As filed with the Securities and Exchange Commission on October 23, 2019

Registration No. 333-233504

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

AMENDMENT NO. 2 TO
FORM S-1
REGISTRATION STATEMENT
Under
THE SECURITIES ACT OF 1933

IBIO, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**2834**	**26-2797813**
(State of Other Jurisdiction of Incorporation or Organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

600 Madison Avenue, Suite 1601, New York, NY 10022-1737
(Address of Principal Executive Offices, including Zip Code)

Robert B. Kay
Chief Executive Officer
600 Madison Avenue, Suite 1601 New York, NY 10022-1737
(302) 355-0650
(Name, Address and Telephone Number of Agent for Service)

with copies to:

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Andrew Abramowitz, PLLC	**Sullivan & Worcester LLP**
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New York, New York 10017	**New York, New York 10019**
(212) 972-8883 (fax)	**(212) 660-3000**

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

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

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

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

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

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

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☒
	Emerging growth company ☐

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered		**Proposed Maximum Aggregate Offering Price (1)**		**Amount of Registration Fee (2)**
Common Stock, par value $0.001 per share (3)	$	1,150,000		
Series C Convertible Preferred Stock, par value $0.001 per share (3)	$	4,600,000	$	
Common Stock issuable upon conversion of the Series C Convertible Preferred Stock (3)				
Series A Common Stock Purchase Warrants (3)	$	6,325,000		
Shares of Common Stock, par value $0.001 per share, underlying Series A Common Stock Purchase Warrants (3)				
Series B Common Stock Purchase Warrants	$	6,325,000		
Shares of Common Stock, par value $0.001 per share, underlying Series B Common Stock Purchase Warrants				
Total	$	18,400,000	$	2,388.32(4)

(1) Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes shares subject to the underwriter's over-allotment option to purchase additional shares of common stock and/or warrants.

(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price of the securities registered hereunder.

(3) Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional securities as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(4) Registration fee previously paid.

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

The information contained in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 23, 2019

PRELIMINARY PROSPECTUS

1,724,138 Shares of Common Stock
4,000 Shares of Series C Preferred Stock
8,620,690 Series A Warrants to Purchase Common Stock
8,620,690 Series B Warrants to Purchase Common Stock

We are offering up to 1,724,138 of shares (the "Shares") of common stock, $0.001 par value, of iBio, Inc., a Delaware corporation (the "Company") in a firm commitment underwritten public offering. Our common stock is traded on the exchange market of NYSE American LLC (the "NYSE American") under the symbol "IBIO."

We are also offering 4,000 shares of our newly designated Series C Convertible Preferred Stock, $0.001 par value (the "Series C Preferred Stock"), which such offered shares of Series C Preferred Stock we refer to in this prospectus as "Series C Preferred Shares", which will have a stated value of $1,000 and will be convertible into shares of our common stock at the public offering price of the Shares in this offering at the option of the holder, provided that as a result of such conversion, the holder, together with its affiliates, would not own more than 4.99% of the total number of shares of our common stock issued and outstanding at the time of conversion. Any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% (the "Series C Maximum Conversion Limit"), provided that any increase in such percentage shall not be effective until 61 days after such notice to us. The Series C Preferred Shares do not generally have any voting rights unless and until converted into shares of common stock.

We are also offering warrants to purchase shares of our common stock, $0.001 par value. Each Share of common stock is being sold together with two warrants, one Series A Warrant with an expiry date on the second anniversary of the original issuance date, to purchase one share of common stock (the "Two Year Warrants") and a Series B Warrant with an expiry date on the seventh anniversary of the original issuance date, to purchase one share of common stock (the "Seven Year Warrants"). In addition, each Series C Preferred Share is being sold together with a Two Year Warrant to purchase one share of common stock for each share of common stock issuable upon conversion of the Series C Preferred Share and Seven Year Warrants to purchase one share of common stock for each share of common stock issuable upon conversion of the Series C Preferred Share. The Two Year Warrants and Seven Year Warrants may be referred to in this prospectus as "Warrants" and the Shares of common stock, Series C Preferred Shares and Warrants may be referred to collectively as "Securities." The Shares of common stock and accompanying Warrants and the Series C Preferred Shares and accompanying Warrants will be issued separately.

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Series C Preferred Shares and Warrants are sold in this offering and whether and to what extent holders of such Series C Preferred Shares or holders of Warrants convert their shares, or exercise their Warrants, into common stock.

On October 22, 2019, the last reported sale price of our common stock, as reported on the NYSE American, was $0.58 per share. The actual offering price per Share and per Series C Preferred Share in this offering will be as determined between us and A.G.P./Alliance Global Partners (the "Underwriter") at the time of pricing, and may be at a discount to the current market price of our common stock.

Assuming an offering price of $0.58 per Share, the Series C Preferred Shares will be convertible into an aggregate total of 6,896,552 shares of common stock.

There is no established trading market for the Series C Preferred Shares, and we do not expect an active trading market to develop. We do not intend to list the Series C Preferred Shares on any securities exchange or other trading market. Without an active trading market, the liquidity of the Series C Preferred Shares will be limited.

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

Investing in our securities involves a high degree of risk. See "Risk Factors" on page 8 of this prospectus.

Neither the Securities and Exchange Commission (the "SEC") nor any state securities commission has approved or disapproved of these securities or determined if this prospectus or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share and Accompanying Warrants	Per Series C Preferred Share and Accompanying Warrants	No Exercise of Over-allotment option Total	Full Exercise of Over-allotment option Total
Public Offering Price	$	$ 1,000	$	$
Underwriting discounts and commissions paid(1)				
Underwriter discounts and commissions paid (pre-existing relationship investors)(2)				
Proceeds to us, before expenses	$	$	$	$

(1) The Underwriter will receive a discount of 7% to the public offering price with respect to any Shares or Series C Preferred Shares purchased in this offering by investors, other than certain investors who have a pre-existing relationship with us. Does not include a Warrant exercise fee payable to the Underwriter equal to 3.5% of the exercise price from each Warrant (other than any Warrant issued pursuant to the over-allotment option) that is exercised in accordance with its terms. See "Underwriting" for a discussion of the compensation payable to the Underwriter

(2) The Underwriter will receive a discount of 3.5% to the public offering price with respect to any Shares or Series C Preferred Shares purchased in this offering by certain investors who have a pre-existing relationship with us. Does not include a Warrant exercise fee payable to the Underwriter equal to 3.5% of the exercise price from each Warrant (other than any Warrant issued pursuant to the over-allotment option) that is exercised in accordance with its terms.

We have granted a forty-five (45)-day option to the Underwriter to purchase additional Shares and/or Warrants, in an amount of up to 15% of the Shares and common stock issuable upon conversion of the Series C Preferred Shares sold in the offering solely to cover over-allotments, if any. If the Underwriter exercises the over-allotment option in full, the total underwriting discounts and commissions payable by us will be $315,000 and the total proceeds to us, before expenses, will be $5,435,000, assuming an offering price of $0.58 per Share (the last reported sales price of our common stock on the NYSE American on October 22, 2019) and $1,000 per Series C Preferred Share.

The Underwriter expects to deliver the Securities to purchasers against payment therefor on or before , 2019.

Sole Book-Running Manager

A.G.P.

The date of this prospectus is , 2019.

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We and the Underwriter have not authorized anyone to provide you any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the Underwriter are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside of the United States: we have not and the Underwriter has not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus outside of the United States.

SUMMARY PROSPECTUS

This summary highlights certain information about us, this offering and selected information contained in the prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock and/or warrants. For a more complete understanding of our company and this offering, we encourage you to read and consider the more detailed information in the prospectus, including "Risk Factors" and the financial statements and related notes. Unless we specify otherwise, all references in this prospectus to "iBio," "we," "our," "us" and "our company" refer to iBio Inc.

Our Company

iBio is a full-service plant-based expression biologics CDMO equipped to deliver pre-clinical development through regulatory approval, commercial product launch and on-going commercial phase requirements. iBio's FastPharming™ expression system, iBio's proprietary approach to plant-made pharmaceutical (PMP) production, can produce a range of recombinant products including monoclonal antibodies, antigens for subunit vaccine design, lysosomal enzymes, virus-like particles (VLP), blood factors and cytokines, scaffolds, maturogens and materials for 3D bio-printing and bio-fabrication, biopharmaceutical intermediates and others, as well as create and produce proprietary derivatives of pre-existing products with improved properties. We utilize our proprietary technologies and production facilities to provide product development and manufacturing services to clients, collaborators and third-party customers as well as developing our own product candidates.

iBio's FastPharming™ platform includes transient transfection of plants and use of transgenic plants for biologics development and manufacturing, as well as glycan engineering tools, and offers many benefits over the limitations of other expression systems, including:

- **Fast** FastPharming™ may shorten timelines to the clinic and move a program from gene sequence to protein production in weeks versus months
- **Economical** No expensive, labor-intensive, and costly mammalian cell line development
- **Quality** Production of consistent therapeutics to standards that are well accepted by global regulatory bodies
- **Scalable** Fewer time-consuming scale-up challenges
- **Safe** Inherently enhanced product safety profile
  - No animal products or animal-derived components are used at any point in FastPharming™
  - No inherent adventitious agents and no competency for agent replication
- **Customized N-glycosylation** FastPharming™ allows for N-glycosylation customization of products. Glycan engineering in plants affords greater control and may deliver increased product potency and quality

Our assets and capabilities include proprietary and transformative methods for the development, improvement, and production of biologics using hydroponically grown, transiently-transfected green plants. We harness the natural protein production capability plants use to sustain their own growth, and direct it, instead, to produce proteins for a range of applications. We and our collaborators have used our technologies successfully with a diverse range of product candidates including products against fibrotic diseases, vaccines, enzyme replacements, monoclonal antibodies, and recombinant versions of marketed products that are currently derived from human blood plasma. Our technologies have also been used to advance the development of certain products that have been commercially infeasible to develop with conventional technologies such as Chinese hamster ovary cell systems and microbial fermentation methods. We have also used our technologies to create and produce experimental, proprietary derivatives of pre-existing products with improved properties.

iBio CDMO services consist of the following *core* offerings:

Process Development	FastPharming™ optimizes gene-expression, glycosylation, and purification parameters to deliver a robust process for an active pharmaceutical ingredient (API). iBio's process development team is integrated with its manufacturing team to optimize processes and technology transfer.
cGMP Manufacturing	The FastPharming™ system works at large-scale to easily and reliably deliver biologics in clinical trial or commercial quantities. iBio's cGMP manufacturing facility was designed to provide highly flexible production schemes.
Aseptic Fill / Finish	iBio offers sterile aseptic fill/finish as part of its core process development and cGMP manufacturing services, as well as a stand-alone service for biopharmaceutical/CDMO bulk API manufacturers. In-line labelling allows serialization of vials and bottles for greater quality assurance of monoclonal antibodies, viral vectors, and other biologics.
Bio-Analytics	iBio's analytical team provides method development and validation as part of its core process development and cGMP manufacturing services, while also performing these services on an ad hoc basis. An experienced analytical staff provides method development and validation support with expertise in protein characterization using mass spectrometry.
Quality & Regulatory	iBio and its selected contractors provide support through the entire drug development cycle, including e-publishing of FDA filings. Quality systems have been carefully constructed to meet cGMP requirements, and iBio can provide regulatory guidance (FDA, EMA and other regulatory bodies) given the team's experience with therapeutic development.
Factory Solutions	iBio facilitates insourcing by designing and consulting on the building of a client's own environmentally sustainable FastPharming™ facility. iBio offers extensive training and complete transfer of process design and quality management systems under appropriate licensing agreements, allowing clients to quickly move into production upon the completion of their facility.

We expect to provide goods and services and participate in collaborative development programs with a diverse group of clients and collaborators to enable us to achieve positive cash flow from operations sufficient for use in developing our own product candidates and enabling us to participate in the success of selected products developed jointly with collaborators.

CDMO Facility

iBio CDMO LLC's ("iBio CDMO") operations take place in Bryan, Texas in a facility controlled by an affiliate of Eastern Capital Limited ("Eastern"), a stockholder of the Company, (referred to as the "Sublandlord" of the "Second Eastern Affiliate") as sublandlord. The facility is a Class A life sciences building located on land owned by the Texas A&M system designed and equipped for plant-made manufacture of biopharmaceuticals. The Sublandlord granted our subsidiary, iBio CDMO LLC ("iBio CDMO"), a 34-year lease for the facility. Commercial activities commenced in January 2016 with the large majority of efforts directed towards recommissioning the facility to help meet cGMP manufacturing standards and provisions for iBio's core service offerings. The facility houses laboratory and pilot-scale operations, as well as large-scale automated hydroponic systems capable of growing over four million plants as "in process inventory" and delivering over 300 kilograms of therapeutic protein pharmaceutical active ingredient per year. The facility capacity can be doubled by adding additional plant growth equipment in a space already available for that purpose

Product Candidate Pipeline

Another component of iBio's strategy consists of potentially sharing in the successful development, advancement and commercialization of selected product candidates by our collaborators and licensees as well as advancing our own product candidates. We expect to accomplish this objective through both investments we make to acquire or develop our own proprietary product candidates and also by participating with select customers and collaborators in the value created through the development, with our technologies, and manufacture of their product candidates. On an ongoing basis, we evaluate potential product candidate opportunities to which iBio technologies can add further value.

With respect to the development and commercialization of our own product candidates, our current pipeline is comprised of proprietary candidates for the treatment of a range of fibrotic diseases including systemic scleroderma and idiopathic pulmonary fibrosis. IBIO-CFB03, based on exclusively in-licensed university patents and newer patent applications filed by iBio, is our lead therapeutic candidate being advanced for Investigational New Drug ("IND") development.

Our research and development activities are directed and led by our President and by our Chief Scientific Officer and are either performed internally by iBio CDMO or outsourced to a third party. Our research and development work allows us to develop our product candidates, promote both the value of such product candidates and our technologies for licensing and product development purposes and uncover and pursue other strategic opportunities.

Our Business

FastPharming™

FastPharming™, iBio's proprietary approach to plant-made pharmaceutical (PMP) production, includes transgenic plants, a transient expression system, and other technologies that can handle many of the complex and novel candidates emerging from clients' and potential clients' pipelines, resulting in higher overall product yields and increased downstream unit operation productivity, and the development of target product profiles with customized N-glycosylation.

Our Technologies – iBio Process Technologies, iBio Product Technologies

iBio owns technology developed pursuant to agreements with Fraunhofer as discussed in the Business section below. iBio has now developed or acquired independent proprietary technologies to achieve specific product objectives. In addition to development work by iBio CDMO, iBio has engaged contractors other than Fraunhofer, including Novici, to develop proprietary technologies and manufacturing processes that the Company is protecting both through patent applications and as trade secrets.

Application of iBio Technologies – Target Markets and Product Candidates

Target Markets and Commercialization Activities

We are actively engaged in efforts to commercialize our technologies and services. Our plan is to enter important markets through license and development agreements, commercial collaborations, and manufacturing contracts. Our current marketing efforts focus on those decision makers whom we expect will be attracted to the cost and efficiency advantages that may be obtained through use of our technologies and services. We believe that the advantages of our technologies and the efficiency and capabilities of our CDMO operations will enable us to compete effectively against the providers of other manufacturing systems that may be slower, more capital intensive and costlier to operate. We anticipate realizing revenues in connection with our development and manufacturing services, with licenses we may grant and technology transfer services we may provide.

Product Candidates

Therapeutic Protein Product Candidates

Many classes of therapeutic proteins can be successfully produced using our proprietary technologies. They range from large and complex monoclonal antibodies to smaller proteins such as interferons, growth factors, and enzymes.

IBIO-CFB03, a Proprietary Product for Treatment of Fibrosis

iBio has exclusively licensed and is developing, with its technology, an innovative new product we have designated "IBIO-CFB03" for treatment of systemic sclerosis (SSC) and idiopathic pulmonary fibrosis (IPF), both fatal and incurable diseases. The total number of people affected by systemic sclerosis and IPF, while large in comparison to many biotechnology target markets, is small enough for iBio's drug to qualify for the regulatory and financial benefits available under U.S. and European Orphan Drug incentives.

Other Therapeutic Proteins

iBio evaluates addition product candidates from both universities and other companies as potential additions to its portfolio of proprietary product opportunities. In some cases, like with iBIO-CFB03, iBio will take a lead role in development. In other cases, iBio will, on a selective basis, provide the advantages of its technologies and facilities capabilities to third-party product developers in exchange for a minority interest in the product.

Vaccine Candidates

We and our collaborators have used our proprietary technologies to successfully express and demonstrate the feasibility of production of a broad array of vaccine candidates. We are currently developing for third parties, and evaluating the feasibility of developing, a number of vaccine candidates. However, vaccine products are not a category in which iBio expects to make significant financial investments. Rather, iBio expects its financial participation in novel vaccines to be through development agreements, manufacturing contracts, and royalties based on product or process patent licenses.

Biodefense Countermeasures

Our technologies have advantages that we believe are particularly well suited for the biodefense market. Speed of production and capability to produce both vaccines and therapeutic proteins and the potential to improve performance of vaccines through the application of iBio technologies are key features of biologics manufacturing systems that may be sought by governments and state corporations seeking to establish autonomous capabilities to protect their populations from bioterrorism threats.

Strategic Alliances and Collaborations

A significant component of our business plan is to enter into strategic alliances and collaborations with for-profit entities, governments, foundations, and others as appropriate to gain access to funding, capabilities, technical resources and intellectual property to further our development efforts, commercialize our technology and to generate revenues, including through the development and manufacture of products at iBio's CDMO facility.

Intellectual Property

We exclusively own the right to use intellectual property acquired by or developed at Fraunhofer for human health and certain veterinary and diagnostic applications. We also own intellectual property developed or acquired independently of Fraunhofer. In addition, we have an exclusive worldwide license agreement with the University of Pittsburgh covering U.S. and foreign patents and patent applications and related intellectual property owned by the University of Pittsburgh pertinent to the use of endostatin peptides for the treatment of fibrosis. Our success will depend in part on our ability to obtain and maintain patent protection for our technologies and products and to preserve our trade secrets. Our policy is to seek to protect our proprietary rights, by among other methods, filing patent applications in the U.S. and foreign jurisdictions to cover certain aspects of our technology.

We currently own some 26 U.S. patents and 68 international patents. We have an exclusive license to five U.S. patents and one application. Additionally, we have one international patent application allowed, as well as three U.S. and 15 international applications pending. International patents and applications include numerous foreign countries including Australia, Brazil, Canada, China, Hong Kong, India, Korea, Russia and several countries in Europe. We continue to prepare patent applications relating to our expanding technology in the U.S. and abroad.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products.

We face competition from many different sources, including commercial pharmaceutical and biotechnology enterprises, academic institutions, government agencies, and private and public research institutions. Our commercial opportunities will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we or our collaborators may develop based on the use of our technologies.

Government Regulation and Product Approval

Regulation by governmental authorities in the U.S. and other countries is a significant factor in the development, manufacturing and marketing of pharmaceutical drugs and vaccines. All of the vaccine and therapeutic products developed from our technologies will require regulatory approval by governmental agencies prior to commercialization. In particular, pharmaceutical drugs and vaccines are subject to rigorous preclinical testing and clinical trials and other pre-marketing approval requirements by the Food and Drug Administration ("FDA") and regulatory authorities in other countries. In the U.S., various federal, and, in some cases, state statutes and regulations, also govern or impact the manufacturing, safety, labeling, storage, record-keeping and marketing of vaccines and pharmaceutical products. The lengthy process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations requires the expenditure of substantial resources. Regulatory approval, if and when obtained for any of our product candidates, may be limited in scope, which may significantly limit the indicated uses for which our product candidates may be marketed. Further, approved vaccines and drugs are subject to ongoing review and discovery of previously unknown problems that may result in restrictions on their manufacture, sale or use, or in their withdrawal from the market.

Employees

As of October 22, 2019, we had four employees in iBio and forty-nine employees in iBio CDMO. Our employees are not represented by any union and are not the subject of a collective bargaining agreement. We consider our relations with our employees to be good and believe this staffing level will be sufficient to meet our needs.

Our Corporate Information

We are a Delaware corporation. Our principal executive/administrative offices are located at 600 Madison Avenue, Suite 1601, New York, NY 10022, and our telephone number is (302) 355-0650. Our website address is http://www.ibioinc.com. Information on or accessed through our website is not incorporated into this prospectus and is not a part of this prospectus. Our common stock is traded on NYSE American under the symbol "IBIO."

The Offering

Issuer	iBio, Inc.
Shares of common stock offered by us	1,724,138 Shares
Series C Preferred Shares offered by us	4,000 Series C Preferred Shares are being offered to the purchasers, at their option. The Series C Preferred Shares have a stated value of $1,000. The Series C Preferred Shares will be convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder, at a conversion price equal to the public offering price of the Shares, provided that as a result of such conversion, the holder, together with its affiliates, would not own more than 4.99% of the total number of shares of our common stock issued and outstanding at the time of conversion. Any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us. The Series C Preferred Shares generally do not have any voting rights but are convertible into shares of common stock. See "Description of Securities — Preferred Stock —Series C Convertible Preferred Stock" for a discussion of the terms of the Series C Preferred Shares.
Warrants offered by us	Each Series A Warrant and each Series B Warrant represents the right to purchase one (1) share of common stock. The Series A Warrants (sometimes referred to in this prospectus as the "Two Year Warrants") will expire on the second anniversary of the date of issuance. The Series B Warrants (sometimes referred to in this prospectus as the "Seven Year Warrants," and, together with the Two Year Warrants, as "Warrants") will expire on the seventh anniversary of the date of issuance. All of the Warrants will be exercisable immediately upon issuance at an exercise price of $ per share.
Common stock outstanding prior to this offering (as of October 22, 2019)	24,152,455
Common stock to be outstanding after this offering	25,876,593 shares (or 27,169,696 shares if the Underwriter exercises its option to purchase additional shares in full), excludes shares of common stock that may be issued upon conversion of shares of the Company's preferred stock, including the Series C Preferred Stock offered in this offering as well as the common stock that may be issued upon exercise of the Warrants purchased in this offering.
Option to purchase additional securities	We have granted the Underwriter a 45-day over-allotment option, solely to cover over-allotments, if any, to purchase additional shares of our common stock and/or Two Year Warrants and/or Seven Year Warrants at the public offering price less estimated underwriting discounts and commissions in an amount of up to 15% of the Shares and common stock issuable upon conversion of the Series C Preferred Shares sold in the offering.

Use of proceeds	We estimate the net proceeds to us from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately $4.5 million ($5.2 million if the Underwriter's over-allotment option to purchase additional shares and/or warrants is exercised in full), assuming a public offering price of $0.58 per share, the last reported sale price of our common stock on the NYSE American on October 22, 2019. The actual offering price per share will be as determined between us and the Underwriter at the time of pricing, and may be at a discount to the current market price. We intend to use the net proceeds from this offering for working capital and general corporate purposes. See the section entitled "Use of Proceeds" beginning on page 29 of this prospectus.
Risk Factors	This investment involves a high degree of risk. See "Risk Factors" for a discussion of factors you should consider carefully before making an investment decision.
NYSE American Market Symbol	"IBIO."

RISK FACTORS

Our business faces many risks. Past experience may not be indicative of future performance, and as noted elsewhere in this prospectus, we have included forward-looking statements about our business, plans and prospects that are subject to change. In addition to the other risks or uncertainties contained in this prospectus, the risks described below may affect our operating results, financial condition and cash flows. If any of these risks occur, either alone or in combination with other factors, our business, financial condition or operating results could be adversely affected and the trading price of our common stock may decline. Moreover, readers should note this is not an exhaustive list of the risks we face; some risks are unknown or not quantifiable, and other risks that we currently perceive as immaterial may ultimately prove more significant than expected. Statements about plans, predictions or expectations should not be construed to be assurances of performance or promises to take a given course of action.

Risks Related to Our Financial Position and Need for Additional Capital

Based on our lack of sufficient revenue since inception and recurring losses from operations, our independent registered public accounting firm have included an explanatory paragraph in their opinion as to the substantial doubt about our ability to continue as a going concern.

Since our spin-off from Integrated BioPharma, Inc. ("Integrated BioPharma") in August 2008, we have incurred significant losses and negative cash flows from operations. As of June 30, 2019, the Company's accumulated deficit was $105.8 million. For the year ended June 30, 2019, the Company's net loss was approximately $17.6 million and it had cash used in operating activities of $14.0 million. As of June 30, 2019, cash on hand totaled approximately $4.4 million which is expected to support the Company's activities at least through September 30, 2019.

The Company has historically financed its activities through the sale of common stock and warrants. Through June 30, 2019, the Company has devoted substantially all of its efforts to research and development, including the development and validation of its technologies, the CDMO facilities, and the development of a proprietary therapeutic product against fibrosis based upon its technologies. The Company has not completed development of or commercialized any vaccine or therapeutic product candidates. The Company expects to continue to incur significant expenses and may incur operating losses for at least the next year.

Becoming and remaining profitable is dependent upon the Company's ability to attract and retain customers for the development, manufacturing and technology transfer services offered by iBio CDMO. In addition, profitability will also depend on whether the Company is successful at commercialization of its technologies and whether the Company, alone or with its licensees, develops and eventually commercializes products that generate significant revenue.

The history of significant losses, the negative cash flow from operations, the limited cash resources currently on hand and the dependence by the Company on its ability – about which there can be no certainty – to obtain additional financing to fund its operations after the current cash resources are exhausted raises substantial doubt about the Company's ability to continue as a going concern. These financial statements were prepared under the assumption that the Company will continue as a going concern and do not include any adjustments that might result from the outcome of this uncertainty.

The Company plans to fund its future business operations using cash on hand, through proceeds from the sale of additional equity or other securities, and through proceeds realized in connection with the commercialization of its technologies and proprietary products, license and collaboration arrangements and the operation of iBio CDMO. In the event that we are unable to operate the iBio CDMO profitably, or the proceeds of this offering do not enable us to manage the CDMO for the long-term, we may pursue strategic opportunities for the CDMO other than license and collaboration arrangements.

