Discussions containing these forward-looking statements may be found, among other places, in the sections entitled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in the documents incorporated by reference herein, including our most recent Annual Report on Form

These forward-looking statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. We discuss in greater detail, and incorporate by reference into this prospectus in their entirety, many of these risks and uncertainties under the heading “Risk Factors” contained in the documents incorporated by reference herein. These forward-looking statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. All forward-looking statements are qualified in their entirety by this cautionary statement.

#### USE OF PROCEEDS

The Selling Stockholders will receive all of the proceeds of the sale of shares of Common Stock offered from time to time pursuant to this prospectus. Accordingly, we will not receive any proceeds from the sale of shares of Common Stock that may be sold from time to time pursuant to this prospectus; however, we will receive proceeds from the cash exercise of the Pre-Funded Warrants and Series E Common Warrants. See “Plan of Distribution” elsewhere in this prospectus for more information.

We currently intend to use any proceeds we receive for general corporate purposes, including for research and development and working capital. Accordingly, our management will have broad discretion in the application of the net proceeds. We may use the proceeds for purposes that are not contemplated at the time of this offering.

#### SELLING STOCKHOLDERS

This prospectus covers the possible resale from time to time by the Selling Stockholders identified in the table below, including their pledgees, donees, transferees, assigns or other successors in interest, of up to an aggregate of 10,574,556 shares of our Common Stock, which includes (i) 2,701,315 Private Placement Shares, (ii) 2,585,963 shares of our Common Stock issuable upon the exercise of the Pre-Funded Warrants at an exercise price of \$0.001 per share, and (iii) 5,287,278 shares of our Common Stock issuable upon the exercise of the Series E Common Warrants at an exercise price of \$2.64 per share. We are registering the resale of such shares by the Selling Stockholders identified in the table below, to permit them, or their permitted transferees or other successors-in-interest that may be identified in a post-effective amendment to the registration statement of which this prospectus is a part, to resell or otherwise dispose of these shares in the manner contemplated under the section entitled “Plan of Distribution” in this prospectus (as may be supplemented and amended).

On April 1, 2024, pursuant to the Purchase Agreement, we issued and sold in the Private Placement an aggregate of (i) 2,701,315 shares of our Common Stock, (ii) with respect to certain Investors, in lieu of the shares of Common Stock, Pre-Funded Warrants to purchase up to an aggregate of 2,585,963 shares of Common Stock, and (iii) accompanying Series E Common Warrants to purchase up to an aggregate of 5,287,278 shares of Common Stock. The combined purchase price for one share of Common Stock and the accompanying Series E Common Warrant was \$2.85 and the purchase price for one Pre-Funded Warrant and the accompanying Series E Common Warrant was \$2.849. The Company received net proceeds of approximately \$14.1 million from the Private Placement, after deducting estimated offering expenses payable by the Company, including placement agent fees and expenses.

A holder of the Pre-Funded Warrants and the Series E Common Warrants may not exercise any portion of such holder’s Pre-Funded Warrants or the Series E Common Warrants to the extent that the holder, together with its affiliates, would beneficially own more than 4.99% (or, at the election of the holder, 9.99%) of our outstanding shares of Common Stock immediately after exercise (the “Beneficial Ownership Limitation”), except that upon at least 61 days’ prior notice from the holder to us, the holder may increase the beneficial ownership limitation to up to 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise. This prospectus covers the sale or other disposition by the Selling Stockholders of up to the total number of shares of our Common Stock that were issued pursuant to the Purchase Agreement, plus the total number of shares of our Common Stock issuable upon exercise of the Pre-Funded Warrants and the Series E Common Warrants issued or issuable to the Selling Stockholders, without giving effect to the Beneficial Ownership Limitation described above.

The following table sets forth, to our knowledge, information concerning the beneficial ownership of shares of our Common Stock by the Selling Stockholders as of April 15, 2024. The information in the table below with respect to the Selling Stockholders has been obtained from the respective Selling Stockholders. When we refer to the “Selling Stockholders” in this prospectus, or, if required, a post-effective amendment to the registration statement of which this prospectus is a part, we mean the Selling Stockholders listed in the table below as offering shares, as well as their respective pledgees, assignees, donees, transferees or successors-in-interest. Throughout this prospectus, when we refer to the shares of our Common Stock being registered on behalf of the Selling Stockholders, we are referring to the shares of our Common Stock and the shares of our Common Stock underlying the Pre-Funded Warrants and the Series E Common Warrants issued to the Selling Stockholders pursuant to the Purchase Agreement without giving effect to the Beneficial Ownership Limitation described above. The Selling Stockholders may sell all, some or none of the shares of Common Stock subject to this prospectus. See “Plan of Distribution” below as it may be supplemented and amended from time to time.

