

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (date of earliest event reported): **August 19, 2025**

iBio, Inc.

(Exact name of registrant as specified in charter)

Delaware

(State or other jurisdiction of incorporation)

001-35023

(Commission File Number)

26-2797813

(IRS Employer Identification No.)

11750 Sorrento Valley Road, Suite 200

San Diego, California 92121

(Address of principal executive offices and zip code)

(979) 446-0027

(Registrant's telephone number including area code)

N/A

(Former Name and Former Address)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of registrant under any of the following provisions:

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12(b) under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 par value per share	IBIO	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by checkmark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 1.01. Entry Into a Material Definitive Agreement.

On August 19, 2025, iBio, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Leerink Partners LLC, as representative of the underwriters named in Schedule A thereto, relating to the offering, issuance and sale of pre-funded warrants (the “Pre-Funded Warrants”) to purchase an aggregate of 71,540,000 shares of common stock, par value \$0.001 per share (“Common Stock”) of the Company and accompanying Series G warrants (the “Series G Warrants”) to purchase (i) an aggregate of up to 35,770,000 shares of Common Stock (or, for those investors who so choose, pre-funded warrants to purchase up to 35,770,000 shares of Common Stock in lieu thereof) and (ii) Series H warrants (the “Series H Warrants”) to purchase an aggregate of up to 35,770,000 shares of Common Stock (or, for those investors who so choose, pre-funded warrants to purchase up to 35,770,000 shares of Common Stock in lieu thereof) (the “Offering”). The combined public offering price per Pre-Funded Warrant and accompanying Series G Warrant is \$0.699.

Each Pre-Funded Warrant and the pre-funded warrants issuable upon exercise of the Series G Warrants or Series H Warrants will have an exercise price per share of Common Stock equal to \$0.001 and will be immediately exercisable from their date of issuance for one share of Common Stock, subject to certain beneficial ownership and other limitations. The Series G Warrants and Series H Warrants will each be exercisable from their date of issuance and will have an exercise price equal to \$0.70 per whole share of common stock (or \$0.699 per pre-funded warrant) and in the case of the Series G Warrants, the accompanying Series H Warrant. The Series G Warrants will expire on the date that is the earlier of (i) 30 trading days following the Company’s public announcement, via a press release on a nationally recognized news wire or the filing of a Current Report on Form 8-K with the Securities and Exchange Commission (the “SEC”), that an Investigational New Drug Application filed with the U.S. Food and Drug Administration, a Clinical Trial Notification filed with the applicable foreign governmental body in Australia, a Clinical Trial Application filed with the European Medicines Agency, or an equivalent submission filed with a foreign governmental body to initiate a clinical trial in any other foreign jurisdiction, has been accepted or has otherwise gone into effect, as applicable (such public filing or announcement, the “Trial Initiation Milestone”) and (ii) five years from the date of issuance. In addition, to the extent the proportion of the unexercised portion of the Series G Warrant relative to the originally issued Series G Warrant is greater than the proportion of the unexercised portion of the originally issued Pre-Funded Warrant relative to the originally issued Pre-Funded Warrant, each Series G Warrant will immediately expire in proportion to the extent that the corresponding Pre-Funded Warrant held by a holder is exercised prior to the occurrence of the Trial Initiation Milestone. When issued upon exercise of the Series G Warrants, the Series H Warrants will expire on the four-year anniversary of the closing date of the Offering. The Pre-Funded Warrants, Series G Warrants, the Series H Warrants and the pre-funded warrants issuable upon exercise of the Series G Warrants or Series H Warrants are referred to collectively as the “Warrants” and the Warrants, together with the Common Stock underlying the Warrants, are referred to collectively as the “Securities.”

The Company is prohibited from effecting an exercise of any Warrants to the extent that such exercise would result in the number of shares of Common Stock beneficially owned by such holder and its affiliates exceeding 4.99% (or 9.99% or 19.99% at election of the holder) of the total number of shares of Common Stock outstanding immediately after giving effect to the exercise (the “Beneficial Ownership Limitation”), which percentage may be increased or decreased at the holder’s election, not to exceed 19.99%. Any increase to the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company.

The aggregate proceeds from the Offering are expected to be approximately \$50 million before deducting underwriting discounts and commissions and offering expenses payable by the Company in connection with the Offering. The Company may receive up to an aggregate of \$50 million of additional gross proceeds if the Series G Warrants and Series H Warrants are exercised in full for cash.

The Offering is being made pursuant to an effective registration statement on Form S-3 (Registration Statement No. 333-280680), as amended, initially filed with the SEC on July 3, 2024, and declared effective by the SEC on August 6, 2024, as supplemented by the preliminary prospectus supplement, dated August 18, 2025, and a final prospectus supplement (the “Prospectus Supplement”) filed with the SEC pursuant to Rule 424(b) under the Securities Act of 1933, as amended (the “Securities Act”), on August 21, 2025. The closing of the Offering is expected to take place on or about August 22, 2025, subject to the satisfaction of customary closing conditions.

Pursuant to the terms of the Underwriting Agreement, the Company and its executive officers and directors have agreed, subject to certain customary exceptions, to certain restrictions on the issuance and sale of its Common Stock and securities convertible into shares of Common Stock during the 90 day period following the pricing of the Offering.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, conditions to closing, indemnification obligations of the Company and the underwriters, including for liabilities under the Securities Act, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties.

The foregoing descriptions of the Underwriting Agreement, the Pre-Funded Warrants, the Series G Warrants and the Series H Warrants are not complete, and are qualified in their entirety by reference to the full text of each such document, which documents are attached hereto as Exhibit 1.1, 4.1, 4.2 and 4.3, respectively, and which are incorporated herein by reference.

A copy of the legal opinion and consent of Blank Rome LLP relating to the Pre-Funded Warrants, the Series G Warrants, the Series H Warrants, the pre-funded warrants issuable upon exercise of the Series G Warrants or Series H Warrants and the shares of Common Stock underlying the Warrants is attached as Exhibit 5.1 hereto.

Item 7.01. Regulation FD Disclosure

On August 18, 2025, the Company issued a press release announcing the launch of the Offering (the “Launch Press Release”). A copy of the Launch Press Release is furnished herewith as Exhibit 99.1.

On August 19, 2025, the Company issued a press release announcing the pricing of the Offering (the “Pricing Press Release”). A copy of the Pricing Press Release is furnished herewith as Exhibit 99.2.

The information in this Item 7.01 and in the press releases furnished as Exhibits 99.1 and 99.2 to this Current Report on Form 8-K shall not be deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended (the “Securities Act”) and shall not be incorporated by reference into any filing with the SEC made by the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Caution Concerning Forward Looking Statements

This Current Report on Form 8-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “anticipates,” “believes,” “expects,” “intends,” “projects,” “plans,” and “future” or similar expressions are intended to identify forward-looking statements. Forward-looking statements include statements concerning the Offering, such as the expected gross proceeds (including the anticipated gross proceeds from the exercise of the Series G Warrants and Series H Warrants in full for cash) and the anticipated closing date. Forward-looking statements are based on management’s current expectations and are subject to various risks and uncertainties that could cause actual results to differ materially and adversely from those expressed or implied by such forward-looking statements. Accordingly, these forward-looking statements do not constitute guarantees of future performance, and you are cautioned not to place undue reliance on these forward-looking statements. Risks regarding the Company’s business are described in detail in its SEC filings, including in the Company’s Annual Report on Form 10-K for the fiscal year ended June 30, 2024 filed with the SEC on September 20, 2024, as amended on September 24, 2024, and in the Company’s subsequent filings with the SEC, which are available on the SEC’s website at www.sec.gov. Additional information will be made available in other filings that the Company makes from time to time with the SEC. These forward-looking statements speak only as of the date hereof, and the Company disclaims any obligation to update these statements except as may be required by law.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
<u>1.1</u>	<u>Underwriting Agreement, dated as of August 19, 2025, by and between iBio, Inc. and Leerink Partners LLC, as Representative of the several Underwriters</u>
<u>4.1</u>	<u>Form of Pre-Funded Warrant</u>
<u>4.2</u>	<u>Form of Series G Warrant</u>
<u>4.3</u>	<u>Form of Series H Warrant</u>
<u>5.1</u>	<u>Opinion of Blank Rome LLP</u>
<u>23.1</u>	<u>Consent of Blank Rome LLP (contained in Exhibit 5.1)</u>
<u>99.1</u>	<u>Launch Press Release</u>
<u>99.2</u>	<u>Pricing Press Release</u>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: August 21, 2025

IBIO, INC.

By: /s/ Marc A. Banjak

Name: Marc A. Banjak

Title: Chief Legal Counsel

IBIO, INC.

(a Delaware corporation)

Pre-Funded Warrants to Purchase 71,540,000 Shares of Common Stock (or Pre-Funded Warrants in lieu thereof)
Series G Warrants to Purchase (i) 35,770,000 Shares of Common Stock (or Pre-Funded Warrants in lieu thereof) and (ii) Series H Warrants to Purchase 35,770,000 Shares of
Common Stock (or Pre-Funded Warrants in lieu thereof)

UNDERWRITING AGREEMENT

August 19, 2025

Leerink Partners LLC
as Representative of the several Underwriters

c/o Leerink Partners LLC
1301 Avenue of the Americas, 5th Floor
New York, NY 10019

Ladies and Gentlemen:

iBio, Inc., a Delaware corporation (the “Company”), confirms its agreement with Leerink Partners LLC (“Leerink Partners”) and each of the other Underwriters named in Schedule A hereto (collectively, the “Underwriters,” which term shall also include any underwriter substituted as hereinafter provided in Section 10 hereof), for which Leerink Partners is acting as representative (in such capacity, the “Representative”), with respect to the sale by the Company and the purchase by the Underwriters, acting severally and not jointly, of the respective numbers set forth in Schedule A hereto of (i) pre-funded warrants, substantially in the form of Annex A hereto, to purchase an aggregate of 71,540,000 shares of common stock, par value \$0.001 per share, of the Company (the “Common Stock”), with an exercise price of \$0.001 per share (“Pre-Funded Warrants”), and (ii) Series G warrants, substantially in the form of Annex B hereto (“Series G Warrants”), to purchase (A) an aggregate of up to 35,770,000 shares of Common Stock (or Pre-Funded Warrants in lieu thereof) and (B) Series H warrants, substantially in the form of Annex C hereto (“Series H Warrants”), to purchase an aggregate of up to 35,770,000 shares of Common Stock (or Pre-Funded Warrants in lieu thereof), with an exercise price of \$0.70 per share and accompanying Series H Warrant (or \$0.699 per Pre-Funded Warrant and accompanying Series H Warrant). Each Series G Warrant can be exercised for one-half of a share of Common Stock and one accompanying Series H Warrant. Each Series H Warrant can be exercised for one-half of a share of Common Stock, and has an exercise price of \$0.70 per share (or \$0.699 per Pre-Funded Warrant). As used herein, the “Securities” means the Pre-Funded Warrants, Series G Warrants and Series H Warrants and “Warrant Shares” means the shares of Common Stock issuable upon exercise of the Securities.

The Company understands that the Underwriters propose to make a public offering of the Securities as soon as the Representative deems advisable after this Underwriting Agreement (this “Agreement”) has been executed and delivered.

The Company has filed with the Securities and Exchange Commission (the “Commission”) a shelf registration statement on Form S-3 (No. 333-280680), covering the public offering and sale of certain securities, including the Securities, under the Securities Act of 1933, as amended (the “1933 Act”) and the rules and regulations of the Commission promulgated thereunder (the “1933 Act Regulations”), which shelf registration statement was declared effective on August 6, 2024. Such registration statement, as of any time, means such registration statement as amended by any post-effective amendments thereto to such time, including the exhibits and any schedules thereto at such time, the documents incorporated or deemed to be incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the 1933 Act and the documents otherwise deemed to be a part thereof as of such time pursuant to Rule 430B under the 1933 Act Regulations (“Rule 430B”), is referred to herein as the “Registration Statement,” provided, however, that the “Registration Statement” without reference to a time means such registration statement as amended by any post-effective amendments thereto as of the time of the first contract of sale for the Securities, which time shall be considered the “new effective date” of such registration statement with respect to the Securities within the meaning of paragraph (f)(2) of Rule 430B, including the exhibits and schedules thereto as of such time, the documents incorporated or deemed incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the 1933 Act and the documents otherwise deemed to be a part thereof as of such time pursuant to the Rule 430B. Any registration statement filed pursuant to Rule 462(b) of the 1933 Act Regulations is herein called the “Rule 462(b) Registration Statement” and, after such filing, the term “Registration Statement” shall include the Rule 462(b) Registration Statement. Each preliminary prospectus used in connection with the offering of the Securities, including the documents incorporated or deemed to be incorporated by reference therein pursuant to Item 12 of Form S-3 under the 1933 Act, are collectively referred to herein as a “preliminary prospectus.” Promptly after execution and delivery of this Agreement, the Company will prepare and file a final prospectus relating to the Securities in accordance with the provisions of Rule 424(b) under the 1933 Act Regulations (“Rule 424(b)”). The final prospectus, in the form first furnished or made available to the Underwriters for use in connection with the offering of the Securities, including the documents incorporated or deemed to be incorporated by reference therein pursuant to Item 12 of Form S-3 under the 1933 Act, are collectively referred to herein as the “Prospectus.” For purposes of this Agreement, all references to the Registration Statement, any preliminary prospectus, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval system (or any successor system)(“EDGAR”).

As used in this Agreement:

“Applicable Time” means 7:30 A.M., New York City time, on August 19, 2025 or such other time as agreed by the Company and the Representative.

“General Disclosure Package” means any Issuer General Use Free Writing Prospectuses issued at or prior to the Applicable Time, the most recent preliminary prospectus (including any documents incorporated therein by reference) that is distributed to investors prior to the Applicable Time and the information included on Schedule B-1 hereto, all considered together.

“Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433 of the 1933 Act Regulations (“Rule 433”), including without limitation any “free writing prospectus” (as defined in Rule 405 of the 1933 Act Regulations (“Rule 405”)) relating to the Securities that is (i) required to be filed with the Commission by the Company, (ii) a “road show for an offering that is a written communication” within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Securities or of the offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g).

“Issuer General Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a “*bona fide* electronic road show,” as defined in Rule 433), as evidenced by its being specified in Schedule B-2 hereto.

“Issuer Limited Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

“Testing-the-Waters Communication” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the 1933 Act or Rule 163B under the 1933 Act Regulations.

“Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the 1933 Act.

All references in this Agreement to financial statements and schedules and other information which is “contained,” “included” or “stated” (or other references of like import) in the Registration Statement, any preliminary prospectus or the Prospectus shall be deemed to include all such financial statements and schedules and other information incorporated or deemed incorporated by reference in the Registration Statement, any preliminary prospectus or the Prospectus, as the case may be, prior to the execution and delivery of this Agreement; and all references in this Agreement to amendments or supplements to the Registration Statement, any preliminary prospectus or the Prospectus shall be deemed to include the filing of any document under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the “1934 Act”), incorporated or deemed to be incorporated by reference in the Registration Statement, such preliminary prospectus or the Prospectus, as the case may be, at or after the execution and delivery of this Agreement.

SECTION 1. Representations and Warranties.

(a) *Representations and Warranties by the Company.* The Company represents and warrants to each Underwriter as of the date hereof, the Applicable Time and the Closing Time (as defined below), and agrees with each Underwriter, as follows:

(i) Registration Statement and Prospectuses. The Company meets the requirements for use of Form S-3 under the 1933 Act, including General Instruction I.B.1 of Form S-3. Each of the Registration Statement and any amendment thereto has become effective under the 1933 Act. No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued by the Commission under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued by the Commission and no proceedings for any of those purposes have been instituted by the Commission or are pending or, to the Company’s knowledge, contemplated by the Commission. The Company has complied with each request (if any) from the Commission for additional information.

Each of the Registration Statement and any post-effective amendment thereto, at the time of its effectiveness and at each deemed effective date with respect to the Underwriters pursuant to Rule 430B(f)(2) under the 1933 Act Regulations, complied in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus, the Prospectus and any amendment or supplement thereto, at the time each was filed with the Commission, complied in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus delivered to the Underwriters for use in connection with the offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

The documents incorporated or deemed to be incorporated by reference in the Registration Statement and the Prospectus, when they became effective or at the time they were or hereafter are filed with the Commission, complied and will comply in all material respects with the requirements of the 1934 Act and the rules and regulations of the Commission under the 1934 Act (the “1934 Act Regulations”).

The Registration Statement, any preliminary prospectus and the Prospectus, and the filing of the Registration Statement, any preliminary prospectus and the Prospectus with the Commission have been duly authorized by and on behalf of the Company, and the Registration Statement has been duly executed pursuant to such authorization.

(ii) Accurate Disclosure. Neither the Registration Statement nor any amendment thereto, at its effective time or at the Closing Time, contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Applicable Time, none of (A) the General Disclosure Package, (B) any individual Issuer Limited Use Free Writing Prospectus, when considered together with the General Disclosure Package, nor (C) any individual Written Testing-the-Waters Communication, when considered together with the General Disclosure Package, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. Neither the Prospectus nor any amendment or supplement thereto (including any prospectus wrapper), as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b) or at the Closing Time, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The documents incorporated or deemed to be incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, at the time the Registration Statement became effective or when such documents incorporated by reference were filed with the Commission, as the case may be, when read together with the other information in the Registration Statement, the General Disclosure Package or the Prospectus, as the case may be, did not and will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

The representations and warranties in this subsection shall not apply to statements in or omissions from the Registration Statement (or any amendment thereto), the General Disclosure Package or the Prospectus (or any amendment or supplement thereto, including any prospectus wrapper) made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through the Representative expressly for use therein. For purposes of this Agreement, the only information so furnished shall be the information in the first sentence of the fifth paragraph and the second sentence of the twelfth paragraph, under the caption “Underwriting,” in each case contained in the Prospectus (collectively, the “Underwriter Information”).