The Company cannot be certain that any such funding will be available on favorable terms or available at all. To the extent that the Company raises additional funds by issuing equity securities, its stockholders may experience significant dilution. If the Company is unable to raise funds when required or on favorable terms, this assumption may no longer be operative, and the Company may have to: a) significantly delay, scale back, or discontinue the product application and/or commercialization of its proprietary technologies; b) seek collaborators for its technology and product candidates on terms that are less favorable than might otherwise be available; c) relinquish or otherwise dispose of rights to technologies, product candidates, or products that it would otherwise seek to develop or commercialize; or d) possibly cease operations.

We have incurred significant losses since our inception. We expect to incur losses during our next fiscal year and may never achieve or maintain profitability.

Since our 2008 spinoff from Integrated BioPharma, we have incurred operating losses and negative cash flows from operations. Our net loss was approximately $17.6 and $16.1 million for 2019 and 2018, respectively. As of June 30, 2019, we had an accumulated deficit of approximately $105.8 million.

To date, we have financed our operations primarily through the sale of common stock and warrants. We have devoted substantially all of our efforts to research and development, including the development and validation of our technologies, our CDMO facilities, and the development of a proprietary therapeutic product against fibrosis based upon our technologies. We have not completed development of or commercialized any vaccine or therapeutic product candidates. We expect to continue to incur significant expenses and may incur operating losses for at least the next year. We anticipate that our expenses and losses will increase substantially if we:

- initiate clinical trials of our product candidates;
- continue the research and development of our product candidates;
- seek to discover additional product candidates; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and manufacturing efforts.

To become and remain profitable, we must succeed in attracting and maintaining customers for the development, manufacturing and technology transfer services offered by iBio CDMO. Our profitability depends on the spending on iBio CDMO's services by its customers and potential customers. In addition, our profitability will also depend on continuing to commercialize our technologies or we, alone or with our licensees, must succeed in developing and eventually commercializing products that generate significant revenue. This will require us, alone or with our licensees and collaborators, to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, obtaining regulatory approval for these product candidates and manufacturing, marketing and selling those products for which regulatory approval is obtained or establishing collaborations with parties willing and able to provide necessary capital or other value. We may never succeed in these activities. We may never generate revenues that are significant or large enough to achieve profitability.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would diminish the value of our company and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

We may need additional funding to execute our business plan, which funding may not be available on commercially acceptable terms or at all. If we are unable to raise capital when needed, we may be forced to delay, reduce or eliminate the commercialization of our development and manufacturing services and efforts or our product development programs.

We have limited financial resources and may need substantial additional funding in connection with our continuing operations, especially if we are delayed or are unsuccessful in attracting and maintaining customers for the development, manufacturing and technology transfer services offered by iBio CDMO. To the extent that we initiate or continue clinical development without securing collaborator or licensee funding, our research and development expenses could increase substantially. Additionally, to the extent that our efforts to out-license our technologies and product candidates are unsuccessful or we find that it is necessary to advance the development of product candidates further than contemplated by our current business plans to secure favorable licensing terms, we would require substantial additional capital.

On July 24, 2017, we entered into a common stock purchase agreement with Lincoln Park Capital Fund, LLC ("Lincoln Park"), an Illinois limited liability company, pursuant to which Lincoln Park agreed to purchase from us up to an aggregate of $16,000,000 of our common stock (subject to certain limitations) from time to time over the 36-month term of the agreement (the "Lincoln Park Purchase Agreement" or "Purchase Agreement"). As a result, on July 24, 2017, 120,000 shares of our common stock were issued to Lincoln Park as consideration for Lincoln Park's commitment to purchase shares of our common stock under the agreement, and 250,000 shares of common stock were sold to Lincoln Park in an initial purchase for an aggregate gross purchase price of $1,000,000. During March 2018, the Company sold an additional 60,000 shares of common stock to Lincoln Park for an aggregate gross purchase price of $121,290.

As of June 30, 2019, under the terms and subject to the conditions of the Lincoln Park Purchase Agreement, the Company has the right but not the obligation, to sell to Lincoln Park, and Lincoln Park is obligated to purchase up to, an additional $14,878,710 worth of shares of the Company's common stock. Such future sales of common stock by the Company, if any, will be subject to certain limitations, and may occur from time to time, at the Company's option, over the 36-month term of the agreement. In connection with the Lincoln Park Purchase Agreement, on July 24, 2017, we entered into a registration rights agreement with Lincoln Park ("Registration Rights Agreement") subsequent to which we filed with the SEC a registration statement on Form S-1 to register for resale under the Securities Act of 1933, as amended, or the Securities Act, the shares of common stock that have been or may be issued to Lincoln Park under the Purchase Agreement.

The extent to which we utilize the Purchase Agreement with Lincoln Park as a source of funding will depend on a number of factors, including the prevailing market price of our common stock, the volume of trading in our common stock and the extent to which we are able to secure funds from other sources. The number of shares that we may sell to Lincoln Park under the Purchase Agreement on any given day and during the term of the agreement is limited. Additionally, we and Lincoln Park may not effect any sales of shares of our common stock under the Purchase Agreement during the continuance of an event of default under the Purchase Agreement.

Under the rules of NYSE American LLC ("NYSE American" or the "Exchange"), in no event may we issue or sell to Lincoln Park under the Purchase Agreement more than 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement (which was approximately 1,781,479 shares based on 8,911,851 shares outstanding immediately prior to the execution of the Purchase Agreement), which limitation we refer to as the Exchange Cap, unless (i) we obtain stockholder approval to issue shares of common stock in excess of the Exchange Cap or (ii) all sales of our common stock to Lincoln Park under the Purchase Agreement are deemed to be at a price equal to or in excess of the greater of book or market value of our common stock, as calculated in accordance with the applicable rules of NYSE American, such that they qualify for an exception to the Exchange Cap limitation under such rules. In any event, the Purchase Agreement specifically provides that we may not issue or sell any shares of our common stock under the Purchase Agreement if such issuance or sale would breach any applicable rules or regulations of NYSE American.

Even if we are able to access the full $16.0 million under the Purchase Agreement, we may still need additional capital to fully implement our business, operating and development plans.

When we elect to raise additional funds or additional funds are required, we may raise such funds from time to time through public or private equity offerings, debt financings, corporate collaboration and licensing arrangements or other financing alternatives, as well as through sales of common stock to Lincoln Park under the Purchase Agreement. Additional equity or debt financing or corporate collaboration and licensing arrangements may not be available on acceptable terms, if at all. If we are unable to raise capital in sufficient amounts when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or commercialization efforts and our ability to generate revenues and achieve or sustain profitability will be substantially harmed.

We expect our existing cash on hand as of October 22, 2019 in the amount of approximately $2.0 million, together with the proceeds of this offering, funds we may develop from future sales pursuant to the Lincoln Park Purchase Agreement, and proceeds realized in connection with license and collaboration arrangements and the operation of our subsidiary, iBio CDMO, will be sufficient to meet our projected operating requirements through June 30, 2020. Based on our projections, the Company plans to fund its future business operations using cash on hand, through proceeds from the sale of additional equity or other securities, and through proceeds realized in connection with the commercialization of its technologies and proprietary products, license and collaboration arrangements and the operation of iBio CDMO.

We have based this projection on assumptions that may prove to be wrong, in which case we may deplete our cash resources sooner than we currently anticipate. Our future capital requirements will depend on many factors, including:

- further obtaining and retention of developmental, manufacturing and facility build-out and technology transfer opportunities at the CDMO;
- the ability to generate and increase third-party client sales and realized revenue at iBio CDMO;
- our ability to attract additional licensees or other third parties willing to fund development, and, if successful, commercialization of product candidates;
- the costs, timing and regulatory review of our own product candidates;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims; and
- the extent to which we acquire or invest in businesses, products and technologies.

If we are unsuccessful in raising additional capital or other alternative financing, we might have to defer or abandon our efforts to commercialize our intellectual property and decrease or even cease operations.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time as we can generate substantial development, manufacturing, license or product revenues, we expect to finance our cash needs through a combination of equity offerings, collaborations, strategic alliances, service contracts, manufacturing contracts, facility build-out and technology transfer contracts, licensing and other arrangements. Sources of funds may not be available or, if available, may not be available on terms satisfactory to us.

If we raise additional funds by issuing equity securities, our stockholders will experience dilution. Debt financing, if available, would result in increased fixed payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Any debt financing or additional equity that we raise may contain terms, such as liquidation and other preferences, which are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, our business, operating results, financial condition and prospects could be materially and adversely affected and we may be unable to continue our operations.

To the extent that we raise additional capital through a public or private offering and sale of equity securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a stockholder. If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, our business, operating results, financial condition and prospects could be materially and adversely affected and we may be unable to continue our operations.

We have a limited operating history, which may limit the ability of investors to make an informed investment decision.

We commenced independent operations in 2008, and our operations to date have included organizing and staffing our company, business planning, raising capital, acquiring and developing our proprietary technologies, recommissioning and operating our CDMO facilities, identifying potential product candidates and undertaking, through third parties, preclinical trials and clinical trials of product candidates derived from our technologies. Certain iBioLaunch™-derived vaccine candidates have been evaluated in completed or ongoing Phase 1 clinical trials; however, all our other vaccine and therapeutic protein product candidates are still in preclinical development. Neither we nor our collaborators have completed any other clinical trials for any vaccine or therapeutic protein product candidate produced using iBio technology. As a result, we have not yet demonstrated our ability to successfully complete any Phase 2 or pivotal clinical trials, obtain regulatory approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any conclusion you reach about our future success or viability may not be as predictive as it might be if we had a longer operating history.

Risks Related to the Development and Commercialization of Our Technologies and Product Candidates

We may expend our limited resources to pursue a particular technology or product candidate and fail to capitalize on technologies or product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on specific product candidates derived from or enhanced by our technologies or that have been identified and partially developed by our clients or collaborators. As a result, we may forego or delay pursuit of opportunities with other technologies or product candidates that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending and the spending of our clients and collaborators may not yield any commercially viable products.

We have based our research and development efforts on our technologies and product candidates derived from such technologies. Notwithstanding our large investment to date and anticipated future expenditures in these technologies, we have not yet developed, and may never successfully develop, any marketed products using these technologies. As a result of our exclusive use of our own technologies, we may fail to address or develop product candidates based on other scientific approaches that may offer greater commercial potential or for which there is a greater likelihood of success.

We also may not be successful in our efforts to identify or discover additional product candidates using our technologies. Research programs to identify new product candidates require substantial technical, financial and human resources. These research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development.

If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements on terms less favorable to us than possible.

We, our clients and collaborators, are very early in our development efforts. If we or our clients and collaborators are unable to successfully develop and commercialize product candidates or experience significant delays in doing so, our business will be materially harmed.

Excepting a limited number of vaccine candidates that have been evaluated in completed Phase 1 clinical trials, all our other vaccine and therapeutic protein product candidates are still in preclinical development. Our ability to generate product sales revenues for our own products, which we do not expect will occur for many years, will depend heavily on the successful development and eventual commercialization of our product candidates. The success of our product candidates will depend on several factors, including the following:

- completion of preclinical studies and clinical trials with positive results;
- receipt of marketing approvals from applicable regulatory authorities;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- making arrangements with third-party manufacturers for commercial manufacturing capabilities;
- launching commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- successfully maintaining existing collaborations and entering into new ones throughout the development process as appropriate, from preclinical studies through to commercialization;
- acceptance of the products, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other products;
- obtaining and maintaining coverage and adequate reimbursement by third-party payors, including government payors, for any products we successfully develop;
- protecting our rights in our intellectual property portfolio; and
- maintaining a continued acceptable safety profile of the products following approval.

If we or our collaborators do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully develop and commercialize our product candidates, which would materially harm our business.

We may not be successful in our efforts to use iBio technologies to build a pipeline of product candidates and develop marketable products.

While we believe that data we and our collaborators have obtained from preclinical studies and Phase 1 clinical trials of iBio technology-derived and iBio technology-enhanced product candidates has validated these technologies, our technologies have not yet, and may never lead to, approvable or marketable products. Even if we are successful in further validating our technologies and continuing to build our pipeline, the potential product candidates that we identify may not be suitable for clinical development for many possible reasons, including harmful side effects, limited efficacy or other characteristics that indicate that such product candidates are unlikely to be products that will receive marketing approval and achieve market acceptance. If we and our collaborators do not successfully develop and commercialize product candidates based upon our technologies, we will not obtain product or collaboration revenues in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price.

Neither we nor our clients, collaborators or licensees will be able to commercialize product candidates based on our technologies and services if preclinical studies do not produce successful results or clinical trials do not demonstrate safety and efficacy in humans.

Preclinical and clinical testing is expensive, difficult to design and implement, can take many years to complete and has an uncertain outcome. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and interim results of a clinical trial do not necessarily predict final results. We and our licensees may experience numerous unforeseen events during, or as a result of, preclinical testing and the clinical trial process that could delay or prevent the commercialization of product candidates based on our iBio technologies, including the following:

- Preclinical or clinical trials may produce negative or inconclusive results, which may require additional preclinical testing, additional clinical trials or the abandonment of projects that we expect to be promising. For example, promising animal data may be obtained about the anticipated efficacy of a therapeutic protein product candidate and then human tests may not result in such an effect. In addition, unexpected safety concerns may be encountered that would require further testing even if the therapeutic protein product candidate produced an otherwise favorable response in human subjects.

- Initial clinical results may not be supported by further or more extensive clinical trials. For example, a licensee may obtain data that suggest a desirable immune response from a vaccine candidate in a small human study, but when tests are conducted on larger numbers of people, the same extent of immune response may not occur. If the immune response generated by a vaccine is too low or occurs in too few treated individuals, then the vaccine will have no commercial value.

- Enrollment in our or our licensee's clinical trials may be slower than projected, resulting in significant delays. The cost of conducting a clinical trial increases as the time required to enroll adequate numbers of human subjects to obtain meaningful results increases. Enrollment in a clinical trial can be a slower-than-anticipated process because of competition from other clinical trials, because the study is not of interest to qualified subjects, or because the stringency of requirements for enrollment limits the number of people who are eligible to participate in the clinical trial.

- We or our licensees might have to suspend or terminate clinical trials if the participating subjects are being exposed to unacceptable health risks. Animal tests do not always adequately predict potential safety risks to human subjects. The risk of any candidate product is unknown until it is tested in human subjects, and if subjects experience adverse events during the clinical trial, the trial may have to be suspended and modified or terminated entirely.

- Regulators or institutional review boards may suspend or terminate clinical research for various reasons, including safety concerns or noncompliance with regulatory requirements.

- Any regulatory approval ultimately obtained may be limited or subject to restrictions or post-approval commitments that render the product not commercially viable.

- The effects of iBio technology-derived or iBio technology-enhanced product candidates may not be the desired effects or may include undesirable side effects.

Significant clinical trial delays could allow our competitors to bring products to market before we or our licensees do and impair our ability to commercialize our technologies and product candidates based on our technologies. Poor clinical trial results or delays may make it impossible to license a product candidate or so reduce its attractiveness to prospective licensees that we will be unable to successfully develop and commercialize such a product candidate.

If we, or our clients and collaborators, are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we, or our clients and collaborators, will not be able to commercialize our, or third-party, product candidates or will not be able to do so as soon as anticipated, and our ability to generate revenue will be materially impaired.

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and by similar regulatory authorities outside the United States. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third parties to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use. If any of our product candidates receives marketing approval, the accompanying label may limit the approved use in such a restrictive manner that it is not possible to obtain commercial viability for such product.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive and may take many years. If additional clinical trials are required for certain jurisdictions, these trials can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved, and may ultimately be unsuccessful. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review process for each submitted product application, may cause delays in the review and approval of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept a marketing application as deficient or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Although the FDA and other regulatory authorities have approved plant-based therapeutics in the past, consistent with the oversight of all products, the FDA is monitoring whether these plant-based therapeutics pose any health and human safety risks. While they have not issued any regulation to date that is averse to plant-based vaccines or therapeutics, it is possible that the FDA and other regulatory authorities could issue regulations in the future that could adversely affect our product candidates.

If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired.

Alternative technologies may supersede our technologies or make them noncompetitive, which would harm our ability to generate future revenue.

The manufacture of biologics and the methods of such manufacture are intensely competitive fields. Each of these fields is characterized by extensive research efforts, which result in rapid technological progress that can render existing technologies obsolete or economically noncompetitive. If our competitors succeed in developing more effective technologies or render our technologies obsolete or noncompetitive, our business will suffer. Many universities, public agencies and established pharmaceutical, biotechnology, and other life sciences companies with substantially greater resources than we have are developing and using technologies and are actively engaging in the development of products similar to or competitive with our technologies and products. To remain competitive, we must continue to invest in new technologies and improve existing technologies. To make such renewing investment we will need to obtain additional financing. If we are unable to secure such financing, we will not have sufficient resources to continue such investment.

Our competitors may devise methods and processes for protein expression that are faster, more efficient or less costly than that which can be achieved using iBio technologies. There has been and continues to be substantial academic and commercial research effort devoted to the development of such methods and processes. If successful competitive methods are developed, it may undermine the commercial basis for iBio products and our technologies and related services.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face the risk of product liability exposure in connection with the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any products that we may develop.

Prior to commencing human clinical trials, we will seek to obtain product liability insurance coverage. Such insurance coverage is expensive and may not be available in coverage amounts we seek or at all. If we obtain such coverage, we may in the future be unable to maintain such coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

Risks Related to Dependence on Third Parties

Establishing and maintaining collaborations is a key component of our business strategy. If we are unable to establish new collaborations and maintain both new and existing collaborations, or if these collaborations are not successful, our business could be adversely affected.

Our current business plan contemplates that we will in the future derive significant revenues from collaborators and licensees that successfully utilize iBio technologies in connection with the production, development and commercialization of vaccines and therapeutic protein product candidates. Our realization of these revenues and dependence on existing collaborations, and any future collaborations we enter into, is subject to a number of risks, including the following:

- collaborators may have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and, if successful, commercialization of product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;
- collaborators with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product or products; or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;

- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- collaborations may be terminated for the convenience of the collaborator and, if terminated, we would potentially lose the right to pursue further development or commercialization of the applicable product candidates;
- collaborators may learn about our technology and use this knowledge to compete with us in the future;
- results of collaborators' preclinical or clinical studies could produce results that harm or impair other products using our technology;
- there may be conflicts between different collaborators that could negatively affect those collaborations and potentially others; and
- the number and type of our collaborations could adversely affect our attractiveness to future collaborators or acquirers.

If our collaborations do not result in the successful development and commercialization of products or if one or more of our collaborators terminates its agreement with us, we may not receive any future research and development funding or milestone or royalty payments under the collaboration. If we do not receive the funding we expect under these agreements, our continued development of our product candidates could be delayed and we may need additional resources to develop additional product candidates. There can be no assurance that our collaborations will produce positive results or successful products on a timely basis or at all.

We seek to establish and collaborate with additional pharmaceutical and biotechnology companies for development and potential commercialization of iBio technology-produced and iBio technology-enhanced product candidates. We face significant competition in seeking appropriate collaborators. Our ability to reach a definitive agreement for a collaboration depends, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. If we fail to reach agreements with suitable collaborators on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a product candidate, reduce or delay its development or the development of one or more of our other product candidates, or increase our expenditures and undertake additional development or commercialization activities at our own expense. If we elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market or continue to develop our product portfolio and our business may be materially and adversely affected.

If third parties on whom we or our licensees will rely for the conduct of preclinical studies and clinical trials do not perform as contractually required or as we expect, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business may suffer.

We do not have the ability to independently conduct the preclinical studies and clinical trials required to obtain regulatory approval for our product candidates. We have not yet contracted with any third parties to conduct clinical trials of product candidates we develop independently of collaborators. We will depend on licensees or on independent clinical investigators, contract research organizations and other third-party service providers to conduct the clinical trials of our product candidates. We will rely heavily on these parties for successful execution of our clinical trials but will not control many aspects of their activities. For example, the investigators participating in our clinical trials will not be our employees. However, we will be responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Third parties may not complete activities on schedule, or may not conduct our clinical trials in accordance with regulatory requirements or our stated protocols. The failure of these third parties to carry out their obligations could delay or prevent the development, approval and commercialization of our product candidates.

If revenue from a third-party customer or client is concentrated in an amount that makes up a significant percentage of our total revenues, we may be adversely impacted by the significant dependence upon that client, including but not limited to, receipt and collections of outstanding amounts, continued operational allocations toward the client and related efficiencies, capacity and opportunity costs.

At this time, we are continually promoting our technologies and CDMO capabilities to further expand and grow our revenue base and business. We will continue to consider any potential revenue and client related concentration risks. During the fiscal year ended June 30, 2019, CC-Pharming accounted for approximately 92% of total revenue. During the fiscal year ended June 30, 2018, one client accounted for 54% of our total revenues. Although we expect our revenues to increase significantly and further vary by client over the next twelve months, there are no guarantees we will be correct in our assumptions.

Risks Related to Intellectual Property

If we or our licensors are unable to obtain and maintain patent protection for our technology and products, or if the scope of the patent protection obtained is not sufficiently broad, competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be impaired.

Our success depends in part on our ability to obtain and maintain patent and other intellectual property protection in the United States and other countries with respect to our proprietary technology and products. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and product candidates, and by maintenance of our trade secrets through proper procedures.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost, in a timely manner, or in all jurisdictions. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States and we may fail to seek or obtain patent protection in all major markets. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our owned patents or pending patent applications, or that we were the first to file for patent protection of such inventions, nor can we know whether those from whom we license patents were the first to make the inventions claimed or were the first to file. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

Patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The U.S. Patent and Trademark Office, or U.S. PTO, recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

Moreover, we may be subject to a third-party pre-issuance submission of prior art to the U.S. PTO, or become involved in opposition, derivation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Even if our pending or future patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time-consuming and ultimately unsuccessful.

Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their intellectual property. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly, which could adversely affect us and our collaborators.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability, and the ability of our collaborators, to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. While no such litigation has been brought against us and we have not been held by any court to have infringed a third party's intellectual property rights, we cannot guarantee that our technology, products or use of our products do not infringe third-party patents. It is also possible that we have failed to identify relevant third-party patents or applications. For example, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Patent applications in the United States and elsewhere are published approximately 18 months after the earliest filing, which is referred to as the priority date. Therefore, patent applications covering our products or technology could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our technologies, our products or the use of our products.

We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference or derivation proceedings before the U.S. PTO and similar bodies in other countries. Third parties may assert infringement claims against us based on existing intellectual property rights and intellectual property rights that may be granted in the future.

If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our limited number of personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace.

If we are unable to protect our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and product candidates, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also seek to enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Our trade secrets may also be obtained by third parties by other means, such as breaches of our physical or computer security systems. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

Risks Related to iBio CDMO's Operations

If iBio CDMO is unable to provide quality and timely offerings to its customers, its business could suffer, which could have a material adverse impact on our business and results of operations.

A failure of quality control systems in iBio CDMO's facilities could cause problems to arise in connection with facility operations or during preparation or provision of products, in both cases, for a variety of reasons, including equipment malfunction, failure to follow specific protocols and procedures, problems with raw materials or environmental factors. Such problems could affect production of a particular batch or series of batches, requiring the destruction of products, or could halt facility production altogether. In addition, failure to meet required quality standards may result in failure to timely deliver products to customers. Any such incident could, among other things, lead to increased costs, lost revenue, reimbursement to customers, damage to and possibly termination of existing customer relationships, time and expense spent investigating the cause and, depending on the cause, similar losses with respect to other batches or products. If problems are not discovered before a product is released to the market, we may be subject to regulatory actions, including product recalls, product seizures, injunctions to halt manufacture and distribution, restrictions on our operations, civil sanctions, including monetary sanctions, and criminal actions. In addition, such issues could subject us to litigation, the cost of which could be significant.

A failure by iBio CDMO to attract and maintain customers and any reduction in spending or demand for iBio CDMO's development, manufacturing and technology transfer services could have a material adverse effect on our business.

iBio CDMO's operations will depend, in part, on its ability to attract and maintain customers for its development, manufacturing and technology transfer services and on the amount of customer spending on such services. If iBio CDMO fails to attract customers or its customers' and potential customers' spending on iBio CDMO's services is reduced, this may have a material adverse effect on our business, results of operations and financial condition. In the event we are not able to profitably manage the iBio CDMO subsidiary under the existing lease, we may pursue strategic options related to operation of the CDMO in the Bryan, Texas, facility, including, but not limited to, the sale of the CDMO subsidiary.

iBio CDMO's operations are subject to environmental, health and safety laws and regulations, which could increase costs and restrict operations in the future.

iBio CDMO's operations are subject to a variety of environmental, health and safety laws and regulations, including those of the Environmental Protection Agency and equivalent local and state agencies. These laws and regulations govern, among other things, air emissions, wastewater discharges, the use, handling and disposal of hazardous substances and wastes, soil and groundwater contamination and employee health and safety. Any failure to comply with environmental, health and safety requirements could result in the limitation or suspension of production or monetary fines or civil or criminal sanctions, or other future liabilities. iBio CDMO is also subject to laws and regulations governing the destruction and disposal of raw materials and the handling and disposal of regulated material.

Our operating results will be adversely affected if we are unable to maximize our facility capacity utilization.

iBio CDMO's operating results are significantly influenced by our capacity utilization and, as such, if we are unable to utilize our facilities to capacity, our margins could be adversely affected, and our results of operations and financial condition will continue to be adversely affected. Further, while we continue to implement and execute our business plan and attract and maintain customers for our development, manufacturing and technology transfer services, our revenue volume may be insufficient to ensure the economical operation of our facilities, in which case our results of operations could be adversely affected.

A failure by iBio CDMO to hire and retain an appropriately skilled and adequate workforce could adversely impact the ability of the facility to operate and function efficiently.

iBio CDMO's operations will depend, in part, on its ability to attract and retain an appropriately skilled and sufficient workforce to operate its development and manufacturing facility. The facility is located in a growing biotechnology hub and competition for skilled workers will continue to increase as the industry undergoes further growth in the area.

Failure to comply with existing and future regulatory requirements could adversely affect our business, results of operations and financial condition.