The number of shares of Common Stock beneficially owned prior to the offering for each Selling Stockholder includes all shares of our Common Stock beneficially held by such Selling Stockholder as of April 15, 2024, which includes (i) all shares of our Common Stock purchased by such selling stockholder in the Private Placement and (ii) all shares of Common Stock issuable upon exercise of the Pre-Funded Warrants purchased by such Selling Stockholder in the Private Placement, subject to the Beneficial Ownership Limitation described above. The shares reported under “Maximum Number of Shares of Common Stock Being Offered for Resale” consist of (i) the shares reported as beneficially owned by Selling Stockholder under “Shares of Common Stock Beneficially Owned Prior to the Offering” and (ii) the shares issuable upon exercise of the Pre-Funded Warrants and Series E Common Warrants held by the Selling Stockholder, in each case, without giving effect to the Beneficial Ownership Limitation. The percentages of shares owned before and after the offering are based on 8,611,449 shares of Common Stock outstanding as of April 15, 2024.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our Common Stock. Generally, a person “beneficially owns” shares of our Common Stock if the person has or shares with others the right to vote those shares or to dispose of them, or if the person has the right to acquire voting or disposition rights within 60 days. In computing the number of shares of our Common Stock beneficially owned by a person as of April 15, 2024, we deemed outstanding shares of Common Stock issuable upon the exercise of Pre-Funded Warrants held by that Selling Stockholder subject to the beneficial ownership limitation because we expect they will all be exercisable within 60 days of April 15, 2024. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Since the Series E Common Warrants are not exercisable within 60 days of April 15, 2024, we did not deem outstanding shares of Common

Stock issuable upon exercise of the Series E Common Warrants as of April 15, 2024. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for any Selling Stockholder named below.

Selling Stockholder	Shares of Common Stock Beneficially Owned Prior to the Offering		Maximum Number of Shares of Common Stock Being Offered for Resale	Shares of Common Stock To Be Beneficially Owned Immediately Following the Sale of Such Shares of Common Stock	
	Number	Percentage		Number	Percentage
Ikarian Healthcare Master Fund LP, Boothbay Absolute Return Strategies, LP and Boothbay Diversified Alpha Master Fund LP <sup>(1)</sup>	600,000	6.97%	3,508,770	30,000	*
Lynx1 Capital Management LP <sup>(2)</sup>	889,172	9.99%	2,807,016	0	—
ADAR1 Capital Management, LLC <sup>(3)</sup>	874,156	9.99%	2,456,140	135,293	*
Opaleye Management Inc. <sup>(4)</sup>	375,000	4.35%	750,000	0	—
Armistice Capital LLC <sup>(5)</sup>	433,851	4.99%	701,754	865,788	4.99%
Patrick Crutcher <sup>(6)</sup>	175,438	2.04%	350,876	0	—