(iii) Issuer Free Writing Prospectuses. No Issuer Free Writing Prospectus conflicts or will conflict with the information contained in the Registration Statement, the General Disclosure Package or the Prospectus, including any document incorporated by reference therein, and any preliminary or other prospectus deemed to be a part thereof that has not been superseded or modified. No filing of any “road show” (as defined in Rule 433(h)) is required in connection with the offering of the Securities. Any Issuer Free Writing Prospectus that the Company is required to file pursuant to Rule 433(d) has been, or will be, filed with the Commission in accordance with the requirements of the 1933 Act and the 1933 Act Regulations. Each Issuer Free Writing Prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) or that was prepared by or behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Except for the Issuer Free Writing Prospectuses, if any, identified in Schedule B-2 hereto, and electronic road shows, if any, each furnished to the Representative before first use, the Company has not prepared, used or referred to, and will not, without the prior consent of the Representative, prepare, use or refer to, any issuer free writing prospectus.

(iv) Testing-the-Waters Materials. The Company (A) has not engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Representative with entities that are qualified institutional buyers within the meaning of Rule 144A under the 1933 Act Regulations or institutions that are accredited investors within the meaning of Rule 501 under the 1933 Act Regulations and (B) has not authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company reconfirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule B-3 hereto.

(v) Company Not Ineligible Issuer. At the time of filing the Registration Statement and (ii) at the time of the execution of this Agreement (with such date being used as the determination date for purposes of this clause (ii)), the Company was not and is not an “ineligible issuer” (as defined in Rule 405), without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

(vi) Independent Accountants. To the Company’s knowledge, Grassi & Co. CPAs, P.C. is (i) an independent public accountant as required by the 1933 Act, the 1933 Act Regulations, the 1934 Act, the 1934 Act Regulations and the Public Company Accounting Oversight Board (United States) (“PCAOB”), (ii) in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X under the 1933 Act, and (iii) a registered public accounting firm as defined by the PCAOB whose registration has not been suspended or revoked and who has not requested such registration to be withdrawn. Such accountants have not been engaged by the Company to perform any “prohibited activities” or provided to the Company any “non-audit services” (as defined in Section 10A of the 1934 Act).

(vii) Financial Statements. The financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, together with the related schedules and notes, comply as to form in all material respects with Regulation S-X under the 1933 Act and present fairly, in all material respects, the financial position of the Company and its consolidated Subsidiaries (as defined below) at the dates indicated and the statement of operations, stockholders’ equity and cash flows of the Company and its consolidated Subsidiaries for the periods specified; said financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”) applied on a consistent basis throughout the periods involved. The supporting schedules, if any, present fairly, in all material respects, in accordance with GAAP the information required to be stated therein. The selected financial data and the summary financial information included in the Registration Statement, the General Disclosure Package and the Prospectus present fairly, in all material respects, the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included or incorporated by reference in the Registration Statement, the General Disclosure Package or the Prospectus under the 1933 Act or the 1933 Act Regulations. The interactive data in eXtensible Business Reporting Language incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus fairly presents the information called for in all material respects and has been prepared in accordance with the Commission’s rules and guidelines applicable thereto. There are no off-balance sheet arrangements (as defined in Regulation S-K Item 303(a)(4)(ii) under the 1933 Act Regulations) that have or are reasonably likely to have a material current or future effect on the Company’s financial condition, changes in financial condition, results of operations, liquidity, capital expenditures or capital resources.

(viii) Compliance with the Sarbanes-Oxley Act of 2002. There is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply in all material respects with any provision of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith, including Section 402 related to loans and Sections 302 and 906 related to certifications.

(ix) No Material Adverse Change in Business. Except as otherwise stated therein, since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, (A) there has been no material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or prospects of the Company and its Subsidiaries (as defined below) considered as one enterprise, whether or not arising in the ordinary course of business (a "Material Adverse Effect"), (B) there have been no transactions entered into by the Company or any of its Subsidiaries, other than those in the ordinary course of business, which are material with respect to the Company and its Subsidiaries considered as one enterprise, (C) there have been no material liabilities or obligations, direct or contingent, entered into by the Company or any of its Subsidiaries and (D) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

(x) Good Standing of the Company. The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the State of Delaware and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus and to enter into and perform its obligations under this Agreement; and the Company is duly qualified as a foreign corporation to transact business and is in good standing in each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except to the extent that the failure to be so qualified or in good standing could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(xi) Good Standing of the Company's Subsidiaries. Each subsidiary of the Company (each, a "Subsidiary" and, collectively, the "Subsidiaries") has been duly organized and is validly existing in good standing under the laws of the jurisdiction of its incorporation or organization, has corporate or similar power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except to the extent that the failure to be so qualified or in good standing could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. All of the issued and outstanding share capital or other equity or ownership interests of each Subsidiary has been duly authorized and validly issued, is fully paid and non-assessable and is owned by the Company, directly or through Subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, or adverse claim. None of the outstanding shares of capital stock of any Subsidiary was issued in violation of the preemptive or similar rights of any securityholder of such Subsidiary. The only Subsidiaries of the Company are the entities listed on Exhibit 21.1 to the Company's most recent Annual Report on Form 10-K filed with the Commission.

(xii) Capitalization. The authorized, issued and outstanding shares of capital stock of the Company are as set forth in the financial statements incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus (except for subsequent issuances, if any, (A) pursuant to this Agreement and the Securities, (B) pursuant to reservations, agreements or employee benefit plans referred to in the Registration Statement, the General Disclosure Package and the Prospectus or (C) pursuant to the conversion of convertible securities, exercise of options or vesting of restricted stock units referred to in the Registration Statement, the General Disclosure Package and the Prospectus). The outstanding shares of capital stock of the Company have been duly authorized and are validly issued, fully paid and non-assessable. None of the outstanding shares of capital stock of the Company was issued in violation of the preemptive or other similar rights of any securityholder of the Company.

(xiii) Authorization of Agreement. This Agreement has been duly authorized, executed and delivered by the Company. The Company has full right, power and authority to execute and deliver this Agreement and to perform its obligations hereunder; and all action required to be taken for the due and proper authorization, execution and delivery by the Company of this Agreement and the consummation by the Company of the transactions contemplated hereby has been duly and validly taken.

(xiv) Authorization and Description of Securities. The Securities to be purchased by the Underwriters from the Company have been duly authorized for issuance and sale to the Underwriters pursuant to this Agreement and, when executed and delivered by the Company, will be valid and binding agreements of the Company, enforceable against the Company in accordance with their respective terms, except as the enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles. The Warrant Shares have been duly authorized and validly reserved for issuance upon exercise of the Securities in a number sufficient to meet the current exercise requirements. The Warrant Shares, when issued and delivered upon exercise of the Securities in accordance therewith, will be validly issued, fully paid and nonassessable, and the issuance of the Warrant Shares is not subject to any preemptive or similar rights. The issuance and sale of the Securities as contemplated hereby will not cause any holder of any share capital, securities convertible into or exchangeable or exercisable for share capital or options, warrants or other rights to purchase share capital or any other securities of the Company to have any right to acquire any shares of capital stock of the Company. The Common Stock and the Securities conform to all statements relating thereto contained in the Registration Statement, the General Disclosure Package and the Prospectus and such description conforms to the rights set forth in the instruments defining the same. No holder of Securities will be subject to personal liability by reason of being such a holder. There are no restrictions upon the voting or transfer of the Common Stock under the Company's certificate of incorporation, as amended, second amended and restated bylaws or any agreement or other instrument to which the Company is a party or otherwise filed as an exhibit to the Registration Statement.

(xv) Registration and Other Rights. There are no persons with registration rights, participation rights, rights of first refusal, rights of first offer or other similar rights to have any securities registered for sale pursuant to the Registration Statement or otherwise registered for sale or sold by the Company under the 1933 Act pursuant to this Agreement, or otherwise to purchase the Securities offered hereby.

(xvi) Absence of Violations, Defaults and Conflicts. Neither the Company nor any Subsidiary is (A) in violation of its charter, by-laws or similar organizational document, (B) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any Subsidiary is a party or by which either of them may be bound or to which any of the properties or assets of the Company or any Subsidiary is subject (collectively, “Agreements and Instruments”), or (C) in violation of any law, statute, rule, regulation, judgment, order, writ or decree of any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency having jurisdiction over the Company or its Subsidiaries or any of their respective properties, assets or operations (each, a “Governmental Entity”), which default or violation would, with respect to clauses (B) and (C,) reasonably be expected to result in a Material Adverse Effect. The execution, delivery and performance of this Agreement and the Securities, and the consummation of the transactions contemplated herein and in the Registration Statement, the General Disclosure Package and the Prospectus (including the issuance and sale of the Securities and the use of the proceeds from the sale of the Securities as described therein under the caption “Use of Proceeds”) and compliance by the Company with its obligations hereunder have been duly authorized by all necessary corporate action and do not and will not, whether with or without the giving of notice or passage of time or both, conflict with or constitute a material breach of, or material default or Repayment Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or its Subsidiaries pursuant to, the Agreements and Instruments, nor will such action result in any violation of the provisions of the charter, by-laws or similar organizational document of the Company or its Subsidiaries or any law, statute, rule, regulation, judgment, order, writ or decree of any Governmental Entity. As used herein, a “Repayment Event” means any event or condition which gives the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or its Subsidiaries.

(xvii) Listing. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the 1934 Act and listed on the Nasdaq Capital Market, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the 1934 Act or delisting the Common Stock from the Nasdaq Capital Market, nor has the Company received any notification that the Commission or Nasdaq Capital Market is contemplating terminating such registration or listing except as otherwise stated in the Registration Statement, the General Disclosure Package or the Prospectus,. Except as otherwise stated in the Registration Statement, the General Disclosure Package or the Prospectus, the Company is in compliance with all applicable listing requirements of the Nasdaq Capital Market.

(xviii) Absence of Labor Dispute. No labor dispute with the employees of the Company or its Subsidiaries exists or, to the knowledge of the Company, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its Subsidiaries’ principal suppliers, manufacturers, customers or contractors, which, in either case, would result in a Material Adverse Effect.

(xix) Absence of Proceedings. There is no action, suit, proceeding, inquiry or investigation before or brought by any Governmental Entity (including, without limitation, any action, suit proceeding, inquiry or investigation before or brought by the U.S. Food and Drug Administration (the “FDA”) or the European Medicines Agency (the “EMA”)) now pending or, to the knowledge of the Company, threatened, against or affecting the Company or its Subsidiaries, which would reasonably be expected to result in a Material Adverse Effect, or which would reasonably be expected to materially and adversely affect their respective properties or assets or the consummation of the transactions contemplated in this Agreement or the Securities or the performance by the Company of its obligations hereunder or thereunder; and the aggregate of all pending legal or governmental proceedings to which the Company or any such Subsidiary is a party or of which any of their respective properties or assets is the subject which are not described in the Registration Statement, the General Disclosure Package and the Prospectus, including ordinary routine litigation incidental to the business, would not reasonably be expected to result in a Material Adverse Effect.

(xx) Accuracy of Exhibits. There are no statutes, regulations, contracts or documents which are required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or to be filed as exhibits to the Registration Statement which have not been so described and filed as required.

(xxi) Absence of Further Requirements. No filing with, or authorization, approval, consent, license, order, registration, qualification or decree of, any Governmental Entity is necessary or required for the performance by the Company of its obligations hereunder, in connection with the offering, issuance or sale of the Securities hereunder or the consummation of the transactions contemplated by this Agreement or the Securities, except such as have been already obtained or as may be required under the 1933 Act, the 1933 Act Regulations, the rules of the NASDAQ Stock Market LLC, state securities laws or the rules of FINRA.

(xxii) Possession of Licenses and Permits. The Company and its Subsidiaries possess such permits, licenses, approvals, consents and other authorizations (collectively, “Governmental Licenses”) issued by the appropriate Governmental Entities necessary to conduct the business now operated by them (including, without limitation, all such permits, licenses, approvals, consents and other authorizations required by the FDA, the EMA, or any other federal, state, local or foreign agencies or bodies engaged in the regulation of clinical or preclinical studies, pharmaceuticals, biologics, biohazardous substances or activities related to the business now operated by the Company and its Subsidiaries). The Company and its Subsidiaries are in compliance with the material terms and conditions of all Governmental Licenses. The Company has fulfilled and performed all of its material obligations with respect to the Governmental Licenses and no event has occurred which allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other material impairment of the rights of the Company as a holder of any permit. All of the Governmental Licenses are valid and in full force and effect. Neither the Company nor its Subsidiaries has received any written or, to the Company’s knowledge, oral notice of proceedings relating to the revocation or modification of any Governmental Licenses which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would result in a Material Adverse Effect.

(xxiii) Title to Property. The Company and its Subsidiaries have good and marketable title in fee simple to all real property owned by them and good title to all other properties owned by them, in each case, free and clear of all mortgages, pledges, liens, security interests, claims, restrictions or encumbrances of any kind except such as (A) are described in the Registration Statement, the General Disclosure Package and the Prospectus or (B) do not, singly or in the aggregate, materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company or its Subsidiaries; and all of the leases and subleases material to the business of the Company and its Subsidiaries, considered as one enterprise, and under which the Company or its Subsidiaries holds properties described in the Registration Statement, the General Disclosure Package or the Prospectus, are in full force and effect, and neither the Company nor any such Subsidiary has any written or, to the Company’s knowledge, oral notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(xxiv) Title to Intellectual Property. The Company owns or has valid, binding and enforceable licenses or other rights under the patents, patent applications, licenses, inventions, copyrights, know how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, trade names or other intellectual property necessary for, or used in the conduct, or the proposed conduct, of the business of the Company in the manner described in the Registration Statement, the General Disclosure Package and the Prospectus (collectively, the “Intellectual Property”); the patents, trademarks, and copyrights, if any, included within the Intellectual Property are valid, enforceable, and subsisting; (A) neither the Company nor any of its Subsidiaries is obligated to pay a material royalty, grant a license to, or provide other material consideration to any third party in connection with the Intellectual Property, (B) neither the Company nor any of its Subsidiaries has received any written or, to the Company’s knowledge, oral notice of any claim of infringement, misappropriation or conflict with any asserted rights of others with respect to any of the Company’s drug candidates, services, processes or Intellectual Property, (C) Neither the sale nor use of any of the discoveries, inventions, drug candidates, services or processes of the Company and its Subsidiaries referred to in the Registration Statement, the General Disclosure Package or the Prospectus or the conduct of their respective businesses, and the proposed conduct of their businesses do or will infringe, misappropriate or violate any right or valid patent claim of any third party, (D) none of the technology employed by the Company has been obtained or is being used by the Company in material violation of any contractual obligation binding on the Company or, to the Company’s knowledge, upon any of its officers, directors or employees or otherwise in violation of the rights of any persons, (E) no third party has any ownership right or other right in or to any Intellectual Property that is owned by the Company, other than any co-owner of any patent constituting Intellectual Property who is listed on the records of the U.S. Patent and Trademark Office (the “USPTO”) and any co-owner of any patent application constituting Intellectual Property who is named in such patent application, and no third party has any ownership right in or to any Intellectual Property in any field of use that is exclusively licensed to the Company, other than any licensor to the Company of such Intellectual Property, (F) there is no material infringement by third parties of any Intellectual Property, (G) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the Company’s rights in or to any Intellectual Property, and (H) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the validity or scope of any Intellectual Property. The Company has been and is in compliance with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company, and all such agreements are in full force and effect. The Intellectual Property is free and clear of all material liens, security interests, or encumbrances, other than non-exclusive licenses granted in the ordinary course of business.