Our industry is highly regulated. We are required to comply with the regulatory requirements of various local, state, provincial, national and international regulatory bodies having jurisdiction in the countries or localities in which we manufacture products or in which our customers' products are distributed. In particular, we are subject to laws and regulations concerning development, testing, manufacturing processes, equipment and facilities, including compliance with cGMP, import and export, and product registration and listing, among other things. As we expand our operations and geographic scope, we may be exposed to more complex and new regulatory and administrative requirements and legal risks, any of which may require expertise in which we have little or no experience. It is possible that compliance with new regulatory requirements could impose significant compliance costs on us. Such costs could have a material adverse effect on our business, financial condition and results of operations.

Our manufacturing services are highly complex, and if we are unable to provide quality and timely services to our customers, our business could suffer.

The manufacturing services we offer are highly complex, due in part to strict regulatory requirements. A failure of our quality control systems in our facilities could cause problems to arise in connection with facility operations for a variety of reasons, including equipment malfunction, viral contamination, failure to follow specific manufacturing instructions, protocols and standard operating procedures, problems with raw materials or environmental factors. Such problems could affect production of a single manufacturing run or a series of runs, requiring the destruction of products, or could halt manufacturing operations altogether. In addition, our failure to meet required quality standards may result in our failure to timely deliver products to our customers, which in turn could damage our reputation for quality and service. Any such incident could, among other things, lead to increased costs, lost revenue, reimbursement to customers for lost drug substance, damage to and possibly termination of existing customer relationships, time and expense spent investigating the cause and, depending on the cause, similar losses with respect to other manufacturing runs. With respect to our commercial manufacturing, if problems are not discovered before the product is released to the market, we may be subject to regulatory actions, including product recalls, product seizures, injunctions to halt manufacture and distribution, restrictions on our operations, civil sanctions, including monetary sanctions, and criminal actions. In addition, such issues could subject us to litigation, the cost of which could be significant.

We depend on spending and demand from our customers for our contract manufacturing and development services and any reduction in spending or demand could have a material adverse effect on our business.

The amount that our customers spend on the development and manufacturing of their products or product candidates, particularly the amount our customers choose to spend on outsourcing these services to us, substantially impacts our revenue and profitability. The outcomes of our customers' research, development and marketing also significantly influence the amount that our customers choose to spend on our services and offerings. Our customers determine the amounts that they will spend on our services based upon, among other things, the clinical and market success of their products, available resources, access to capital and their need to develop new products, which, in turn, depend upon a number of other factors, including their competitors' research, development and product initiatives and the anticipated market for any new products, as well as clinical and reimbursement scenarios for specific products and therapeutic areas. Further, increasing consolidation in the pharmaceutical industry may impact such spending, particularly in the event that any of our customers choose to develop or acquire integrated manufacturing operations. Any reduction in customer spending on biologics development and related services as a result of these and other factors could have a material adverse effect on our business, results of operations and financial condition.

We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.

We intend to grow our business operations as demand increases and increase the number of our employees to accommodate such potential growth, which may cause us to experience periods of rapid growth and expansion. This potential future growth could create a strain on our organizational, administrative and operational infrastructure, including manufacturing operations, quality control, technical support and other administrative functions. Our ability to manage our growth properly will require us to continue to improve our operational, financial and management controls.

As our commercial operations and sales volume grow, we will need to continue to increase our capacity for manufacturing, customer service, billing and general process improvements and expand our internal quality assurance program, among other things. We may also need to purchase additional equipment, some of which can take several months or more to procure, set up and validate, and increase our manufacturing, maintenance, software and computing capacity to meet increased demand. These increases in scale, expansion of personnel, purchase of equipment or process enhancements may not be successfully implemented.

If we are unable to protect the confidentiality of our customers' proprietary information, we may be subject to claims.

Many of the formulations used and processes developed by us in manufacturing our customers' products are subject to trade secret protection, patents or other intellectual property protections owned or licensed by such customer. While we make significant efforts to protect our customers' proprietary and confidential information, including requiring our employees to enter into agreements protecting such information, if any of our employees breaches the non-disclosure provisions in such agreements, or if our customers make claims that their proprietary information has been disclosed, our reputation may suffer damage and we may become subject to legal proceedings that could require us to incur significant expenses and divert our management's time, attention and resources.

Our services and our customers' products may infringe on or misappropriate the intellectual property rights of third parties.

Any claims that our services infringe the rights of third parties, including claims arising from any of our customer engagements, regardless of their merit or resolution, could be costly and may divert the efforts and attention of our management and technical personnel. We may not prevail in such proceedings given the complex technical issues and inherent uncertainties in intellectual property litigation. If such proceedings result in an adverse outcome, we could be required, among other things, to pay substantial damages, discontinue the use of the infringing technology, expend significant resources to develop non-infringing technology, license such technology from the third party claiming infringement (which license may not be available on commercially reasonable terms or at all) and/or cease the manufacture, use or sale of the infringing processes or offerings, any of which could have a material adverse effect on our business.

In addition, our customers' products may be subject to claims of intellectual property infringement and such claims could materially affect our business if their products cease to be manufactured and they have to discontinue the use of the infringing technology which we may provide. Any of the foregoing could affect our ability to compete or could have a material adverse effect on our business, financial condition and results of operations.

If we do not enhance our existing or introduce new service offerings in a timely manner, our offerings may become obsolete or uncompetitive over time, customers may not buy our offerings and our revenue and profitability may decline.

iBio CDMO core services consist of the following offerings:

- Process Development
- cGMP Manufacturing
- Aseptic Fill / Finish
- Bio-Analytics
- Quality & Regulatory
- Factory Solutions

Demand for any of our service offerings may change in ways that we may not anticipate due to evolving industry standards and customer needs that are increasingly sophisticated and varied, as well as the introduction by others of new offerings and technologies that provide alternatives to our offerings. In the event we are unable to offer or enhance our service offerings or expand our manufacturing infrastructure to accommodate requests from our customers and potential customers, our offerings may become obsolete or uncompetitive over time, in which case our revenue and operating results would suffer. For example, if we are unable to respond to changes in the nature or extent of the technological or other needs of our customers through enhancing our offerings, our competition may develop offerings that are more competitive than ours and we could find it more difficult to renew or expand existing agreements or obtain new agreements. Potential innovations intended to facilitate enhanced or new offerings generally will require a substantial capital investment before we can determine their commercial viability, and we may not have financial resources sufficient to fund all desired innovations. Even if we succeed in creating enhanced or new offerings, however, they may still fail to result in commercially successful offerings or may not produce revenue in excess of our costs of development, and they may be rendered obsolete by changing customer preferences or the introduction by our competitors of offerings embodying new technologies or features. Finally, the marketplace may not accept our innovations due to, among other things, existing patterns of clinical practice, the need for regulatory clearance and/or uncertainty over market access or government or third-party reimbursement.

Revenue amounts generated by iBio CDMO have corresponding percentage rent expense components with minimum amounts due which may adversely impact the Company's financial position and liquidity as we undergo business development and growth.

In addition to the base rent, iBio CDMO is required to pay to the Second Eastern Affiliate, for each calendar year during the term, a portion of the total gross sales for products manufactured or processed at the facility, equal to 7% of the first $5,000,000 of gross sales, 6% of gross sales between $5,000,001 and $25,000,000, 5% of gross sales between $25,000,001 and $50,000,000, 4% of gross sales between $50,000,001 and $100,000,000, and 3% of gross sales between $100,000,001 and $500,000,000. However, if for any calendar year period from January 1, 2018 through December 31, 2019, iBio CDMO's applicable gross sales are less than $5,000,000, or for any calendar year period from and after January 1, 2020, its applicable gross sales are less than $10,000,000, then iBio CDMO is required to pay the amount that would have been payable if it had achieved such minimum gross sales and shall pay no less than the applicable percentage for the minimum gross sales for each subsequent calendar year. If iBio CDMO does not have sufficient total gross sales to offset this rent expense, it may adversely impact the Company's financial position and liquidity.

Risks Related to Business Operations

If we acquire companies, products or technologies, we may face integration risks and costs associated with those acquisitions that could negatively impact our business, results from operations and financial condition.

If we are presented with appropriate opportunities, we may acquire or make investments in complementary companies, products or technologies. We may not realize the anticipated benefit of any acquisition or investment. If we acquire companies or technologies, we will face risks, uncertainties and disruptions associated with the integration process, including difficulties in the integration of the operations of an acquired company, integration of acquired technology with our products, diversion of our management's attention from other business concerns, the potential loss of key employees or customers of the acquired business, and impairment charges if future acquisitions are not as successful as we originally anticipate. In addition, our operating results may suffer because of acquisition-related costs or amortization expenses or charges relating to acquired intangible assets. Any failure to successfully integrate other companies, products or technologies that we may acquire may have a material adverse effect on our business and results of operations. Furthermore, we may have to incur debt or issue equity securities to pay for any additional future acquisitions or investments, the issuance of which could be dilutive to our existing stockholders.

We depend on key personnel and the loss of key personnel could harm our business and results of operations.

We depend on our ability to attract and retain qualified scientific and technical employees as well as a number of key executives. These employees may voluntarily terminate their employment with us at any time. There can be no assurance that we will be able to retain key personnel, or to attract and retain additional qualified employees. Our inability to attract and retain key personnel may have a material adverse effect on our business.

Risks Relating to Our Common Stock and Series C Preferred Stock

iBio is subject to compliance under the NYSE American continued listing standards as set forth in Section 1003(a)(ii) and Section 1003(a)(iii) of the NYSE American Company Guide.

On October 16, 2019, the Company received notice from NYSE American that it is currently is below NYSE American's continued listing standards set forth in Section 1003(a)(ii) of the NYSE American Company Guide, which applies if a listed company has stockholders' equity of less than $4,000,000 and has reported losses from continuing operations and/or net losses in three of its four most recent fiscal years, and Section 1003(a)(iii) of the NYSE American Company Guide, which applies if a listed company has stockholders' equity of less than $6,000,000 and has reported losses from continuing operations and/or net losses in its five most recent fiscal years. NYSE American indicated that a review of the Company shows that the Company is below compliance with Section 1003(a)(ii) and Section 1003(a)(iii) because it reported stockholders' equity of $2.46 million as of June 30, 2019 and net losses in its five most recent fiscal years ended June 30, 2019.

The Company must submit a plan of compliance to NYSE American by November 15, 2019 advising of actions that it has taken or will take to regain compliance with the exchange's continued listing standards by October 16, 2020. If the Company does not submit a plan of compliance, or if the plan is not accepted by NYSE American, the Company will be subject to delisting procedures as set forth in Section 1010 and Part 12 of the NYSE American Company Guide. If the plan is accepted by NYSE American, the Company will be subject to periodic reviews including quarterly monitoring for compliance with the plan.

The Company expects to regain compliance by raising funds through this offering. In addition, the Company expects revenues related to its CDMO core services offering and potential commercialization of its technologies and the potential development and eventual commercialization of proprietary pipeline products. The Company cannot be certain it will succeed in these activities and may never generate revenues that are significant or large enough to achieve profitability.

iBio is subject to compliance under the NYSE American continued listing standards as set forth in Section 1003(f)(v) of the NYSE American Company Guide, related to securities selling price.

The Company is subject to NYSE American continued listing standards, pursuant to Section 1003(f)(v) of the Company Guide, whereby the Company's continued listing is impacted by iBio, Inc.'s securities selling for a low price per share for a substantial period of time.

Our operating results may vary significantly in the future, which may adversely affect the price of our common stock.

It is likely that our operating results may vary significantly in the future and that period-to-period comparisons of our operating results are not necessarily meaningful indicators of the future. You should not rely on the results of one quarter as an indication of our future performance. It is also possible that in some future quarters our operating results will fall below our expectations or the expectations of market analysts and investors. If we do not meet these expectations, the price of our common stock may decline significantly.

Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable.

Provisions of our certificate of incorporation, bylaws and provisions of applicable Delaware law may discourage, delay or prevent a merger or other change in control that a stockholder may consider favorable. Pursuant to our certificate of incorporation, our Board of Directors may issue additional shares of common or preferred stock. Any additional issuance of common stock could have the effect of impeding or discouraging the acquisition of control of us by means of a merger, tender offer, proxy contest or otherwise, including a transaction in which our stockholders would receive a premium over the market price for their shares, and thereby protect the continuity of our management. Specifically, if in the due exercise of its fiduciary obligations, the Board of Directors were to determine that a takeover proposal was not in our best interest, shares could be issued by our Board of Directors without stockholder approval in one or more transactions that might prevent or render more difficult or costly the completion of the takeover by:

- Diluting the voting or other rights of the proposed acquirer or insurgent stockholder group,
- Putting a substantial voting bloc in institutional or other hands that might undertake to support the incumbent Board of Directors, or
- Effecting an acquisition that might complicate or preclude the takeover.

Our certificate of incorporation also allows our Board of Directors to fix the number of directors in the by-laws. Cumulative voting in the election of directors is specifically denied in our certificate of incorporation. The effect of these provisions may be to delay or prevent a tender offer or takeover attempt that a stockholder may determine to be in his, her or its best interest, including attempts that might result in a premium over the market price for the shares held by the stockholders.

We do not anticipate paying cash dividends for the foreseeable future, and therefore investors should not buy our stock if they wish to receive cash dividends.

We have never declared or paid any cash dividends or distributions on our capital stock. We currently intend to retain our future earnings to support operations and to finance expansion and therefore we do not anticipate paying any cash dividends on our common stock in the foreseeable future.

The sale of our common stock through current or future equity offerings may cause dilution and could cause the price of our common stock to decline.

We are entitled under our certificate of incorporation to issue up to 275 million shares of common stock, par value $.001 per share, and 1 million shares of preferred stock. Preferred stock issued is as follows:

1. iBio CMO Preferred Tracking Stock, par value, $0.001.

2. Series A Convertible Preferred Stock, par value, $0.001 (“Series A Preferred”)

3. Series B Convertible Preferred Stock, par value, $0.001 (“Series B Preferred”)

4. Series C Convertible Preferred Stock, par value, $0.001 (“Series C Preferred”) (also referred to herein as Series C Preferred Stock) (upon filing a Certificate of Designation for the Series C Preferred Stock)

Public offering

On November 30, 2017, the Company closed a public offering of 2,250,000 shares of its common stock at a public offering price of $2.00 per share raising gross proceeds of $4,500,000. The shares of common stock were issued pursuant to an underwriting agreement entered into between the Company and Aegis Capital Corp. (“Aegis”). The Company paid Aegis a discount of 7% to the public offering price with respect to shares purchased in the offering by investors who did not have a pre-existing relationship with the Company prior to the offering (the “New Investors”), and a discount of 3.5% to the public offering price with respect to shares purchased in the offering by investors who did have a pre-existing relationship with the Company. In addition to the underwriting discounts, the Company issued to the Underwriter 11,000 shares of its common stock, equal to 2% of the aggregate shares of common stock sold in the offering to the New Investors. The Company incurred underwriting discounts, commissions and other offering expenses of $311,000 related to closing and completion of this public offering.

On June 26, 2018, the Company closed on an underwritten public offering with total gross proceeds of approximately $16,000,000, before deducting underwriting discounts, commissions and other offering expenses payable by the Company. The securities offered by the Company consisted of (i) 4,350,000 shares of common stock at $0.90 per share, (ii) 6,300 shares of Series A Preferred, with a stated value of $1,000 per preferred share, and convertible into an aggregate of 7,000,000 shares of common stock at $0.90 per share, (iii) 5,785 shares of Series B Preferred, with a stated value of $1,000 per preferred share, and convertible into an aggregate of 6,427,778 shares of common stock at $0.90 per share. The Company granted the underwriters A.G.P./Alliance Global Partners, a 45-day option to purchase up to an additional 2,666,666 shares of common stock to cover over-allotments, if any. On July 12, 2018, the Company received approximately $1,350,000, before deducting underwriting discounts, commissions and other offering expenses payable by the Company, from the proceeds of the sale of 1,500,000 over-allotment shares of common stock purchased at $0.90 by the underwriter during the 45-day provision.

As of October 22, 2019, we had issued and outstanding approximately 24.1 million shares of common stock, one share of iBio CMO Preferred Tracking Stock, 387 shares of Series A Preferred and 5,785 shares of Series B Preferred. As of October 22, 2019, 1.33 million options to purchase shares of common stock were outstanding and we had approximately 2.17 million shares of common stock reserved for future issuance of additional option grants under our 2018 Omnibus Equity Incentive Plan.

In addition, we had approximately 6.9 million shares of common stock reserved for future possible conversions of the Series A Preferred and Series B Preferred. Accordingly, we will be able to issue up to approximately 240.5 million additional shares of common stock and 993,827 shares of preferred stock. Sales of our common stock offered through current or future equity offerings may result in substantial dilution to our stockholders. The sale of a substantial number of shares of our common stock to investors, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

The Series C Preferred Stock will have limited voting rights.

Holders of Series C Preferred Stock will not have the right to vote for members of the Company's board of directors and will not vote on an as-converted to common stock basis for matters brought before the Company's common stockholders. The holders of Series C Preferred Stock will have the right to vote only on certain material changes in the terms of the Series C Preferred Stock and on other matters as may be required by Delaware law.

Our management will have broad discretion over how the Company will use the funds raised in this offering and may use them in ways that you may not agree with and that may not enhance our operating results or the price of our common stock.

Our management will have broad discretion over the use of proceeds from this offering and could use these proceeds for purposes other than those contemplated at the time of this prospectus. Accordingly, you will be relying on the judgment of our management with regard to the timing and use of these funds, and you will not have the opportunity as part of your investment decision to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for our company. Our failure to apply these funds effectively could harm our business and cause the price of our common stock to decline.

The issuance of preferred stock or additional shares of common stock could adversely affect the rights of the holders of shares of our common stock.

Our Board of Directors is authorized to issue up to 993,827 shares of preferred stock without any further action on the part of our stockholders. Our Board of Directors has the authority to fix and determine the voting rights, rights of redemption and other rights and preferences of preferred stock. Currently, we have one share of preferred stock outstanding. Our Board of Directors may, at any time, authorize the issuance of a series of preferred stock that would grant to holders the preferred right to our assets upon liquidation, the right to receive dividend payments before dividends are distributed to the holders of common stock, and the right to the redemption of the shares, together with a premium, before the redemption of our common stock, which may have a material adverse effect on the rights of the holders of our common stock. In addition, our Board of Directors, without further stockholder approval, may, at any time, issue large blocks of preferred stock. In addition, the ability of our Board of Directors to issue shares of preferred stock without any further action on the part of our stockholders may impede a takeover of our company and may prevent a transaction that is favorable to our stockholders.

There is no public market for the Warrants to purchase shares of our common stock being offered in this offering.

There is no public trading market for the Warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the Warrants on any national securities exchange or other nationally recognized trading system, including NYSE American. Without an active market, the liquidity of the Warrants will be limited, and you may not be able to resell your Warrants. If your Warrants cannot be resold, you will have to depend upon any appreciation in the value of our common stock over the exercise price of the Warrants in order to realize a return on your investment in the Warrants.

Holders of our Warrants will not have the rights or privileges of a holder of our common stock, including any voting rights, until such holders exercise their Warrants and acquire our common stock.

Holders of our Warrants will not have the rights or privileges of a holder of our common stock, including any voting rights, until such holders exercise their Warrants and acquire our common stock. As a result, absent exercise of the Warrants, holders of the Warrants will not have the ability to vote their shares underlying the Warrants, which may limit the influence that investors in our offering may have over the outcome of matters submitted to our stockholders for a vote.

Risks Related to Our Stock Purchase Agreement with Lincoln Park

Sales of our common stock to Lincoln Park may cause substantial dilution to our existing stockholders and the sale of the shares of our common stock acquired by Lincoln Park could cause the price of our common stock to decline.

On July 24, 2017, we entered into the Lincoln Park Purchase Agreement pursuant to which Lincoln Park has agreed to purchase from us up to an aggregate of $16,000,000 of our common stock (subject to certain limitations) from time to time over the 36-month term of the agreement. As a result, on July 24, 2017, 120,000 shares of our common stock were issued to Lincoln Park as consideration for Lincoln Park's commitment to purchase shares of our common stock under the agreement, and 250,000 shares of common stock were sold to Lincoln Park in an initial purchase for an aggregate gross purchase price of $1,000,000.

During March 2018, the Company sold an additional 60,000 shares of common stock to Lincoln Park for an aggregate gross purchase price of $121,290. We may direct Lincoln Park to purchase up to an additional $14,878,710 worth of shares of our common stock (excluding the initial purchase) under our agreement over a 36-month period generally in amounts up to 10,000 shares of our common stock, which may be increased to up to 60,000 shares of our common stock depending on the market price of our common stock at the time of sale and subject to a maximum limit of $1,000,000 per purchase, on any such business day.

The number of shares ultimately offered for sale to Lincoln Park is dependent upon the number of shares we elect to sell to Lincoln Park under the agreement. Depending upon market liquidity at the time, sales of shares of our common stock under the agreement with Lincoln Park may cause the trading price of our common stock to decline. Lincoln Park may ultimately purchase all or only some of the $16.0 million of our common stock that we may sell under the agreement. After Lincoln Park acquires shares under the agreement, it may sell all, some or none of those shares. Sales to Lincoln Park by us pursuant to the agreement may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock to Lincoln Park, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales. However, we have the right to control the timing and amount of any sales of our shares to Lincoln Park and the agreement with Lincoln Park may be terminated by us at any time at our discretion without any cost to us.

Our management will have broad discretion over the amounts, timing and use of the net proceeds that we may receive pursuant to the Lincoln Park Purchase Agreement, you may not agree with how we use the proceeds, and the proceeds may not be invested successfully.

Our management will have broad discretion in the timing and application of any net proceeds that we may receive from any future sales of common stock to Lincoln Park pursuant to the Lincoln Park Purchase Agreement. Management could use these proceeds for purposes other than those contemplated at the time of this prospectus. Accordingly, you will be relying on the judgment of our management with regard to the timing and use of these net proceeds, and you will not have the opportunity as part of your investment decision to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for our company.

We may not be able to access the full amounts available under the Lincoln Park Purchase Agreement, which could prevent us from accessing the capital we need to continue our operations, which could have an adverse effect on our business.

Other than the Initial Purchase Amount, all funds available under the Lincoln Park Purchase Agreement are only available if our common stock per share value is $0.25 or higher at the time we seek to sell stock, and the volume of any such stock sales under the Purchase Agreement may vary with our common stock per share price. Changes in our stock price may limit the net proceeds we may receive under the Purchase Agreement.

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. These forward-looking statements are not historical facts but rather are plans and predictions based on current expectations, estimates and projections about our industry, our beliefs and assumptions. We use words such as "anticipate," "expect," "intend," "plan," "believe," "seek," "estimate" and variations of these words and similar expressions to identify forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and other factors, some of which are beyond our control, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. These risks and uncertainties include those described in the section above entitled "Risk Factors." You should not place undue reliance on these forward-looking statements, which reflect our view only as of the date of this prospectus.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of 1,724,138 shares of our common stock and 4,000 shares of our Series C Preferred Stock in this offering will be approximately $4.5 million, or approximately $5.2 million if the Underwriter exercises its over-allotment option in full to purchase additional Shares of common stock and/or warrants, assuming an offering price of $0.58 per share of common stock, the last reported sale price of our common stock on the NYSE American on October 22, 2019, and $1,000 per share of Series C Preferred Stock, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering for working capital and general corporate purposes.

We have not yet determined the amount of net proceeds to be used specifically for any particular purpose or the timing of these expenditures. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds from this offering. Pending our use of the net proceeds from this offering, we intend to invest a portion of the net proceeds in a variety of capital preservation investments, including short-term, interest-bearing instruments and United States government securities.

MARKET PRICE AND DIVIDEND INFORMATION

Our common stock is traded on the NYSE American under the trading symbol "IBIO."

The following table sets forth the high and low sale prices for our common stock as reported by the NYSE American, as adjusted to reflect the one-for-ten reverse stock split of our issued and outstanding common stock which took effect on June 8, 2018. The quotations shown represent inter-dealer prices without adjustment for retail markups, markdowns or commissions, and may not necessarily reflect actual transactions.

	High	Low
Year ended June 30, 2019:		
First Quarter	$ 0.91	$ 0.64
Second Quarter	$ 1.05	$ 0.57
Third Quarter	$ 1.00	$ 0.75
Fourth Quarter	$ 0.91	$ 0.71
Year ended June 30, 2018:		
First Quarter	$ 4.70	$ 2.60
Second Quarter	$ 3.86	$ 1.40
Third Quarter	$ 3.49	$ 1.55
Fourth Quarter	$ 2.29	$ 0.77

Holders

As of October 22, 2019, there were 93 holders of record of our common stock.

Dividends

We have never declared or paid any cash dividends on our common stock.

CAPITALIZATION

The following table sets forth our cash and cash equivalents, as well as our capitalization, as of June 30, 2019 as follows:

- on an actual basis; and
- as adjusted to give effect to the sale by us of 1,724,138 Shares, at an assumed offering price of $0.58 per Share, which is the last reported sale price of our common stock on the NYSE American on October 22, 2019 and 4,000 Series C Preferred Shares, at an offering price of $1,000 per Series C Preferred Share, after deducting the estimated underwriting discounts and commissions and estimated offering expenses.

The as adjusted information set forth below is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing. You should read this information in conjunction the information contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited consolidated financial statements and related notes thereto in our Annual Report on Form 10-K for the year ended June 30, 2019, which is incorporated by reference in the prospectus.