\*less than one percent

- (1) The shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” includes (i) 440,465 shares of Common Stock held by Ikarian Healthcare Master Fund LP; (ii) 107,287 shares of Common Stock held by Boothbay Absolute Return Strategies, LP; and (iii) 52,248 shares of Common Stock held by Boothbay Diversified Alpha Master Fund LP. The shares underlying the following warrants are not included in the shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” because they are subject to limitations on exercisability described below: (i) 847,444 and 1,287,909 shares of Common Stock issuable upon exercise of Pre-Funded Warrants and Series E Common Warrants, respectively, held by Ikarian Healthcare Master Fund LP; (ii) 206,418 and 313,705 shares of Common Stock issuable upon exercise of Pre-Funded Warrants and Series E Common Warrants, respectively, held by Boothbay Absolute Return Strategies, LP; (iii) 100,523 and 152,771 shares of Common Stock issuable upon exercise of Pre-Funded Warrants and Series E Common Warrants, respectively, held by Boothbay Diversified Alpha Master Fund LP; (iv) 10,000 shares of Common Stock issuable upon the exercise of Series C warrants and 10,000 shares of Common Stock issuable upon the exercise of Series D warrants held by Boothbay Absolute Return Strategies, LP; and (v) 5,000 shares of Common Stock issuable upon the exercise of Series C warrants and 5,000 shares of Common Stock issuable upon the exercise of Series D warrants held by Boothbay Diversified Alpha Master Fund LP. Ikarian Healthcare Master Fund, LP and its affiliated entities are prohibited from exercising such Pre-Funded Warrants, Series E Common Warrants, Series C warrants and Series D warrants, if, as a result of such exercise, they would beneficially own more than 4.99% of the total number of shares of Common Stock then issued and outstanding immediately after giving effect to the exercise. In addition, the Series E Common Warrants are not exercisable until October 1, 2024. The number of shares reported under “Shares of Common Stock To Be Beneficially Owned Immediately Following the Sale of Such Shares of Common Stock” includes the shares of Common Stock issuable upon exercise of the Series C warrants and Series D warrants held by Boothbay Absolute Return Strategies, LP and Boothbay Diversified Alpha Master Fund LP and the percentage of ownership assumes the issuance of all 7,873,241 shares underlying the Pre-Funded Warrants and Series E Common Warrants subject to this offering. Ikarian Healthcare Master Fund, LP is managed by Ikarian Capital LLC. Boothbay Absolute Return Strategies, LP and Boothbay Diversified Alpha Master Fund LP are managed by Boothbay Fund Management LLC. Neil Shahrestani has voting or investment control over the shares held by Ikarian Healthcare Master Fund, LP, Boothbay Absolute Return Strategies, LP and Boothbay Diversified Alpha Master Fund LP. The address of the foregoing entities is c/o Ikarian Capital LLC, 100 Crescent Court, Suite 1620, Dallas, Texas 75201.

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- (2) The shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” consist of 600,000 shares of Common Stock and 289,172 shares of Common Stock issuable upon the exercise of Pre-Funded Warrants held by Lynx1 Capital Management LP, as reported on the Schedule 13G filed by Lynx1 Capital Management LP on April 1, 2024. The shares underlying the following warrants, each of which is held by Lynx1 Capital Management LP, are not included in the shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” because they are subject to limitations on exercisability described below: (i) 514,336 shares of Common Stock issuable upon exercise of a Pre-Funded Warrant and 1,403,508 shares of Common Stock issuable upon exercise of a Series E Common Warrant. Lynx1 Capital Management LP is prohibited from exercising such Pre-Funded Warrants and Series E Common Warrants, if, as a result of such exercise, it and its affiliates would beneficially own more than 9.99% of the total number of shares of Common Stock then issued and outstanding immediately after giving effect to the exercise. In addition, the Series E Common Warrants are not exercisable until October 1, 2024. Lynx1 Capital Management LP is the investment manager of Lynx1 Master Fund LP (“Lynx1 Fund”). Mr. Weston Nichols, the sole member of Lynx1 Capital Management GP LLC, the general partner of Lynx1 Capital Management LP, has sole voting and investment control over the shares held by Lynx1 Capital Management LP. The address for the above referenced entity is 151 Calle de San Francisco, Suite 200, PMB 1237, San Juan, Puerto Rico 00901-1607.
- (3) The shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” consist of: (i) 735,293 shares of Common Stock, including 600,000 shares of Common Stock purchased in the Private Placement; and (ii) 138,863 shares of Common Stock issuable upon the exercise of Pre-Funded Warrants held by ADAR1 Capital Management, LLC, as reported to us by ADAR1 Capital Management, LLC. The shares underlying the following warrants are not included in the shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” because they are subject to limitations on exercisability described below (i) 489,207 shares of Common Stock issuable upon exercise of Pre-Funded Warrants and (ii) 1,228,070 shares of Common Stock issuable upon exercise of the Series E Common Warrants. ADAR1 Capital Management LLC and its affiliates are prohibited from exercising such Pre-Funded Warrants and Series E Common Warrants, if, as a result of such exercise, they would beneficially own more than 9.99% of the total number of shares of Common Stock then issued and outstanding immediately after giving effect to the exercise. In addition, the Series E Common Warrants are not exercisable until October 1, 2024. ADAR1 Capital Management, LLC acts as an investment adviser to, and manages investment and trading accounts of, ADAR1 Fund Partners, LP (“ADAR1 Fund”). ADAR1 Capital Management GP, LLC (“ADAR1 General Partner”) acts as the general partner of ADAR1 Fund. ADAR1 Capital Management and ADAR1 General Partner may be deemed to indirectly beneficially own securities held by ADAR1 Fund. Mr. Daniel Schneeberger is the Manager of ADAR1 Capital Management, LLC and ADAR1 General Partner. Mr. Schneeberger may be deemed to indirectly beneficially own securities held by ADAR1 Fund. The address of ADAR1 Capital Management, LLC is 3503 Wild Cherry Drive, Building 9, Austin, Texas 78738.