(xxv) Patents and Patent Applications. All patents and patent applications owned by or licensed to the Company or under which the Company has rights have been duly and properly filed and maintained; the parties prosecuting such patent applications have complied with their duty of candor and disclosure to the USPTO in connection with such applications; and the Company is not aware of any facts required to be disclosed to the USPTO that were not disclosed to the USPTO and which would preclude the grant of a patent in connection with any such application or would reasonably be expected to form the basis of a finding of invalidity with respect to any patents that have issued with respect to such applications. The Intellectual Property of the Company has not been adjudged by a court of competent jurisdiction to be invalid or unenforceable, in whole or in part, and the Company is unaware of any facts which would form a reasonable basis for any such adjudication. All patents and patent applications owned by the Company and filed with the USPTO or any foreign or international patent authority (the “Company Patent Rights”) and all patents and patent applications in-licensed by the Company and filed with the USPTO or any foreign or international patent authority (the “In-licensed Patent Rights”) have been duly and properly filed; there are no material defects in any of the patents or patent applications, trademark applications or trademark registration, or copyright registrations included in the Intellectual Property. There is no infringement, misappropriation or other violation by third parties of any Intellectual Property owned by the Company or its Subsidiaries; the Company has complied with its duty of candor and disclosure to the USPTO for the Company Patent Rights and, to the Company’s knowledge, the licensors of the In-licensed Patent Rights have complied with their duty of candor and disclosure to the USPTO for the In-licensed Patent Rights. The Company and its Subsidiaries have taken all reasonable steps to protect, maintain and safeguard the Intellectual Property, including payment of applicable maintenance fees, filing of applicable statements of use, timely responding to office actions, complying with the duties of candor and good faith required by the USPTO, and the disclosure of any required information, and the execution of appropriate nondisclosure, confidentiality agreements, invention or intellectual property assignments or assignment agreements with their employees, consultants and contractors. All personnel (including founders, current and former employees, consultants, contractors, representatives, and agents) involved in the development of Intellectual Property have signed written and enforceable confidentiality and invention assignment agreements with the Company or any of its Subsidiaries pursuant to which the Company or any of its Subsidiaries either (A) has obtained sole and exclusive ownership of such Intellectual Property, or (B) has obtained a valid right to exploit such Intellectual Property, sufficient for the conduct of the business as currently conducted and as proposed to be conducted. No employee, consultant or independent contractor of the Company or any of its Subsidiaries is in or has ever been in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement nondisclosure agreement or any restrictive covenant to or with a former employer or independent contractor, where the basis of such violation relates to such employee’s employment or independent contractor’s engagement with the Company or any of its Subsidiaries or actions undertaken while employed or engaged with the Company or any of its Subsidiaries. The Company and each of its Subsidiaries have taken reasonable measures to protect their confidential information and trade secrets, including the execution of appropriate nondisclosure and confidentiality agreements.

(xxvi) **FDA Compliance.** The Company and its Subsidiaries and their respective directors, officers, employees, agents, affiliates and representatives (A) are and at all times have been in material compliance with all statutes, rules or regulations of the FDA and other comparable Governmental Entities applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product under development, manufactured or distributed by the Company (“**Applicable Laws**”); (B) have not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or written or, to the Company’s knowledge, oral notice from the FDA or any Governmental Entity alleging or asserting material noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, exemptions, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws (“**Authorizations**”); (C) possess all material Authorizations and such Authorizations are valid and in full force and effect and the Company is not in material violation of any term of any such Authorizations; (D) have not received written or, to the Company’s knowledge, oral notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from the FDA or any Governmental Entity or third party alleging that any product operation or activity is in material violation of any Applicable Laws or Authorizations and has no knowledge that the FDA or any Governmental Entity or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) have not received written or, to the Company’s knowledge, oral notice that the FDA or any Governmental Entity has taken, is taking or intends to take action to limit, suspend, modify or revoke any material Authorizations and has no knowledge that the FDA or any Governmental Entity is considering such action; and (F) have filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were materially complete and correct on the date filed (or were corrected or supplemented by a subsequent submission). Neither the Company nor its Subsidiaries nor any of its or their respective directors, officers, employees, agents or clinical investigators, has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion, or has been convicted of any crime or engaged in any conduct that would reasonably be expected to result in debarment under 42 U.S.C. § 1320a-7 or 21 U.S.C. § 335a. The Company has not failed to file with the FDA or any Governmental Entity any required filing, declaration, listing, registration, report or submission with respect to the Company’s product candidates that are described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus; all such filings, declarations, listings, registrations, reports or submissions were in material compliance with applicable laws when filed, or amended or supplemented in material compliance with applicable laws; and no material deficiencies regarding compliance with applicable law have been asserted by any applicable regulatory authority with respect to any such filings, declarations, listings, registrations, reports or submissions, or amendments or supplements thereof.

(xxvii) **Compliance with Health Care Laws.** The Company and its Subsidiaries and its and their respective directors, officers, employees, agents and clinical investigators, have operated and currently is in compliance with all applicable health care laws, rules and regulations (except where such failure to operate or non-compliance would not, singly or in the aggregate, result in a Material Adverse Effect), including, without limitation, (i) the Federal, Food, Drug and Cosmetic Act (21 U.S.C. §§ 301 et seq.); (ii) all applicable federal, state, local and all applicable foreign healthcare related fraud and abuse laws, including, without limitation, the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the U.S. Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to healthcare fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, the healthcare fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“**HIPAA**”) (42 U.S.C. Section 1320d et seq.), the exclusion laws (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a); (iii) HIPAA, as amended by the Health Information Technology for Economic Clinical Health Act (42 U.S.C. Section 17921 et seq.); (iv) the regulations promulgated pursuant to such laws; and (v) any other similar local, state, federal, or foreign laws (collectively, the “**Health Care Laws**”). Neither the Company nor its Subsidiaries nor any of its of their respective officers, directors, employees or agents have engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state or federal healthcare program. The Company has not received written notice or other correspondence of any claim, action, suit, audit, survey, proceeding, hearing, enforcement, investigation, arbitration or other action (“**Action**”) from any court or arbitrator or governmental or regulatory authority or third party alleging that any product operation or activity is in violation of any Health Care Laws, and, to the Company’s knowledge, no such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action is threatened. The Company is not a party to and does not have any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any governmental or regulatory authority. Additionally, neither the Company nor its Subsidiaries nor any of its of their respective employees, officers or directors, has been excluded, suspended or debarred from participation in any U.S. state or federal health care program or human clinical research or is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

(xxviii) Product Manufacturing. The manufacture of the Company's product candidates and third-party product candidates, whether by or on behalf of the Company or any of its Subsidiaries, is and has been conducted in compliance in all material respects with all applicable Health Care Laws, including, without limitation, the FDA's current good manufacturing practice and good laboratory practices regulations for products prepared for clinical trials or sold in the United States, and the respective counterparts thereof promulgated by governmental authorities in countries outside the United States. Neither the Company nor any of its Subsidiaries has had any product or manufacturing site (whether Company-owned or that of a contract manufacturer for the Company's products) subject to a governmental authority (including FDA) shutdown or import or export prohibition, nor received any FDA Form-483 or other governmental authority written or, to the Company's knowledge, oral notice of inspectional observations, "warning letters," "untitled letters," requests to make changes to the Company's products, processes or operations, or similar correspondence or written or, to the Company's knowledge, oral notice from the FDA or other governmental authority alleging or asserting material noncompliance with any applicable Health Care Laws. To the Company's knowledge, neither the FDA nor any other governmental authority is considering such action.

(xxix) Environmental Laws. Except for violations or non-compliance that would not reasonably be expected to result in a Material Adverse Effect (A) Neither the Company nor any Subsidiary is or was in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products, asbestos-containing materials or mold (collectively, "Hazardous Materials") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "Environmental Laws"), (B) the Company and its Subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements, (C) there are no pending or, to the knowledge of the Company threatened, administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, written or, to the Company's knowledge, oral notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any Subsidiary and (D) there are no events or circumstances that would reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or Governmental Entity, against or affecting the Company or any Subsidiary relating to Hazardous Materials or any Environmental Laws.

(xxx) Accounting Controls and Disclosure Controls. The Company and each of its Subsidiaries maintain effective internal control over financial reporting (as defined under Rule 13-a15 and 15d-15 under the rules and regulations of the Commission under the 1934 Act Regulations) and a system of internal accounting controls sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (E) the interactive data in eXtensible Business Reporting Language incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Since the end of the Company's most recent audited fiscal year, there has been (1) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (2) no change in the Company's internal control over financial reporting that has materially adversely affected, or is reasonably likely to materially adversely affect, the Company's internal control over financial reporting. The Company and each of its Subsidiaries maintain an effective system of disclosure controls and procedures (as defined in Rule 13a-15 and Rule 15d-15 under the 1934 Act Regulations) that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the 1934 Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms, and is accumulated and communicated to the Company's management, including its principal executive officer or officers and principal financial officer or officers, as appropriate, to allow timely decisions regarding disclosure. Since the date of the latest audited financial statements included in the General Disclosure Package, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(xxxi) Tests and Preclinical and Clinical Trials. The studies, tests and preclinical studies and clinical trials conducted by or on behalf of the Company were and, if still ongoing, are being conducted in all material respects in accordance with experimental protocols submitted to the FDA or any foreign governmental body exercising comparable authority, procedures and controls pursuant to accepted professional scientific standards and all Authorizations and Applicable Laws, including, without limitation, the Federal Food, Drug and Cosmetic Act and the rules and regulations promulgated thereunder (collectively, "FFDCA"); the descriptions of the results of such studies, tests and trials contained in the Registration Statement, the General Disclosure Package and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such studies, tests and trials; the Company is not aware of any studies, tests or trials, the results of which the Company believes reasonably call into question the study, test, or trial results described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus when viewed in the context in which such results are described and the clinical state of development; and, the Company has not received any written or, to the Company's knowledge, oral (A) notices or (B) correspondence from the FDA or any Governmental Entity requiring the termination or suspension of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company, other than ordinary course communications with respect to modifications in connection with the design and implementation of such trials, copies of which communications have been made available to you.

(xxxii) Payment of Taxes. All United States federal income tax returns of the Company and its Subsidiaries required by law to be filed have been filed and all taxes shown by such returns or otherwise assessed, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided in conformity with GAAP. The United States federal income tax returns of the Company through the fiscal year ended June 30, 2024 have been settled and no assessment in connection therewith has been made against the Company. The Company and its Subsidiaries have filed all other tax returns that are required to have been filed by them pursuant to applicable foreign, state, local or other law except insofar as the failure to file such returns would not result in a Material Adverse Effect, and have paid all taxes due pursuant to such returns or pursuant to any assessment received by the Company and its Subsidiaries, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been established by the Company. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are, in conformity with GAAP, adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not result in a Material Adverse Effect. No tax deficiency has been determined adversely to the Company or any of its Subsidiaries which has had (nor does the Company nor any of its Subsidiaries have any notice or knowledge of any tax deficiency that could reasonably be expected to be determined adversely to the Company or its Subsidiaries and that could reasonably be expected to have) a Material Adverse Effect and no audit or other examination of or with respect to any tax return or taxes of the Company or any of its Subsidiaries is presently in progress, nor has the Company or any of its Subsidiaries been notified in writing of any request for an audit or other examination that has not been finally resolved.

(xxxiii) Insurance. The Company and its Subsidiaries carry or are entitled to the benefits of insurance, with financially sound and reputable insurers, in such amounts and covering such risks as is generally maintained by companies of established repute engaged in the same or similar business, and all such insurance is in full force and effect. The Company has no reason to believe that it or its Subsidiaries will not be able (A) to renew its existing insurance coverage as and when such policies expire or (B) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Effect. Neither of the Company nor its Subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

(xxxiv) Investment Company Act. The Company is not required, and upon the issuance and sale of the Securities as herein contemplated and the application of the net proceeds therefrom as described in the Registration Statement, the General Disclosure Package and the Prospectus will not be required, to register as an “investment company” under the Investment Company Act of 1940, as amended (the “1940 Act”).

(xxxv) Absence of Manipulation. Neither the Company nor any affiliate of the Company has taken which is designed, or would be expected, to cause or result in, or which constitutes, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or to result in a violation of Regulation M under the 1934 Act.

(xxxvi) Foreign Corrupt Practices. None of the Company or any of its Subsidiaries or affiliates, or to the Company's knowledge, any director, officer, employee, agent or other person associated with or acting on behalf of the Company or any of its Subsidiaries or affiliates has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA"), the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption laws (collectively with the FCPA, "Foreign Corrupt Practices Laws"), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA and the Company has and, its affiliates have conducted their businesses in compliance with the Foreign Corrupt Practices Laws and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith. The Company will not directly or indirectly use the proceeds of the sale of the Securities, or lend, contribute or otherwise make available such proceeds, in any manner that will result in a violation by any Person (including any Person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of applicable Foreign Corrupt Practices Laws.

(xxxvii) Money Laundering Laws. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company or its Subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(xxxviii) OFAC. None of the Company or any of its Subsidiaries, or to the Company's knowledge, any director, officer, employee agent, affiliate or other person associated with or acting on behalf of the Company or any of its Subsidiaries is an individual or entity ("Person") currently the subject or target of any sanctions administered or enforced by the United States Government, including, without limitation, the U.S. Department of the Treasury's Office of Foreign Assets Control, the United Nations Security Council, the European Union, His Majesty's Treasury, or other relevant sanctions authority (collectively, "Sanctions"), nor is the Company located, organized or resident in a country or territory that is the subject of Sanctions; and the Company will not directly or indirectly use the proceeds of the sale of the Securities, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partners or other Person, to fund any activities of or business with any Person, or in any country or territory, that, at the time of such funding, is the subject of Sanctions or in any other manner that will result in a violation by any Person (including any Person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions. The Company and its Subsidiaries have not engaged in, are not now engaged in and will not engage in any dealings or transactions involving any country or territory subject to Sanctions or any person or entity, that, at the time of such dealing or transaction, is or was the subject or the target of Sanctions; the Company and its Subsidiaries have instituted, and maintain, policies and procedures designed to promote and achieve continued compliance with Sanctions.

(xxxix) Lending Relationship. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company (i) does not have any material lending or other relationship with any banking or lending affiliate of any Underwriter and (ii) does not intend to use any of the proceeds from the sale of the Securities to repay any outstanding debt owed to any affiliate of any Underwriter.

(xl) Statistical and Market-Related Data. Any statistical and market-related data included in the Registration Statement, the General Disclosure Package or the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate and, to the extent required, the Company has obtained the written consent to the use of such data from such sources.

(xli) Forward-Looking Statements. No forward-looking statement (within the meaning of Section 27A of the 1933 Act and Section 21E of the 1934 Act) included or incorporated by reference in any of the Registration Statement, the General Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(xlii) Maintenance of Rating. The Company has no debt securities or preferred stock that is rated by any “nationally recognized statistical rating organization” (as that term is defined by the Commission for purposes of Rule 436(g)(2) under the 1933 Act).

(xliii) Privacy and Data Protection. The Company and its Subsidiaries have operated their business in a manner compliant in all material respects with all United States federal, state, local and non-United States privacy, data security and data protection laws and regulations applicable to the Company’s collection, use, transfer, protection, disposal, disclosure, handling, storage and analysis of personal data (“Privacy Laws”). The Company and its Subsidiaries have been and are in compliance in all material respects with internal policies and procedures designed to protect the integrity and security of the personal data collected, handled or stored in connection with its business; the Company and its Subsidiaries have been and are in compliance in all material respects with all Company internal policies and procedures relating to compliance with applicable Health Care Laws that govern privacy and data security and take, and have taken reasonably appropriate steps designed to maintain compliance with such policies and procedures. The Company and its Subsidiaries have taken reasonable steps to maintain the confidentiality of its personally identifiable information, protected health information, consumer information and other confidential information of the Company, its Subsidiaries and any third parties in its possession (“Sensitive Company Data”). The tangible or digital information technology systems (including computers, screens, servers, workstations, routers, hubs, switches, networks, data communications lines, technical data and hardware), software and telecommunications systems used or held for use by the Company and its Subsidiaries (the “Company IT Assets”) are (A) adequate and operational for, in material conformance with their documentation and functional specifications, the business of the Company and its Subsidiaries as currently operated as described in the Registration Statement, the General Disclosure Package and the Prospectus and (B) to the knowledge of the Company, free and clear of Trojan horses, time bombs, malware, harmful code or other corruptants. The Company and its Subsidiaries have used reasonable efforts to establish, and have established, commercially reasonable disaster recovery and security plans, procedures and facilities for the business consistent with industry standards and practices in all material respects, including, without limitation, for the Company IT Assets and data held or used by or for the Company and its Subsidiaries. The Company and its Subsidiaries have not suffered or incurred any security breaches, compromises or incidents with respect to any Company IT Asset or Sensitive Company Data; and there has been no unauthorized or illegal use of or access to any Company IT Asset or Sensitive Company Data by any unauthorized third party. The Company and its Subsidiaries have not been required to notify any individual of any information security breach, compromise or incident involving Sensitive Company Data. The Company and its Subsidiaries have at all times complied in all material respects with all of the following, as they relate to the protection, collection, use, disclosure, transfer, storage, disposal, confidentiality, integrity, availability, processing, privacy and security of Company IT Assets and Sensitive Company Data: (A) Privacy Laws; (B) all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority; (C) internal or external policies; and (D) contractual obligations (collectively, “Data Protection Requirements”). The Company and each of its Subsidiaries (A) have not received notice of any actual or potential liability under or relating to, or actual or potential violation of, Data Protection Requirements, (B) have no knowledge of any fact or circumstance that would reasonably indicate the Company or one of its Subsidiaries is not in compliance with any of the Data Protection Requirements; (C) are not currently participating, in whole or in part, in any investigation, remediation or other corrective action relating to any of the Data Protection Requirements; and (D) are not a party to any order, decree or agreement by any court or arbitrator or governmental or regulatory authority that imposes any obligation or liability relating to any Data Protection Requirement.

(xiv) No Broker Fees. Except as disclosed in the General Disclosure Package, there are no contracts, agreements or understandings between the Company and any person that would give rise to a valid claim against the Company or any Underwriter for a brokerage commission, finder's fee or other like payment in connection with the offering of the Securities contemplated hereby.