	As of June 30, 2019	
	Actual	As Adjusted[1]
	(in thousands, except share and per share amounts)	
Cash and cash equivalents	$ 4,421	$ 8,973
Long-term liabilities	24,671	24,671
Stockholders' equity		
Preferred stock –par value $0.001; 1,000,000 shares authorized;	-	-
iBio CMO Preferred Tracking Stock; 1 share authorized, issued and outstanding as of both June 30, 2019 and June 30, 2018	-	-
Series A Convertible Preferred Stock - $1,000 stated value; 6,300 shares authorized; 3,987 and 6,210 shares issued and outstanding as of June 30, 2019 and June 30, 2018, respectively	-	-
Series B Convertible Preferred Stock - $1,000 stated value; 5,785 shares authorized; 5,785 shares issued and outstanding as of both June 30, 2019 and June 30, 2018		
Common stock - $0.001 par value; 275,000,000 shares authorized; 20,152,458 and 16,040,126 shares issued and outstanding as of June 30, 2019 and June 30, 2018, respectively	20	20
Additional paid-in capital	108,295	112,847
Accumulated other comprehensive loss	(31)	(31)
Accumulated deficit	(105,821)	105,821
Noncontrolling interest	(6)	(6)
Total capitalization	$ 2,457	7,010

(1) A $0.05 increase or decrease in the assumed public offering price of $0.58 per Share, which is the last reported sale price of our common stock on the NYSE American on October 22, 2019, and a $100 increase or decrease in the assumed public offering price of $1,000 per Series C Preferred Share, would increase or decrease, as appropriate, our as adjusted cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately $460,000, assuming the number of Shares and Series C Preferred Shares offered by us as set forth on the cover page of this prospectus remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a 172,414 increase or decrease in the number of Shares and a 400 increase or decrease in the number of Series C Preferred Shares offered by us, based on the assumed public offering price of $0.58 per Share and the assumed public offering price of $1,000 per Series C Preferred Share, would increase or decrease our as adjusted cash and cash equivalents, total assets and total stockholders' equity by approximately $474,000, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of common stock shown above to be outstanding after this offering is based on 24,152,455 shares outstanding as of October 22, 2019 and excludes:

- 1,327,790 shares of common stock issuable upon exercise of stock options under our 2018 Omnibus Equity Incentive Plan, with a weighted-average exercise price $1.46 per share;
- 2,172,210 shares of common stock reserved for future issuance under our 2018 Omnibus Equity Incentive Plan;
- any shares of common stock issuable to Lincoln Park Capital Fund, LLC ("Lincoln Park"), an Illinois limited liability company, under that certain common stock purchase agreement dated July 24, 2017, by and between the Company and Lincoln Park whereby Lincoln Park agreed to purchase up to an aggregate of $16,000,000 of our common stock from time to time over the 36-month term of the agreement (the "Lincoln Park Purchase Agreement" or "Purchase Agreement"); and
- Shares of common stock that may be issued upon conversion of our previously issued shares of preferred stock or preferred stock to be issued in this offering.

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Series C Preferred Shares and Warrants are sold in this offering and whether and to what extent holders of Series C Preferred Shares convert their shares to common stock or holders of Warrants exercise their Warrants for common stock.

DILUTION

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

Our historical net tangible book deficit as of June 30, 2019 was $1,083,000, or $0.05 per share of our common stock. Historical net tangible book deficit per share represents the amount of our total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding as of June 30, 2019.

After giving effect to the issuance and sale of 1,724,138 shares of our common stock in this offering at an assumed public offering price of $0.58 per share and 4,000 shares of Series C Preferred Stock at an assumed public offering price of $1,000 per share, and accompanying Warrants, the last reported sale price of our common stock on the NYSE American on October 22, 2019, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value/deficit as of June 30, 2019 would have been $5.6 million, or $0.22 per share. This represents an immediate increase in net tangible book value per share of $0.17 to existing stockholders and immediate dilution of $0.36 per share to new investors purchasing common stock in this offering. Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

	(unaudited) (amounts in thousands except share data)
Assumed public offering price per share of common stock	$ 0.58
As adjusted net tangible book value per share as of June 30, 2019, before this offering	1,083,000
Increase in pro forma net tangible book value per share attributable to new investors	4,552,500
As adjusted net tangible book value per share as of June 30, 2019, after giving effect to this offering	5,635,500
Dilution per share to investors in this offering	$ 0.36

Each $0.05 increase (decrease) in the assumed public offering price of $0.58 per share, the last reported sale price of our common stock on the NYSE American on October 22, 2019, would increase (decrease) our as adjusted net tangible book value per share after this offering by approximately $0.02, and the dilution per share to new investors purchasing shares in this offering by $0.02, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares to be issued in this offering. Each increase (decrease) of 172,414 shares of common stock offered by us would (increase) decrease our as adjusted net tangible book value per share by $0.02 and the dilution per share to new investors purchasing shares in this offering by $0.02 assuming that the assumed public offering price remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering as determined between us and the Underwriter at pricing.

If the Underwriter exercises its over-allotment option to purchase additional shares and/or Warrants in full, the as adjusted net tangible book value per share after this offering would be $0.24 per share, the increase in net tangible book value per share to existing stockholders would be $0.02 per share and the dilution to new investors purchasing shares in this offering would be $0.34 per share.

The number of shares of common stock shown above to be outstanding after this offering is based on 24,152,455 shares outstanding as of October 22, 2019 and excludes:

- 1,327,790 shares of common stock issuable upon exercise of stock options under our 2018 Omnibus Equity Incentive Plan, with a weighted-average exercise price $1.46 per share;
- 2,172,210 shares of common stock reserved for future issuance under our 2018 Omnibus Equity Incentive Plan;
- any shares of common stock issuable to Lincoln Park Capital Fund, LLC (“Lincoln Park”), an Illinois limited liability company, under that certain common stock purchase agreement dated July 24, 2017, by and between the Company and Lincoln Park whereby Lincoln Park agreed to purchase up to an aggregate of $16,000,000 of our common stock from time to time over the 36-month term of the agreement; and
- shares of common stock that may be issued upon conversion of shares of previously issued preferred stock or preferred stock issued in this offering.

To the extent that options or warrants are exercised, new options or other securities are issued under our equity compensation plans, or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

BUSINESS

Overview

iBio is a full-service plant-based expression biologics CDMO equipped to deliver pre-clinical development through regulatory approval, commercial product launch and on-going commercial phase requirements. iBio's FastPharming™ expression system, iBio's proprietary approach to plant-made pharmaceutical (PMP) production, can produce a range of recombinant products including monoclonal antibodies, antigens for subunit vaccine design, lysosomal enzymes, virus-like particles (VLP), blood factors and cytokines, scaffolds, maturogens and materials for 3D bio-printing and bio-fabrication, biopharmaceutical intermediates and others, as well as create and produce proprietary derivatives of pre-existing products with improved properties. We utilize our proprietary technologies and production facilities to provide product development and manufacturing services to clients, collaborators and third-party customers as well as developing our own product candidates.

iBio's FastPharming™ platform includes transient transfection of plants and the use of transgenic plants for biologics development and manufacturing, as well as glycan engineering tools, and offers many benefits over the limitations of other expression systems, including:

- **Fast** FastPharming™ may shorten timelines to the clinic and move a program from gene sequence to protein production in weeks versus months
- **Economical** No expensive, labor-intensive, and costly mammalian cell line development
- **Quality** Production of consistent therapeutics to standards that are well accepted by global regulatory bodies
- **Scalable** Fewer time-consuming scale-up challenges
- **Safe** Inherently enhanced product safety profile
    - No animal products or animal-derived components are used at any point in FastPharming™
    - No inherent adventitious agents and no competency for agent replication
- **Customized N-glycosylation** FastPharming™ allows for N-glycosylation customization of products. Glycan engineering in plants affords greater control and may deliver increased product potency and quality

Our assets and capabilities include proprietary and transformative methods for the development, improvement, and production of biologics using hydroponically grown, transiently-transfected green plants. We harness the natural protein production capability plants use to sustain their own growth, and direct it, instead, to produce proteins for a range of applications. We and our collaborators have used our technologies successfully with a diverse range of product candidates including products against fibrotic diseases, vaccines, enzyme replacements, monoclonal antibodies, and recombinant versions of marketed products that are currently derived from human blood plasma. Our technologies have also been used to advance the development of certain products that have been commercially infeasible to develop with conventional technologies such as Chinese hamster ovary cell systems and microbial fermentation methods. We have also used our technologies to create and produce experimental, proprietary derivatives of pre-existing products with improved properties.

iBio CDMO services consist of the following *core* offerings:

Process Development	FastPharming™ optimizes gene-expression, glycosylation, and purification parameters to deliver a robust process for an active pharmaceutical ingredient (API). iBio's process development team is integrated with its manufacturing team to optimize processes and technology transfer.
cGMP Manufacturing	The FastPharming™ system works at large-scale to easily and reliably deliver biologics in clinical trial or commercial quantities. iBio's cGMP manufacturing facility was designed to provide highly flexible production schemes.
Aseptic Fill / Finish	iBio offers sterile aseptic fill/finish as part of its core process development and cGMP manufacturing services, as well as a stand-alone service for biopharmaceutical/CDMO bulk API manufacturers. In-line labelling allows serialization of vials and bottles for greater quality assurance of monoclonal antibodies, viral vectors, and other biologics.
Bio-Analytics	iBio's analytical team provides method development and validation as part of its core process development and cGMP manufacturing services, while also performing these services on an ad hoc basis. An experienced analytical staff provides method development and validation support with expertise in protein characterization using mass spectrometry.
Quality & Regulatory	iBio and its selected contractors provide support through the entire drug development cycle, including e-publishing of FDA filings. Quality systems have been carefully constructed to meet cGMP requirements, and iBio can provide regulatory guidance (FDA, EMA and other regulatory bodies) given the team's experience with therapeutic development.
Factory Solutions	iBio facilitates insourcing by designing and consulting on the building of a client's own environmentally sustainable FastPharming™ facility. iBio offers extensive training and complete transfer of process design and quality management systems under appropriate licensing agreements, allowing clients to quickly move into production upon the completion of their facility.

We expect to provide goods and services and participate in collaborative development programs with a diverse group of clients and collaborators to enable us to achieve positive cash flow from operations sufficient for use in developing our own product candidates and enabling us to participate in the success of selected products developed jointly with collaborators.

CDMO Facility

iBio CDMO LLC's ("iBio CDMO") operations take place in Bryan, Texas in a facility controlled by an affiliate of Eastern Capital Limited ("Eastern"), a stockholder of the Company, (referred as the "Sublandlord" or the "Second Eastern Affiliate") as sublandlord. The facility is a Class A life sciences building located on land owned by the Texas A&M system designed and equipped for plant-made manufacture of biopharmaceuticals. The Sublandlord granted our subsidiary, iBio CDMO LLC ("iBio CDMO"), a 34-year lease for the facility. Commercial activities commenced in January 2016 with the large majority of efforts directed towards recommissioning the facility to help meet cGMP manufacturing standards and provisions for iBio's core service offerings. The facility houses laboratory and pilot-scale operations, as well as large-scale automated hydroponic systems capable of growing over four million plants as "in process inventory" and delivering over 300 kilograms of therapeutic protein pharmaceutical active ingredient per year. The facility capacity can be doubled by adding additional plant growth equipment in a space already available for that purpose

On December 16, 2015, we formed iBio CDMO as a Delaware limited liability company to develop and manufacture plant-made pharmaceuticals. As of December 31, 2015, we owned 100% of iBio CDMO. On January 13, 2016, we entered into a contract manufacturing joint venture with an affiliate of Eastern (the "Eastern Affiliate"). The Eastern Affiliate contributed $15 million in cash for a 30% interest in iBio CDMO. We retained a 70% interest in iBio CDMO and granted iBio CDMO a non-exclusive license to use our proprietary technologies for research purposes and an exclusive U.S. license for manufacturing purposes. We retained the exclusive right to grant product licenses to those who wish to sell or distribute products made using our technology. On February 23, 2017, the Company entered into an exchange agreement with the Eastern Affiliate, pursuant to which the Company acquired substantially all of the interest held by the Eastern Affiliate in iBio CDMO and issued one share of the Company's iBio CMO Preferred Tracking Stock, par value $0.001 per share. After giving effect to the transaction, the Company owns 99.99% of iBio CDMO. See Note 11 in the consolidated financial statements for a further discussion.

We have integrated into our iBio CDMO operations the rights iBio has obtained to certain patented and unpatented technologies developed for it by Novici Biotech LLC, a private biotechnology company ("Novici"), in addition to novel manufacturing methods and processes developed by iBio CDMO. These technologies, methods, and processes are applied by iBio CDMO to a variety of tasks performed for clients, collaborators, and for iBio itself, including product and process development, analytics, and manufacturing services.

iBio CDMO is promoting commercial collaborations with third parties on the basis of iBio's technology advantages and the competitive efficiencies of its processes and plans to work with customers to achieve laboratory and pilot scale technical milestones that can form the basis of longer-term manufacturing business arrangements. iBio itself is a client of iBio CDMO for further IND advancement of its proprietary products beginning with IBIO-CFB03 for the treatment of a range of fibrotic diseases. Dependent upon the success of IND advancement, iBio will then work with iBio CDMO on the production of IBIO-CFB03 for clinical trials and, with clinical success, for commercial launch.

Product Candidate Pipeline

Another component of iBio's strategy consists of potentially sharing in the successful development, advancement and commercialization of selected product candidates by our collaborators and licensees as well as advancing our own product candidates. We expect to accomplish this objective through both investments we make to acquire or develop our own proprietary product candidates and also by participating with select customers and collaborators in the value created through the development, with our technologies, and manufacture of their product candidates. On an ongoing basis, we evaluate potential product candidate opportunities to which iBio technologies can add further value.

With respect to the development and commercialization of our own product candidates, our current pipeline is comprised of proprietary candidates for the treatment of a range of fibrotic diseases including systemic scleroderma and idiopathic pulmonary fibrosis. IBIO-CFB03, based on exclusively in-licensed university patents and newer patent applications filed by iBio, is our lead therapeutic candidate being advanced for Investigational New Drug ("IND") development.

Our research and development activities are directed and led by our President and by our Chief Scientific Officer and are either performed internally by iBio CDMO or outsourced to a third party. Our research and development work allows us to develop our product candidates, promote both the value of such product candidates and our technologies for licensing and product development purposes and uncover and pursue other strategic opportunities.

Fraunhofer

In 2003, we engaged the Fraunhofer organization ("Fraunhofer"), through its Fraunhofer Center for Molecular Biotechnology in Newark, Delaware ("CMB"), an unincorporated unit of Fraunhofer USA, Inc. operated as part of an institute of the German organization, the Fraunhofer Institute for Molecular Biology and Applied Ecology, as our outsourced research and development contractor. Fraunhofer was contractually obligated to provide iBio research and development services in the field of plant-based gene expression and protein products exclusively pursuant to agreements with us and our predecessor companies through 2014, and to use commercially reasonable efforts to enhance, improve and expand the technology for us. With the structural foundation of Fraunhofer's exclusive obligations to us, we established a business model that we expected to enlarge and broaden the scope of applications of our platform technology and enhance the value of our retained commercial rights by leveraging certain funding received by Fraunhofer from governmental entities, NGOs and other similar organizations. Fraunhofer was obligated to develop our technology and to support iBio's efforts to commercialize its technology. Based on the Fraunhofer commitments, our business model and plan contemplated licensing our technology to third parties and collaborating with third-party licensees, with Fraunhofer's assistance as our research and development contractor, for product development using our proprietary technology and the Fraunhofer organization and their pilot plant facilities in Newark, Delaware for production of pre-clinical and clinical materials required for product approvals.

In 2014, we discovered conduct by Fraunhofer we believed constituted breaches of our contracts. Fraunhofer also refused to conduct technology transfer in further breach of our contracts. After efforts to amicably resolve these matters ended unsuccessfully, we initiated litigation against Fraunhofer based upon those discovered breaches. As additional allegations of misconduct by Fraunhofer emerged, we sought, and were permitted by the Court in 2017, to amend the lawsuit to include claims of fraud, conversion of our property by Fraunhofer for its own benefit, and other state law claims.

Discovery of these matters and Fraunhofer's continued unwillingness to provide access and perform technology transfer, despite resolution efforts both within and outside the confines of the litigation, required us to eventually adopt a new business model, as detailed above, that was not dependent on Fraunhofer and its services. iBio's new business model relies on our own manufacturing capabilities, together with access to and the use of other technology and other technology development capabilities independent of Fraunhofer. This new business plan was accomplished, in part, by the acquisition of the large manufacturing facility now controlled and operated by iBio, which includes human resources, laboratories, independent technology, and development and manufacturing facilities that enable us to develop and practice new plant-made biopharmaceutical technologies and self-develop experience without depending on Fraunhofer.

iBio and its contractors and collaborators have since been developing, acquiring and using other technology for the development and production of therapeutic proteins and vaccines and other recombinant proteins using transient gene expression in green plants.

iBio has rights to novel manufacturing methods and processes developed by iBio CDMO, as well as to certain patented and unpatented technologies developed for iBio by Novici. iBio's investment in the creation of these new inventions and novel processes is ongoing and has led to the implementation of the new business model, as detailed above, that is not dependent on further performance of Fraunhofer's obligations to iBio.

We own the technology and issued patents in the field of plant-based gene expression and protein products developed pursuant to the agreements with Fraunhofer. Our investments in the work of our contractors, collaborators and iBio CDMO in non-Fraunhofer derived technologies is not due to any doubt about our ownership of the Fraunhofer derived technologies, its original value, or our freedom to operate under the Fraunhofer-derived patents.

Our Business

FastPharming™

FastPharming™, iBio's proprietary approach to plant-made pharmaceutical (PMP) production, includes transgenic plants, a transient expression system, and other technologies that can handle many of the complex and novel candidates emerging from clients' and potential clients' pipelines, resulting in higher overall product yields and increased downstream unit operation productivity, and the development of target product profiles with customized N-glycosylation.

Our Technologies – iBio Process Technologies, iBio Product Technologies

iBio owns technology developed pursuant to agreements with Fraunhofer as discussed in the Overview section above. iBio has now developed or acquired independent proprietary technologies to achieve specific product objectives. In addition to development work by iBio CDMO, iBio has engaged contractors other than Fraunhofer, including Novici, to develop proprietary technologies and manufacturing processes that the Company is protecting both through patent applications and as trade secrets.

We believe our technologies and capabilities offer advantages that are not available with conventional biopharmaceutical manufacturing systems. These include shorter and more efficient product development times and reduced production time and lower operating costs during full-scale manufacturing. Further, we believe that the capital investment required to create facilities that will manufacture proteins using the Company's technologies will be substantially less than the capital investment that would be required for the creation of similar capacity facilities utilizing conventional manufacturing methods dependent upon animal cells, bacterial fermenters and chicken eggs. Operating costs in a manufacturing facility using iBio's technologies are expected to be reduced significantly in comparison to conventional manufacturing processes due to the rapid nature of our production cycle and the elimination of the expenses associated with the operation and maintenance of bioreactors, fermenters, sterile liquid handling systems and other expensive equipment which is not required in connection with the use of the Company's technologies. In addition, iBio's technologies can be utilized in the area of glycan engineering in plants offering greater control and the potential to deliver increased product potency and quality.

Although the Company owns the patented iBioLaunch™ technology that arose out of the relationship with Fraunhofer and is entitled to use and prevent its use by others, the Company never received technology transfer from Fraunhofer to which the Company is entitled—including all of the know-how and data developed and accumulated during the period of its creation and use by Fraunhofer as the Company's outsourced research and development contractor. Consequently, the Company now uses other plant-based technologies in ongoing programs. However, earlier work based on iBioLaunch™ technology was reported to demonstrate significant potential for plant-based technologies in comparison to Chinese hamster ovary ("CHO") and other legacy methods. For example, iBioLaunch™-produced vaccine candidates against each of the H1N1 "Swine" flu virus, the H5N1 avian flu virus, the bacterial pathogen that causes anthrax, and a candidate to block transmission of the malaria pathogen were successfully tested in Phase 1 clinical trials. Bio-Manguinhos/Fiocruz, or Fiocruz, a unit of the Oswaldo Cruz Foundation, a central agency of the Ministry of Health of Brazil, originally sponsored initial development efforts of yellow fever vaccine candidates, using the iBioLaunch™ technology to replace the vaccine it currently makes in chicken eggs for the populations of Brazil and more than 20 other nations, and these candidates have been successfully tested in non-human primates.

iBio Process Technologies

Based upon the results of successful in vivo preclinical studies in well-established highly predictive animal models and results from feasibility studies and other discovery and development work we have performed, we believe that iBio's technologies can produce therapeutic proteins, vaccines, and other recombinant proteins more efficiently, as measured by time, cost and yield, than current conventional biologics manufacturing methods. As awareness of these advantages increases, we expect broader adoption of iBio's technologies by biologics market participants.

An additional advantage of iBio's technologies includes successful production of proteins that are difficult or impossible to produce on a commercially practical basis with conventional systems. This unique capability has been demonstrated by production of a therapeutic product candidate which requires production and purification of the target protein that could not be feasibly accomplished with other systems. For companies developing proprietary product opportunities, challenges often include overcoming obstacles to efficient production of complex or multiple proteins with simultaneous control of enzymes that modify the properties of the desired end product. iBio technologies offer the flexibility and sophistication necessary to enable practical development of such complex products.

With iBio technologies, it is possible to produce laboratory quantities of product candidates in less than a month from identifying the protein of interest and to reduce the time required to complete additional steps to development and scale-up. This rapid production cycle makes our processes particularly well-suited for producing treatments and vaccines for pandemic diseases and for bioterror response. The rapid production cycle is also advantageous to researchers and others seeking to develop new products as a greater number of experiments can be conducted in any time period at a cost less than that associated with conventional expression systems.

Utilizing expression technology which is transient (occurring over a period of four to seven days after introducing a foreign gene), iBio technologies eliminate one of the time-consuming initial steps upon which other conventional expression technologies are dependent – namely, the need to isolate a high producing cell clone from millions of non-productive cells and then grow the clonal cells in a sterile fermenter to start the manufacturing process. This saves the year of process development time commonly associated with mammalian cell systems and eliminates the need for expensive fermenters and a sterile liquid-handling system to prevent bacterial, fungal, or viral contamination of the protein drug. In the iBio system, no animal- or human-derived materials are used, eliminating the risk of contamination by infectious agents. In place of such materials, normal green plants, grown under clean and controlled conditions, provide the biomass for pharmaceutical protein manufacturing. Because this entire process uses commonly available materials, we are not dependent on unique sources of raw material, nor are we limited to purchasing from single suppliers.

iBio process technologies have been established in iBio CDMO's operations that begin with robotic seeding into an inert matrix for hydroponic growth, followed by automated infiltration of the young seedlings for gene expression and protein production. The iBio vectors are designed to bring foreign DNA to the nucleus of cells in the leaves of plants by allowing a vector and bacterial host to be introduced into the plant by "infiltrating" the bacterial vector host under a slight vacuum. The bacterial vector "launches" the foreign DNA into the plant nucleus, where it is coded into instructions that direct the plant's own protein manufacturing apparatus to make foreign proteins. A clever arrangement of genes for plant viral enzymes causes these protein production instructions to be copied hundreds of thousands of times in each plant cell. Our proprietary gene transfer vectors combine the desirable features of the DNA mobilization plasmid of *Agrobacterium tumefaciens* with gene control elements taken from single-stranded RNA plant viruses.

Subsequent to the incorporation of the iBio vector in the plant tissues, protein synthesis is initiated and the target protein is produced over a period of four to seven days. The net effect of applying the iBio system is that the natural plant protein production capability becomes devoted to the expression of the desired gene, and the target protein rapidly accumulates to extremely high levels suitable for commercial use.

iBio Product Technologies

iBio has developed and acquired rights to patents and technologies associated with individual products such as our IBIO-CFB03 product candidate for fibrotic diseases. iBio has rights to certain patented and unpatented technologies developed by Novici, patented and unpatented inventions licensed from the University of Pittsburgh, and novel manufacturing methods and processes developed by iBio CDMO.

Application of iBio Technologies – Target Markets and Product Candidates

Target Markets and Commercialization Activities

We are actively engaged in efforts to commercialize our technologies and services. Our plan is to enter important markets through license and development agreements, commercial collaborations, and manufacturing contracts. Our current marketing efforts focus on those decision makers whom we expect will be attracted to the cost and efficiency advantages that may be obtained through use of our technologies and services. We believe that the advantages of our technologies and the efficiency and capabilities of our CDMO operations will enable us to compete effectively against the providers of other manufacturing systems that may be slower, more capital intensive and costlier to operate. We anticipate realizing revenues in connection with our development and manufacturing services, with licenses we may grant and technology transfer services we may provide.

In the United States and Europe, the robust ability of our technologies to favorably produce a wide range of protein types, including our ability to produce product candidates that are otherwise not feasible to commercially manufacture, offers us the opportunity to obtain value through exclusive, individual product licenses and development agreements which can be worldwide or geographically limited. In other geographic regions, such as Brazil, China and India, where the economies and middle classes are growing rapidly and decision-makers are building domestic biologics infrastructures, we anticipate entering into and deriving revenues from licenses and development agreements that may include multiple product categories to which our technology applies.

Additionally, we believe that governments and state corporations seeking to establish and maintain autonomous biodefense capabilities will also be attracted to the advantages realizable with our technologies. The market for biodefense countermeasures reflects continued awareness of the threat of global terror and bio-warfare activity as well as the need to have capacities to quickly manufacture both vaccines and therapeutics to a numerous and ever evolving list of biological agents that could be used to harm populations.

To enhance our success in the commercialization of our multiple technologies, we are engaging in efforts to advance select iBio sponsored product candidates. Our current internal efforts focus on the further development of a proprietary recombinant protein product candidate, IBIO-CFB03, for the treatment of systemic scleroderma, idiopathic pulmonary fibrosis, and other fibrotic diseases. We have selected this product candidate for further advancement on the basis of its individual commercial value and its value as representative of a class of products in an attractive market that may be successfully derived from iBio's technologies. We believe that demonstration of successful utilization of technologies by each of us and our license partners will enhance market awareness of the broad applicability and potential advantages realizable with iBio's technologies and capabilities and generate increased opportunities for us to realize value from these assets.

Product Candidates

Therapeutic Protein Product Candidates

Many classes of therapeutic proteins can be successfully produced using our proprietary technologies. They range from large and complex monoclonal antibodies to smaller proteins such as interferons, growth factors, and enzymes.