- (4) The shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” consist of 375,000 shares of Common Stock held by Opaley Management Inc.. The shares underlying the following warrants are not included in the shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” because they are subject to limitations on exercisability described below: 375,000 shares of Common Stock issuable upon exercise of Series E Common Warrants. The Series E Common Warrants are not exercisable until October 1, 2024. In addition, Opaley Management Inc. and its affiliates are prohibited from exercising such Series E Common Warrants, if, as a result of such exercise, they would beneficially own more than 9.99% of the total number of shares of Common Stock then issued and outstanding immediately after giving effect to the exercise. Mr. James Silverman as the President of Opaley Management Inc. is deemed to control Opaley Management Inc. The address of Opaley Management Inc. is One Boston Place, 26<sup>th</sup> Floor, Boston, Massachusetts 02108.

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- (5) The shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” consist of (i) 350,877 shares of Common Stock and 82,974 shares of Common Stock issuable upon the exercise of Series C common warrants held by Armistice Capital LLC. The shares underlying the following warrants are not included in the shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” because they are subject to limitations on exercisability described below: (i) 350,877 shares of Common Stock issuable upon exercise of Series E Common Warrants, (ii) 144,230 shares of Common Stock issuable upon exercise of Series A warrants; (iii) 77,650 shares of Common Stock issuable upon exercise of Series B warrants; (iv) 917,026 shares of Common Stock issuable upon exercise of Series C warrants; and (v) 1,000,000 shares of Common Stock issuable upon exercise of Series D warrants (collectively, the “Warrants”). In addition, the Series E Common Warrants are not exercisable until October 1, 2024. The number of shares reported under “Shares of Common Stock To Be Beneficially Owned Immediately Following the Sale of Such Shares of Common Stock” includes shares of Common Stock issuable upon exercise of the Warrants, held by Armistice Capital LLC, subject to the beneficial ownership limitation and other limitations on exercisability, and the percentage of ownership assumes the issuance of all 7,873,241 shares underlying the Pre-Funded Warrants and Series E Common Warrants subject to this offering. The securities are directly held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the “Master Fund”), and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC (“Armistice Capital”), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The Warrants are subject to a beneficial ownership limitation of 4.99%, which such limitation restricts the Selling Stockholder from exercising that portion of the Warrants that would result in the Selling Stockholder and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7<sup>th</sup> Floor, New York, NY 10022.
- (6) The shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” consist of 175,438 shares of Common Stock held by Mr. Crutcher. The shares underlying the following warrants are not included in the shares reported under “Shares of Common Stock Beneficially Owned Prior to the Offering” because they are subject to limitations on exercisability described below: 175,438 shares of Common Stock issuable upon exercise of Series E Common Warrants. The Series E Common Warrants are not exercisable until October 1, 2024. In addition, Mr. Crutcher and his affiliates are prohibited from exercising such Series E Common Warrants, if, as a result of such exercise, they would beneficially own more than 9.99% of the total number of shares of Common Stock then issued and outstanding immediately after giving effect to the exercise. The address for Mr. Crutcher is 1334 Beech Valley Road NE, Atlanta, Georgia 30306.

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#### Relationships with Selling Stockholders

None of the Selling Stockholders have had a material relationship with the registrant or any of its predecessors or affiliates, within the past three years, except as hereinafter described. Armistice Capital LLC was an investor in our public offering that closed in December 2023 and acquired shares of Common Stock, a pre-funded warrant and Series C and Series D warrants in the public offering, of which Series C warrants to purchase up to 1,000,000 shares of Common Stock and Series D warrants to purchase up to 1,000,000 shares of Common Stock, which are subject to a 4.99% beneficial ownership limitation, remain outstanding. In addition Series C warrants to purchase up to 10,000 shares of Common Stock and Series D warrant to purchase up to 10,000 shares of Common Stock were issued to Boothbay Absolute Return Strategies, LP and Series C warrants to purchase up to 5,000 shares of Common Stock and Series D warrants to purchase up to 5,000 shares of Common Stock were issued to Boothbay Diversified Alpha Master Fund LP, all of which remain outstanding.

After the closing of the Private Placement, we entered into a collaboration with AstralBio, Inc., a privately held biotechnology company co-founded by Patrick Crutcher, to discover, engineer and develop novel antibodies to treat obesity and other cardiometabolic conditions.