(xiv) ERISA. (A) Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), for which the Company or any member of its "Controlled Group" (defined as any entity, whether or not incorporated, that is under common control with the Company within the meaning of Section 4001(a)(14) of ERISA or any entity that would be regarded as a single employer with the Company under Section 414(b), (c), (m) or (o) of the Internal Revenue Code of 1986, as amended (the "Code")) would have any liability (each, a "Plan") has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Code; (B) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan, excluding transactions effected pursuant to a statutory or administrative exemption; (C) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no Plan has failed (whether or not waived), or is reasonably expected to fail, to satisfy the minimum funding standards (within the meaning of Section 302 of ERISA or Section 412 of the Code) applicable to such Plan; (D) no Plan is, or is reasonably expected to be, in "at risk status" (within the meaning of Section 303(i) of ERISA) and no Plan that is a "multiemployer plan" within the meaning of Section 4001(a)(3) of ERISA is in "endangered status" or "critical status" (within the meaning of Sections 304 and 305 of ERISA); (E) the fair market value of the assets of each Plan exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (F) no "reportable event" (within the meaning of Section 4043(c) of ERISA and the regulations promulgated thereunder) has occurred or is reasonably expected to occur; (G) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification; (H) neither the Company nor any member of the Controlled Group has incurred, nor reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guarantee Corporation, in the ordinary course and without default) in respect of a Plan (including a "multiemployer plan" within the meaning of Section 4001(a)(3) of ERISA); and (I) none of the following events has occurred or is reasonably likely to occur: (1) a material increase in the aggregate amount of contributions required to be made to all Plans by the Company or its Controlled Group affiliates in the current fiscal year of the Company and its Controlled Group affiliates compared to the amount of such contributions made in the Company's and its Controlled Group affiliates' most recently completed fiscal year; or (2) a material increase in the Company and its Subsidiaries' "accumulated post-retirement benefit obligations" (within the meaning of Accounting Standards Codification Topic 715-60) compared to the amount of such obligations in the Company and its Subsidiaries' most recently completed fiscal year, except in each case with respect to the events or conditions set forth in (A) through (I) hereof, as would not, individually or in the aggregate, have a Material Adverse Effect.

(xlvi) Smaller Reporting Company Status. From the time of the initial filing of the Registration Statement with the Commission (or, if earlier, the first date on which the Company engaged directly or through any individual or entity authorized to act on its behalf in any Testing-the-Waters Communication) through the date hereof, the Company has been and is a “smaller reporting company,” as defined in Rule 12b-2 under the 1934 Act Regulations and in Rule 405 under the 1933 Act Regulations.

(xlvii) Outbound Investments. Neither the Company nor any of its Subsidiaries is a “covered foreign person,” as that term is defined in 31 C.F.R. § 850.209. Neither the Company nor any of its Subsidiaries currently engages, or has plans to engage, directly or indirectly, in a “covered activity” or “covered transaction,” as such terms are defined in 31 C.F.R. § 850.208 and 31 C.F.R. § 850.209, respectively, any other activity that would cause the Underwriters to be in violation of the Outbound Investment Rules or cause the Underwriters to be legally prohibited by the Outbound Investment Rules from performing under this Agreement (“Covered Activity”). Neither the Company nor any of its Subsidiaries is a “covered foreign person,” as that term is defined in 31 C.F.R. § 850.209. The Company does not have any joint ventures that engages in or plans to engage in any Covered Activity. The Company also does not, directly or indirectly, hold a board seat on, have a voting or equity interest in, or have any contractual power to direct or cause the direction of the management or policies of any person or persons that engages or plans to engage in any Covered Activity. For the purpose of this Agreement, “Outbound Investment Rules” means the regulations administered and enforced, together with any related public guidance issued, by the United States Treasury Department under U.S. Executive Order 14105 of August 9, 2023, or any similar law or regulation as of the date of this Agreement, and as codified at 31 C.F.R. §850.101 et seq.

(b) Officer’s Certificates. Any certificate signed by any officer of the Company or any of its Subsidiaries delivered to the Representative or to counsel for the Underwriters shall be deemed a representation and warranty by the Company to each Underwriter as to the matters covered thereby.

SECTION 2. Sale to Underwriters; Delivery; Closing.

(a) Securities. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company agrees to sell to each Underwriter, severally and not jointly, and each Underwriter, severally and not jointly, agrees to purchase from the Company, at the price set forth in Schedule A, that number of Securities set forth in Schedule A opposite the name of such Underwriter, plus any additional number of Securities which such Underwriter may become obligated to purchase pursuant to the provisions of Section 10 hereof, subject, in each case, to such adjustments among the Underwriters as the Representative in its sole discretion shall make to eliminate any sales or purchases of fractional shares.

(b) Payment. Payment of the purchase price for, and delivery of certificates or security entitlements for, the Securities shall be made at the offices of Covington & Burling LLC, 620 Eighth Avenue, New York, NY 10018 or at such other place as shall be agreed upon by the Representative and the Company, at 10:00 A.M. (New York City time) on August 22, 2025 (unless postponed in accordance with the provisions of Section 10), or such other time not later than ten business days after such date as shall be agreed upon by the Representative and the Company (such time and date of payment and delivery being herein called, the “Closing Time”). The Company shall physically deliver, or cause to be delivered, the Securities as set forth below according to instructions of the Representative at or prior to the Closing Time.

Notwithstanding the foregoing, the Company and the Representative shall instruct purchasers of the Pre-Funded Warrants and Series G Warrants to make payment for the Pre-Funded Warrants and Series G Warrants at the Closing Time to the Company by wire transfer in immediately available funds to the account specified by the Company at a purchase price of \$0.699 per Pre-Funded Warrant and accompanying Series G Warrant, in lieu of payment by the Underwriters for such Pre-Funded Warrants and Series G Warrants, and the Company shall deliver the Pre-Funded Warrants and Series G Warrants to such purchasers at the Closing Time in definitive paper form against such payment, in lieu of the Company's obligation to deliver the Pre-Funded Warrants and Series G Warrants to the Representative. At the Closing Time, the Company shall make payment to the Representative by wire transfer of immediately available funds to a bank account designated by the Representative in an amount equal to \$0.042 per Pre-Funded Warrant and accompanying Series G Warrant. In the event that any purchaser of the Pre-Funded Warrants and Series G Warrants fails to make payment to the Company for all or part of the Pre-Funded Warrants and Series G Warrants at the Closing Time, the Representative shall make payment to the Company for such Pre-Funded Warrants and Series G Warrants at the purchase price to be paid by the several Underwriters as set forth on Schedule A and the Company shall deliver the corresponding Pre-Funded Warrants and Series G Warrants to or as directed by the Representative.

(c) Leerink Partners, individually and not as representatives of the Underwriters, may (but shall not be obligated to) make payment of the purchase price for the Securities or to be purchased by any Underwriter whose funds have not been received by the Closing Time, but such payment shall not relieve such Underwriter from its obligations hereunder.

SECTION 3. Covenants of the Company. The Company covenants with each Underwriter as follows:

(a) *Compliance with Securities Regulations and Commission Requests.* The Company, subject to Section 3(b), will comply with the requirements of Rule 430B, and will notify the Representative as soon as practicable, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective or any amendment or supplement to the Prospectus shall have been filed, (ii) of the receipt of any comments from the Commission, (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus (including any document incorporated by reference therein) or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any preliminary prospectus or the Prospectus, or of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the 1933 Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the 1933 Act in connection with the offering of the Securities. The Company will effect all filings required under Rule 424(b), in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and will take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company will make every reasonable effort to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

(b) *Continued Compliance with Securities Laws.* The Company will comply with the 1933 Act, the 1933 Act Regulations, the 1934 Act and the 1934 Act Regulations so as to permit the completion of the distribution of the Securities as contemplated in this Agreement and in the Registration Statement, the General Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172 of the 1933 Act Regulations (“Rule 172”), would be) required by the 1933 Act to be delivered in connection with sales of the Securities or at any time prior to the date on which the Securities are no longer outstanding, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) amend or supplement the General Disclosure Package or the Prospectus in order that the General Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the General Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the 1933 Act or the 1933 Act Regulations, the Company will promptly (A) give the Representative notice of such event, (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the General Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representative with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Representative or counsel for the Underwriters shall object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representative notice of any filings made pursuant to the 1934 Act or the 1934 Act Regulations within 48 hours prior to the Applicable Time; the Company will give the Representative notice of its intention to make any such filing from the Applicable Time to the Closing Time and will furnish the Representative with copies of any such documents a reasonable amount of time prior to such proposed filing, as the case may be, and will not file or use any such document to which the Representative or counsel for the Underwriters shall reasonably object.

(c) *Delivery of Registration Statements.* The Company has furnished or, if requested, will deliver to the Representative and counsel for the Underwriters, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith or incorporated by reference therein and documents incorporated or deemed incorporated by reference therein) and signed copies of all consents and certificates of experts, and will also deliver to the Representative, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) *Delivery of Prospectuses.* The Company has delivered to each Underwriter, without charge, as many copies of each preliminary prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the 1933 Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(e) *Blue Sky Qualifications.* The Company will use its reasonable best efforts, in cooperation with the Underwriters, to qualify the Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representative may designate and to maintain such qualifications in effect so long as required to complete the distribution of the Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

(f) *Rule 158.* The Company will timely file such reports pursuant to the 1934 Act as are necessary in order to make generally available to its securityholders as soon as practicable an earning statement for the purposes of, and to provide to the Underwriters the benefits contemplated by, the last paragraph of Section 11(a) of the 1933 Act.

(g) *Use of Proceeds.* The Company will use the net proceeds received by it from the sale of the Securities in all material respects in the manner specified in the Registration Statement, the General Disclosure Package and the Prospectus under the heading “Use of Proceeds.”

(h) *Listing.* The Company will use its best efforts to effect and maintain the listing of the Common Stock (including the Warrant Shares) on the Nasdaq Capital Market except in the case of a sale of substantially all of the assets of the Company, a merger or reorganization of the Company with one or more other entities in which the Company is not the surviving entity or any transaction or series of related transactions as a result of which any person (together with its Affiliates) acquires then outstanding securities of the Company representing more than fifty percent (50%) of the voting control of the Company.

(i) *Restriction on Sale of Securities.* During a period of 90 days from the date of the Prospectus, the Company will not, without the prior written consent of the Representative, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or file or confidentially submit any registration statement under the 1933 Act with respect to any of the foregoing, (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Common Stock, whether any such swap or transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (iii) publicly announce an intention to effect any such swap, agreement or other transaction described in clauses (i) and (ii). The foregoing sentence shall not apply to (A) the Securities to be sold hereunder; (B) any shares of Common Stock issued by the Company upon the exercise of an option or warrant or the conversion of a convertible security outstanding on the date hereof and referred to in the Registration Statement, the General Disclosure Package and the Prospectus; (C) any shares of Common Stock issued or options to purchase Common Stock granted pursuant to existing employee benefit plans of the Company referred to in the Registration Statement, the General Disclosure Package and the Prospectus; (D) any shares of Common Stock issued pursuant to any existing non-employee director stock plan or dividend reinvestment plan referred to in the Registration Statement, the General Disclosure Package and the Prospectus; or (E) the filing by the Company of any registration statement on Form S-8 or a successor form thereto.

(j) *Reporting Requirements.* The Company, during the period when a Prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, will file all documents required to be filed with the Commission pursuant to the 1934 Act within the time periods required by the 1934 Act and 1934 Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Securities as may be required under Rule 463 under the 1933 Act.

(k) *Issuer Free Writing Prospectuses.* The Company agrees that, unless it obtains the prior written consent of the Representative, it will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus,” or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the Representative will be deemed to have consented to the Issuer Free Writing Prospectuses listed on Schedule B-2 hereto and any “road show that is a written communication” within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Representative. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Representative as an “issuer free writing prospectus,” as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, any preliminary prospectus or the Prospectus or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(l) *Testing-the-Waters Materials.* If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(m) *Tax Indemnity.* The Company will indemnify and hold harmless the Underwriters against any documentary, stamp or similar issue tax, including any interest and penalties, on the issue and sale of the Securities.

(n) *Transfer Agent.* The Company has engaged and will maintain, at its sole expense, a transfer agent and registrar for the Common Stock.

(o) *SEC Correspondence.* The Company agrees to supply the Underwriters with copies of all correspondence to and from, and all documents issued to and by, the Commission in connection with the registration of the Securities under the 1933 Act or any of the Registration Statement, any preliminary prospectus or the Prospectus, or any amendment or supplement thereto or document incorporated by reference therein.

(p) *Warrant Matters.* The Company shall, at all times while any Securities are outstanding: (i) use reasonable best efforts to maintain a registration statement covering the issue and sale of the Warrant Shares upon exercise of the Securities such that the Warrant Shares, when issued, will not be subject to resale restrictions under the 1933 Act except to the extent that the Warrant Shares are owned by affiliates, and (ii) reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved shares of Common Stock, the number of Warrant Shares that are initially issuable and deliverable upon the exercise of the then-outstanding Securities, solely for the purpose of enabling it to issue Warrant Shares upon exercise of such Securities.

SECTION 4. Payment of Expenses.

(a) *Expenses.* The Company will pay or cause to be paid all of its actual and reasonable documented out-of-pocket expenses incident to the performance of its obligations under this Agreement, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and each amendment thereto, (ii) the preparation, printing and delivery to the Underwriters of copies of each preliminary prospectus, each Issuer Free Writing Prospectus and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Underwriters to investors, (iii) the preparation, issuance and delivery of the certificates or security entitlements for the Securities to the Underwriters or to the purchasers, as applicable, including any stock or other transfer taxes and any stamp or other duties payable upon the sale, issuance or delivery of the Securities to the Underwriters, (iv) the fees and disbursements of the Company's counsel, accountants and other advisors, (v) the qualification of the Securities under securities laws in accordance with the provisions of Section 3(e) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection therewith and in connection with the preparation of a "Blue Sky Survey" and any supplement thereto, (vi) the fees and expenses of any transfer agent, registrar or warrant agent for the Securities, (vii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the Securities, including without limitation, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and the cost of aircraft and other transportation chartered in connection with the road show, (viii) the reasonable fees and disbursements of counsel to the Underwriters in connection with determining the compliance of the terms of the sale of the Securities with FINRA's rules, (ix) the fees and expenses incurred in connection with the listing of the Warrant Shares on the Nasdaq Capital Market, and (x) the fees and disbursements of counsel for the Underwriters in connection with the offering contemplated by this Agreement; *provided, however*, that the Company's obligations to pay the fees and disbursements of the Underwriters pursuant to this Section 4(a) shall not exceed an aggregate amount equal to \$300,000.

(b) *Termination of Agreement.* If this Agreement is terminated by the Representative in accordance with the provisions of Section 5, Section 9(a)(i), Section 9(a)(iii) or Section 10 hereof, the Company shall reimburse the Underwriters for all of their reasonably documented out-of-pocket expenses, including the reasonable fees and disbursements of counsel for the Underwriters.

SECTION 5. Conditions of Underwriters' Obligations. The obligations of the several Underwriters hereunder are subject to the accuracy of the representations and warranties of the Company contained herein or in certificates of any officer of the Company or any of its Subsidiaries delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Effectiveness of Registration Statement.* The Registration Statement, including any Rule 462(b) Registration Statement, has become effective and, at the Closing Time, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated; and the Company has complied with each request (if any) from the Commission for additional information to the reasonable satisfaction of counsel to the Underwriters.

(b) *Opinions of Counsel for Company.* At the Closing Time, the Representative shall have received the opinion and the negative assurance letter, each addressed to the Underwriters and dated the Closing Time, of Blank Rome LLP, counsel for the Company, together with the opinion of Chalker Flores, LLP, special counsel for the Company with respect to intellectual property matters.

(c) *Opinion of Counsel for Underwriters.* At the Closing Time, the Representative shall have received the opinion, and negative assurance letter, each dated the Closing Time, of Covington & Burling LLP, counsel for the Underwriters, together with signed or reproduced copies of such letters for each of the other Underwriters in form and substance satisfactory to the Representative. In giving such opinion such counsel may rely, as to all matters governed by the laws of jurisdictions other than the law of the State of New York, the General Corporation Law of the State of Delaware and the federal securities laws of the United States, upon the opinions of counsel satisfactory to the Representative. Such counsel may also state that, insofar as such opinion involves factual matters, they have relied, to the extent they deem proper, upon certificates of officers and other representatives of the Company and its Subsidiaries and certificates of public officials.

(d) *Officers' Certificate.* At the Closing Time, there shall not have been, since the date hereof or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, and the Representative shall have received a certificate of the principal executive officer of the Company and of the principal financial officer of the Company, dated the Closing Time, to the effect that (i) there has been no such material adverse change, (ii) the representations and warranties of the Company in this Agreement are true and correct with the same force and effect as though expressly made at and as of the Closing Time, (iii) the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied at or prior to the Closing Time, (iv) the Company has delivered executed copies of the Securities to the purchasers thereof, and (v) no stop order suspending the effectiveness of the Registration Statement under the 1933 Act has been issued, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to their knowledge, contemplated.

(e) *Accountant's Comfort Letter.* At the time of the execution of this Agreement, the Representative shall have received from Grassi & Co. CPAs, P.C. a letter, dated such date, in form and substance satisfactory to the Representative, together with signed or reproduced copies of such letter for each of the other Underwriters containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus.