IBIO-CFB03, a Proprietary Product for Treatment of Fibrosis

iBio has exclusively licensed and is developing, with its technology, an innovative new product we have designated "IBIO-CFB03" for treatment of systemic sclerosis (SSC) and idiopathic pulmonary fibrosis (IPF), both fatal and incurable diseases. The total number of people affected by systemic sclerosis and IPF, while large in comparison to many biotechnology target markets, is small enough for iBio's drug to qualify for the regulatory and financial benefits available under U.S. and European Orphan Drug incentives.

iBio's candidate product has demonstrated efficacy in both animal disease models and through the reversal of fibrosis in human skin organ culture. Preclinical studies have established a strong safety profile for IBIO-CFB03 with no toxicity seen at concentrations well above the predicted effective doses. The drug is readily diffusible into organs and tissues and can reach its target site via several modes of administration. Systemic administration is effective at reducing skin and lung fibrosis. The anti-fibrotic effects of IBIO-CFB03 are observed even after the onset of fibrosis, suggesting that it is capable of reversing fibrosis—an effect not observed with any of the potential anti-fibrotic therapies that are currently in clinical use. Patients with existing fibrosis enter the clinic long after the onset of their disease, and thus do not benefit significantly from a drug used to prevent fibrosis rather than treat existing fibrosis.

Experimental drugs demonstrating efficacy against life-threatening diseases in early clinical trials are given higher priority review for marketing approval by regulatory agencies in the U.S. and Europe. In addition, both the U.S. and Europe offer financial and regulatory incentives for the development of new drugs for the treatment of smaller patient populations (Orphan Drugs), and such drugs can be approved for marketing faster and with less total investment than drugs that are intended to treat major diseases. iBio has obtained Orphan Drug designation for its drug candidate for systemic sclerosis.

Other Therapeutic Proteins

iBio evaluates addition product candidates from both universities and other companies as potential additions to its portfolio of proprietary product opportunities. In some cases, like with iBIO-CFB03, iBio will take a lead role in development. In other cases, iBio will, on a selective basis, provide the advantages of its technologies and facilities capabilities to third-party product developers in exchange for a minority interest in the product.

Vaccine Candidates

We and our collaborators have used our proprietary technologies to successfully express and demonstrate the feasibility of production of a broad array of vaccine candidates. We are currently developing for third parties, and evaluating the feasibility of developing, a number of vaccine candidates. However, vaccine products are not a category in which iBio expects to make significant financial investments. Rather, iBio expects its financial participation in novel vaccines to be through development agreements, manufacturing contracts, and royalties based on product or process patent licenses.

Biodefense Countermeasures

Our technologies have advantages that we believe are particularly well suited for the biodefense market. Speed of production and capability to produce both vaccines and therapeutic proteins and the potential to improve performance of vaccines through the application of iBio technologies are key features of biologics manufacturing systems that may be sought by governments and state corporations seeking to establish autonomous capabilities to protect their populations from bioterrorism threats.

Strategic Alliances and Collaborations

A significant component of our business plan is to enter into strategic alliances and collaborations with for-profit entities, governments, foundations, and others as appropriate to gain access to funding, capabilities, technical resources and intellectual property to further our development efforts, commercialize our technology and to generate revenues, including through the development and manufacture of products at iBio's CDMO facility.

License Agreement with University of Natural Resources and Life Sciences, Vienna

On March 1, 2019, iBio entered into a non-exclusive license agreement with the University of Natural Resources and Life Sciences, Vienna, whereby iBio obtained a non-transferable license for certain technical information and biological materials related to certain *Nicotiana benthamiana* plants with modified N-glycosylation. The license agreement is set to expire on December 11, 2019.

Strategic Relationship with CC-Pharming Ltd.

In June 2018, iBio established a strategic commercial relationship with CC-Pharming Ltd. of Beijing, China ("CC-Pharming") for joint development of products and manufacturing facilities for the Chinese biopharmaceutical market, utilizing iBio's technology. The first product focus selected pursuant to the Master Joint Development Agreement executed between iBio and CC-Pharming will be a therapeutic antibody, with additional, mutually selected products to be added to the venture as it proceeds. Service fees will be payable by CC-Pharming to iBio. iBio will provide process development and manufacturing services at its Texas facility for initial product development, and will assist CC-Pharming in facility design and optimization for eventual manufacturing in China. CC-Pharming will manage all operations in China. iBio has granted a royalty bearing license to CC-Pharming related to the first product for the territory of China and any future arrangement regarding iBio's participation and ongoing collaboration will be determined at a later date.

Collaboration with AzarGen Biotechnologies (Pty) Ltd

In May 2017, iBio and AzarGen Biotechnologies (Pty) Ltd ("AzarGen"), announced the expansion of their collaboration under a Memorandum of Understanding. Based in South Africa, AzarGen is a biotechnology company focused on developing human therapeutic proteins using advanced genetic engineering and synthetic biology techniques in plants. iBio successfully used its technologies and manufacturing capabilities to advance the development of AzarGen's surfactant protein therapeutic through an initial assessment of production feasibility. AzarGen has modified its business plan and product priorities to initiate development of a "bio-better" version of a monoclonal antibody therapeutic product for the South African market and iBio expects to provide manufacturing services to AzarGen for this program.

Collaboration Agreement with The Texas A&M University System

In June 2016, iBio executed a joint development agreement with The Texas A & M University System (including Texas A & M University AgriLife Research, and the Texas A & M Institute of Infectious Animal Diseases (IIAD) ("TAMUS"), for the establishment of a collaborative program in plant-produced pharmaceuticals.

Collaboration with Fraunhofer Center for Molecular Biotechnology ("Fraunhofer")

In 2003, as described in the Overview section above, we engaged Fraunhofer to perform research and development activities exclusively for iBio to further develop the iBioLaunch™ platform and support commercialization of iBio's platform and other assets. iBio and Fraunhofer have been in litigation since early 2015 as a result of Fraunhofer's alleged breaches of contract.

Fiocruz Collaboration and License

In January 2011, we entered into collaboration and granted a commercial, royalty-bearing license to Fiocruz for the use of our proprietary iBioLaunch™ technology in connection with the development, manufacture and commercialization by Fiocruz of certain vaccine products. Fiocruz, a unit of the Oswaldo Cruz Foundation, a central agency of the Ministry of Health of Brazil, is a leader in the production, development and commercialization in Latin America of vaccines, reagents and biopharmaceuticals. Additionally, Fiocruz, a certified World Health Organization provider to United Nations agencies, is a global leader in the manufacture of yellow fever vaccine. Fiocruz manufactures and exports yellow fever vaccine to over 60 countries. The World Health Organization has estimated that 200,000 unvaccinated people contract yellow fever each year, and approximately 30,000 die from the disease.

Pursuant to the terms of the collaboration and license agreement among iBio, Fraunhofer and Fiocruz, Fiocruz has the right to develop and commercialize yellow fever vaccine derived from the use of our iBioLaunch™ technology in Latin America, the Caribbean and Africa. Fiocruz will fund development of this vaccine product and if successfully developed and commercialized, iBio will receive royalty payments from the sales of the product in those territories. iBio has retained the right, which is sublicenseable, to commercialize the product in all other territories subject to payment of a royalty back to Fiocruz. Based upon Fraunhofer's representations of relevant expertise, we engaged Fraunhofer as our subcontractor to perform these research and development services.

On June 12, 2014, Fiocruz, Fraunhofer and iBio executed an amendment to the Agreement (the "Amended Agreement") which provided for the engagement of Fraunhofer as iBio's subcontractor for revised research and development, work plans, reporting, objectives, estimated budget, and project billing process. The effect of the amendment resulted in a charge of approximately $1.007 million to general and administrative expenses for the noncollectibility of an accounts receivable from Fiocruz for revenues recorded for the year ended June 30, 2013 and a credit of approximately $1.007 million to research and development expenses and a corresponding adjustment to accounts payable relating to expenses accrued at June 30, 2013 owed to Fraunhofer.

For the year ended June 30, 2014, under the Amended Agreement, the Company recognized revenue of $205,000 for work performed for Fiocruz pursuant to the Amended Agreement by the Company's subcontractor, Fraunhofer, and recognized research and development expenses of the same amount — $205,000 – paid to Fraunhofer for that work.

For the year ended June 30, 2015, under the Amended Agreement, the Company recognized revenue of $1,851,000 for work performed for Fiocruz pursuant to the Amended Agreement by the Company's subcontractor, Fraunhofer, and recognized research and development expenses of the same amount — $1,851,000 – paid to Fraunhofer for that work.

For the year ended June 30, 2016, under the Amended Agreement, the Company recognized revenue of $758,000 for work performed for Fiocruz pursuant to the Amended Agreement by the Company's subcontractor, Fraunhofer, and recognized research and development expenses of the same amount — $758,000 – paid to Fraunhofer for that work.

For the year ended June 30, 2017, under the Amended Agreement, the Company recognized revenue of $137,000 for work performed for Fiocruz pursuant to the Amended Agreement by the Company's subcontractor, Fraunhofer, and recognized research and development expenses of the same amount — $137,000 – $62,000 paid to Fraunhofer.

For the years ended June 30, 2019 and 2018, no revenues or research and development expenses were recognized under the Amended Agreement. At June 30, 2019 and 2018, there is an outstanding balance payable by the Company offset by an outstanding balance receivable due to the Company of $75,000.

iBio and Fiocruz are currently evaluating plans for further collaboration without prospective reliance on older Fraunhofer-derived technology and data.

Intellectual Property

We exclusively own the right to use intellectual property acquired by or developed at Fraunhofer for human health and certain veterinary and diagnostic applications. We also own intellectual property developed or acquired independently of Fraunhofer. In addition, we have an exclusive worldwide license agreement with the University of Pittsburgh covering U.S. and foreign patents and patent applications and related intellectual property owned by the University of Pittsburgh pertinent to the use of endostatin peptides for the treatment of fibrosis. Our success will depend in part on our ability to obtain and maintain patent protection for our technologies and products and to preserve our trade secrets. Our policy is to seek to protect our proprietary rights, by among other methods, filing patent applications in the U.S. and foreign jurisdictions to cover certain aspects of our technology.

We currently own some 26 U.S. patents and 68 international patents. We have an exclusive license to five U.S. patents and one application. Additionally, we have one international patent application allowed, as well as three U.S. and 15 international applications pending. International patents and applications include numerous foreign countries including Australia, Brazil, Canada, China, Hong Kong, India, Korea, Russia and several countries in Europe. We continue to prepare patent applications relating to our expanding technology in the U.S. and abroad.

The technology and products covered by our issued and pending patent applications are summarized below:

Technology and Product Patents (U.S.)

- Virus-induced gene silencing in plants
- Transient expression of foreign genes in plants
- Production of foreign nucleic acids and polypeptides in sprout systems
- Production of pharmaceutically active proteins in sprouted seedlings
- Systems and method for clonal expression in plants
- Recombinant carrier molecule for expression, delivery and purification of target polypeptides
- Influenza antigens, vaccine compositions, and related methods
- Plague antigens, vaccine compositions, and related methods
- Influenza therapeutic antibodies
- Trypanosomiasis vaccine
- Anthrax antigens, vaccine compositions, and related methods
- Use of endostatin peptides for the treatment of fibrosis

Pending Technology Patent Applications (U.S. and International)

- Activation of transgenes in plants by viral vectors
- Transient expression of proteins in plants
- Thermostable carrier molecule
- In vivo deglycosylation of recombinant proteins in plants

Pending Product Patent Applications (U.S. and International)

- Antibodies
- Influenza vaccines
- Influenza therapeutic antibodies
- Anthrax vaccines
- Plague vaccines
- HPV vaccines
- Trypanosomiasis vaccine
- Malaria vaccines
- Endostatin fragments and variants for use in treating fibrosis

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products.

We face competition from many different sources, including commercial pharmaceutical and biotechnology enterprises, academic institutions, government agencies, and private and public research institutions. Our commercial opportunities will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we or our collaborators may develop based on the use of our technologies.

Our competition in the CDMO market includes a number of full-service contract manufacturers and large pharmaceutical companies offering third-party development and manufacturing services to fill their excess capacity. Large pharmaceutical companies have been seeking to divest portions of their manufacturing capacity, and any such divested businesses may compete with us in the future. In addition, most of our competitors may have substantially greater financial, marketing, technical or other resources than we do. Moreover, additional competition may emerge and may, among other things, result in a decrease in the fees paid for our services, which would affect our results of operations and financial condition.

While we believe that the potential advantages of our new technologies will enable us to compete effectively against other providers of technology for biologic product development and manufacturing, many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, clinical trials, regulatory approvals and marketing approved products than we do. Smaller or early stage companies may also prove to be significant competitors, particularly through arrangements with large and established companies, and this may reduce the value of our technologies for the purposes of establishing license agreements. In addition, these third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies and technology licenses complementary to our programs or advantageous to our business.

We expect to rely upon licensees, collaborators or customers for support in advancing certain of our drug candidates and intend to rely on additional work with our collaborators during our efforts to commercialize our product candidates. Our licensees, collaborators or customers may be conducting multiple product development efforts within the same disease areas that are the subjects of their agreements with us. Agreements with collaborators may not preclude them from pursuing development efforts using a different approach from that which is the subject of our agreement with them. Any of our drug candidates, therefore, may be subject to competition with a drug candidate under development by a customer.

There are currently approved vaccines and therapies for many of the diseases and conditions addressed by the product candidates our clients and collaborators may be developing or manufacturing or in our own pipeline. There are also a number of companies working to develop new drugs and other therapies for diseases of commercial interest to us that are undergoing various stages of testing including clinical trials. The key competitive factors affecting the success of our technologies for commercial product candidates are likely to be efficacy, safety profile, price, and convenience.

Government Regulation and Product Approval

Regulation by governmental authorities in the U.S. and other countries is a significant factor in the development, manufacturing and marketing of pharmaceutical drugs and vaccines. All of the vaccine and therapeutic products developed from our technologies will require regulatory approval by governmental agencies prior to commercialization. In particular, pharmaceutical drugs and vaccines are subject to rigorous preclinical testing and clinical trials and other pre-marketing approval requirements by the Food and Drug Administration (“FDA”) and regulatory authorities in other countries. In the U.S., various federal, and, in some cases, state statutes and regulations, also govern or impact the manufacturing, safety, labeling, storage, record-keeping and marketing of vaccines and pharmaceutical products. The lengthy process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations requires the expenditure of substantial resources. Regulatory approval, if and when obtained for any of our product candidates, may be limited in scope, which may significantly limit the indicated uses for which our product candidates may be marketed. Further, approved vaccines and drugs are subject to ongoing review and discovery of previously unknown problems that may result in restrictions on their manufacture, sale or use, or in their withdrawal from the market.

Before any product candidates with potential immunization or therapeutic value may be tested in human subjects, we must satisfy stringent government requirements for preclinical studies. Preclinical testing includes both *in vitro* and *in vivo* laboratory evaluation and characterization of the safety and efficacy of the product candidate. "*In vitro*" refers to tests conducted with cells in culture and "*in vivo*" refers to tests conducted in animals. Preclinical testing results obtained from studies in several animal species, as well as data from *in vitro* studies, are submitted to the FDA as part of an IND application and are reviewed by the FDA prior to the commencement of human clinical trials. These preclinical data must provide an adequate basis for evaluating both the safety and the scientific rationale for the initial clinical trials. In the case of vaccine candidates, animal immunogenicity and immune protection tests must establish a sound scientific basis to believe that the product candidate may be beneficial when administered to humans.

An IND becomes effective automatically 30 days after receipt by the FDA, unless the FDA raises concern or questions about the conduct of the clinical trials as outlined in the IND prior to that time. In such an event, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials may proceed. For additional information on the most recent FDA regulations and guidance on vaccine and therapeutic product testing and approval, visit its website at http://www.fda.gov.

Any products we or a licensee manufactures or distributes under FDA approval are subject to continuing regulation by the FDA, including record-keeping requirements and reporting of adverse experiences with the products. Drug manufacturers and their subcontractors are required to register with the FDA and, where appropriate, state agencies, and are subject to periodic unannounced inspections by the FDA and state agencies for compliance with current cGMPs, which are the standards the FDA requires be met during the manufacturing of drugs and biologic products, and which impose procedural and documentation requirements upon us and any third-party manufacturers we utilize.

To the extent we conduct vaccine or therapeutic product development activities outside the United States, we will also be subject to a wide variety of foreign regulations governing the development, manufacture and marketing of our product candidates. Whether or not FDA approval has been obtained, approval of a product by the comparable regulatory authorities of foreign countries must still be obtained prior to manufacturing or marketing the product in those countries. The approval process varies from country to country and the time needed to secure approval may be longer or shorter than that required for FDA approval. We cannot assure you that clinical trials conducted in one country will be accepted by other countries or that approval in one country will result in approval in any other country. The product testing and clinical trial requirements that must be met before a product candidate may be marketed are substantial, time-consuming, and require investments of millions of dollars per product candidate.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information with respect to the beneficial ownership of our outstanding common stock as of October 22, 2019:

- each person who is known by us to be the beneficial owner of 5% or more of our outstanding common stock;
- each of our directors including our chief executive officer;
- each of our other named executive officers; and
- all of our current executive officers and directors as a group.

Except as otherwise noted in the footnotes below, to our knowledge, each of the persons named in this table has sole voting and investment power with respect to the securities indicated as beneficially owned.

Name and Address of Beneficial Owner (1)	Number of Shares Beneficially Owned (2)	Percent of Shares Beneficially Owned (2)
5% Stockholders		
Eastern Capital Limited	14,507,734(3)	48.0%
Lincoln Park Capital / Joshua Scheinfeld	2,874,444(4)	11.9%
LH Financial Services Corp.	1,944,444(5)	8.0%
Iroquois Capital Management, LLC	1,666,666(5)	6.9%
Directors		
Robert B. Kay	103,096(6)	0.4%
Glenn Chang	1,215(7)	*%
Thomas F. Isett 3rd	-(8)	-%
John McKey, Jr.	48,656(9)	0.2%
Seymour Flug	-(10)	-%
General James T. Hill	1,500(11)	*%
Philip K. Russell, M.D.	-(12)	-%
Other Executive Officers		
Robert L. Erwin	-(13)	-%
James Mullaney	-(14)	-%
All current directors and executive officers as a group (10 persons)	**154,467(15)**	**0.6%**

* Ownership percentage less than 0.1%

(1) The address of Eastern Capital Limited ("Eastern") is Box 31363, Grand Cayman, E9 KY1 1206. The address of Lincoln Park Capital is c/o Lincoln Park Capital Fund, LLC, 440 North Wells Street, Suite 410, Chicago, IL 60654. The address of LH Financial Services Corp. is 150 Central Park South, New York, NY 10019. The address of Iroquois Capital Management, LLC is 641 Lexington Avenue, New York, NY 10022. The address of each of our directors and executive officers is c/o iBio, Inc., 600 Madison Avenue, Suite 1601, New York, New York 10022-1737.

(2) Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to shares of our common stock. On October 22, 2019, there were 24,152,455 shares of common stock outstanding. Shares of common stock issuable under stock options that are exercisable within 60 days after October 22, 2019 are deemed outstanding and are included for purposes of computing the number of shares owned and percentage ownership of the person holding the option but are not deemed outstanding for computing the percentage ownership of any other person.

(3) Includes (i) 8,457,734 shares of common stock and (ii) 6,050,000 shares of common stock underlying convertible Series B Preferred. Does not include 377,778 shares of common stock underlying convertible Series B Preferred as Eastern Capital Limited is limited to beneficial ownership of 48% by agreement.

(4) Includes (i) 500,000 shares of common stock held by Mr. Scheinfeld, and (ii) 2,374,444 shares of common stock held by Lincoln Park Capital, of which Mr. Scheinfeld is the managing manager.

(5) Includes (i) 1,777,777 shares of common stock and (ii) 166,667 shares of common stock underlying Series A Convertible Preferred.

(6) Includes (i) 21,133 shares of common stock and (ii) 81,963 shares of common stock held by EVJ LLC, of which Mr. Kay is the manager. Does not include 357,500 shares of common stock underlying stock options held by Mr. Kay that have yet to vest.

(7) Does not include 86,750 shares of common stock underlying stock options that have yet to vest.

(8) Does not include 50,000 shares of common stock underlying stock options that have yet to vest.

(9) Does not include 94,250 shares of common stock underlying stock options that have yet to vest.

(10) Does not include 75,500 shares of common stock underlying stock options that have yet to vest.

(11) Does not include 86,750 shares of common stock underlying stock options that have yet to vest.

(12) Does not include 84,500 shares of common stock underlying stock options that have yet to vest.

(13) Does not include 232,500 shares of common stock underlying stock options that have yet to vest.

(14) Does not include 11,250 shares of common stock underlying stock options that have yet to vest.

(15) Does not include 1,101,500shares of common stock underlying stock options that have yet to vest.

DESCRIPTION OF SECURITIES

Capital Stock

We are authorized to issue 275,000,000 shares of common stock, par value $0.001 per share, of which 24,152,455 shares were issued and outstanding as of October 22, 2019, and 1,000,000 shares of preferred stock, par value $0.001 per share, one of which is designated as iBio CMO Preferred Tracking Stock, par value, $0.001, per share, 6,300 of which are designated as Series A Convertible Preferred Stock, par value $0.001 per share and 5,785 of which are designated as Series B Convertible Preferred Stock, par value $0.001 per share. As of October 22, 2019, one share of iBio CMO Preferred Tracking Stock, 387 shares of Series A Preferred Stock and 5,785 shares of Series B Preferred Stock are issued and outstanding.

Provisions of our certificate of incorporation, as amended, our first amended and restated bylaws and provisions of applicable Delaware law may discourage, delay or prevent a merger or other change in control that a stockholder may consider favorable. Pursuant to our certificate of incorporation, as amended, our Board of Directors may issue additional shares of common or preferred stock. Any additional issuance of common stock could have the effect of impeding or discouraging the acquisition of control of us by means of a merger, tender offer, proxy contest or otherwise, including a transaction in which our stockholders would receive a premium over the market price for their shares, and thereby protect the continuity of our management. Specifically, if in the due exercise of its fiduciary obligations, the Board of Directors were to determine that a takeover proposal was not in our best interest, shares could be issued by our Board of Directors without stockholder approval in one or more transactions that might prevent or render more difficult or costly the completion of the takeover by:

- Diluting the voting or other rights of the proposed acquirer or insurgent stockholder group,
- Putting a substantial voting block in institutional or other hands that might undertake to support the incumbent Board of Directors, or
- Effecting an acquisition that might complicate or preclude the takeover.

Our certificate of incorporation, as amended, also allows our Board of Directors to fix the number of directors in our bylaws. Cumulative voting in the election of directors is specifically denied in our certificate of incorporation, as amended. The effect of these provisions may be to delay or prevent a tender offer or takeover attempt that a stockholder may determine to be in his, her or its best interest, including attempts that might result in a premium over the market price for the shares held by the stockholders.

Common Stock

Holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders and are not entitled to cumulative voting for the election of directors. Holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the Board of Directors out of funds legally available therefor subject to the rights of preferred stockholders. We do not intend to pay any cash dividends to the holders of common stock and anticipate reinvesting our earnings. In the event of liquidation, dissolution or winding up of our company, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities and the preferences of preferred stockholders. Shares of common stock have no preemptive, conversion or other subscription rights. There are no redemption or sinking fund provisions applicable to common stock.

Preferred Stock

We are authorized to issue 1,000,000 shares of preferred stock, par value $0.001 per share, and the Board of Directors is authorized to create one or more series of preferred stock, and to designate the rights, privileges, restrictions, preferences and limitations of any given series of preferred stock. Accordingly, the Board of Directors may, without stockholder approval, issue shares of preferred stock with dividend, liquidation, conversion, voting or other rights that could adversely affect the voting power or other rights of the holders of common stock.

Series A Convertible Preferred Stock

The following is a summary of the material terms of the Series A Preferred Stock. This summary is not complete. The following summary of the terms and provisions of the Series A Preferred Stock is qualified in its entirety by reference to the Series A Preferred Stock, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part.

General

Our board of directors has designated up to 6,300 shares of the 1,000,000 authorized shares of preferred stock as Series A Convertible Preferred Stock, par value $0.001 per share. The outstanding shares of Series A Preferred Stock are validly issued, fully paid and non-assessable. Each share of Series A Preferred Stock has a stated value of $1,000 per share.

Rank

The Series A Preferred Stock rank on parity to our common stock and Series B Preferred Stock and junior to our iBio CMO Preferred Tracking Stock described below under "Preferred Tracking Stock".

Conversion

Each share of Series A Preferred Stock is convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder at a conversion price of $0.90. The conversion price is subject to adjustment if, at any time during the two (2) years following the first issuance of shares of Series A Preferred Stock, we issue any shares of common stock or options, warrants or other securities exercisable for or convertible into common stock at a price per share less than the conversion price in effect at such time. In such case the conversion price will be adjusted to the higher of the price per share in such subsequent issuance or $0.05. Certain exempt issuances, such as options to purchase common stock issued to officers, directors and employees pursuant to an option plan duly adopted by a majority of the non-employee members of our Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, issuances of shares of common stock pursuant to convertible securities currently outstanding, and issuances of shares in connection with strategic transactions approved by a majority of our disinterested directors do not result in an adjustment to the conversion price.

Holders of Series A Preferred Stock are prohibited from converting Series A Preferred Stock into shares of our common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

Liquidation Preference

In the event of our liquidation, dissolution or winding-up, holders of Series A Preferred Stock are entitled to receive the same amount that a holder of our common stock would receive if the Series A Preferred Stock were fully converted into shares of our common stock at the conversion price (disregarding for such purposes any conversion limitations) which amounts shall be paid pari passu with all holders of common stock and holders of Series B Preferred Stock.

Voting Rights

Holders of Series A Preferred Stock do not have the right to vote for members of the Company's board of directors and do not vote on an as-converted to common stock basis for matters brought before the Company's common stockholders. The affirmative vote of the holders of a majority of the then outstanding shares of Series A Preferred Stock is required to, (a) alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock, (b) amend our certificate of incorporation or other charter documents in any manner that materially adversely affects any rights of the holders of Series A Preferred Stock, (c) increase the number of authorized shares of Series A Preferred Stock, (d) issue any shares of Series A Preferred Stock other than pursuant to the certificate of designation of preferences, rights and limitations of the Series A Preferred Stock, or (e) enter into any agreement with respect to any of the foregoing.

Dividends

Shares of Series A Preferred Stock are not be entitled to receive any dividends, unless and until specifically declared by our board of directors. The holders of the Series A Preferred Stock will participate, on an as-if-converted-to-common stock basis, in any dividends to the holders of common stock.