In connection with the Private Placement, we entered into a side letter agreement with Lynx1 Capital Management LP which provides that Lynx1 Capital Management LP will be entitled to nominate one individual to serve as a director on our Board of Directors for one three-year term commencing with our 2024 Annual Meeting of Stockholders.

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#### PLAN OF DISTRIBUTION

The Selling Stockholders, which as used herein includes pledgees, assignees, donees, transferees or their respective successors-in-interest selling shares of Common Stock or interests in shares of Common Stock received after the date of this prospectus from a Selling Stockholder as a pledge, assignment, gift, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of Common Stock or interests in shares of Common Stock on any stock exchange, market or trading facility on which the shares of Common Stock are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

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

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

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

In connection with the sale of Common Stock or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the Common Stock in the course of hedging the positions they assume. The Selling Stockholders may also sell shares of our Common Stock short and deliver these securities to close out their short positions, or loan or pledge the Common Stock to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the Selling Stockholders from the sale of the Common Stock offered by them will be the purchase price of the Common Stock less discounts or commissions, if any. Each of the Selling Stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of Common Stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the Pre-Funded Warrants or Series E Common Warrants by payment of cash, however, we will receive the exercise price of the Pre-Funded Warrants or Series E Common Warrants.

The Selling Stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

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

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

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

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

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

We have agreed with the Selling Stockholders to use commercially reasonable efforts to cause the registration statement of which this prospectus forms a part effective and to keep the registration continuously effective until the date the Shares and the shares of Common Stock underlying the Series E Common Warrants and Pre-Funded Warrants covered by this registration statement have been sold or may be resold pursuant to Rule 144 without restriction.

#### LEGAL MATTERS

The validity of the shares of Common Stock offered hereby will be passed upon for us by Blank Rome LLP.

#### EXPERTS

The consolidated financial statements of iBio Inc. and Subsidiaries for the two years ended June 30, 2023 have been audited by CohnReznick LLP, independent registered public accounting firm, as set forth in their report thereon appearing in iBio Inc. and Subsidiaries Annual report on Form 10-K for the year ended June 30, 2023, and incorporated by reference herein. Such consolidated financial statements are incorporated by reference herein in reliance upon such report, which includes an explanatory paragraph on our ability to continue as a going concern, given on the authority of such firm as experts in accounting and auditing.

#### WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities being offered under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Neither we, the Selling Stockholders nor any agent, underwriter or dealer has authorized any person to provide you with different information. Neither we nor the Selling Stockholders are making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public at the SEC's website at [www.sec.gov](http://www.sec.gov). Additional information about iBio, Inc. is contained at our website, [www.ibioinc.com](http://www.ibioinc.com). Information on our website is not incorporated by reference into this prospectus. We make available on our website our SEC filings as soon as reasonably practicable after those reports are filed with the SEC.

#### INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-35023. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this prospectus:

- [Our Annual Report on Form 10-K for the fiscal year ended June 30, 2023 filed with the SEC on September 27, 2023;](#)
- [Our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2023, filed with the SEC on November 14, 2023;](#)
- [Our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2023, filed with the SEC on February 9, 2024;](#)
- Our Current Reports on Form 8-K filed with the SEC on [August 4, 2023](#), [August 7, 2023](#), [September 21, 2023](#), [October 10, 2023](#), [November 28, 2023](#), [December 6, 2023](#), [December 8, 2023](#), [December 26, 2023](#), [January 19, 2024](#), [February 21, 2024](#), [February 26, 2024](#), and [April 1, 2024](#); and
- The description of our Common Stock set forth in: (i) our registration statement on [Form 8-A](#) filed with the SEC on March 19, 2014, including any amendments thereto or reports filed for the purposes of updating this description, and (ii) Exhibit 4.10 to our Annual Report on [Form 10-K](#) for the fiscal year ended June 30, 2021 filed with the SEC on September 28, 2021.

We also incorporate by reference into this prospectus all documents (other than portions of those documents not deemed filed) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (Commission File Number 001-35023) after (i) on or after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of such registration statement, and (ii) on or after the date of this prospectus but prior to the termination of the offering (i.e., until the earlier of the date on which all of the securities registered hereunder have been sold or the registration statement of which this prospectus forms a part has been withdrawn). 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 provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with this prospectus, including exhibits that are specifically incorporated by reference into such documents. You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

iBio, Inc.  
8800 HSC Parkway  
Bryan, Texas 77807  
(979) 446-0027

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes that statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

## PART II

### INFORMATION NOT REQUIRED IN THE PROSPECTUS

#### Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses in connection with this registration statement. All of such expenses are estimates, other than the filing fee payable to the Securities and Exchange Commission.