(f) *Bring-down Comfort Letter.* At the Closing Time, the Representative shall have received from Grassi & Co. CPAs, P.C. a letter, dated as of the Closing Time, to the effect that they reaffirm the statements made in the letter furnished pursuant to subsection (e) of this Section, except that the specified date referred to shall be a date not more than three business days prior to the Closing Time.

(g) *Exchange Listing.* At the Closing Time, the Company shall have filed with Nasdaq a Listing of Additional Securities form with respect to the Securities.

(h) *Lock-up Agreements.* At the date of this Agreement, the Representative shall have received an agreement substantially in the form of Exhibit A hereto signed by all of the Company's directors and executive officers.

(i) *Chief Financial Officer's Certificate.* On the date of this Agreement and at the Closing Time, the Representative shall have received from the Company a certificate of its principal financial officer with respect to certain financial data contained in the General Disclosure Package and the Prospectus, in form and substance satisfactory to the Representative.

(j) *Additional Documents.* At the Closing Time, counsel for the Underwriters shall have been furnished with such other documents and opinions as they may reasonably require for the purpose of enabling them to pass upon the issuance and sale of the Securities as herein contemplated, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Securities as herein contemplated shall be reasonably satisfactory in form and substance to the Representative and counsel for the Underwriters.

(k) *Termination of Agreement.* If any condition specified in this Section shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Representative by notice to the Company at any time at or prior to the Closing Time, and such termination shall be without liability of any party to any other party except as provided in Section 4 and except that Sections 1, 4, 6, 7, 8, 14, 15 and 16 shall survive any such termination and remain in full force and effect.

SECTION 6. Indemnification.

(a) *Indemnification of Underwriters.* The Company agrees to indemnify and hold harmless each Underwriter, its affiliates (as such term is defined in Rule 501(b) under the 1933 Act (each, an "Affiliate")), its selling agents and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading or arising out of any untrue statement or alleged untrue statement of a material fact included (A) in any preliminary prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto), or (B) in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Securities ("Marketing Materials"), including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or the omission or alleged omission in any preliminary prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, the General Disclosure Package, the Prospectus (or any amendment or supplement thereto) or in any Marketing Materials of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 6(d) below) any such settlement is effected with the written consent of the Company;

(iii) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel chosen by the Representative), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above;

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(b) *Indemnification of Company, Directors and Officers.* Each Underwriter severally agrees to indemnify and hold harmless the Company, its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act, against any and all loss, liability, claim, damage and expense described in the indemnity contained in subsection (a) of this Section, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(c) *Actions against Parties; Notification.* Each indemnified party shall give notice as promptly as reasonably practicable to each indemnifying party of any action commenced against it in respect of which indemnity may be sought hereunder, but failure to so notify an indemnifying party shall not relieve such indemnifying party from any liability hereunder to the extent it is not materially prejudiced as a result thereof and in any event shall not relieve it from any liability which it may have otherwise than on account of this indemnity agreement. In the case of parties indemnified pursuant to Section 6(a) above, counsel to the indemnified parties shall be selected by the Representative, and, in the case of parties indemnified pursuant to Section 6(b) above, counsel to the indemnified parties shall be selected by the Company. An indemnifying party may participate at its own expense in the defense of any such action; provided, however, that counsel to the indemnifying party shall not (except with the consent of the indemnified party) also be counsel to the indemnified party. In no event shall the indemnifying parties be liable for the reasonable fees and expenses of more than one counsel (in addition to one local counsel) separate from their own counsel for all indemnified parties in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever in respect of which indemnification or contribution could be sought under this Section 6 or Section 7 hereof (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) *Settlement without Consent if Failure to Reimburse.* If at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 6(a)(ii) effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

SECTION 7. Contribution. If the indemnification provided for in Section 6 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and of the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations.

The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Securities pursuant to this Agreement shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Securities pursuant to this Agreement (before deducting expenses) received by the Company, on the one hand, and the total underwriting discount received by the Underwriters, on the other hand, in each case as set forth on the cover of the Prospectus, bear to the aggregate initial public offering price of the Securities as set forth on the cover of the Prospectus.

The relative fault of the Company, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 7 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 7. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above in this Section 7 shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission.

Notwithstanding the provisions of this Section 7, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by such Underwriter in connection with the Securities underwritten by it and distributed to the public.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

For purposes of this Section 7, each person, if any, who controls an Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act and each Underwriter's Affiliates and selling agents shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall have the same rights to contribution as the Company. The Underwriters' respective obligations to contribute pursuant to this Section 7 are several in proportion to the number of Securities set forth opposite their respective names in Schedule A hereto and not joint.

SECTION 8. Representations, Warranties and Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or any of its Subsidiaries submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company and (ii) delivery of and payment for the Securities.

SECTION 9. Termination of Agreement.

(a) *Termination.* The Representative may terminate this Agreement, by notice to the Company, at any time at or prior to the Closing Time (i) if there has been, in the judgment of the Representative, since the time of execution of this Agreement or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, or (ii) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in U.S. or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Representative, impracticable or inadvisable to proceed with the completion of the offering or to enforce contracts for the sale of the Securities, or (iii) if trading in any securities of the Company has been suspended or materially limited by the Commission or the Nasdaq Capital Market, or (iv) if trading generally on the New York Stock Exchange or in the Nasdaq Capital Market has been suspended or materially limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by any of said exchanges or by order of the Commission, FINRA or any other governmental authority, or (v) a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States or in Europe, or (vi) if a banking moratorium has been declared by either Federal or New York authorities.

(b) *Liabilities.* If this Agreement is terminated pursuant to this Section, such termination shall be without liability of any party to any other party except as provided in Section 4 hereof, and provided further that Sections 1, 4, 6, 7, 8, 15, 16 and 17 shall survive such termination and remain in full force and effect.

SECTION 10. Default by One or More of the Underwriters. If one or more of the Underwriters shall fail at the Closing Time to purchase the Securities which it or they are obligated to purchase under this Agreement (the "Defaulted Securities"), the Representative shall have the right, within 24 hours thereafter, to make arrangements for one or more of the non-defaulting Underwriters, or any other underwriters, to purchase all, but not less than all, of the Defaulted Securities in such amounts as may be agreed upon and upon the terms herein set forth; if, however, the Representative shall not have completed such arrangements within such 24-hour period, then:

(i) if the number of Defaulted Securities does not exceed 10% of the number of Securities to be purchased on such date, each of the non-defaulting Underwriters shall be obligated, severally and not jointly, to purchase the full amount thereof in the proportions that their respective underwriting obligations hereunder bear to the underwriting obligations of all non-defaulting Underwriters, or

(ii) if the number of Defaulted Securities exceeds 10% of the number of Securities to be purchased on such date, this Agreement shall terminate without liability on the part of any non-defaulting Underwriter.

No action taken pursuant to this Section shall relieve any defaulting Underwriter from liability in respect of its default.

In the event of any such default which does not result in a termination of this Agreement, either the (i) Representative or (ii) the Company shall have the right to postpone Closing Time for a period not exceeding seven days in order to effect any required changes in the Registration Statement, the General Disclosure Package or the Prospectus or in any other documents or arrangements. As used herein, the term "Underwriter" includes any person substituted for an Underwriter under this Section 10.

SECTION 11. Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Underwriters shall be directed to Leerink Partners at 1301 Avenue of the Americas, 5th Floor, New York, New York, 10019, attention of Stuart R. Nayman.

SECTION 12. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (a) the purchase and sale of the Securities pursuant to this Agreement, including the determination of the initial public offering price of the Securities and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (b) in connection with the offering of the Securities and the process leading thereto, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, any of its Subsidiaries or their respective stockholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering of the Securities or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company or any of its Subsidiaries on other matters) and no Underwriter has any obligation to the Company with respect to the offering of the Securities except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering of the Securities and the Company has consulted its own respective legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

SECTION 13. Recognition of the U.S. Special Resolution Regimes. In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

For purposes of this Agreement, (A) “BHC Act Affiliate” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k); (B) “Covered Entity” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b); (C) “Default Right” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable; and (D) “U.S. Special Resolution Regime” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

SECTION 14. Parties. This Agreement shall inure to the benefit of and be binding upon each of the Underwriters and the Company and their respective successors. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, firm or corporation, other than the Underwriters and the Company and their respective successors and the controlling persons, officers, directors, Affiliates and selling agents referred to in Sections 6 and 7 and their heirs and legal representatives, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the Underwriters and the Company and their respective successors, and their respective controlling persons, officers, directors, Affiliates and selling agents and their heirs and legal representatives, and for the benefit of no other person, firm or corporation. No purchaser of Securities from any Underwriter shall be deemed to be a successor by reason merely of such purchase.

SECTION 15. Waiver of Trial by Jury. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

SECTION 16. GOVERNING LAW. THIS AGREEMENT AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF, THE STATE OF NEW YORK WITHOUT REGARD TO ITS CHOICE OF LAW PROVISIONS.

SECTION 17. Consent to Jurisdiction; Waiver of Immunity. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby shall be instituted in (i) the federal courts of the United States of America located in the City and County of New York, Borough of Manhattan or (ii) the courts of the State of New York located in the City and County of New York, Borough of Manhattan (collectively, the “Specified Courts”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court, as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

SECTION 18. TIME. TIME SHALL BE OF THE ESSENCE OF THIS AGREEMENT. EXCEPT AS OTHERWISE SET FORTH HEREIN, SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME.

SECTION 19. Partial Unenforceability. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

SECTION 20. Counterparts. This Agreement may be executed in any number of counterparts (which may include counterparts delivered by any standard form of telecommunication), each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

SECTION 21. Effect of Headings. The Section headings herein are for convenience only and shall not affect the construction hereof.

SECTION 22. Entire Agreement. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriters, or any of them, with respect to the subject matter hereof.

[SIGNATURE PAGES FOLLOW]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement among the Underwriters and the Company in accordance with its terms.

Very truly yours,

IBIO, INC.

By: /s/ Martin Brenner
Name: Martin Brenner
Title: CEO & CSO

CONFIRMED AND ACCEPTED
As of the date first above written:

LEERINK PARTNERS LLC

By: /s/ Anurag Jindal, M.D.
Name: Anurag Jindal, M.D.
Title: Sr. Managing Director

For itself and as Representative of the other Underwriters named in Schedule A hereto.

[SIGNATURE PAGE TO UNDERWRITING AGREEMENT]

SCHEDULE A

The combined initial public offering price shall be \$0.699 per Pre-Funded Warrant to purchase a share of Common Stock and accompanying Series G Warrant to purchase (i) one-half of a share of Common Stock (or a Pre-Funded Warrant to purchase one-half of a share of Common Stock in lieu thereof) and (ii) Series H Warrant to purchase one-half of a share of Common Stock (or a Pre-Funded Warrant to purchase one-half of a share of Common Stock in lieu thereof).

Series G Warrants and Series H Warrants may not be exercised for fractional shares.

The combined purchase price per Pre-Funded Warrant and accompanying Series G Warrant to be paid by the several Underwriters shall be \$0.657, an amount equal to the initial public offering price set forth above less \$0.042 per Pre-Funded Warrant and accompanying Series G Warrant.

Name of Underwriter	Number of Pre-Funded Warrants	Number of Series G Warrants
Leerink Partners LLC	53,655,000	26,827,500
LifeSci Capital LLC	8,942,500	4,471,250
Oppenheimer & Co. Inc.	8,942,500	4,471,250
Total	71,540,000	35,770,000

SCHEDULE B-1

Pricing Terms

Securities to be Sold:

Pre-Funded Warrants to purchase 71,540,000 shares of Common Stock.

Series G Warrants to purchase (i) 35,770,000 shares of Common Stock (or Pre-Funded Warrants in lieu thereof) and (ii) Series H Warrants to purchase 35,770,000 shares of Common Stock (or Pre-Funded Warrants in lieu thereof).

Each Series G Warrant has an exercise price of \$0.70 per share of Common Stock and accompanying Series H Warrant (or \$0.699 per Pre-Funded Warrant and accompanying Series H Warrant).

Each Series H Warrant has an exercise price of \$0.70 per share of Common Stock (or \$0.699 per Pre-Funded Warrant).

Offering Price:

\$0.699 per Pre-Funded Warrant to purchase a share of Common Stock and accompanying Series G Warrant to purchase (i) one-half of a share of Common Stock (or a Pre-Funded Warrant to purchase one-half of a share of Common Stock in lieu thereof) and (ii) Series H Warrant to purchase one-half of a share of Common Stock (or a Pre-Funded Warrant to purchase one-half of a share of Common Stock in lieu thereof).

SCHEDULE B-2

Free Writing Prospectuses

None

SCHEDULE B-3

List of Written Testing-the-Waters Communications

None

PRE-FUNDED WARRANT TO PURCHASE SHARES OF COMMON STOCK

IBIO, INC.

Pre-Funded Warrant No. [●]

Warrant Shares: [●]

Initial Exercise Date: August [●], 2025

THIS PRE-FUNDED WARRANT TO PURCHASE SHARES OF COMMON STOCK (this “Warrant”) certifies that, for value received, [●] or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) until this Warrant is exercised in full (the “Termination Date”) but not thereafter, to subscribe for and purchase from **IBIO, INC.**, a Delaware corporation (the “Company”), up to [●] shares of Common Stock, par value \$0.001 per share (the “Common Stock”), of the Company (as subject to adjustment hereunder, the “Warrant Shares”). The purchase price of one Warrant Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

1. Definitions. For purposes of this Warrant, the following terms shall have the following meanings: “Affiliate” means a Person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the Person specified.

(a) “Person” means an individual or entity.

(b) “Trading Day” means a day on which the principal Trading Market on which the shares of Common Stock are traded is open for trading. If the Common Stock is not listed or admitted for trading, “Trading Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in New York City are authorized or required by law or other governmental action to close.

(c) “Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, the NYSE American, OTCQB or OTCQX (or any successors to any of the foregoing), and which as of the Initial Exercise Date shall be the Nasdaq Capital Market.

(d) “Underwriting Agreement” means that certain Underwriting Agreement, dated August 19, 2025, among the Company and Leerink Partners LLC, as representative of the several underwriters.

2. Exercise.

(a) Exercise of Warrant. Subject to the provisions of Section 2(d)(viii) herein, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) one (1) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. The Company shall have no obligation to inquire with respect to or otherwise confirm the authenticity of the signature(s) contained on any Notice of Exercise nor the authority of the person so executing such Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

For the avoidance of doubt, there is no circumstance that would require the Company to net cash settle the Warrants.

(b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.001 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercise Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per Warrant Share under this Warrant shall be \$0.001, subject to adjustment hereunder (the "Exercise Price").

(c) Cashless Exercise. If at the time of exercise hereof 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 the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing (i) $[(A-B) (X)]$ by (ii) (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (x) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (y) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. (“Bloomberg”) as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of this Warrant may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2(c).

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if either of OTCQB or OTCQX is not a Trading Market and the Common Stock is not otherwise listed or quoted on a Trading Market, the VWAP of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

(d) Mechanics of Exercise.

(i) Delivery of Warrant Shares Upon Exercise. Upon the valid exercise of this Warrant for Warrant Shares, the Company shall cause the Warrant Shares purchased hereunder to be transmitted by the transfer agent for the Common Stock (the "Transfer Agent") to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement under the Securities Act permitting the issuance of the Warrant Shares to the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of the Warrant Shares, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) one (1) Trading Day after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"); provided that payment of the aggregate Exercise Price (other than in the instance of a cashless exercise) is received by the Company by such date. Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) one (1) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, at the option of the Holder either (A) in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until the earlier of such Warrant Shares being delivered or Holder rescinds such exercise or (B) the amount pursuant to a Buy-In pursuant to Section 2(d)(iv) hereof. The Company agrees to maintain a registrar (which may be the Transfer Agent) that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

(ii) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(iii) Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise by delivering written notice to the Company at any time prior to the delivery of such Warrant Shares (in which case any liquidated damages payable under Section 2(d)(i) shall no longer be payable).

(iv) Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than any such failure that is solely due to any action or inaction by the Holder with respect to such exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrants with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

(v) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share of Common Stock.

(vi) Charges, Taxes and Expenses. The issuance and delivery of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

(vii) Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

(viii) Holder's Exercise Limitations. Notwithstanding anything to the contrary herein, the Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with (i) the Holder's Affiliates, (ii) any other Persons acting as a group together with the Holder or any of the Holder's Affiliates, and (iii) any other Persons whose beneficial ownership of the shares of Common Stock would or could be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (such Persons, "Attribution Parties")), would beneficially own shares of Common Stock in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Warrant Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Warrant Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other common stock equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(d)(viii), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(d)(viii) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, and the Company shall have no obligation to verify or confirm the accuracy of such determination. For purposes of this Section 2(d)(viii), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Any portion of an exercise that would result in the issuance of shares in excess of the Beneficial Ownership Limitation shall be treated as null and void ab initio. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be $[4.99/9.99/19.99]\%$ of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of the Warrant Shares issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(d)(viii), provided that the Beneficial Ownership Limitation in no event exceeds 19.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of Warrant Shares upon exercise of this Warrant held by the Holder and the provisions of this Section 2(d)(viii) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(d)(viii) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant. If the Warrant is unexercisable as a result of the Holder's Beneficial Ownership Limitation, no alternate consideration is owing to the Holder.

3. Certain Adjustments.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any Warrant Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant remains unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification.