Redemption

We are not obligated to redeem or repurchase any shares of Series A Preferred Stock. Shares of Series A Preferred Stock are not otherwise entitled to any redemption rights or mandatory sinking fund or analogous fund provisions.

Exchange Listing

The Series A Preferred Stock are not listed on any national securities exchange or other nationally recognized trading system.

Series B Convertible Preferred Stock

The following is a summary of the material terms of the Series B Preferred Stock. This summary is not complete. The following summary of the terms and provisions of the Series B Preferred Stock is qualified in its entirety by reference to the Series B Preferred Stock, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part.

General

Our board of directors has designated up to 5,785 shares of the 1,000,000 authorized shares of preferred stock as Series B Convertible Preferred Stock, par value $0.001 per share. The outstanding shares Series B Preferred Stock are validly issued, fully paid and non-assessable. Each share of Series B Preferred Stock has a stated value of $1,000 per share.

Rank

The Series B Preferred Stock rank on parity to our common stock and Series A Preferred Stock and junior to our iBio CMO Preferred Tracking Stock described below under “Preferred Tracking Stock”.

Conversion

Each share of Series B Preferred Stock is convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder at a conversion price equal to $0.90. The conversion price is subject to adjustment if, at any time during the two (2) years following the first issuance of shares of Series B Preferred Stock, we issue any shares of common stock or options, warrants or other securities exercisable for or convertible into common stock at a price per share less than the conversion price in effect at such time. In such case the conversion price will be adjusted to the higher of the price per share in such subsequent issuance or $0.05. Certain exempt issuances, such as options to purchase common stock issued to officers, directors and employees pursuant to an option plan duly adopted by a majority of the non-employee members of our Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, issuances of shares of common stock pursuant to convertible securities currently outstanding, and issuances of shares in connection with strategic transactions approved by a majority of our disinterested directors do not result in an adjustment to the conversion price.

Holders of Series B Preferred Stock are prohibited from converting Series B Preferred Stock into shares of our common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 48% of the total number of shares of our common stock then issued and outstanding.

Liquidation Preference

In the event of our liquidation, dissolution or winding-up, holders of Series B Preferred Stock are entitled to receive the same amount that a holder of our common stock would receive if the Series B Preferred Stock were fully converted into shares of our common stock at the conversion price (disregarding for such purposes any conversion limitations) which amounts shall be paid pari passu with all holders of common stock and holders of Series A Preferred Stock.

Voting Rights

Holders of Series B Preferred Stock do not have the right to vote for members of the Company's board of directors and do not vote on an as-converted to common stock basis for matters brought before the Company's common stockholders. The affirmative vote of the holders of a majority of the then outstanding shares of Series B Preferred Stock is required to, (a) alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock, (b) amend our certificate of incorporation or other charter documents in any manner that materially adversely affects any rights of the holders of Series B Preferred Stock, (c) increase the number of authorized shares of Series B Preferred Stock, (d) issue any shares of Series B Preferred Stock other than pursuant to the certificate of designation of preferences, rights and limitations of the Series B Preferred Stock, or (e) enter into any agreement with respect to any of the foregoing.

Dividends

Shares of Series B Preferred Stock are not be entitled to receive any dividends, unless and until specifically declared by our board of directors. The holders of the Series B Preferred Stock participate, on an as-if-converted-to-common stock basis, in any dividends to the holders of common stock.

Redemption

We are not obligated to redeem or repurchase any shares of Series B Preferred Stock. Shares of Series B Preferred Stock are not otherwise entitled to any redemption rights or mandatory sinking fund or analogous fund provisions.

Exchange Listing

We do not plan on making an application to list the Series B Preferred Stock on any national securities exchange or other nationally recognized trading system.

Preferred Tracking Stock

On February 23, 2017, our Board of Directors created a series of preferred stock, designated as the "iBio CMO Preferred Tracking Stock," par value $0.001 per share (the "Preferred Tracking Stock"), out of our 1,000,000 authorized shares of preferred stock. On February 23, 2017, we filed with the Secretary of State of the State of Delaware a certificate of designation, preferences and rights of the Preferred Tracking Stock (the "Certificate of Designation") which became effective on February 23, 2017, authorizing one share of Preferred Tracking Stock and establishing the designation, powers, preferences and rights of the Preferred Tracking Stock.

Dividends on Preferred Tracking Stock

The Preferred Tracking Stock accrues dividends at the rate of 2% per annum on the original issue price of $13 million per share. Accrued dividends are payable if and when declared by the Board of Directors, upon an exchange of the shares of Preferred Tracking Stock and upon a liquidation, winding up or deemed liquidation (such as a merger) of the Company. No dividend may be declared or paid or set aside for payment or other distribution declared or made upon our common stock and no common stock may be redeemed, purchased or otherwise acquired for any consideration by us unless all accrued dividends on all outstanding shares of Preferred Tracking Stock are paid in full.

Voting Rights of Preferred Tracking Stock

The holders of Preferred Tracking Stock, voting separately as a class, are entitled to approve by the affirmative vote of a majority of the shares of Preferred Tracking Stock outstanding any amendment, alteration or repeal of any of the provisions of, or any other change to, our certificate of incorporation, as amended, or the Certificate of Designation that adversely affects the rights, powers or privileges of the Preferred Tracking Stock, any increase in the number of authorized shares of Preferred Tracking Stock, the issuance or sale of any additional shares of Preferred Tracking Stock or any securities convertible into or exercisable or exchangeable for Preferred Tracking Stock, the creation or issuance of any shares of any additional class or series of capital stock unless the same ranks junior to the Preferred Tracking Stock, or the reclassification or alteration of any of our existing securities that are junior to or pari passu with the Preferred Tracking Stock, if such reclassification or alteration would render such other security senior to the Preferred Tracking Stock. Except as required by applicable law, the holders of Preferred Tracking Stock have no other voting rights.

Exchange of Preferred Tracking Stock

At our election or the election of holders of a majority outstanding shares of Preferred Tracking Stock, each outstanding share of Preferred Tracking Stock may be exchanged for 29,990,000 units of limited liability company interests of iBio CDMO. Such exchange may be effected only after March 31, 2018, or in connection with a winding up, liquidation or deemed liquidation (such as a merger) of the Company or iBio CDMO. In addition, such exchange will take effect upon a change in control of iBio CDMO.

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering (i) 1,724,138 Shares of our common stock, (ii) 4,000 shares of our Series C Preferred Stock and (iii) Warrants to purchase up to 17,241,379 shares of our common stock. Each Share of common stock is being sold together with two warrants, one Series A Warrant with an expiry date on the second anniversary of the original issuance date, to purchase one share of common stock (the "Two Year Warrants") and one Series B Warrant with an expiry date on the seventh anniversary of the original issuance date, to purchase one share of common stock (the "Seven Year Warrants"). In addition, each of Series C Preferred Share is being sold together with Two Year Warrants to purchase one share of common stock for each share of common stock issuable upon conversion of the Series C Preferred Share and Seven Year Warrants to purchase one share of common stock for each share of common stock issuable upon conversion of the Series C Preferred Share. The Two Year Warrants and Seven Year Warrants may be referred to in this prospectus as "Warrants".

Common Stock

Holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders and are not entitled to cumulative voting for the election of directors. Holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the Board of Directors out of funds legally available therefor subject to the rights of preferred stockholders. We do not intend to pay any cash dividends to the holders of common stock and anticipate reinvesting our earnings. In the event of liquidation, dissolution or winding up of our company, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities and the preferences of preferred stockholders. Shares of common stock have no preemptive, conversion or other subscription rights. There are no redemption or sinking fund provisions applicable to common stock.

Series C Convertible Preferred Stock

The following is a summary of the material terms of the Series C Preferred Stock. This summary is not complete. The following summary of the terms and provisions of the Series C Preferred Stock is qualified in its entirety by reference to the Series C Preferred Stock, the form of which shall be filed as an exhibit to the registration statement of which this prospectus is a part.

General

Our board of directors has designated up to 4,000 shares of the 1,000,000 authorized shares of preferred stock as Series C Convertible Preferred Stock, par value $0.001 per share. The outstanding shares of Series C Preferred Stock are validly issued, fully paid and non-assessable. Each share of Series C Preferred Stock has a stated value of $1,000 per share.

Rank

The Series C Preferred Stock rank on parity to our common stock, Series A Preferred Stock and Series B Preferred Stock, and junior to our iBio CMO Preferred Tracking Stock described below under "Preferred Tracking Stock".

Conversion

Each share of Series C Preferred Stock is convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder at a conversion price equal to the public offering price of the common stock in this offering. The conversion price is subject to adjustment if, at any time any shares of Series C Preferred Stock are outstanding, we issue any shares of common stock or options, warrants or other securities exercisable for or convertible into common stock at a price per share less than the conversion price in effect at such time. In such case the conversion price will be adjusted to the higher of the price per share in such subsequent issuance or $0.05. Certain exempt issuances, such as options to purchase common stock issued to officers, directors and employees pursuant to an option plan duly adopted by a majority of the non-employee members of our Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, issuances of shares of common stock pursuant to convertible securities currently outstanding, and issuances of shares in connection with strategic transactions approved by a majority of our disinterested directors do not result in an adjustment to the conversion price.

Holders of Series C Preferred Stock are prohibited from converting Series C Preferred Stock into shares of our common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

Liquidation Preference

In the event of our liquidation, dissolution or winding-up, holders of Series C Preferred Stock are entitled to receive the same amount that a holder of our common stock would receive if the Series C Preferred Stock were fully converted into shares of our common stock at the conversion price (disregarding for such purposes any conversion limitations) which amounts shall be paid pari passu with all holders of common stock, holders of Series A Preferred Stock and holders of Series B Preferred Stock.

Voting Rights

Holders of Series C Preferred Stock will not have the right to vote for members of the Company's board of directors and do not vote on an as-converted to common stock basis for matters brought before the Company's common stockholders. The affirmative vote of the holders of a majority of the then outstanding shares of Series C Preferred Stock is required to, (a) alter or change adversely the powers, preferences or rights given to the Series C Preferred Stock, (b) amend our certificate of incorporation or other charter documents in any manner that materially adversely affects any rights of the holders of Series C Preferred Stock, (c) increase the number of authorized shares of Series C Preferred Stock, (c) issue any shares of Series C Preferred Stock other than pursuant to the certificate of designation of preferences, rights and limitations of the Series C Preferred Stock, or (d) enter into any agreement with respect to any of the foregoing.

Dividends

Shares of Series C Preferred Stock are not be entitled to receive any dividends, unless and until specifically declared by our board of directors. The holders of the Series C Preferred Stock will participate, on an as-if-converted-to-common stock basis, in any dividends to the holders of common stock.

Redemption

We are not obligated to redeem or repurchase any shares of Series C Preferred Stock. Shares of Series C Preferred Stock are not otherwise entitled to any redemption rights or mandatory sinking fund or analogous fund provisions.

Exchange Listing

The Series C Preferred Stock will not be listed on any national securities exchange or other nationally recognized trading system.

Warrants

Each Share of common stock is being sold together with two warrants, one Series A Warrant with an expiry date on the second anniversary of the original issuance date, to purchase one share of common stock (the "Two Year Warrants") and one Series B Warrant with an expiry date on the seventh anniversary of the original issuance date, to purchase one share of common stock (the "Seven Year Warrants"). In addition, each Series C Preferred Share is being sold together with Two Year Warrants to purchase one share of common stock for each share of common stock issuable upon conversion of the Series C Preferred Share and Seven Year Warrants to purchase one share of common stock for each share of common stock issuable upon conversion of the Series C Preferred Share. The Two Year Warrants and Seven Year Warrants may be referred to in this prospectus as "Warrants". Other than their expiry dates and the call option applicable to the Two Year Warrants described below under "Call Option", the Two Year Warrants and Seven Year Warrants have the same terms. The following summary of certain terms and provisions of the Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Warrants, the forms of which is filed as exhibits to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the forms of Warrants for a complete description of the terms and conditions of the Warrants.

Form

The Warrants will be issued as individual warrant agreements to investors.

Duration and Exercise Price

Each Warrant offered hereby will have an initial exercise price per share equal to $ per share (representing 110% of the public offering price). The Warrants will be immediately exercisable. The Seven Year Warrants will expire on the seventh anniversary of the original issuance date and the Two Year Warrants will expire on the second anniversary of the original issuance date. The Warrants contain price protection for certain issuances of common stock or common stock equivalents below the initial exercise price. If we issue or sell shares of our common stock, rights to purchase shares of our common stock, or securities convertible into shares of our common stock for a price per share that is less than the exercise price then in effect, the exercise price of the Warrants will be decreased to equal such lesser price. The foregoing adjustments to the exercise price for future stock issues will not apply to certain exempt issuances, including issuances pursuant to certain employee benefit plans. In addition, the exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Warrants will be issued separately from the common stock and Series C Preferred Stock and may be transferred separately immediately thereafter.

Exercisability

The Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's Warrants to a maximum of 9.99%. No fractional shares of common stock will be issued in connection with the exercise of a Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Cashless Exercise

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

Fundamental Transaction

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

Call Option

If there is a registration statement that covers the resale of the shares underlying the Two Year Warrants and other conditions are satisfied, we have the option to "call" for the cancellation of any or all of the Two Year Warrants, from time to time, by giving a call notice to the holder only after any 5-consecutive trading day period during which the daily VWAP of the common stock is not less than 200% of the offering price of the Shares in this offering. During the call period, the holder may exercise the Two Year Warrant and purchase the called common stock underlying the Two Year Warrant. If the holder fails to timely exercise the any portion of the Two Year Warrant subject to the relevant call notice during the call period, our sole remedy will be to cancel an amount of called shares of common stock underlying the Two Year Warrant equal to such shortfall, with the Two Year Warrant no longer being exercisable with respect to such shares of common stock. The call period is a period of 30 trading days following the date on which the call notice is given.

Transferability

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

Exchange Listing

We do not intend to list the Warrants on any securities exchange or nationally recognized trading system.

Right as a Stockholder

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

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our Certificate of Incorporation will provide for indemnification of our officers and directors to the extent permitted by Delaware law, which generally permits indemnification for actions taken by officers or directors as our representatives if the officer or director acted in good faith and in a manner he or she reasonably believed to be in the best interest of the corporation.

As permitted under Delaware law, our By-laws contain a provision indemnifying directors against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by them in connection with an action, suit or proceeding if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of our company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe their conduct was unlawful.

The separation and distribution agreement that we have entered into with Integrated BioPharma provides for indemnification by us of Integrated BioPharma and its directors, officers and employees for some liabilities, including liabilities under the Securities Act and the Securities Exchange Act of 1934 in connection with the distribution, and a mutual indemnification of each other for product liability claims arising from their respective businesses, and also requires that we indemnify Integrated BioPharma for various liabilities of iBio, and for any tax that may be imposed with respect to the distribution and which result from our actions or omissions in that regard.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock to Non-U.S. Holders (defined below), but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed or subject to differing interpretations, possibly with retroactive effect, so as to result in United States federal income tax consequences different from those set forth below. We have not sought and will not seek any ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any United States state or local or any non-United States jurisdiction, the 3.8% Medicare tax on net investment income or any alternative minimum tax consequences. In addition, this discussion does not address tax considerations applicable to a Non-U.S. Holder's particular circumstances or to a Non-U.S. Holder that may be subject to special tax rules, including, without limitation:

- banks, insurance companies or other financial institutions;
- tax-exempt or government organizations;
- brokers of or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock;
- certain United States expatriates, citizens or former long-term residents of the United States;
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction," synthetic security, other integrated investment, or other risk reduction transaction;
- persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment purposes);
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- real estate investment trusts or regulated investment companies;
- pension plans;
- partnerships, or other entities or arrangements treated as partnerships for United States federal income tax purposes, or investors in any such entities;
- persons for whom our stock constitutes "qualified small business stock" within the meaning of Section 1202 of the Code;
- integral parts or controlled entities of foreign sovereigns;
- tax-qualified retirement plans;
- controlled foreign corporations;
- passive foreign investment companies and corporations that accumulate earnings to avoid United States federal income tax; or
- persons that acquire our common stock as compensation for services.

In addition, if a partnership, including any entity or arrangement classified as a partnership for United States federal income tax purposes, holds our common stock, the tax treatment of a partner generally will depend on the status of the partner, the activities of the partnership, and certain determinations made at the partner level. Accordingly, partnerships that hold our common stock, and partners in such partnerships, should consult their tax advisors regarding the United States federal income tax consequences to them of the purchase, ownership, and disposition of our common stock.

You are urged to consult your tax advisor with respect to the application of the United States federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal estate or gift tax rules or under the laws of any United States state or local or any non-United States or other taxing jurisdiction or under any applicable tax treaty.

Definition of a Non-U.S. holder

For purposes of this summary, a "Non-U.S. Holder" is any beneficial owner of our common stock that is not a "U.S. person," and is not a partnership, or an entity disregarded from its owner, each for U.S. federal income tax purposes. A U.S. person is any person that, for United States federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to United States federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be
  treated as a U.S. person for U.S. federal income tax purposes.

Distributions

As discussed in the section entitled "Market Price and Dividend Information" beginning on page 29 of this prospectus, we do not anticipate paying any dividends on our capital stock in the foreseeable future. If we make distributions on our common stock, those payments will constitute dividends for United States income tax purposes to the extent we have current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce a Non-U.S. Holder's basis in our common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under the "Gain on Sale or Other Disposition of Common Stock" section. Any such distributions would be subject to the discussions below regarding back-up withholding and Foreign Account Tax Compliance Act, or FATCA.

Subject to the discussion below on effectively connected income, any dividend paid to a Non-U.S. Holder generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. To receive a reduced treaty rate, a Non-U.S. Holder must provide us or our agent with an IRS Form W-8BEN (generally including a United States taxpayer identification number), IRS Form W-8-BEN-E or another appropriate version of IRS Form W-8 (or a successor form), which must be updated periodically, and which, in each case, must certify qualification for the reduced rate. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder's conduct of a United States trade or business within the United States and that are not eligible for relief from United States (net basis) income tax under the business profits article of an applicable income tax treaty, generally are exempt from the (gross basis) withholding tax described above. To obtain this exemption from withholding tax, the Non-U.S. Holder must provide the applicable withholding agent with an IRS Form W-8ECI or successor form or other applicable IRS Form W-8 certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States. Such effectively connected dividends, if not eligible for relief under the business profits article of a tax treaty, would not be subject to a withholding tax, but would be taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits and if, in addition, the Non-U.S. Holder is a corporation, may also be subject to a branch profits tax at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty).

If you are eligible for a reduced rate of withholding tax pursuant to a tax treaty, you may be able to obtain a refund of any excess amounts currently withheld if you timely file an appropriate claim for refund with the IRS.

Gain on Sale or Other Disposition of Common Stock

Subject to the discussion below regarding backup withholding and FATCA, a Non-U.S. Holder generally will not be required to pay United States federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States and not eligible for relief under the business profits article of an applicable income tax treaty, in which case the Non-U.S. Holder will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates, and for a Non-U.S. Holder that is a corporation, such Non-U.S. Holder may be subject to the branch profits tax at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items;

- the Non-U.S. Holder is an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met, in which case the Non-U.S. Holder will be required to pay a flat 30% tax on the gain derived from the sale, which tax may be offset by U.S. source capital losses (even though the Non-U.S. Holder is not considered a resident of the United States) (subject to applicable income tax or other treaties); or

- our common stock constitutes a U.S. real property interest by reason of our status as a "U.S. real property holding corporation" for U.S. federal income tax purposes, or a USRPHC, at any time within the shorter of the five-year period preceding the disposition or the Non-U.S. Holder's holding period for our common stock. We believe we are not currently and do not anticipate becoming a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our common stock will not be subject to United States federal income tax as long as our common stock is regularly traded on an established securities market and such Non-U.S. Holder does not, actually or constructively, hold more than five percent of our common stock at any time during the applicable period that is specified in the Code. If the foregoing exception does not apply, then if we are or were to become a USRPHC a purchaser may be required to withhold 15% of the proceeds payable to a Non-U.S. Holder from a sale of our common stock and such Non-U.S. Holder generally will be taxed on its net gain derived from the disposition at the graduated United States federal income tax rates applicable to U.S. persons (as defined in the Code).

Backup Withholding and Information Reporting

Generally, we must file information returns annually to the IRS in connection with any dividends on our common stock paid to a Non-U.S. Holder, regardless of whether any tax was actually withheld. A similar report will be sent to the Non-U.S. Holder. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in the Non-U.S. Holder's country of residence.

Payments of dividends or of proceeds on the disposition of stock made to a Non-U.S. Holder may be subject to additional information reporting and backup withholding at a current rate of 24% unless such Non-U.S. Holder establishes an exemption, for example by properly certifying its non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E, IRS Form W-8ECI, or another appropriate version of IRS Form W-8 (or a successor form). Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that a holder is a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance Act

FATCA imposes withholding tax on certain types of payments made to foreign financial institutions and certain other non-United States entities. The legislation imposes a 30% withholding tax on dividends on, or, on or after January 1, 2019, gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or to certain "non-financial foreign entities" (each as defined in the Code), unless (i) the foreign financial institution undertakes certain diligence and reporting obligations, (ii) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (i) above, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. If the country in which a payee is resident has entered into an "intergovernmental agreement" with the United States regarding FATCA, that agreement may permit the payee to report to that country rather than to the U.S. Department of the Treasury. Prospective investors should consult their own tax advisors regarding the possible impact of these rules on their investment in our common stock, and the possible impact of these rules on the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of this 30% withholding tax under FATCA.

Federal Estate Tax

Common stock owned (or treated as owned) by an individual who is not a citizen or a resident of the United States (as defined for United States federal estate tax purposes) at the time of death will be included in the individual's gross estate for United States federal estate tax purposes unless an applicable estate or other tax treaty provides otherwise, and therefore may be subject to United States federal estate tax.

The preceding discussion of United States federal tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its tax advisor regarding the particular United States federal, state and local and non-United States tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

UNDERWRITING

We and the Underwriter intend to enter into an underwriting agreement with respect to the Shares, Series C Preferred Shares and Warrants being offered. Subject to certain conditions, pursuant to the Underwriter agrees to purchase the number of Shares, Series C Preferred Shares and Warrants indicated in the following table.

Underwriter	Number of Shares	Number of Series C Preferred Shares	Number of Two Year Warrants	Number of Seven Year Warrants
A.G.P./Alliance Global Partners				
Total				

The underwriters have agreed to purchase all the securities offered by us other than those covered by the over-allotment option to purchase additional securities described below, if it purchases any such securities, and the underwriters' obligations are several, which means that the underwriters are required to purchase a specific number of shares of common stock, shares of Series C Preferred Stock, and/or accompanying Warrants but are not responsible for the commitment of any other underwriter to purchase any securities. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters' obligations are subject to customary conditions and representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions.

The underwriters are offering the securities, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by the Representative's counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Shares sold by the Underwriter to the public will initially be offered at the public offering price per Share of $. The Series C Preferred Shares sold by the Underwriter to the public will initially be offered at a public offering price per Series C Preferred Share of $1,000. If all the Shares, Series C Preferred Shares and Warrants are not sold at their respective offering prices, the Underwriter may change the offering prices and the other selling terms in agreement with the Company.

Underwriting Discounts and Commissions

The following table shows the underwriting discounts and commissions that we are to pay to the Underwriter in connection with this offering, as well as the proceeds to us, before expenses. These amounts are shown assuming both no exercise and full exercise of the Underwriter's over-allotment option to purchase additional shares of common stock.

	Per Share	Per Series C Preferred Share	Per Warrant	No Exercise of Over-allotment option Total	Full Exercise of Over-allotment option Total
Public Offering Price		$ 1,000			
Underwriting discounts and commissions paid(1)					
Underwriter discounts and commissions paid (pre-existing relationship investors)(2)					
Proceeds to us, before expenses					

In addition, we have agreed to pay the Underwriter an exercise fee equal to 3.5% of the exercise price from each Warrant (other than any Warrant issued pursuant to the over-allotment option) that is exercised in accordance with its terms.

We estimate that the total expenses of the offering payable by us, excluding underwriting discounts and commissions, will be approximately $185,000.

We will reimburse the Underwriter an aggregate of $135,000 for expenses incurred in this offering, including the reasonable fees and expenses of legal counsel.

Over-allotment Option

We have granted to the underwriters an option exercisable not later than 45 days after the date of this prospectus to purchase up to 1,293,103 additional Shares of common stock and/or additional Two Year Warrants and/or Seven Year Warrants at the public offering price per share of common stock and/or Warrant set forth on the cover page hereto less the underwriting discounts and commissions. The underwriters may exercise the option solely to cover overallotments, if any, made in connection with this offering. If any additional shares of common stock and/or Warrants to purchase common stock are purchased pursuant to the over-allotment option, the underwriters will offer these Shares of common stock and/or Warrants to purchase common stock on the same terms as those on which the other securities are being offered.

Additional Compensation

As additional compensation, we have agreed to issue the Underwriter or its designees, at the closing of this offering and any exercise of the Underwriter's over-allotment option, as applicable, shares of our common stock equal to 2% of the aggregate Shares, shares of common stock issuable upon conversion of Series C Preferred Shares sold in this offering, and any Shares issued upon exercise of the Underwriter's over-allotment option. Except as provided in Financial Industry Regulatory Authority, Inc. ("FINRA") Rule 5110(g)(2), such shares have been deemed underwriting compensation by FINRA and shall not be sold, transferred, assigned, pledged, or hypothecated, or the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such shares by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, pursuant to FINRA Rule 5110(g)(1).

Indemnification

We intend to indemnify the Underwriter against certain liabilities, including liabilities under the Securities Act of, or to contribute to payments the Underwriter may be required to make because of any of those liabilities.

Lock-Ups and Trading Restrictions

We, our officers and directors, and certain of our other stockholders intend to agree that, for a period of ninety (90) days from the date of this prospectus, we and they will not, subject to limited exceptions, without the prior written consent of the Underwriter, dispose of or hedge any shares or any securities convertible into or exchangeable for our common stock.