	<b>Amount</b>
SEC registration fee	\$ 3,075
Legal fees and expenses	50,000
Accounting fees and expenses	10,000
Miscellaneous	6,925
<b>Total:</b>	<b>\$ 70,000</b>

#### Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, or the DGCL, empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers, provided that the person acted in good faith and in a manner the person reasonably believed to be in our best interests, and, with respect to any criminal action, had no reasonable cause to believe the person's actions were unlawful. The DGCL further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director or officer of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, except (i) for any breach of the director's or officer's duty of loyalty to the corporation or its stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) a director for

payments of unlawful dividends or unlawful stock repurchases or redemptions; (iv) for any transaction from which the director or officer derived an improper personal benefit; or (v) an officer in any action by or in the right of the corporation.

Our certificate of incorporation and bylaws provide for the indemnification of our directors and officers to the fullest extent permitted under Delaware law.

In addition, as permitted by Delaware law, our certificate of incorporation includes provisions that eliminate the personal liability of our directors for monetary damages resulting from breaches of certain fiduciary duties as a director, except to the extent such an exemption from liability thereof is not permitted under the DGCL.

As permitted by the DGCL, we have entered into indemnity agreements with each of our directors and executive officers, that require us to indemnify such persons against any and all costs and expenses (including attorneys', witness or other professional fees) actually and reasonably incurred by such persons in connection with any action, suit or proceeding (including derivative actions), whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director or officer or is or was acting or serving as our officer, director, employee or agent or any of our affiliated enterprises. Under these agreements, we are not required to provide indemnification for certain matters, including:

- indemnification beyond that permitted by the DGCL;
- indemnification for any proceeding with respect to the unlawful payment of remuneration to the director or officer;
- indemnification for certain proceedings involving a final judgment that the director or officer is required to disgorge profits from the purchase or sale of our stock;
- indemnification for proceedings involving a final judgment that the director's or officer's conduct was in bad faith, knowingly fraudulent or deliberately dishonest or constituted willful misconduct or a breach of his or her duty of loyalty, but only to the extent of such specific determination;

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- indemnification for proceedings or claims brought by an officer or director against us or any of our directors, officers, employees or agents, except for claims to establish a right of indemnification or proceedings or claims approved by our board of directors or required by law;
- indemnification for settlements the director or officer enters into without our consent; or
- indemnification in violation of any undertaking required by the Securities Act or in any registration statement filed by us.

The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

We have an insurance policy in place that covers our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

**Item 16. Exhibits.**

See the Exhibit Index immediately preceding the signature page hereto for a list of exhibits filed as part of this registration statement on Form S-3, which Exhibit Index is incorporated herein by reference.

**Item 17. Undertakings.**

The undersigned Registrant hereby undertakes:

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;

(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 volume of securities offered 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 percent 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 (i), (ii) and (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 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.

That, for the purpose 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 that time shall be deemed to be the initial *bona fide* offering thereof.

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.

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That, for the purpose of determining liability under the Securities Act to any purchaser:

(A) Each prospectus filed by a Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first

contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

That, for purposes of determining any liability under the Securities Act, each filing of 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.

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 foregoing provisions, 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 a Registrant of expenses incurred or paid by a director, officer or controlling person of a 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, that 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.