(b) [RESERVED]

(c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of all of the shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to all of the holders of stock of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, shares or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement (other than a stock split) or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person and the Company is not the surviving entity, (ii) the Company (or any subsidiary), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of the Company's assets in one or a series of related transactions (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than a stock split), or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common Stock or greater than 50% of the voting power of the common equity of the Company, (each, a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(d)(viii) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(d)(viii) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

(f) [RESERVED]

(g) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share of Common Stock, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(h) Notice to Holder.

(i) Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment; provided, however, that no notice shall be required if the information is disseminated by the Company in a filing with the Commission on its EDGAR system pursuant to a Current Report on Form 8-K or Quarterly Report on Form 10-Q or Annual Report on Form 10-K or in a press release.

(ii) Notice to Allow Exercise by Holder. If (A) the Company declares a dividend (or any other distribution in whatever form (other than a stock split)) on the shares of Common Stock, (B) the Company declares a special nonrecurring cash dividend on, or a redemption of, the shares of Common Stock, (C) the Company authorizes the granting to all holders of the shares of Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights (excluding any granting or issuance of rights to all of the Company's stockholders pursuant to a shareholder rights plan), (D) the approval of any stockholders of the Company is required in connection with a Fundamental Transaction, or (E) the Company authorizes the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least five (5) calendar days prior to the applicable record or effective date hereinafter specified (unless such information is filed with the Commission on its EDGAR system in which case a notice shall not be required), a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the shares of Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the shares of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice and provided, further that no notice shall be required if the information is disseminated in a press release or document filed with the Commission. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

(i) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

4. Transfer of Warrant.

(a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth herein, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

(c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

(d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

5. Miscellaneous.

(a) Currency. All dollar amounts referred to in this Warrant are in United States Dollars (“U.S. Dollars”). All amounts owing under this Warrant shall be paid in U.S. Dollars. All amounts denominated in other currencies shall be converted in the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. “Exchange Rate” means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Warrant, the U.S. Dollar exchange rate as published in the Wall Street Journal (NY edition) on the relevant date of calculation.

(b) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a “cashless exercise” pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

(c) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

(d) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then such action may be taken or such right may be exercised on the next succeeding Trading Day.

(e) Authorized Shares. The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued shares of Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares underlying this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued and delivered, as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares underlying this Warrant which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any shares of Common Stock above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(f) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Underwriting Agreement.

(g) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and if the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state, federal or foreign securities laws.

(h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Underwriting Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(i) Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by email or facsimile if sent during normal business hours of the recipient, and if sent at a time other than during normal business hours of the recipient, then on the next Trading Day (provided, with respect to notices sent by email so long as such sent email is kept on file by the sending party and the sending party does not receive an automatically generated message from the recipient's email server that such email could not be delivered to such recipient), (c) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one Trading Day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. The addresses for such communications are:

(i) If to the Company, to:

iBio, Inc.
11750 Sorrento Valley Road, Suite 200
San Diego, CA 92121
E-Mail: martin.brenner@ibioinc.com

With a copy to (which shall not constitute notice):
Chief Legal Officer
Attn: Marc Banjak
E-Mail: legal@ibioinc.com

(ii) If to the Holder: To the address, email address or facsimile number set forth in the Warrant Register, or as otherwise provided by the Holder to the Company in accordance with this Section 5(h).

(j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any shares of Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

(l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

(m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

IBIO, INC.

By: _____
Name: Felipe Duran
Title: Chief Financial Officer

[Signature Page – Pre-Funded Warrant]

NOTICE OF EXERCISE

TO: **IBIO, INC.**

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number: _____

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:

(Please Print)

Address:

(Please Print)

Phone Number:

Email Address:

Dated: ,

Holder's Signature:

Holder's Address:

SERIES G WARRANT TO PURCHASE SHARES OF COMMON STOCK (OR PRE-FUNDED WARRANTS) AND SERIES H WARRANTS

IBIO, INC.

Series G Warrant No. [●]

Warrant Shares: [●]

Issuance Date: August [●], 2025

IBIO, INC., a Delaware corporation (the “Company”), hereby certifies that, for value received, [●] or its permitted assigns (the “Holder”), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Issuance Date (the “Initial Exercise Date”) and prior to the earliest of:

- (i) 5:00 p.m. (New York City time) on the thirtieth (30th) Trading Day following the Company’s public announcement, via a press release on a nationally recognized news wire or the filing of a Current Report on Form 8-K with the Securities and Exchange Commission (the “Commission”), that, an Investigational New Drug Application filed with the U.S. Food and Drug Administration, a Clinical Trial Notification filed with the applicable foreign governmental body in Australia, a Clinical Trial Application filed with the European Medicines Agency, or an equivalent submission filed with a foreign governmental body to initiate a clinical trial in any other foreign jurisdiction, has been accepted or has otherwise gone into effect, as applicable (such occurrence, the “Trial Initiation” and such public filing or announcement, the “Trial Initiation Milestone”);
 - (ii) immediately upon the exercise of the pre-funded warrant (No. [●]) originally issued by the Company to the Holder on the Issuance Date (the “Initial Pre-Funded Warrant”) pursuant to the Underwriting Agreement (defined below), if such exercise occurs prior to the Trial Initiation Milestone; provided that, if such Initial Pre-Funded Warrant is not exercised in full, this Warrant shall expire proportionally to the extent the Initial Pre-Funded Warrant is exercised prior to the occurrence of the Trial Initiation Milestone (solely to the extent the proportion of the unexercised portion of this Warrant relative to the originally issued Series G Warrant is greater than the proportion of the unexercised portion of the Initial Pre-Funded Warrant relative to the originally issued Initial Pre-Funded Warrant); and
-

- (iii) 5:00 p.m. (New York City time) on the five-year anniversary of the Issuance Date but not thereafter (the earliest of such dates in paragraphs (i), (ii) and (iii), the “Termination Date”), to subscribe for and purchase from the Company, up to an aggregate of (i) [●] shares of Common Stock, par value \$0.001 per share (the “Common Stock”), of the Company (as subject to adjustment hereunder, the “Warrant Shares”), or, in lieu thereof at the option of the Holder, Pre-Funded Warrants (as defined below) to purchase the same number of Warrant Shares (as subject to adjustment hereunder); and (ii) Series H Warrants (each, a “Series H Warrant” and collectively, the “Series H Warrants”) to purchase up to [●] shares of Common Stock (as subject to adjustment hereunder, the “Series H Shares”). The purchase price of one Warrant Share, or a Pre-Funded Warrant to purchase one Pre-Funded Warrant Share, and one Series H Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

1. Definitions. For purposes of this Warrant, the following terms shall have the following meanings:

- (a) “Affiliate” means a Person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the Person specified.
- (b) “Person” means an individual or entity.
- (c) “Pre-Funded Warrant Exercise Price” equals \$0.001 per share of Common Stock, subject to adjustment for reverse and forward stock splits, stock dividends, share combinations, ratio changes and other similar transactions of the shares of Common Stock that occur after the Issuance Date; provided, that in no event shall the Pre-Funded Warrant Exercise Price be adjusted to an amount below the par value of the shares of Common Stock.
- (d) “Pre-Funded Warrants” means the pre-funded warrants to purchase a number of shares of Common Stock equal to the number of Warrant Shares as to which this Warrant is being exercised in the form of a Pre-Funded Warrant attached as Exhibit A hereto.
- (e) “Pre-Funded Warrant Shares” means the number of shares of Common Stock underlying the Pre-Funded Warrants.
- (f) “Securities” means the Warrant Shares, if applicable, the Pre-Funded Warrants, and the Series H Warrants.
- (g) “Trading Day” means a day on which the principal Trading Market on which the shares of Common Stock are traded is open for trading. If the Common Stock is not listed or admitted for trading, “Trading Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in New York City are authorized or required by law or other governmental action to close.
- (h) “Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, the NYSE American, OTCQB or OTCQX (or any successors to any of the foregoing), and which as of the Issuance Date shall be the Nasdaq Capital Market.
- (i) “Underwriting Agreement” means that certain Underwriting Agreement, dated August 19, 2025, among the Company and Leerink Partners LLC, as representative of the several underwriters.

(j) “Warrant Certificates” means the physical warrant certificates representing the Pre-Funded Warrants and the Series H Warrants.

2. Exercise.

(a) Exercise of Warrant. Subject to the provisions of Section 2(d)(viii) herein, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) one (1) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Securities specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. The Company shall have no obligation to inquire with respect to or otherwise confirm the authenticity of the signature(s) contained on any Notice of Exercise nor the authority of the person so executing such Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Securities available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Securities available hereunder shall have the effect of lowering the outstanding number of Warrant Shares (or Pre-Funded Warrants) and Series H Warrants purchasable hereunder in an amount equal to the applicable number of Warrant Shares (or Pre-Funded Warrants) and Series H Warrants purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares (or Pre-Funded Warrants) and Series H Warrants purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Securities hereunder, the number of Securities available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

For the avoidance of doubt, there is no circumstance that would require the Company to net cash settle the Warrants.

(b) Exercise Price. The exercise price per Warrant Share and accompanying Series H Warrant shall be \$0.70 and the exercise price per Pre-Funded Warrant and accompanying Series H Warrant shall be \$0.699, subject to adjustment hereunder (the “Exercise Price”).

(c) Cashless Exercise. If at the time of exercise hereof 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 the Securities to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing (i) [(A-B) (X)] by (ii) (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (x) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (y) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. (“Bloomberg”) as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

Upon any cashless exercise of this Warrant, and contemporaneously with the issuance of the Warrant Shares to the Holder, the Company shall promptly and without further action by the Holder issue and deliver to the Holder a Series H Warrant to purchase a number of Series H Shares equal to the number of Warrant Shares that would be issuable upon such exercise in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise. The issuance of such a Series H Warrant shall be evidenced by the delivery of a duly executed warrant certificate or, if applicable, by book-entry notation on the records of the Company, and shall be subject to the terms and conditions set forth in such Series H Warrant.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended (the “Securities Act”), the Securities shall take on the characteristics of the Warrants being exercised, and the holding period of this Warrant may be tacked on to the holding period of the Securities. The Company agrees not to take any position contrary to this Section 2(c).

“**Bid Price**” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if either of OTCQB or OTCQX is not a Trading Market and the Common Stock is not otherwise listed or quoted on a Trading Market, the VWAP of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

(d) Mechanics of Exercise

(i) Delivery of Securities Upon Exercise

(A) Upon the valid exercise of this Warrant for Warrant Shares and Series H Warrants, the Company shall cause the Warrant Shares purchased hereunder to be transmitted by the transfer agent for the Common Stock (the “Transfer Agent”) to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement under the Securities Act, permitting the issuance of the Warrant Shares to the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of the Warrant Shares, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) one (1) Trading Day after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”); provided that payment of the aggregate Exercise Price (other than in the instance of a cashless exercise) is received by the Company by such date. Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) one (1) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, at the option of the Holder, either (A) in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until the earlier of such Warrant Shares being delivered or Holder rescinds such exercise or (B) the amount pursuant to a Buy-In pursuant to Section 2(d)(iv) hereof. The Company agrees to maintain a registrar (which may be the Transfer Agent) that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. In addition, upon the valid exercise of this Warrant for Warrant Shares and Series H Warrants, the Company shall issue and dispatch by overnight courier to the address as specified in the Notice of Exercise, a Series H Warrant with respect to the corresponding number of shares for which the Warrant is being exercised by the date that is the latest of (i) five (5) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) five (5) Trading Days after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise.

(B) Upon the valid exercise of this Warrant for Pre-Funded Warrants and Series H Warrants, the Company shall issue and dispatch by overnight courier to the address as specified in the Notice of Exercise, a Pre-Funded Warrant and a Series H Warrant with respect to the corresponding number of shares for which the Warrant is being exercised by the date that is the latest of (i) five (5) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) five (5) Trading Days after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise.

(ii) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares (or Pre-Funded Warrants) and Series H Warrants, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares (or Pre-Funded Warrants) and Series H Warrants called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(iii) Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) (A) by the Warrant Share Delivery Date), then the Holder will have the right to rescind such exercise by delivering written notice to the Company at any time prior to the delivery of such Warrant Shares (in which case any liquidated damages payable under Section 2(d)(i) shall no longer be payable).

(iv) Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than any such failure that is solely due to any action or inaction by the Holder with respect to such exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrants with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

(v) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share of Common Stock.

(vi) Charges, Taxes and Expenses. The issuance and delivery of Warrant Shares and Warrant Certificates shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares and Warrant Certificates, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares and Warrant Certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares and Warrant Certificates are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

(vii) Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

(viii) **Holder's Exercise Limitations.** Notwithstanding anything to the contrary herein, the Company shall not effect any exercise of this Warrant (other than for Pre-Funded Warrants and Series H Warrants), and a Holder shall not have the right to exercise any portion of this Warrant (other than for Pre-Funded Warrants and Series H Warrants), pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with (i) the Holder's Affiliates, (ii) any other Persons acting as a group together with the Holder or any of the Holder's Affiliates, and (iii) any other Persons whose beneficial ownership of the shares of Common Stock would or could be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (such Persons, "Attribution Parties")), would beneficially own shares of Common Stock in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Warrant Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Warrant Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other common stock equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties (including, for the avoidance of doubt, the Series H Warrants). Except as set forth in the preceding sentence, for purposes of this Section 2(d)(viii), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(d)(viii) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, and the Company shall have no obligation to verify or confirm the accuracy of such determination. For purposes of this Section 2(d)(viii), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Any portion of an exercise that would result in the issuance of shares in excess of the Beneficial Ownership Limitation shall be treated as null and void ab initio. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be [4.99/9.99/19.99]% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of the Warrant Shares issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(d)(viii), provided that the Beneficial Ownership Limitation in no event exceeds 19.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of Warrant Shares upon exercise of this Warrant held by the Holder and the provisions of this Section 2(d)(viii) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(d)(viii) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant. If the Warrant is unexercisable as a result of the Holder's Beneficial Ownership Limitation, no alternate consideration is owing to the Holder.

3. Certain Adjustments.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any Warrant Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of Warrant Shares (or Pre-Funded Warrants) issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant remains unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification. In the event of any adjustment to the number of Warrant Shares pursuant to this Section 3(a), the Series H Warrants and the exercise price thereof shall be adjusted as follows: the exercise price of the Series H Warrants shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event and the number of Series H Shares issuable upon exercise of such Series H Warrants shall be proportionately adjusted such that the aggregate exercise price of the Series H Warrants issuable pursuant to this Warrant remains unchanged. Such adjustment shall be made simultaneously with the adjustment to the Warrant Shares.

(b) [RESERVED]

(c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding the Company grants, issues or sells any common stock equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of all of the shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to all of the holders of stock of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, shares or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement (other than a stock split) or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(e) **Fundamental Transaction.** If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person and the Company is not the surviving entity, (ii) the Company (or any subsidiary), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of the Company's assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of shares of Common Stock or any compulsory share exchange pursuant to which the shares of Common Stock are effectively converted into or exchanged for other securities, cash or property (other than a stock split), or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement (other than a stock split)) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common Stock or greater than 50% of the voting power of the common equity of the Company (each a "**Fundamental Transaction**"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(d)(viii) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "**Alternate Consideration**") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(d)(viii) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within thirty (30) days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder, as described below, an amount of consideration equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction, provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of the consummation of such Fundamental Transaction the same type or form of consideration (and in the same proportion), valued at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received shares of the Successor Entity (which Successor Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365-day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the period beginning on the Trading Day immediately preceding the announcement of the applicable Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds within five Business Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "**Successor Entity**") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

(f) [RESERVED]

(g) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share of Common Stock, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(h) Notice to Holder.

(i) Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment; provided, however, that no notice shall be required if the information is disseminated by the Company in a filing with the Commission on its EDGAR system pursuant to a Current Report on Form 8-K or Quarterly Report on Form 10-Q or Annual Report on Form 10-K or in a press release.

(ii) Notice to Allow Exercise by Holder. If (A) the Company declares a dividend (or any other distribution in whatever form (other than a stock split)) on the shares of Common Stock, (B) the Company declares a special nonrecurring cash dividend on, or a redemption of, the shares of Common Stock, (C) the Company authorizes the granting to all holders of the shares of Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights (excluding any granting or issuance of rights to all of the Company's stockholders pursuant to a shareholder rights plan), (D) the approval of any stockholders of the Company is required in connection with a Fundamental Transaction, or (E) the Company authorizes the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least five (5) calendar days prior to the applicable record or effective date hereinafter specified (unless such information is filed with the Commission on its EDGAR system in which case a notice shall not be required), a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the shares of Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the shares of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice and provided, further that no notice shall be required if the information is disseminated in a press release or document filed with the Commission. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

(iii) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

(iv) Trial Initiation Disclosure. The Company shall, as promptly as possible (but no later than one Trading Day) after the occurrence of the Trial Initiation, disclose such occurrence by means of a press release on a nationally recognized news wire or by filing a Current Report on Form 8-K with the Commission.

4. Transfer of Warrant.

(a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth herein, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of the Securities without having a new Warrant issued.

(b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares (or Pre-Funded Warrants) issuable pursuant thereto.

(c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

(d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Securities issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Securities or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

5. Miscellaneous

(a) Currency. All dollar amounts referred to in this Warrant are in United States Dollars (“U.S. Dollars”). All amounts owing under this Warrant shall be paid in U.S. Dollars. All amounts denominated in other currencies shall be converted in the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. “Exchange Rate” means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Warrant, the U.S. Dollar exchange rate as published in the Wall Street Journal (NY edition) on the relevant date of calculation.