Certain investors who purchase a minimum of $250,000 of Securities offered in this offering will enter into leak-out agreements (the "Leak-Out Agreements") with the Company. Pursuant to the Leak-Out Agreements, beginning on the public announcement of the final pricing of this offering (the "Pricing Date") and ending 35 days after the Pricing Date, if an investor party to a Leak-Out Agreement decides to sell any shares of the Company's common stock or shares of common stock underlying any convertible securities or options held by the investor as of the date of the Leak-Out Agreement or any shares of common stock of the Company issuable upon exercise of the Series C Preferred Shares or Warrants, such investor may only be permitted to sell such securities in such amount as shall equal up to 35% in the aggregate of the daily average volume of the Company's common stock as reported by Bloomberg, LP on any given trading day, provided that this restriction will not apply on any day on which the price of our common stock trades by 200% over the public offering price for the Shares of common stock in this offering.

The NYSE American Listing

The Shares are listed on the NYSE American under the symbol "IBIO".

Expenses and Reimbursements

We estimate that our portion of the total expenses of this offering will be $185,000, excluding underwriting discounts, commissions and expenses of the underwriter that we have agreed to reimburse. We have agreed to reimburse the Underwriter $135,000 for expenses incurred in this offering, including expenses related to any filing with, and any clearance of this offering by, the Financial Industry Regulatory Authority, or FINRA.

Price Stabilization, Short Positions and Penalty Bids

In connection with the offering, the Underwriter may purchase and sell shares in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, which may include purchases pursuant to the Underwriter's over-allotment option to purchase additional shares and/or warrants, and stabilizing purchases.

- Short sales involve secondary market sales by the Underwriter of a greater number of shares than it is required to purchase in the offering.
- "Covered" short sales are sales of shares in an amount up to the number of shares represented by the Underwriter's over-allotment option to purchase additional Shares.
- "Naked" short sales are sales of shares in an amount in excess of the number of shares represented by the Underwriter's over-allotment option to purchase additional Shares.
- Covering transactions involve purchases of shares either pursuant to the Underwriter's over-allotment option to purchase additional Shares or in the open market in order to cover short positions.
- To close a naked short position, the Underwriter must purchase shares in the open market. A naked short position is more likely to be created if the Underwriter is concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- To close a covered short position, the Underwriter must purchase shares in the open market or must exercise its over-allotment option to purchase additional Shares. In determining the source of shares to close the covered short position, the Underwriter will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which it may purchase shares through the Underwriter's over-allotment option to purchase additional shares of common stock.
- Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and stabilizing purchases, as well as other purchases by the Underwriter for its own account, may have the effect of preventing or retarding a decline in the market price of our common stock. The Underwriter may also cause the price of our common stock to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The Underwriter may conduct these transactions on the NYSE American, in the over-the-counter market or otherwise. If the Underwriter commences any of these transactions, it may discontinue them at any time.

Right of First Refusal

For a period of twelve months immediately following the closing of this offering, we will grant the Underwriter a right of first refusal to act as a lead managing underwriter or book runner, or as a lead placement agent, for any future equity, equity-linked or debt (excluding commercial bank debt) offerings of the Company, or any successor to or any subsidiary of the Company (each a "Subject Transaction"), on competitive compensation terms. At any time after the date that is six months following the closing of this offering, we may elect to exclude any Subject Transaction from the right of first refusal provided that we will be required to pay the Underwriter 3% of the gross proceeds from any excluded transaction (an "Excluded Transaction Payment") completed during the remainder of the right of first refusal period.

Electronic Distribution

In connection with the offering, the Underwriter or certain other securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

The Underwriter is a full service financial institution engaged in various activities, which may include securities trading, investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. In the ordinary course of its various business activities, the Underwriter and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for its own account and for the accounts of its customers and may at any time hold long and short positions in such securities and instruments. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The Underwriter and its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that it acquires, long and/or short positions in such securities and instruments.

Passive Market Making

In connection with this offering, the Underwriting may also engage in passive market making transactions in the shares. Passive market making consists of displaying bids limited by the prices of independent market makers and effecting purchases limited by those prices in response to order flow. Rule 103 of Regulation M promulgated by the Securities and Exchange Commission limits the amount of net purchases that each passive market maker may make and the displayed size of each bid. Passive market making may stabilize the market price of the shares at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Sales Outside the United States

No action has been taken in any jurisdiction (except in the United States) that would permit a public offering of our common stock, Series C Preferred Stock or Warrants, or the possession, circulation or distribution of this prospectus or any other material relating to us or our common stock, Series C Preferred Stock or Warrants in any jurisdiction where action for that purpose is required. Accordingly, the shares of common stock, Series C Preferred Stock and Warrants may not be offered or sold, directly or indirectly, and neither this prospectus nor any other offering material or advertisements in connection with our common stock, Series C Preferred Stock or Warrants may be distributed or published, in or from any country or jurisdiction, except in compliance with any applicable rules and regulations of any such country or jurisdiction.

The Underwriter may arrange to sell the common stock, Series C Preferred Stock or Warrants offered hereby in certain jurisdictions outside the United States, either directly or through affiliates, where it is permitted to do so.

LEGAL MATTERS

The legality of the securities offered hereby has been passed on for us by Andrew Abramowitz, PLLC, New York, New York. Certain legal matters in connection with this offering will be passed on for the Underwriter by Sullivan & Worcester LLP, New York, New York.

EXPERTS

The consolidated financial statements of iBio, Inc. and Subsidiaries as of June 30, 2019 and 2018, and for the years then ended, incorporated by reference in this prospectus and the registration statement of which this prospectus is a part, have been so included in reliance on the audit report, which includes an explanatory paragraph relating to the Company's ability to continue as a going concern, of CohnReznick LLP, an independent registered public accounting firm, incorporated by reference in this prospectus and the registration statement of which this prospectus is a part, given the authority of that firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. You can inspect and copy these reports, proxy statements and other information without charge at the public reference facilities of the SEC at the SEC's Public Reference Room located at the SEC's principal office at Room 1580, 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of this public reference room by calling 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC and state the address of that site (http://www.sec.gov). The Registration Statement, including all exhibits and schedules and amendments, has been filed with the SEC through the Electronic Data Gathering Analysis and Retrieval system and is available to the public from the SEC's web site at http://www.sec.gov.

We also make our annual, quarterly and current reports, proxy statements and other information free of charge on our investor website,https://ir.ibioinc.com/sec-filings, as soon as reasonably practicable after we electronically file these materials with, or furnish them to, the SEC. We use our website as a channel of distribution for material company information. Important information, including financial information, analyst presentations, financial news releases, and other material information about us is routinely posted on and accessible at https://ir.ibioinc.com/.

We have filed a Registration Statement on Form S-1 under the Securities Act covering the sale of the securities offered by this prospectus. This prospectus, which is a part of the Registration Statement, does not contain all of the information in the Registration Statement and the exhibits filed with it, portions of which have been omitted as permitted by the SEC rules and regulations. For further information concerning us and the securities offered by this prospectus, please refer to the Registration Statement and to the exhibits filed therewith. You may inspect the registration statement and exhibits without charge at the office of the SEC at 100 F Street, N.E., Washington, D.C. 20549, and you may obtain copies from the SEC at prescribed rates.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" the information that we have filed with it, meaning we can disclose important information to you by referring you to those documents already on file with the SEC. The information incorporated by reference is considered to be part of this prospectus except for any information that is superseded by other information that is included in this prospectus.

This filing incorporates by reference the following documents, which we have previously filed with the SEC pursuant to the Exchange Act (other than current reports on Form 8-K, or portions thereof, furnished under Items 2.02 or 7.01 of Form 8-K):

- Annual Report on Form 10-K for the year ended June 30, 2019 (Commission File No. 001-35023).
- Current Report on Form 8-K filed with the SEC on October 11, 2019 (Commission File No. 001-35023).
- Current Report on Form 8-K filed with the SEC on October 22, 2019 (Commission File No. 001-35023).

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

We will provide, without charge, to each person, including any beneficial owner, to whom this prospectus is delivered, on the written or oral request of such person, a copy of any or all of the reports or documents incorporated by reference in this prospectus, but not delivered with this prospectus. Any request may be made by writing or telephoning us at the following address or telephone number:

iBio, Inc.
Attention: Investor Relations
600 Madison Avenue, Suite 1601
New York, NY 10022
302-355-9452
ir@ibioinc.com

You may also access the documents incorporated by reference into this prospectus at our website address athttps://ir.ibioinc.com/sec-filings. The other information and content contained on or linked from our website are not part of this prospectus.

1,724,138 Shares of Common Stock,

4,000 Shares of Series C Preferred Stock,

8,620,690 Series A Warrants to Purchase Common Stock

and

8,620,690 Series B Warrants to Purchase Common Stock

PROSPECTUS

Sole Book-Running Manager

A.G.P.

, 2019

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses that will be paid by us in connection with the securities being registered. With the exception of the SEC registration fee, all amounts shown are estimates:

Registration Fees	$	2,077
Federal Taxes		-
State Taxes		-
Legal Fees and Expenses		135,000
Printing and Engraving Expenses		8,000
Blue Sky Fees		3,000
Accounting Fees and Expenses		25,000
Miscellaneous		9,223
Total	$	182,300

We will pay all expenses incurred in connection with the registration of the shares covered by this prospectus. Brokerage commissions, underwriters' fees, discounts and commissions and similar selling expenses, if any, attributable to the sale of the shares covered by the alternate prospectus will be borne by the selling stockholders.

Item 14. Indemnification of Directors and Officers.

Our Certificate of Incorporation will provide for indemnification of our officers and directors to the extent permitted by Delaware law, which generally permits indemnification for actions taken by officers or directors as our representatives if the officer or director acted in good faith and in a manner he or she reasonably believed to be in the best interest of the corporation. We have entered into indemnification agreements with our officers and directors to specify the terms of our indemnification obligations. In general, these indemnification agreements provide that we will:

- indemnify our directors and officers to the fullest extent now permitted under current law and to the extent the law later is amended to increase the scope of permitted indemnification;
- advance payment of expenses to a director or officer incurred in connection with an indemnifiable claim, subject to repayment if it is later determined that the director or officer was not entitled to be indemnified;
- reimburse the director or officer for any expenses incurred by the director or officer in seeking to enforce the indemnification agreement; and
- have the opportunity to participate in the defense of any indemnifiable claims against the director or officer.

As permitted under Delaware law, the By-laws contain a provision indemnifying directors against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by them in connection with an action, suit or proceeding if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of our Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe their conduct was unlawful.

The separation and distribution agreement that we have entered into with Integrated BioPharma provides for indemnification by us of Integrated BioPharma and its directors, officers and employees for some liabilities, including liabilities under the Securities Act and the Securities Exchange Act of 1934 in connection with the distribution, and a mutual indemnification of each other for product liability claims arising from their respective businesses, and also requires that we indemnify Integrated BioPharma for various liabilities of iBio, and for any tax that may be imposed with respect to the distribution and which result from our actions or omissions in that regard.

Item 15. Recent Sales of Unregistered Securities

On June 8, 2018 the Company effected a 1 for 10 reverse stock split of its common stock. The number of shares and share prices in this Item 15 have been retroactively adjusted reflect the reverse split of our common stock as if it had occurred at the beginning of the earliest period presented.

The Lincoln Park Transaction

On July 24, 2017, the Company entered into a purchase agreement and a registration rights agreement with an institutional investor, Lincoln Park Capital Fund, LLC ("Lincoln Park"), an Illinois limited liability company, providing for the purchase of up to $16.0 million worth of the Company's common stock, $0.001 par value per share, over the 36-month term of the purchase agreement. In connection therewith and as contemplated by the purchase agreement, on July 24, 2017, the Company sold 250,000 newly issued shares of its common stock, valued at $4.00 per share, to Lincoln Park for $1,000,000 in cash and issued 120,000 shares of its common stock to Lincoln Park pursuant to the terms of the purchase agreement as consideration for its commitment to purchase shares under the purchase agreement. The table below sets forth the additional sales of common stock made by the Company to Lincoln Park pursuant to the Purchase Agreement since July 24, 2017.

Date of Purchase	Shares of Common Stock	Per Share Purchase Price	Aggregate Gross Proceeds to the Company
March 5, 2018	10,000	$ 1.182	$ 18,250.00
March 7, 2018	10,000	$ 1.186	$ 18,610.00
March 9, 2018	10,000	$ 1.195	$ 19,520.00
March 13, 2018	10,000	$ 1.198	$ 19,850.00
March 15, 2018	10,000	$ 2.213	$ 21,310.00
March 19, 2018	10,000	$ 2.237	$ 23,750.00

The Company may, from time to time and at its sole discretion, direct Lincoln Park to purchase shares of its common stock in amounts up to 10,000 shares on any single business day, subject to a maximum of $1,000,000 per purchase, plus other "accelerated amounts" and/or "additional amounts" under certain circumstances. There are no trading volume requirements or restrictions under the purchase agreement, and the Company will control the timing and amount of any sales of its common stock to Lincoln Park. The purchase price of the shares that may be sold to Lincoln Park under the purchase agreement will be based on the market price of the Company's common stock preceding the time of sale as computed under the purchase agreement. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. The Company may at any time in its sole discretion terminate the purchase agreement without fee, penalty or cost upon one business day notice. There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the purchase agreement or the registration rights agreement entered into in connection with the purchase agreement other than a prohibition on entering into a "Variable Rate Transaction," as defined in the purchase agreement.

Lincoln Park represented to the Company, among other things, that it was an "accredited investor" (as such term is defined in Rule 501(a) of Regulation D under the Securities Act), and the Company sold the securities in reliance upon an exemption from registration contained in Section 4(a)(2) of the Securities Act and Regulation D promulgated thereunder.

iBio CMO Preferred Tracking Stock

On February 23, 2017, the Company entered into an exchange agreement with Bryan Capital Investors LLC, the minority owner of the Company's subsidiary iBio CDMO LLC and an affiliate of Eastern Capital Limited, a stockholder of the Company, pursuant to which the Company acquired substantially all of the interest in iBio CDMO LLC held by Bryan Capital Investors LLC and issued one share of a newly created iBio CDMO Preferred Tracking Stock, par value $0.001 per share (the "Preferred Tracking Stock"), to Bryan Capital Investors LLC at an original issue price of approximately $12.5 million. At the election of the Company or holders of a majority outstanding shares of Preferred Tracking Stock, each outstanding share of Preferred Tracking Stock may be exchanged for 29,990,000 units of limited liability company interests of iBio CDMO LLC. Such exchange may be effected only after March 31, 2018, or in connection with a winding up, liquidation or deemed liquidation (such as a merger) of the Company or iBio CDMO LLC. In addition, such exchange will take effect upon a change in control of iBio CDMO LLC.

The share of Preferred Tracking Stock issued to Bryan Capital Investors LLC under the Exchange Agreement was issued in reliance upon the exemption from registration contained in Section 4(2) of the Securities Act and Regulation D promulgated thereunder.

Item 16. Exhibits and Financial Statement Schedules

Exhibits filed with this Registration Statement on Form S-1 or incorporated by reference from other filings are as follows:

Exhibit No.	Description
1.1	Form of Underwriting Agreement*
1.2	Underwriting Agreement, dated November 29, 2017, by and between iBio, Inc. and Aegis Capital Corp. (13)
1.3	Amended and Restated Underwriting Agreement, dated November 30, 2017, between iBio, Inc. and Aegis Capital Corp. (14)
1.4	Underwriting Agreement, dated June 21, 2018, by and between iBio, Inc. and A.G.P./Alliance Global Partners (15)
3.1	Certificate of Incorporation of the Company (1)
3.2	Certificate of Amendment of the Certificate of Incorporation of the Company (16)
3.3	First Amended and Restated Bylaws of the Company (2)
3.4	Certificate of Designation, Preferences and Rights of the iBio CMO Preferred Tracking Stock of iBio, Inc. (3)
3.5	Certificate of Designation, Preferences and Rights of the Series A Convertible Preferred Stock of iBio, Inc. (17)
3.6	Certificate of Designation, Preferences and Rights of the Series B Convertible Preferred Stock of iBio, Inc. (17)
3.7	Certificate of Designation, Preferences and Rights of the Series C Convertible Preferred Stock of iBio, Inc.*
4.1	Form of Common Stock Certificate (4)
4.2	Registration Rights Agreement, dated July 24, 2017, between the Company and Lincoln Park Capital Fund, LLC (5)
4.3	Form of Series A Warrant to Purchase Common Stock**
4.4	Form of Series B Warrant to Purchase Common Stock**
5.1	Opinion of Andrew Abramowitz, PLLC*
10.1	Technology Transfer Agreement, dated as of January 1, 2004, between the Company and Fraunhofer USA Center for Molecular Biotechnology, Inc. as amended (6)
10.2	Ratification dated September 6, 2013 of Terms of Settlement by and between the Company and Fraunhofer USA Center for Molecular Biotechnology, Inc. (7)+
10.3	Share Purchase Agreement, dated January 13, 2016, between iBio, Inc. and Eastern Capital Limited, for the purchase of 3,500,000 shares of common stock (8)
10.4	Share Purchase Agreement, dated January 13, 2016, between iBio, Inc. and Eastern Capital Limited, for the purchase of 6,500,000 shares of common stock (8)
10.5	Amendment, dated June 26, 2018, to Share Purchase Agreement, dated January 13, 2016, between iBio, Inc. and Eastern Capital Limited, for the purchase of 6,500,000 (pre-split) shares of common stock (17)

10.6	Amended and Restated Limited Liability Company Operating Agreement of iBio CMO LLC, dated January 13, 2016, between the Company, Bryan Capital Investors LLC and iBio CMO LLC (9)
10.7	License Agreement, dated January 13, 2016, between the Company and iBio CMO LLC (9)
10.8	Sublease Agreement, dated January 13, 2016, between College Station Investors LLC and IBIO CMO LLC (9)
10.9	Exchange Agreement, dated February 23, 2017, between iBio, Inc. and Bryan Capital Investors LLC (10)
10.10	Amendment No. 1, dated February 23, 2017, to the Amended and Restated Limited Liability Company Agreement of iBio CMO LLC, dated January 13, 2016, between iBio, Inc. and Bryan Capital Investors LLC (10)
10.11	Offer Letter, dated December 30, 2016, between iBio, Inc. and James P. Mullaney (11)
10.12	Purchase Agreement, dated July 24, 2017 between the Company and Lincoln Park Capital Fund, LLC (5)
10.13	2018 Omnibus Equity Incentive Plan, effective December 18, 2018 (12)
10.14	Form of Directors and Officer Indemnification Agreement (18)
10.15	Form of Leak-Out Agreement.*
21	Subsidiaries of Registrant (12)
23.1	Consent of Independent Registered Public Accounting Firm *
23.2	Included in Exhibit 5.1.*
24.1	Powers of Attorney (included on signature page to this Registration Statement)

(1) Incorporated herein by reference to the Company's Quarterly Report on Form 10-Q filed with the SEC on May 11, 2018 (Commission File No. 001-35023).

(2) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on August 14, 2009 (Commission File No. 000-53125).

(3) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on February 24, 2017 (Commission File No. 001-35023)

(4) Incorporated herein by reference to the Company's Form 10-12G filed with the SEC on July 11, 2008 (Commission File No. 000-53125)

(5) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on July 24, 2017 (Commission File No. 001-35023).

(6) Incorporated herein by reference to the Company's Form 10-12G filed with the SEC on June 18, 2008 Commission File No. 000-53125).

(7) Incorporated herein by reference to the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2013, filed with the SEC on September 30, 2013 (Commission File No. 001-35023).

(8) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on January 14, 2016 (Commission File No. 000-35023).

(9) Incorporated herein by reference to the Company's Quarterly Report on Form 10-Q filed with the SEC on February 22, 2016 (Commission File No. 001-35023).

(10) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on February 24, 2017 (Commission File No. 001-35023).

(11) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on March 6, 2017 (Commission File No. 001-35023).

(12) Incorporated herein by reference to the Company's Annual Report on Form 10-K filed with the SEC on August 26, 2019 (Commission File No. 001-35023).

(13) Incorporated herein by reference to the Company's Quarterly Report on Form 8-K filed with the SEC on November 29, 2017 (Commission File No. 001-35023).

(14) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on December 1, 2017 (Commission File No. 001-35023).

(15) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on June 22, 2018 (Commission File No. 001-35023).

(16) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on June 8, 2018 (Commission File No. 001-35023).

(17) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on June 27, 2018 (Commission File No. 001-35023).

(18) Incorporated herein by reference to the Company's Current Report on Form 8-K filed with the SEC on April 1, 2019 (Commission File No. 001-35023)

* Filed herewith.
** Previously filed.
+ Confidential treatment requested as to certain portions, which portions have been separately filed with the SEC.

Item 17. Undertakings.

(a) We hereby undertake:

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

(i) to include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

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

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

(2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, iBio, Inc. has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in New York, New York, on October 23, 2019.

IBIO, INC.

By: /s/ Robert B. Kay
Robert B. Kay
Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of the Registrant, iBio, Inc., a Delaware corporation, hereby severally and individually constitute and appoint Robert B. Kay, Chief Executive Officer and James P. Mullaney, Chief Financial Officer, and each of them, as true and lawful attorneys in fact for the undersigned, in any and all capacities, with full power of substitution, to sign any and all amendments to this Registration Statement (including post-effective amendments), and to file the same with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys in fact, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys in fact, or any of them, may lawfully do or cause to be done by virtue of this appointment.

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

Signature	Title	Date
/s/ Robert B. Kay Robert B. Kay	Chief Executive Officer and Director (Principal Executive Officer)	October 23, 2019
/s/ James P. Mullaney James P. Mullaney	Chief Financial Officer (Principal Financial and Accounting Officer)	October 23, 2019
* General James T. Hill (Ret.)	Director	October 23, 2019
* Glenn Chang	Director	October 23, 2019
* John D. McKey, Jr.	Director	October 23, 2019
* Philip K. Russell, M.D.	Director	October 23, 2019
* Seymour Flug	Director	October 23, 2019
 Tom Isett	Director	October 23, 2019

By: /s/ Robert B. Kay
Robert B. Kay
Attorney-in Fact

Exhibit 1.1

UNDERWRITING AGREEMENT

between

IBIO, INC.

and

A.G.P./ALLIANCE GLOBAL PARTNERS,

as Representative of the Several Underwriters

IBIO, INC.

UNDERWRITING AGREEMENT

New York, New York
October [__], 2019

A.G.P./Alliance Global Partners
As Representative of the several Underwriters named on Schedule 1 attached hereto
590 Madison Avenue, 36th Floor
New York, New York 10022

Ladies and Gentlemen:

The undersigned, iBio, Inc., a Delaware corporation (the "**Company**"), hereby confirms its agreement (this "**Agreement**") with A.G.P./Alliance Global Partners (hereinafter referred to as "you" (including its correlatives) or the "**Representative**") and with the other underwriters named on Schedule 1 hereto for which the Representative is acting as representative (the Representative and such other underwriters being collectively called the "**Underwriters**" or, individually, an "**Underwriter**") as follows:

1. **Purchase and Sale of Securities**.

1.1 **Firm Securities**.

1.1.1. **Nature and Purchase of Securities**.

(i) On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell to the several Underwriters, an aggregate of [_____] shares (the "**Firm Shares**") of the Company's common stock, par value $0.001 per share (the "**Common Stock**"), an aggregate of [_____] shares of Series C Convertible Preferred Stock, par value $0.001 per share (the "**Preferred Shares**"), which are convertible into an aggregate of [_____] shares of Common Stock (the "**Conversion Shares**"), which shall have a stated value of $1,000 per share and shall have a conversion price of $[_____], subject to adjustment as provided in the Certificate of Designation, Preferences and Rights of the Preferred Shares (the "**Certificate of Designation**"), an aggregate of [_____] Series A Common Stock purchase warrants, which shall have an exercise price of $[_____] (the "**Series A Warrants**") to purchase up to an aggregate of [_____] shares of Common Stock, and an aggregate of [_____] Series B Common Stock purchase warrants (the "**Series B Warrants**") to purchase up to an aggregate of [_____] shares of Common Stock, which shall have an exercise price of $[_____]. The Series A Warrants and Series B Warrants are collectively referred herein as the "**Firm Warrants**" and the shares of Common Stock underlying the Firm Warrants are collectively referred to herein as the "**Warrant Shares**." The Firm Shares, the Preferred Shares and the Firm Warrants are collectively referred to herein as the "**Firm Securities**." The Firm Shares and the Conversion Shares are collectively referred to herein as the "**Shares**."

(ii) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Firm Securities set forth opposite their respective names on Schedule 1 attached hereto and made a part hereof at a purchase price (a) of $[_____] per share of Common Stock (93% of the per Firm Share offering price), $[____] per Preferred Share (93% of the per Preferred Share offering price), and $[_____] per Series A Warrant (93% of the per Series A Warrant offering price) and $[_____] per Series B Warrant (93% of the per Series B Warrant offering price) with respect to investors set forth on Schedule 1 attached hereto who do not have a pre-existing relationship with the Company, and (b) $[_____] per share of Common Stock (96.5% of the per Firm Share offering price), $[____] per Preferred Share (96.5% of the per Preferred Share offering price), and $[_____] per Series A Warrant (96.5% of the per Series A Warrant offering price) and $[_____] per Series B Warrant (96.5% of the per Series B Warrant offering price) with respect to investors set forth on Schedule 1 attached hereto who have a pre-existing relationship with the Company (the "**Pre-Existing Relationship Investors**") . The Firm Securities are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus (as defined in Section 2.1.1 hereof).

1.1.2. **Firm Securities Payment and Delivery**.

(i) Delivery and payment for the Firm Securities shall be made at 10:00 a.m., Eastern time, on the second (2nd) Business Day following the effective date (the "**Effective Date**") of the Registration Statement (as defined in Section 2.1.1 below) under the Securities Act of 1933, as amended (the "**Securities Act**") (or the third (3rd) Business Day following the Effective Date if the pricing for the Offering (as defined in Section 2.1.1 below) occurs after 4:01 p.m., Eastern time on the Effective Date) or at such earlier time as shall be agreed upon by the Representative and the Company, at the offices of Zysman, Aharoni, Gayer and Sullivan & Worcester LLP, 1633 Broadway, New York, New York, 10019 (" **Representative Counsel**"), or at such other place (or remotely by facsimile or other electronic transmission) as shall be agreed upon by the Representative and the Company. The hour and date of delivery and payment for the Firm Securities is called the "**Closing Date**."