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**EXHIBIT INDEX**

- [3.1](#) [Certificate of Incorporation of iBio, Inc., Certificate of Merger, Certificate of Ownership and Merger, Certificate of Amendment of the Certificate of Incorporation \(incorporated herein by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q filed by the Company with the Securities and Exchange Commission on May 11, 2018 – Commission File No. 001-35023\)](#)
- [3.2](#) [Certificate of Amendment of the Certificate of Incorporation of iBio, Inc. \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 8, 2018 – Commission File No. 001-35023\)](#)
- [3.3](#) [Certificate of Designation, Preferences and Rights of the iBio CMO Preferred Tracking Stock of iBio, Inc. \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 24, 2017 – Commission File No. 001-35023\)](#)
- [3.4](#) [Certificate of Designation, Preferences and Rights of the Series A Convertible Preferred Stock of iBio, Inc. \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 27, 2018 – Commission File No. 001-35023\)](#)
- [3.5](#) [Certificate of Designation, Preferences and Rights of the Series B Convertible Preferred Stock of iBio, Inc. \(incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 27, 2018 – Commission File No. 001-35023\)](#)
- [3.6](#) [Certificate of Designation, Preferences and Rights of the Series C Convertible Preferred Stock of iBio, Inc. \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 29, 2019 – Commission File No. 001-35023\)](#)
- [3.7](#) [Second Amended and Restated Bylaws of iBio, Inc. \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 1, 2022 – Commission File No. 001-35023\)](#)
- [3.8](#) [Certificate of Designation of Preferences, Rights and Limitations of Series 2022 Convertible Preferred Stock \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 12, 2022 – Commission File No. 001-35023\)](#)
- [3.9](#) [Certificate of Amendment of the Certificate of Incorporation of iBio, Inc. \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 7, 2022 – Commission File No. 001-35023\)](#)
- [3.10](#) [Certificate of Amendment to Certificate of Incorporation of iBio, Inc. \(incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 28, 2023 – Commission File No. 001-35023\)](#)
- [4.1](#) [Form of Pre-Funded Warrant \(incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 1, 2024 – Commission File No. 001-35023\)](#)
- [4.2](#) [Form of Series E Purchase Warrant \(incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 1, 2024 – Commission File No. 001-35023\)](#)
- [5.1\\*](#) [Opinion of Blank Rome LLP](#)
- [10.1](#) [Form of Securities Purchase Agreement, dated March 26, 2024, by and between iBio, Inc. and the Purchaser signatory thereto+ \(incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 1, 2024 – Commission File No. 001-35023\)](#)
- [10.2](#) [Side Letter Agreement dated April 1, 2024 \(incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 1, 2024 – Commission File No. 001-35023\)](#)
- [23.1\\*](#) [Consent of CohnReznick LLP, independent registered public accounting firm for the Registrant](#)
- [23.2\\*](#) [Consent of Blank Rome LLP \(included in Exhibit 5.1\)](#)
- [24.1\\*](#) [Powers of Attorney \(included on the signature page of the Registration Statement\)](#)
- [107\\*](#) [Calculation of Filing Fee Table](#)

\* Filed herewith.

+ Schedules have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company hereby undertakes to furnish copies of any of the omitted schedules upon request by the SEC.

### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Bryan, State of Texas, on the 16<sup>th</sup> day of April, 2024.

#### IBIO, INC.

By: /s/ Martin Brenner  
Martin Brenner  
Chief Executive Officer

### POWERS OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Martin Brenner and Felipe Duran, jointly and severally, as his or her true and lawful agent, proxy and attorneys-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Martin Brenner</u> Martin Brenner	Chief Executive Officer and Chief Scientific Officer <i>(Principal Executive Officer)</i>	April 16, 2024
<u>/s/ Felipe Duran</u> Felipe Duran	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	April 16, 2024
<u>/s/ Linda Armstrong</u> Linda Armstrong	Director	April 16, 2024
<u>/s/ Alexandra Kropotova</u> Alexandra Kropotova	Director	April 16, 2024
<u>/s/ William Clark</u> William Clark	Director	April 16, 2024
<u>/s/ Gary Sender</u> Gary Sender	Director	April 16, 2024
<u>/s/ James T. Hill</u> James T. Hill	Director	April 16, 2024
<u>/s/ Evert Schimmelpennink</u> Evert Schimmelpennink	Director	April 16, 2024

# BLANKROME

1271 Avenue of the Americas | New York, NY 10020  
blankrome.com

April 16, 2024

The Board of Directors  
iBio, Inc.  
8800 HSC Parkway  
Bryan, Texas 77807

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Registration Statement on Form S-3 (the "Registration Statement") filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), for the registration of the resale of an aggregate of 10,574,556 shares (the "Shares") of common stock, par value \$0.001 per share (the "Common Stock"), of iBio, Inc., a Delaware corporation (the "Company"). All of the Shares are being registered on behalf of certain stockholders of the Company (the "Selling Stockholders"). The Shares consist of (i) 2,701,315 outstanding shares of Common Stock (the "Private Placement Shares") that were sold to the Selling Stockholders pursuant to that certain Securities Purchase Agreement dated as of March 26, 2024 (the "Securities Purchase Agreement"); (ii) 2,585,963 shares of Common Stock (the "Pre-Funded Warrant Shares") issuable upon the exercise of outstanding pre-funded warrants (the "Pre-Funded Warrants") that were sold to the Selling Stockholders pursuant to the Securities Purchase Agreement; and (iii) 5,287,278 shares of Common Stock (the "Warrant Shares") issuable upon the exercise of outstanding warrants (the "Series E Common Warrants") that were sold to the Selling Stockholders pursuant to the Securities Purchase Agreement. This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act.