(b) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a “cashless exercise” pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

(c) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

(d) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then such action may be taken or such right may be exercised on the next succeeding Trading Day.

(e) Authorized Shares. The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued shares of Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares underlying this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Securities upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Securities may be issued and delivered, as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares underlying this Warrant which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for the Securities in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any shares of Common Stock above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares or Pre-Funded Warrants for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(f) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Underwriting Agreement.

(g) Restrictions. The Holder acknowledges that the Securities acquired upon the exercise of this Warrant, if not registered, and if the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state, federal or foreign securities laws.

(h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Underwriting Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(i) Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by email or facsimile if sent during normal business hours of the recipient, and if sent at a time other than during normal business hours of the recipient, then on the next Trading Day (provided, with respect to notices sent by email so long as such sent email is kept on file by the sending party and the sending party does not receive an automatically generated message from the recipient's email server that such email could not be delivered to such recipient), (c) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one Trading Day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. The addresses for such communications are:

(i) If to the Company, to:

iBio, Inc.
11750 Sorrento Valley Road, Suite 200
San Diego, CA 92121
E-Mail: martin.brenner@ibioinc.com

With a copy to (which shall not constitute notice):
Chief Legal Officer
Attn: Marc Banjak
E-Mail: legal@ibioinc.com

(ii) If to the Holder: To the address, email address or facsimile number set forth in the Warrant Register, or as otherwise provided by the Holder to the Company in accordance with this Section 5(i).

(j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase the Securities, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any shares of Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

(l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares or Pre-Funded Warrants.

(m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(o) Pre-Funded Warrants in lieu of Common Stock. Notwithstanding anything to the contrary in this Warrant, to the extent the limitations set forth in Section 2(d)(viii) restrict the exercise of this Warrant into Warrant Shares and Series H Warrants, the Holder may choose, in lieu of receiving Warrant Shares upon exercise of this Warrant, to receive a Pre-Funded Warrant in the form attached hereto as Exhibit A to purchase an identical number of shares of Common Stock it would have received upon the exercise of this Warrant for shares of Common Stock and a Series H Warrant and the resulting issued Pre-Funded Warrant shall have an exercise price of \$0.001 per share.

(p) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

IBIO, INC.

By: _____
Name: Felipe Duran
Title: Chief Financial Officer

[Signature Page – Series G Warrant]

NOTICE OF EXERCISE

TO: **IBIO, INC.**

(1) The undersigned hereby elects to purchase _____ Warrant Shares and/or a Pre-Funded Warrant to purchase up to _____ shares of Common Stock, together with a Series H Warrant for up to _____ Series H Shares of the Company pursuant to the terms of the attached Warrant (only attached if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

“ in lawful money of the United States; or

“ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares and the Series H Warrant (and the Pre-Funded Warrant, if applicable) in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

The Series H Warrant (and the Pre-Funded Warrant, if applicable) shall be delivered to the following address:

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date:

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase securities.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____

Holder's Signature: _____

Holder's Address: _____

SERIES H WARRANT TO PURCHASE SHARES OF COMMON STOCK (OR PRE-FUNDED WARRANTS)

IBIO, INC.

Series H Warrant No. [●]

Warrant Shares: [●]

Issuance Date: August [●], 2025

THIS SERIES H WARRANT TO PURCHASE SHARES OF COMMON STOCK (OR PRE-FUNDED WARRANTS) (this “Warrant”) certifies that, for value received, [●] or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Issuance Date (the “Initial Exercise Date”) and prior to 5:00 p.m. (New York City time) on August [●], 2029 (the “Termination Date”) but not thereafter, to subscribe for and purchase from **IBIO, INC.**, a Delaware corporation (the “Company”), up to [●] shares of Common Stock, par value \$0.001 per share (the “Common Stock”), of the Company (as subject to adjustment hereunder, the “Warrant Shares”), or, in lieu thereof at the option of the Holder, Pre-Funded Warrants (as defined below) to purchase the same number of Warrant Shares (as subject to adjustment hereunder). The purchase price of one Warrant Share, or a Pre-Funded Warrant to purchase one Pre-Funded Warrant Share, under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

1. Definitions. For purposes of this Warrant, the following terms shall have the following meanings:

(a) “Affiliate” means a Person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the Person specified.

(b) “Person” means an individual or entity.

(c) “Pre-Funded Warrant Exercise Price” equals \$0.001 per share of Common Stock, subject to adjustment for reverse and forward stock splits, stock dividends, share combinations, ratio changes and other similar transactions of the shares of Common Stock that occur after the Issuance Date; provided, that in no event shall the Pre-Funded Warrant Exercise Price be adjusted to an amount below the par value of the shares of Common Stock.

(d) “Pre-Funded Warrants” means the pre-funded warrants to purchase a number of shares of Common Stock equal to the number of Warrant Shares as to which this Warrant is being exercised in the form of a Pre-Funded Warrant attached as Exhibit A hereto.

(e) “Pre-Funded Warrant Shares” means the number of shares of Common Stock underlying the Pre-Funded Warrants.

(f) “Trading Day” means a day on which the principal Trading Market on which the shares of Common Stock are traded is open for trading. If the Common Stock is not listed or admitted for trading, “Trading Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in New York City are authorized or required by law or other governmental action to close.

(g) “Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, the NYSE American, OTCQB or OTCQX (or any successors to any of the foregoing), and which as of the Issuance Date shall be the Nasdaq Capital Market.

(h) “Underwriting Agreement” means that certain Underwriting Agreement, dated August 19, 2025, among the Company and Leerink Partners LLC, as representative of the several underwriters.

(i) “Warrant Certificates” means the physical warrant certificates representing the Pre-Funded Warrants.

2. Exercise.

(a) Exercise of Warrant. Subject to the provisions of Section 2(d)(viii) herein, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) one (1) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. The Company shall have no obligation to inquire with respect to or otherwise confirm the authenticity of the signature(s) contained on any Notice of Exercise nor the authority of the person so executing such Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares (or Pre-Funded Warrants) purchasable hereunder in an amount equal to the applicable number of Warrant Shares (or Pre-Funded Warrants) purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares (or Pre-Funded Warrants) purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

For the avoidance of doubt, there is no circumstance that would require the Company to net cash settle the Warrants.

(b) Exercise Price. The exercise price per Warrant Share shall be \$0.70 and the exercise price per Pre-Funded Warrant shall be \$0.699, subject to adjustment hereunder (the "Exercise Price").

(c) Cashless Exercise. If at the time of exercise hereof 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 the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing (i) [(A-B) (X)] by (ii) (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (x) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (y) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. ("Bloomberg") as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended (the "Securities Act"), the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of this Warrant may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2(c).

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if either of OTCQB or OTCQX is not a Trading Market and the Common Stock is not otherwise listed or quoted on a Trading Market, the VWAP of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

(d) Mechanics of Exercise

(i) Delivery of Warrant Shares Upon Exercise.

(A) Upon the valid exercise of this Warrant for Warrant Shares, the Company shall cause the Warrant Shares purchased hereunder to be transmitted by the transfer agent for the Common Stock (the “Transfer Agent”) to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement under the Securities Act permitting the issuance of the Warrant Shares to the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of the Warrant Shares, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) one (1) Trading Day after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”); provided that payment of the aggregate Exercise Price (other than in the instance of a cashless exercise) is received by the Company by such date. Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) one (1) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, at the option of the Holder either (A) in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until the earlier of such Warrant Shares being delivered or Holder rescinds such exercise or (B) the amount pursuant to a Buy-In pursuant to Section 2(d)(iv) hereof. The Company agrees to maintain a registrar (which may be the Transfer Agent) that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

(B) Upon the valid exercise of this Warrant for Pre-Funded Warrants, the Company shall issue and dispatch by overnight courier to the address as specified in the Notice of Exercise, a Pre-Funded Warrant with respect to the corresponding number of shares for which the Warrant is being exercised by the date that is the latest of (i) five (5) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) five (5) Trading Days after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise.

(ii) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares (or Pre-Funded Warrants), deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares (or Pre-Funded Warrants) called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(iii) Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) (A) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise by delivering written notice to the Company at any time prior to the delivery of such Warrant Shares (in which case any liquidated damages payable under Section 2(d)(i) shall no longer be payable).

(iv) Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than any such failure that is solely due to any action or inaction by the Holder with respect to such exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrants with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

(v) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share of Common Stock.

(vi) Charges, Taxes and Expenses. The issuance and delivery of Warrant Shares and Warrant Certificates shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares and Warrant Certificates, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares and Warrant Certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares and Warrant Certificates are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

(vii) Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

(viii) **Holder's Exercise Limitations.** Notwithstanding anything to the contrary herein, the Company shall not effect any exercise of this Warrant (other than for Pre-Funded Warrants), and a Holder shall not have the right to exercise any portion of this Warrant (other than for Pre-Funded Warrants), pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with (i) the Holder's Affiliates, (ii) any other Persons acting as a group together with the Holder or any of the Holder's Affiliates, and (iii) any other Persons whose beneficial ownership of the shares of Common Stock would or could be aggregated with the Holder's for the purposes of Section 13(d) of the Exchange Act (such Persons, "Attribution Parties")), would beneficially own shares of Common Stock in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Warrant Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Warrant Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other common stock equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(d)(viii), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(d)(viii) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, and the Company shall have no obligation to verify or confirm the accuracy of such determination. For purposes of this Section 2(d)(viii), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Any portion of an exercise that would result in the issuance of shares in excess of the Beneficial Ownership Limitation shall be treated as null and void ab initio. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be [4.99/9.99/19.99]% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of the Warrant Shares issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(d)(viii), provided that the Beneficial Ownership Limitation in no event exceeds 19.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of Warrant Shares upon exercise of this Warrant held by the Holder and the provisions of this Section 2(d)(viii) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(d)(viii) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant. If the Warrant is unexercisable as a result of the Holder's Beneficial Ownership Limitation, no alternate consideration is owing to the Holder.

3. Certain Adjustments.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any Warrant Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares (or Pre-Funded Warrants) issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant remains unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification.

(b) [RESERVED]

(c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding the Company grants, issues or sells any common stock equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of all of the shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to all of the holders of stock of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, shares or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement (other than a stock split) or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(e) **Fundamental Transaction.** If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person and the Company is not the surviving entity, (ii) the Company (or any subsidiary), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of the Company's assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of shares of Common Stock or any compulsory share exchange pursuant to which the shares of Common Stock are effectively converted into or exchanged for other securities, cash or property (other than a stock split), or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement (other than a stock split)) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common Stock or greater than 50% of the voting power of the common equity of the Company (each a "**Fundamental Transaction**"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(d)(viii) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "**Alternate Consideration**") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(d)(viii) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within thirty (30) days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder, as described below, an amount of consideration equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction, provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of the consummation of such Fundamental Transaction the same type or form of consideration (and in the same proportion), valued at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received shares of the Successor Entity (which Successor Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365-day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the period beginning on the Trading Day immediately preceding the announcement of the applicable Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds within five Business Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "**Successor Entity**") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

(f) [RESERVED]

(g) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share of Common Stock, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(h) Notice to Holder.

(i) Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment; provided, however, that no notice shall be required if the information is disseminated by the Company in a filing with the Commission on its EDGAR system pursuant to a Current Report on Form 8-K or Quarterly Report on Form 10-Q or Annual Report on Form 10-K or in a press release.

(ii) Notice to Allow Exercise by Holder. If (A) the Company declares a dividend (or any other distribution in whatever form (other than a stock split)) on the shares of Common Stock, (B) the Company declares a special nonrecurring cash dividend on, or a redemption of, the shares of Common Stock, (C) the Company authorizes the granting to all holders of the shares of Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights (excluding any granting or issuance of rights to all of the Company's stockholders pursuant to a shareholder rights plan), (D) the approval of any stockholders of the Company is required in connection with a Fundamental Transaction, or (E) the Company authorizes the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least five (5) calendar days prior to the applicable record or effective date hereinafter specified (unless such information is filed with the Commission on its EDGAR system in which case a notice shall not be required), a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the shares of Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the shares of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice and provided, further that no notice shall be required if the information is disseminated in a press release or document filed with the Commission. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

(i) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

4. Transfer of Warrant.

(a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth herein, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares (or Pre-Funded Warrants) without having a new Warrant issued.

(b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares (or Pre-Funded Warrants) issuable pursuant thereto.

(c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

(d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares (or Pre-Funded Warrants) issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares (or Pre-Funded Warrants) or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

5. Miscellaneous.

(a) Currency. All dollar amounts referred to in this Warrant are in United States Dollars (“U.S. Dollars”). All amounts owing under this Warrant shall be paid in U.S. Dollars. All amounts denominated in other currencies shall be converted in the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. “Exchange Rate” means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Warrant, the U.S. Dollar exchange rate as published in the Wall Street Journal (NY edition) on the relevant date of calculation.

(b) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a “cashless exercise” pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

(c) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

(d) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then such action may be taken or such right may be exercised on the next succeeding Trading Day.

(e) Authorized Shares. The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued shares of Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares underlying this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares (or Pre-Funded Warrants) upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares (or Pre-Funded Warrants) may be issued and delivered, as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares underlying this Warrant which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares (or Pre-Funded Warrants) in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any shares of Common Stock above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares (or Pre-Funded Warrants) for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(f) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Underwriting Agreement.

(g) Restrictions. The Holder acknowledges that the Warrant Shares (or Pre-Funded Warrants) acquired upon the exercise of this Warrant, if not registered, and if the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state, federal or foreign securities laws.

(h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Underwriting Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(i) Notices.

All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by email or facsimile if sent during normal business hours of the recipient, and if sent at a time other than during normal business hours of the recipient, then on the next Trading Day (provided, with respect to notices sent by email so long as such sent email is kept on file by the sending party and the sending party does not receive an automatically generated message from the recipient's email server that such email could not be delivered to such recipient), (c) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one Trading Day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. The addresses for such communications are:

(i) If to the Company, to:

iBio, Inc.

11750 Sorrento Valley Road, Suite 200

San Diego, CA 92121

E-Mail: martin.brenner@ibioinc.com

With a copy to (which shall not constitute notice):

Chief Legal Officer

Attn: Marc Banjak

E-Mail: legal@ibioinc.com

(ii) If to the Holder: To the address, email address or facsimile number set forth in the Warrant Register, or as otherwise provided by the Holder to the Company in accordance with this Section 5(h).

(j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares (or Pre-Funded Warrants), and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any shares of Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

(l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares (or Pre-Funded Warrants).

(m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(o) Pre-Funded Warrants in lieu of Common Stock. Notwithstanding anything to the contrary in this Warrant, to the extent the limitations set forth in Section 2(d)(viii) restrict the exercise of this Warrant into Warrant Shares, the Holder may choose, in lieu of receiving Warrant Shares upon exercise of this Warrant, to receive a Pre-Funded Warrant in the form attached hereto as Exhibit A to purchase an identical number of shares of Common Stock it would have received upon the exercise of this Warrant for shares of Common Stock, and the resulting issued Pre-Funded Warrant shall have an exercise price of \$0.001 per share

(p) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

IBIO, INC.

By: _____
Name: Felipe Duran
Title: Chief Financial Officer

[Signature Page – Series H Warrant]

NOTICE OF EXERCISE

TO: **IBIO, INC.**

(1) The undersigned hereby elects to purchase _____ Warrant Shares and/or a Pre-Funded Warrant to purchase up to _____ shares of Common Stock of the Company pursuant to the terms of the attached Warrant (only attached if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

“ in lawful money of the United States; or

“ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares (and the Pre-Funded Warrant, if applicable) in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

The Pre-Funded Warrant, if applicable, shall be delivered to the following address:

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date:

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____

Holder's Signature: _____

Holder's Address: _____



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

August 21, 2025

iBio, Inc.
11750 Sorrento Valley Road, Suite 200
San Diego, California 92121

Dear Ladies and Gentlemen:

We have acted as U.S. securities counsel to iBio, Inc., a Delaware corporation (the “Company”), in connection with a public offering (the “Offering”) of the Company of: (i) pre-funded warrants (the “Pre-Funded Warrants”) to purchase up to 71,540,000 shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”); (ii) Series G warrants (the “Series G Warrants”) to purchase up to 35,770,000 shares of Common Stock (or pre-funded warrants to purchase up to 35,770,000 shares of common stock in lieu thereof) and Series H warrants (the “Series H Warrants”) to purchase up to 35,770,000 shares of Common Stock, (iii) Series H Warrants to purchase up to 35,770,000 shares of Common Stock (or pre-funded warrants to purchase up to 35,770,000 shares of Common Stock in lieu thereof), (iv) up to 35,770,000 shares of Common Stock issuable upon exercise of the Series G Warrants (or upon exercise of the pre-funded warrants issued upon exercise thereof); (v) up to 35,770,000 shares of Common Stock issuable upon exercise of the Series H Warrants (or upon exercise of the pre-funded warrants issued upon exercise thereof); and (vi) up to 71,540,000 shares of Common Stock issuable upon exercise of the Pre-Funded Warrants. The pre-funded warrants issuable upon the exercise of the Series G Warrants or the Series H Warrants are collectively referred to herein as the “PF Warrants.” The Series G Warrants, the Series H Warrants, the Pre-Funded Warrants and the PF Warrants are collectively referred to herein as the “Warrants” and the shares of Common Stock issuable upon exercise of the Warrants are collectively referred to herein as the “Warrant Shares” and the Warrants and Warrant Shares are collectively referred to herein as the “Securities.” This opinion is being delivered in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act of 1933, as amended (the “Securities Act”).

In rendering the opinions set forth herein, we have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Registration Statement on Form S-3 (File No. 333-280680) filed by the Company with the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Securities Act”) relating, in part, to the registration of the Securities, as it became effective under the Securities Act on August 6, 2024 (such Registration Statement, including the documents filed as a part thereof or previously filed with the Commission and incorporated therein by reference or documents subsequently incorporated through the date hereof pursuant to Item 12 of Form S-3, being hereinafter referred to as the “Registration Statement”), (ii) the prospectus of the Company dated August 6, 2024 (the “Base Prospectus”), as supplemented by the prospectus supplement, dated August 18, 2025 (the “Preliminary Prospectus”), relating to the Securities, and the final prospectus supplement, dated August 19, 2025, relating to the Securities, as filed with the Commission in final form on August 21, 2025, pursuant to Rule 424(b)(5) under the Securities Act (such Base Prospectus and prospectus supplement, including the documents filed as a part thereof or previously filed with the Commission and incorporated therein by reference or documents subsequently incorporated through the date hereof pursuant to Item 12 of Form S-3, being hereinafter referred to as the “Prospectus”), (iii) the Underwriting Agreement, dated August 19, 2025 (the “Underwriting Agreement”), between the Company and Leerink Partners, LLC, as Representative of the several Underwriters, relating to the issuance and sale of the Pre-Funded Warrants and the Series G Warrants, (iv) the Certificate of Incorporation of the Company, as amended (the “Certificate of Incorporation”), (v) the Second Amended and Restated Bylaws of the Company (the “Bylaws”), (vi) certain resolutions of the board of directors of the Company and the pricing committee of the Board relating to the Offering, (v) the forms of the Warrants filed the Company as exhibits to a Current Report on Form 8-K, and (vi) 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 all documents submitted to us; and (iv) that the books and records of the Company are maintained in accordance with proper corporate procedures. As to various questions of fact material to such opinions, we have relied upon statements or certificates of officials and representatives of the Company and others.

With respect to the Warrant Shares, we express no opinion to the extent that future issuances of securities of the Company, adjustments to outstanding securities of the Company and/or other matters cause the Warrants to be exercisable for more shares of Common Stock than the number that remain available for issuance.

Based on the foregoing, and subject to the qualifications, exceptions and assumptions stated herein, we are of the opinion that:

1. The Warrants have been duly authorized and, when executed, issued and delivered against payment therefor as described in the Registration Statement and the Prospectus, and in the case of (a) the Series H Warrants upon the valid exercise of the Series G Warrants and (b) the PF Warrants upon the valid exercise of the Series G Warrants or the Series H Warrants, as applicable, will constitute valid and binding obligations of the Company.
2. The Warrant Shares have been duly authorized for issuance and, when issued, delivered and paid for in accordance with the terms of the applicable Warrants, will be validly issued, fully paid and nonassessable.

In addition to the assumptions, comments, qualifications, limitations and exceptions set forth above, the opinions set forth herein are further limited by, subject to and based upon the following:

1. 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 (a) to the laws of the State of Delaware as in effect on the date hereof and (b) as to the Warrants constituting valid and binding obligations of the Company, the applicable laws of the State of New York in effect on the date hereof that, in our experience, are normally applicable to transactions of the type contemplated by the Warrants. We express no opinion with respect to the laws of any other jurisdiction.
2. Our opinions are subject to, and may be limited by, (a) applicable bankruptcy, reorganization, insolvency, conservatorship, moratorium, fraudulent conveyance, fraudulent transfer, and similar laws and court decisions affecting the rights and remedies of creditors and secured parties generally, and (b) general principles of equity (including, without limitation, concepts of materiality, reasonableness, impossibility of performance, good faith and fair dealing) regardless of whether considered in a proceeding in equity or at law.

3. Our opinions are subject to the qualification that the availability of specific performance, an injunction or other equitable remedies is subject to the discretion of the court before which the request is brought.
4. We express no opinion as to any provision of the Warrants that: (a) provides for liquidated damages, buy-in damages, monetary penalties, prepayment or make-whole payments or other economic remedies to the extent such provisions may constitute unlawful penalties, (b) relates to advance waivers of claims, defenses, rights granted by law, or notice, opportunity for hearing, evidentiary requirements, statutes of limitations, trial by jury, or procedural rights, (c) restricts non-written modifications and waivers, (d) provides for the payment of legal and other professional fees where such payment is contrary to law or public policy, (e) relates to exclusivity, election or accumulation of rights or remedies, (f) authorizes or validates conclusive or discretionary determinations, or (g) provides that provisions of the Warrants are severable to the extent an essential part of the agreed exchange is determined to be invalid and unenforceable.
5. We express no opinion as to whether a state court outside of the State of New York or a federal court of the United States would give effect to the choice of New York law or jurisdiction provided for in the Warrants.

We hereby consent to the filing of this opinion by the Company as an exhibit to a Current Report on Form 8-K. We also hereby consent to the use of our name as your counsel under “Legal Matters” in the Prospectus. In giving this consent, we do not thereby concede that we come within the categories of persons whose consent is required by the Securities Act or the General Rules and Regulations promulgated thereunder. This opinion is strictly limited to the matters stated herein and no other or more extensive opinion is intended, implied or to be inferred beyond the matters expressly stated herein. This opinion letter is not a guaranty nor may one be inferred or implied.

Very truly yours,

/s/ BLANK ROME
BLANK ROME LLP



iBio Announces Proposed Public Offering

SAN DIEGO, August 18, 2025 (GLOBE NEWSWIRE) -- iBio, Inc. (Nasdaq: IBIO), an AI-driven innovator of precision antibody therapies, today announced it has commenced an underwritten public offering (the “offering”) of (i) pre-funded warrants to purchase shares of iBio’s common stock, and (ii) accompanying Series G warrants each representing the right to purchase (a) a fraction of a share of iBio’s common stock, or a pre-funded warrant in lieu thereof, and (b) Series H warrants each representing the right to purchase a fraction of a share of iBio’s common stock, or a pre-funded warrant in lieu thereof. All of the securities to be sold in the proposed offering will be offered by iBio. The proposed offering is subject to market and other conditions, and there can be no assurance as to whether or when the offering may be completed or as to the actual size or terms of the offering.

iBio intends to use the net proceeds received from the offering to advance its preclinical cardiometabolic programs, including IBIO-610, the myostatin and activin A bispecific, and IBIO-600 programs, through key development milestones, as well as to continue to progress its other preclinical pipeline assets, and the balance, if any, to fund iBio’s working capital requirements and for other general corporate purposes.

Leerink Partners is acting as the lead bookrunning manager for the offering. LifeSci Capital and Oppenheimer & Co. are acting as bookrunning managers. Brookline Capital Markets, a division of Arcadia Securities, LLC, is acting as a financial advisor to iBio.

The offering is being made by iBio pursuant to a shelf registration statement on Form S-3 (File No. 333- 280680), as amended (the “registration statement”), initially filed with the SEC on July 3, 2024, which became effective on August 6, 2024. The offering is being made only by means of a preliminary prospectus supplement and the accompanying base prospectus that form a part of the registration statement. A preliminary prospectus supplement and the accompanying base prospectus relating to the offering will be filed with the SEC and will be available on the SEC’s website at www.sec.gov. Copies of the preliminary prospectus supplement and the accompanying base prospectus, and when available, copies of the final prospectus supplement and the accompanying base prospectus relating to the offering, may be obtained by contacting Leerink Partners LLC, Syndicate Department, 53 State Street, 40th Floor, Boston, MA 02109, or by telephone at (800) 808-7525 ext. 6105, or by email at syndicate@leerink.com.

This press release shall not constitute an offer to sell, or a solicitation of an offer to buy, these securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.



About iBio, Inc.

iBio (Nasdaq: **IBIO**) is a cutting-edge biotech company leveraging AI and advanced computational biology to develop next-generation biopharmaceuticals for cardiometabolic diseases, obesity, cancer and other hard-to-treat diseases. By combining proprietary 3D modeling with innovative drug discovery platforms, iBio is creating a pipeline of breakthrough antibody treatments to address significant unmet medical needs. iBio's mission is to transform drug discovery, accelerate development timelines, and unlock new possibilities in precision medicine.

Forward-Looking Statements

Certain statements in this press release constitute "forward-looking statements" within the meaning of the federal securities laws. Words such as "may," "might," "will," "should," "believe," "expect," "anticipate," "estimate," "continue," "predict," "forecast," "project," "plan," "intend" or similar expressions, or statements regarding intent, belief, or current expectations, are forward-looking statements. These forward-looking statements are based upon current estimates and assumptions and include statements regarding the proposed offering, including the number and kind of securities to be sold in the proposed offering and iBio's use of the net proceeds of the proposed offering; iBio's ability to develop next-generation biopharmaceuticals for cardiometabolic diseases, obesity, cancer and other hard-to-treat diseases; iBio's ability to create a pipeline of breakthrough antibody treatments to address significant unmet medical needs, including its use of its AI powered technology stack; and iBio's ability to transform drug discovery, accelerate development timelines, and unlock new possibilities in precision medicine. While iBio believes these forward-looking statements are reasonable, undue reliance should not be placed on any such forward-looking statements, which are based on information available to us on the date of this release. These forward-looking statements are subject to various risks and uncertainties, many of which are difficult to predict that could cause actual results to differ materially from current expectations and assumptions from those set forth or implied by any forward-looking statements. Important factors that could cause actual results to differ materially from current expectations include, among others, risks and uncertainties relating to market conditions, the completion of the proposed offering on the anticipated terms or at all, iBio's ability to secure sufficient additional capital in the near-term, the initiation, timing, progress and results of iBio's research and development programs, the potential advantages and benefits of iBio's current and future product candidates, and the other factors discussed in iBio's filings with the SEC including its Annual Report on Form 10-K for the year ended June 30, 2024 and its subsequent filings with the SEC. The information in this release is provided only as of the date of this release, and iBio undertakes no obligation to update any forward-looking statements contained in this release on account of new information, future events, or otherwise, except as required by law.

Corporate Contact:

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Investor Relations
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iBio Announces Pricing of \$50 Million Public Offering

SAN DIEGO, August 19, 2025 (GLOBE NEWSWIRE) -- iBio, Inc. (Nasdaq: IBIO), an AI-driven innovator of precision antibody therapies, today announced the pricing of an underwritten public offering (the “offering”) of (i) pre-funded warrants to purchase 71,540,000 shares of iBio’s common stock (the “pre-funded warrants”), and (ii) accompanying Series G warrants representing the right to purchase (the “Series G warrants”) (a) 35,770,000 shares of iBio’s common stock, or pre-funded warrants in lieu thereof, and (b) Series H warrants representing the right to purchase 35,770,000 shares of iBio’s common stock, or pre-funded warrants in lieu thereof (the “Series H warrants”). The combined public offering price of one pre-funded warrant and one Series G warrant to purchase (1) one-half of a share of common stock, or a pre-funded warrant in lieu thereof, and (2) one Series H warrant to purchase one-half of a share of our common stock, or a pre-funded warrant in lieu thereof, which are being sold together but are immediately separable, is \$0.699. The offering is expected to close on or about August 22, 2025, subject to satisfaction of customary closing conditions. All of the securities are being offered by iBio.

The pre-funded warrants will be exercisable immediately and will be exercisable until all of the pre-funded warrants are exercised in full. The Series G warrants and Series H warrants will each be exercisable from their date of issuance and will have an exercise price equal to \$0.70 per share of iBio’s common stock (or \$0.699 per pre-funded warrant) and in the case of the Series G warrants, the accompanying Series H warrant. The Series G warrants will expire on the date that is the earlier of (i) 30 trading days following iBio’s public announcement, via a press release on a nationally recognized news wire or the filing of a Current Report on Form 8-K with the Securities and Exchange Commission (the “SEC”), that an Investigational New Drug Application (“IND”) filed with the U.S. Food and Drug Administration, a Clinical Trial Notification filed with the applicable foreign governmental body in Australia, a Clinical Trial Application filed with the European Medicines Agency, or an equivalent submission filed with a foreign governmental body to initiate a clinical trial in any other foreign jurisdiction has been accepted or has otherwise gone into effect, as applicable (such public filing or announcement, the “Trial Initiation Milestone”) and (ii) five years from the date of issuance. In addition, each Series G warrant will immediately expire in proportion to the extent that the corresponding pre-funded warrant held by a holder is exercised prior to the occurrence of the Trial Initiation Milestone (solely to the extent the proportion of the unexercised portion of the Series G warrant relative to the originally issued Series G warrant is greater than the proportion of the unexercised portion of the pre-funded warrant relative to the originally issued pre-funded warrant). When issued upon exercise of the Series G warrants, the Series H warrants will expire on the four-year anniversary of the closing date of this offering.

The estimated gross proceeds from the offering are expected to be approximately \$50 million before deducting underwriting discounts and commissions and offering expenses. The pre-funded warrants and Series G warrants (and the Series H warrants upon exercise of the Series G warrants) may be exercised for cash or, in certain circumstances at the holder’s discretion, on a net exercise or “cashless” basis. If all of the Series G warrants sold in this offering and all of the Series H warrants underlying the Series G warrants were to be exercised in cash at their exercise price, we would receive additional gross proceeds of approximately \$50 million, before deducting expenses and fees.

iBio intends to use the net proceeds received from the offering to advance its preclinical cardiometabolic programs, including IBIO-610, the myostatin and activin A bispecific, and IBIO-600 programs, through key development milestones, as well as to continue to progress its other preclinical pipeline assets, and the balance, if any, to fund iBio's working capital requirements and for other general corporate purposes.

Leerink Partners acted as the lead bookrunner for the offering. LifeSci Capital and Oppenheimer & Co. acted as bookrunning managers. Brookline Capital Markets, a division of Arcadia Securities, LLC, acted as a financial advisor to iBio.

The offering is being made by iBio pursuant to a shelf registration statement on Form S-3 (File No. 333- 280680), as amended (the "registration statement"), initially filed with the SEC on July 3, 2024 and, which became effective on August 6, 2024. The offering is being made only by means of a prospectus supplement and accompanying base prospectus that form a part of the registration statement. A final prospectus supplement relating to and describing the terms of the offering will be filed with the SEC and may be obtained for free by visiting the SEC's website at www.sec.gov. Copies of the final prospectus supplement and the accompanying base prospectus relating to the offering, when available, may be obtained by contacting Leerink Partners LLC, Syndicate Department, 53 State Street, 40th Floor, Boston, MA 02109, or by telephone at (800) 808-7525 ext. 6105, or by email at syndicate@leerink.com.

This press release shall not constitute an offer to sell, or a solicitation of an offer to buy these securities, nor shall there be any sale of, these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

About iBio, Inc.

iBio (Nasdaq: **IBIO**) is a cutting-edge biotech company leveraging AI and advanced computational biology to develop next-generation biopharmaceuticals for cardiometabolic diseases, obesity, cancer and other hard-to-treat diseases. By combining proprietary 3D modeling with innovative drug discovery platforms, iBio is creating a pipeline of breakthrough antibody treatments to address significant unmet medical needs. Our mission is to transform drug discovery, accelerate development timelines, and unlock new possibilities in precision medicine.

Forward-Looking Statements

Certain statements in this press release constitute "forward-looking statements" within the meaning of the federal securities laws. Words such as "may," "might," "will," "should," "believe," "expect," "anticipate," "estimate," "continue," "predict," "forecast," "project," "plan," "intend" or similar expressions, or statements regarding intent, belief, or current expectations, are forward-looking statements. These forward-looking statements are based upon current estimates and assumptions and include statements regarding the offering, including the expected closing of the offering and iBio's intended use of the net proceeds of the offering; iBio's ability to develop next-generation biopharmaceuticals for cardiometabolic diseases, obesity, cancer and other hard-to-treat diseases; iBio's ability to create a pipeline of breakthrough antibody treatments to address significant unmet medical needs, including its use of its AL powered technology stack; and iBio's ability to transform drug discovery, accelerate development timelines, and unlock new possibilities in precision medicine. While iBio believes these forward-looking statements are reasonable, undue reliance should not be placed on any such forward-looking statements, which are based on information available to us on the date of this release. These forward-looking statements are subject to various risks and uncertainties, many of which are difficult to predict that could cause actual results to differ materially from current expectations and assumptions from those set forth or implied by any forward-looking statements. Important factors that could cause actual results to differ materially from current expectations include, among others, risks and uncertainties relating to market conditions, the ability to satisfy all closing conditions and complete the offering pursuant to the anticipated terms or at all, iBio's ability to secure sufficient additional capital in the near-term, the initiating, timing, progress and results of iBio's research and development programs, the potential advantages and benefits of iBio's current and future product candidates, and the other factors discussed in iBio's filings with the SEC including its Annual Report on Form 10-K for the year ended June 30, 2024 and its subsequent filings with the SEC. The information in this release is provided only as of the date of this release, and iBio undertakes no obligation to update any forward-looking statements contained in this release on account of new information, future events, or otherwise, except as required by law.

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