In rendering the opinion set forth herein, we have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Registration Statement; (ii) the Securities Purchase Agreement; (iii) the Pre-Funded Warrants; (iv) the Series E Common Warrants; (v) resolutions adopted by the Board of Directors of the Company (the "Board"); (vi) the certificate of incorporation of the Company, as amended (the "Certificate of Incorporation"); (vii) the second amended and restated bylaws of the Company (the "Bylaws"); and (viii) such other corporate records, agreements, certificates, including, but not limited to, certificates or comparable documents of public officials and of officers and representatives of the Company, statutes and other instruments and documents as we considered relevant and necessary as a basis for the opinions hereinafter expressed.

In rendering this opinion, we have assumed, without inquiry, (i) the authenticity of all documents submitted to us as originals; (ii) the conformity to the original documents of all documents submitted to us as facsimile, electronic, certified or photostatic copies, and the authenticity of the originals of such copies; (iii) the legal capacity of all natural persons and the genuineness of all signatures on the Registration Statement and all documents submitted to us; and (iv) that the books and records of the Company are maintained in accordance with proper corporate procedures. We have also assumed that the Company will, at the time of any issuance of the Shares have a sufficient number of authorized but unissued shares of Common Stock pursuant to its Certificate of Incorporation to so issue the relevant number of Shares and such Shares will be issued for not less than the par value of the Common Stock.

Based upon and subject to the foregoing, we are of the opinion that (i) the Private Placement Shares are validly issued, fully paid and nonassessable, (ii) the Pre-Funded Warrant Shares have been duly authorized for issuance and, when issued, delivered and paid for in accordance with the terms of the Pre-Funded Warrants, including the payment of the exercise price therefor, will be validly issued, fully paid and nonassessable, and (iii) the Warrant Shares have been duly authorized for issuance and, when issued, delivered and paid for in accordance with the terms of the Warrants, including the payment of the exercise price therefor, will be validly issued, fully paid and nonassessable.

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iBio, Inc.  
Board of Directors  
April 16, 2024  
Page 2

We are opining solely on all applicable statutory provisions of Delaware corporate law, including the rules and regulations underlying those provisions, all applicable provisions of the Delaware Constitution and all applicable judicial and regulatory determinations. This opinion is limited to the laws of the State of Delaware as in effect on the date hereof and we express no opinion with respect to the laws of any other jurisdiction.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Registration Statement. In giving our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Blank Rome LLP

BLANK ROME LLP

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Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-3 and related Prospectus, of our report dated September 27, 2023, with respect to the consolidated financial statements of iBio, Inc. and Subsidiaries as of June 30, 2023 and 2022, and for the years then ended which report is included in the Annual Report on Form 10-K of iBio, Inc. and Subsidiaries for the year ended June 30, 2023, filed with the Securities and Exchange Commission. Our audit report includes an explanatory paragraph relating to iBio, Inc. and Subsidiaries ability to continue as a going concern.

We also consent to the reference to our firm under the caption “Experts.”

/s/ CohnReznick LLP

Holmdel, New Jersey  
April 16, 2024

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## Calculation of Filing Fee Table

**Form S-3**  
(Form Type)

**iBio, Inc.**  
(Exact Name of Registrant as Specified in its Charter)

**Table 1: Newly Registered and Carry Forward Securities**

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price <sup>(2)</sup>	Fee Rate	Amount of Registration Fee
<b>Newly Registered Securities</b>								
Fees to be Paid	Equity	Common Stock, \$0.001 par value	457(c)	10,574,556 <sup>(1)</sup>	\$1.97 <sup>(2)</sup>	\$ 20,831,876	\$0.0001476	\$ 3,075
<b>Carry Forward Securities</b>								
Carry Forward Securities	—	—	—	—	—	—	—	—
		Total Offering Amounts				\$ 20,831,876		\$ 3,075
		Total Fees Previously Paid						
		Total Fee Offsets						
		<b>Net Fee Due</b>						<b>\$ 3,075</b>

(1) All of the shares of common stock offered hereby are for the account of the Selling Stockholders named herein. Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers any additional shares of common stock which become issuable by reason of any share dividend, share split, recapitalization or any other similar transaction without receipt of consideration which results in an increase in the number of shares of common stock outstanding.

(2) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) under the Securities Act on the basis of the average of the high and low sales prices per share of the common stock on the NYSE American LLC on April 12, 2024, which was approximately \$1.97 per share.