(ii) Payment for the Firm Securities shall be made on the Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery of the Firm Securities via the Depository Trust Company ("**DTC**"). The Firm Securities shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Closing Date. The Company shall not be obligated to sell or deliver the Firm Securities except upon tender of payment by the Representative for all of the Firm Securities. The aggregate purchase price for the Securities to be purchased by each of the Underwriters shall equal up to the amount set forth opposite the name of such Underwriter on Schedule 1 attached hereto, provided that to the extent any Underwriter sells fewer Securities and therefore determines to purchase fewer Securities, such amount shall be reduced on a pro rata basis based on the number of Securities actually purchased. The Underwriters shall notify the Company of the number of Securities they intend to purchase at the Closing Date on the business day immediately preceding the Closing Date, provided that such notification shall not be binding upon the Underwriters. The term "**Business Day**" means any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions are authorized or obligated by law to close in New York, New York.

1.2 **Over-allotment Option**.

1.2.1. **Option Securities**. For the purposes of covering any over-allotments in connection with the distribution and sale of the Firm Securities, the Company hereby grants to the Underwriters an option (the "**Over-Allotment Option**") to purchase up to an additional [_____] shares of Common Stock, representing fifteen percent (15%) of the Shares sold in the offering, from the Company (the "**Option Shares**"), and/or (b) warrants to purchase up to [_____] shares of Common Stock, representing fifteen percent (15%) of the Firm Warrants sold in the offering (the "**Option Warrants**" and collectively with the Option Shares, the "**Option Securities**"). The purchase price to be paid per Option Security shall be equal to the price per applicable Firm Security set forth in Section 1.1.1 hereof. The shares of Common Stock underlying the Firm Warrants and the Option Warrants are hereinafter referred to as the "**Registered Warrant Shares**". The Firm Securities, the Conversion Shares, the Registered Warrant Shares and the Option Securities are hereinafter referred to together as the "**Public Securities**." The offering and sale of the Public Securities is hereinafter referred to as the "**Offering**."

1.2.2. **Exercise of Option**. The Over-allotment Option granted pursuant to Section 1.2.1 hereof may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Securities within forty-five (45) days after the date of the Prospectus (as defined below). The Underwriters shall not be under any obligation to purchase any Option Securities prior to the exercise of the Over-allotment Option. The Over-allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or facsimile or other electronic transmission setting forth the number of Option Securities to be purchased and the date and time for delivery of and payment for the Option Securities (the "**Option Closing Date**"), which shall not be later than five (5) full Business Days after the date of the notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of Representative Counsel, or at such other place (including remotely by facsimile or other electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Securities does not occur on the Closing Date, the Option Closing Date will be as set forth in the notice. Upon exercise of the Over-allotment Option with respect to all or any portion of the Option Securities, subject to the terms and conditions set forth herein, (i) the Company shall become obligated to sell to the Underwriters the number of Option Securities specified in such notice and (ii) each of the Underwriters, acting severally and not jointly, shall purchase that portion of the total number of Option Securities then being purchased as set forth in Schedule 1 opposite the name of such Underwriter.

1.2.3. **Payment and Delivery**. Payment for the Option Securities shall be made on the Option Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery to you of certificates (in form and substance satisfactory to the Underwriters) representing the Option Securities (or through the facilities of DTC) for the account of the Underwriters. The Option Securities shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Option Closing Date. The Company shall not be obligated to sell or deliver the Option Securities except upon tender of payment by the Representative for applicable Option Securities.

1.3 **Purchase Right Exercise Price**. Subject to the rules and regulations of the Financial Industry Regulatory Authority, Inc. ("**FINRA**"), the Underwriter shall be entitled to receive from the Company a warrant exercise fee of three and one half percent (3.5%) of the exercise price for each Firm Warrant that is exercised in accordance with its terms, which shall be payable within seven (7) Business Days from the date of such exercise. In that regard, from the Closing Date until the later date of (i) when no Firm Warrants remain outstanding and (ii) the expiration date of each Firm Warrant, the Company shall provide the Underwriter with a weekly update of warrant exercises occurring during such period, which update shall be accompanied by payment of the applicable fee with respect to such exercises.

2. **Representations and Warranties of the Company**. The Company represents and warrants to the Underwriters as of the Applicable Time (as defined below), as of the Closing Date and as of the Option Closing Date, as follows:

2.1 **Filing of Registration Statement**.

2.1.1. **Pursuant to the Securities Act**. The Company has filed with the U.S. Securities and Exchange Commission (the "**Commission**") a registration statement, and an amendment or amendments thereto, on Form S-1 (File No. 333-**233504**), including any related prospectus or prospectuses, for the registration of the sale of Public Securities under the Securities Act, which registration statement and amendment or amendments have been prepared by the Company in all material respects in conformity with the requirements of the Securities Act and the rules and regulations of the Commission promulgated thereunder (the "**Securities Act Regulations**") and contains and will contain all material statements that are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations. Except as the context may otherwise require, such registration statement, as amended, on file with the Commission at the time the registration statement became effective (including the Preliminary Prospectus included in the registration statement, financial statements, schedules, exhibits and all other documents filed as a part thereof or incorporated therein and all information deemed to be a part thereof as of the Effective Date pursuant to paragraph (b) of Rule 430A of the Securities Act Regulations (the "**Rule 430A Information**")), is referred to herein as the "**Registration Statement**." If the Company files any registration statement pursuant to Rule 462(b) of the Securities Act Regulations, then after such filing, the term "**Registration Statement**" shall include such registration statement filed pursuant to Rule 462(b) The Registration Statement has been declared effective by the Commission on the date hereof.

Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a "**Preliminary Prospectus**." The Preliminary Prospectus, subject to completion, dated October [__], 2019, which was included in the Registration Statement immediately prior to the Applicable Time is hereinafter called the "**Pricing Prospectus**." The final prospectus in the form first furnished to the Underwriters for use in the Offering is hereinafter called the "**Prospectus**." Any reference to the "**most recent Preliminary Prospectus**" shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement.

"**Applicable Time**" means 9:00 p.m., Eastern Time, on the date of this Agreement.

"**Issuer Free Writing Prospectus**" means any "issuer free writing prospectus," as defined in Rule 433 of the Securities Act Regulations ("Rule 433"), including without limitation any "free writing prospectus" (as defined in Rule 405 of the Securities Act Regulations) relating to the Public Securities that is (i) required to be filed with the Commission by the Company, (ii) a "road show 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 Public 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 2-B hereto.

"**Issuer Limited Use Free Writing Prospectus**" means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

"**Pricing Disclosure Package**" means any Issuer General Use Free Writing Prospectus issued at or prior to the Applicable Time, the Pricing Prospectus and the information included on Schedule 2-A hereto, all considered together.

2.1.2. **Pursuant to the Exchange Act**. The shares of Common Stock are registered pursuant to Section 12(b) under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"). The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the shares of Common Stock under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating such registration.

2.2 *Intentionally omitted.*

2 . 3 **No Stop Orders, etc**. Neither the Commission nor, to the Company's knowledge, any state regulatory authority has issued any order preventing or suspending the use of the Registration Statement, any Preliminary Prospectus or the Prospectus or has instituted or, to the Company's knowledge, threatened to institute, any proceedings with respect to such an order. The Company has complied with each request (if any) from the Commission for additional information.

2.4 **Stock Exchange Listing**. The shares of Common Stock are listed on NYSE American LLC (the "**NYSE**" or the "**Exchange**"), and the Company has taken no action designed to, or likely to have the effect of delisting the shares of Common Stock from the NYSE, nor has the Company received any notification that the NYSE is contemplating terminating such listing. Except as otherwise disclosed in the Registration Statement and the Prospectus, to the Company's knowledge, it is in compliance with all applicable listing requirements of the NYSE. The Company has submitted the Listing of Additional Shares Notification Form with the Exchange with respect to the Offering of the Public Securities.

2.5 **Prior Securities Transactions**. Since May 13, 2014, no securities of the Company have been sold by the Company or by or on behalf of, or for the benefit of, any person or persons controlling, controlled by or under common control with the Company, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.6 **Regulations**. The disclosures in the Registration Statement, the Pricing Disclosure Package and the Prospectus concerning the effects of federal, state, local and all foreign regulation on the Offering and the Company's business as currently contemplated are correct in all material respects and no other such regulations are required to be disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus which are not so disclosed.

2.7 **No Other Distribution of Offering Materials**. The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the Offering other than any Preliminary Prospectus, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 3.2 below.

2.8 **Independent Accountants**. To the knowledge of the Company, CohnReznick LLP (the "Auditor"), whose report is filed with the Commission and included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Securities Act Regulations and the Public Company Accounting Oversight Board. The Auditor has not, during the periods covered by the financial statements included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

2.9 **Changes After Dates in Registration Statement**.

2.9.1. **No Material Adverse Change**. Since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except as otherwise specifically stated therein: (i) there has been no material adverse change in the financial position or results of operations of the Company or any of its subsidiaries, nor any change or development that, singularly or in the aggregate, would involve a material adverse change in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company or any subsidiary (a "**Material Adverse Change**"); (ii) there have been no material transactions entered into by the Company, other than as contemplated pursuant to this Agreement; and (iii) no officer or director of the Company has resigned from any position with the Company.

2.9.2. **Recent Securities Transactions, etc.** Subsequent to the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and except as may otherwise be indicated or contemplated herein or disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not: (i) issued any securities, other than shares of Common Stock issuable upon the exercise or conversion of then outstanding options, warrants and/or convertible securities, or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

2.10 **Disclosures in Registration Statement**.

2.10.1. **Compliance with Securities Act and 10b-5 Representation**.

(i) Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus, including the prospectus filed as part of the Registration Statement as originally filed or as part of any amendment or supplement thereto, and the Prospectus, at the time each was filed with the Commission, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus delivered to the Underwriters for use in connection with this 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.

(ii) Neither the Registration Statement nor any amendment thereto, at its effective time, as of the Applicable Time, at the Closing Date, and as of the Option Closing Date, 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.

(iii) The Pricing Disclosure Package, as of the Applicable Time, at the Closing Date, or at any Option Closing Date (if any), did not, does not and will not include an untrue statement of a material fact or 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; and each Issuer Limited Use Free Writing Prospectus hereto does not conflict with the information contained in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, and each such Issuer Limited Use Free Writing Prospectus, as supplemented by and taken together with the Prospectus as of the Applicable Time, did not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; provided however, that this representation and warranty shall not apply to statements made or statements omitted in reliance upon and in conformity with written information furnished to the Company with respect to the Underwriters by the Representative expressly for use in the Registration Statement, the Pricing Prospectus, the Pricing Disclosure Package or the Prospectus or any amendment thereof or supplement thereto. The parties acknowledge and agree that such information provided by or on behalf of any Underwriter consists solely of the following disclosure: (a) the names of the Underwriters contained on the cover page of the Pricing Prospectus and Prospectus, (b) the information set forth under the sub-captions "Underwriting Discounts and Commissions," "Price Stabilization, Short Positions and Penalty Bids," "Electronic Distribution," "Passive Market Making," "Other Relationships" and "Sales Outside the United States" and (c) the table showing the number of securities to be purchased by each Underwriter (the "**Underwriters' Information**").

(iv) 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), at the Closing Date, or at any Option Closing Date (if any), 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; provided, however, that this representation and warranty shall not apply to the Underwriters' Information; and

(v) The documents incorporated by reference in the Registration Statement, the Pricing Prospectus, the Pricing Disclosure Package and the Prospectus, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and none of such documents contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Pricing Prospectus, the Pricing Disclosure Package and the Prospectus, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder, and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

2.10.2. **Disclosure of Agreements**. The agreements and documents described in the Registration Statement, the Pricing Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained or incorporated by reference therein, and there are no agreements or other documents required by the Securities Act and the Securities Act Regulations to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement or to be incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, that have not been so described or filed or incorporated by reference. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, or (ii) is material to the Company's business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company's knowledge, any other party is in default thereunder and, to the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder except for a default or event which would not reasonably be expected to result in a Material Adverse Effect (as such term is defined in Section 2.10.3 below). To the best of the Company's knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses (each, a "**Governmental Entity**"), including, without limitation, those relating to environmental laws and regulations.

2.10.3. **Organization and Qualification**. The Company is an entity duly incorporated or otherwise organized, validly existing, and, if applicable under the laws of the jurisdiction in which it is formed, in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company has all necessary authorizations, approvals, orders, licenses, certificates and permits of and from all governmental regulatory officials and bodies that it needs as of the date hereof to conduct its business purpose in all material respects as described in the Registration Statement and SEC Reports and to own or lease its properties. The Company is not in violation nor default of any of the provisions of its certificate of incorporation, as amended (the "**Charter**"), first amended and restated bylaws (the "**Bylaws**") or other organizational or charter documents. The Company is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of this Agreement, (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under this Agreement (any of (i), (ii) or (iii), a "**Material Adverse Effect**") and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification. Each of the Company's subsidiaries has been duly organized and is validly existing as and is in good standing under the laws of the applicable state of organization/incorporation as of the date hereof, and each of the Company's subsidiaries duly qualified to do business and is in good standing in each other jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify, singularly or in the aggregate, would not have or reasonably be expected to result in a Material Adverse Effect.

2.10.4. **Authorization; Enforcement**. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and the Certificate of Designation and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement, and the consummation by each of the transactions contemplated hereby has been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals. This Agreement, upon delivery, will have been duly executed by the Company and, when delivered in accordance with the terms hereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

2.10.5. **No Conflicts**. The execution, delivery and performance and filing by the Company of this Agreement and the Certificate of Designation, as applicable, the issuance and sale of the Public Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Charter, Bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company, or give to others any rights of termination, amendment, anti-dilution or similar adjustments, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company debt or otherwise) or other understanding to which the Company is a party or by which any property or asset of the Company is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company is subject (including, without limitation, those promulgated by the Food and Drug Administration of the U.S. Department of Health and Human Services (the "**FDA**") or by any foreign, federal, state or local regulatory authority performing functions similar to those performed by the FDA, and federal and state securities laws and regulations), or by which any property or asset of the Company is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to result in a Material Adverse Effect.

2.10.6. **Filings, Consents and Approvals**. Except as otherwise disclosed in the Registration Statement and the Prospectus, the Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of this Agreement and the Certificate of Designation, other than: (i) the filing with the Commission of the Prospectus Supplement, (ii) application(s) to each applicable Exchange for the listing of the applicable Public Securities for trading thereon in the time and manner required thereby and (iii) filing the Certificate of Designation with the Delaware Secretary of State (collectively, the "**Required Approvals**").

2.10.7. **D&O Questionnaires**. To the Company's knowledge, all information contained in the questionnaires (the "**Questionnaires**") completed by each of the Company's directors and officers immediately prior to the Offering (the "I**nsiders**") as supplemented by all information concerning the Company's directors, officers and principal shareholders as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, as well as in the Lock-Up Agreement (as defined in Section 2.10.45 below), provided to the Underwriters, is true and correct in all material respects and the Company has not become aware of any information which would cause the information disclosed in the Questionnaires to become materially inaccurate and incorrect.

2.10.8. **Issuance of the Public Securities; Registration**. The Public Securities are duly authorized and, when issued and paid for in accordance with this Agreement and the Certificate of Designation, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Warrant Shares and the Conversion Shares are duly authorized and, when issued in accordance with the terms of the Warrants and the Certificate of Designation, as applicable, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement and the Certificate of Designation, as applicable.

2.10.9. **Capitalization**. The equity capitalization of the Company is as set forth in the Registration Statement and the Prospectus under the caption "Capitalization" (other than for subsequent issuances, if any, pursuant to employee benefit plans, or upon the exercise of outstanding options or warrants, in each case described in the Registration Statement and the Prospectus). No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by this Agreement and the Certificate of Designation. Except as set forth in the Registration Statement and the Prospectus, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company is or may become bound to issue additional shares of Common Stock. Except as described in the Registration Statement and the Prospectus, the issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Underwriters) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. There are no outstanding securities or instruments of the Company that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company is or may become bound to redeem a security of the Company. The Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws where applicable, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Required Approvals, no further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Public Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

2.10.10. **SEC Reports; Financial Statements**. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the one year preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Prospectus and the Prospectus Supplement, being collectively referred to herein as the "**SEC Reports**") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports, including the notes thereto and supporting schedules included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, complied in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements fairly present in all material respects the financial position and the results of operations of the Company at the dates and for the periods to which they apply and have been prepared in accordance with generally accepted accounting principles applied on a consistent basis during the periods involved, except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by generally accepted accounting principles ("**GAAP**"), and fairly present in all material respects the financial position of the Company as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments. Except as included or incorporated by reference therein, no historical or pro forma financial statements are required to be included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package or the Prospectus under the Securities Act or the Securities Act Regulations. All disclosures contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission), if any, comply in all material respects with Regulation G of the Exchange Act and Item 10 of Regulation S-K of the Securities Act, to the extent applicable. Each of the Registration Statement, the Pricing Disclosure Package and the Prospectus discloses all material off-balance sheet transactions, arrangements, obligations (including contingent obligations), and other relationships of the Company with unconsolidated entities or other persons that may have a material current or future effect on the Company's financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources, or significant components of revenues or expenses. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock, (c) there has not been any change in the capital stock of the Company or, other than in the ordinary course of business, any grants under any stock compensation plan, and (d) there has not been any Material Adverse Change in the Company's long-term or short-term debt.

2.10.11. **Material Changes; Undisclosed Events, Liabilities or Developments**. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) (A) the Company nor any of its officers, directors or Affiliates, as defined under Rule 405 of the Securities Act, has engaged in any discussions with any other party relating to a potential merger or other similar type of transaction (a "**Transaction**"), (B) no party has contacted the Company to express an interest in conducting a Transaction with the Company and there is no pending, foreseeable, prospective or imminent Transaction involving the Company and the Company has not entered into any agreement to conduct a Transaction within the next six (6) months and (C) the Company has not retained or conducted a search for any broker, investment bank or other advisor to assist with any Transaction and the Company and its officers, directors and Affiliates have no immediate plans to engage any such advisor, (iii) the Company has not incurred any liabilities (contingent or otherwise) that are material, individually or in the aggregate, to the Company, or has entered into any transactions not in the ordinary course of business other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to generally accepted accounting principles or disclosed in filings made with the Commission, (iv) the Company has not altered its method of accounting, (v) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (vi) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans. The Company does not have pending before the Commission any request for confidential treatment of information.

2.10.12. **Litigation**. Except as set forth in the Registration Statement, Pricing Disclosure Package and Prospectus, there is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company or any of its subsidiaries or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "**Action**") which (i) adversely affects or challenges the legality, validity or enforceability of any of this Agreement and the Certificate of Designation, or the Public Securities, or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Except as set forth in the Registration Statement, Pricing Disclosure Package and Prospectus, neither the Company, its subsidiaries, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty, which could result in a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the Exchange Act or the Securities Act.

2.10.13. **Labor Relations**. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect. None of the Company's employees is a member of a union that relates to such employee's relationship with the Company, and the Company is not a party to a collective bargaining agreement, and the Company believes that its relationships with its employees are good. To the knowledge of the Company, no executive officer of the Company, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company to any liability with respect to any of the foregoing matters. The Company is in compliance with all U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

2.10.14. **Compliance**. The Company: (i) is and at all times has been in compliance in all material respects with all statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export, storage or disposal of any product manufactured or distributed by the Company ("**Applicable Laws**"), except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (ii) has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or written notice from the FDA or any other governmental authority alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws ("**Authorizations**"); (iii) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (iv) has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and have no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding, except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (v) has not received written notice that any governmental authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and have no knowledge that any such governmental authority is considering such action, except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and (vi) has 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 complete and correct in all material respects on the date filed (or were corrected or supplemented by a subsequent submission).

2.10.15. **Environmental Laws**. The Company (i) is in material compliance with all material federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, "**Hazardous Materials**") into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder ("**Environmental Laws**"); (ii) has received all permits licenses or other approvals required of them under applicable Environmental Laws for their respective businesses; and (iii) is in compliance with all terms and conditions of any such permit, license or approval where in each clause (i), (ii) and (iii), the failure to so comply could be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect.

2.10.16. **Regulatory Permits**. The Company possesses all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect ("**Material Permits**"), and the Company has not received any notice of proceedings relating to the revocation or modification of any Material Permit.

2.10.17. **Title to Assets**. The Company has good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company, in each case free and clear of all Liens, except for (i) Liens as do not 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 and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP and, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company is held by it under valid, subsisting and enforceable leases with which the Company is in compliance in all material respects. The Company has not received any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or its subsidiaries to the continued possession of the leased or subleased premises under any such lease or sublease, which would result in a Material Adverse Effect.

2.10.18. **Intellectual Property**. The Company and its subsidiaries own or possess or have valid rights to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, inventions, trade secrets and similar rights ("**Intellectual Property Rights**") necessary for the conduct of the business of the Company as currently carried on and as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus. To the Company's knowledge, no action or use by the Company necessary for the conduct of its business as currently carried on and as described in the Registration Statement and the Prospectus will involve or give rise to any infringement of, or license or similar fees for, any Intellectual Property Rights of others. The Company has not received any notice alleging any such infringement, fee or conflict with asserted Intellectual Property Rights of others. Except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Effect or as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus (A) to the knowledge of the Company there is no infringement, misappropriation or violation by third parties of any of the Intellectual Property Rights owned by the Company; (B) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the rights of the Company in or to any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim, that would, individually or in the aggregate, together with any other claims in this Section 2.34, reasonably be expected to result in a Material Adverse Effect; (C) the Intellectual Property Rights owned by the Company and the Intellectual Property Rights licensed to the Company have not been adjudged by a court of competent jurisdiction invalid or unenforceable, in whole or in part, and there is no pending or threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.34, reasonably be expected to result in a Material Adverse Effect; (D) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property Rights or other proprietary rights of others, the Company has not received any written notice of such claim and the Company is unaware of any other facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.10.18, reasonably be expected to result in a Material Adverse Effect; and (E) to the Company's knowledge, no employee of the Company 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 where the basis of such violation relates to such employee's employment with the Company, or actions undertaken by the employee while employed with the Company and could reasonably be expected to result, individually or in the aggregate, in a Material Adverse Effect. To the Company's knowledge, all material technical information developed by and belonging to the Company which has not been patented has been kept confidential. The Company is not a party to or bound by any options, licenses or agreements with respect to the Intellectual Property Rights of any other person or entity that are required to be set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus and are not described therein. The Registration Statement, the Pricing Disclosure Package and the Prospectus contain in all material respects the same description of the matters set forth in the preceding sentence. None of the technology employed by the Company has been obtained or is being used by the Company in violation of any contractual obligation binding on the Company or, to the Company's knowledge, any of its officers, directors or employees, or otherwise in violation of the rights of any persons.

2.10.19. **Insurance**. The Company is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company is engaged, including, but not limited to, directors and officers insurance coverage. The Company has no reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

2.10.20. **Transactions With Affiliates and Employees**. Except as set forth in the Registration Statement, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of $120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company or any of its subsidiaries to or for the benefit of any of the officers or directors of the Company, or any of their respective family members, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.10.21. **Contracts Affecting Capital**. There are no transactions, arrangements or other relationships between and/or among the Company, its subsidiaries, any of its affiliates (as such term is defined in Rule 405 of the Securities Act Regulations) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's or its subsidiaries' liquidity or the availability of or requirements for its capital resources required to be described or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus which have not been described or incorporated by reference as required.

2.10.22. **Ineligible Issuer**. At the time of filing the Registration Statement and any post-effective amendment thereto, at the time of effectiveness of the Registration Statement and any amendment thereto, at the earliest time thereafter that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) of the Securities Act Regulations) of the Securities and at the date hereof, 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.

2.10.23. **Sarbanes-Oxley; Internal Accounting Controls**. The Company is in material compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms. The Company's certifying officers have evaluated the effectiveness of the disclosure controls and procedures of the Company as of the end of the period covered by the most recently filed Form 10-K under the Exchange Act (such date, the "**Evaluation Date**"). The Company presented in its most recently filed Form 10-K under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company.

2.10.24. **Certain Fees**. Except as set forth in the Prospectus Supplement, no brokerage or finder's fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, Underwriter, investment banker, bank or other Person with respect to the transactions contemplated by this Agreement and the Certificate of Designation. Other than for Persons engaged by any Underwriter, if any, the Underwriters shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by this Agreement and the Certificate of Designation. Other than the Underwriter, no person has the right to act as an underwriter or as a financial advisor to the Company in connection with the transactions contemplated hereby.

2.10.25. **Investment Company**. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Public Securities, will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become an "investment company" subject to registration under the Investment Company Act of 1940, as amended.

2.10.26. **Registration Rights**. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company.

2.10.27. **Listing and Maintenance Requirements**. The shares of Common Stock are registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the shares of Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except with respect to Section 1003(a)(iii) of the NYSE American Company Guide as disclosed in the Registration Statement, the Company has not, in the 12 months preceding the date hereof, received notice from the Exchange on which the shares of Common Stock are or have been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Exchange. Except as disclosed in the Registration Statement, the Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements. The shares of Common Stock are currently eligible for electronic transfer through The Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees to The Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer.

2.10.28. **Transactions Affecting Disclosure to FINRA.**

(i) **Finder's Fees**. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no claims, payments, arrangements, agreements or understandings relating to the payment of a finder's, consulting or origination fee by the Company or any Insider with respect to the sale of the Public Securities hereunder or any other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Underwriters' compensation, as determined by FINRA.

(ii) **Payments Within Twelve (12) Months**. Except as described in the Registration Statement, the Pricing Disclosure Package, or the Prospectus, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the twelve (12) months prior to the date of this Agreement, other than the payment to the Underwriters as provided hereunder in connection with the Offering.

(i i i) **Use of Proceeds**. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

(iv) **FINRA Affiliation**. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there is no (i) officer or director of the Company, or, to the Company's knowledge (ii) beneficial owner of 5% or more of any class of the Company's securities or (iii) beneficial owner of the Company's unregistered equity securities that were acquired during the 180-day period immediately preceding the filing of the Registration Statement that is an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

(v) **Information**. All information provided by the Company in its FINRA questionnaire to Representative Counsel specifically for use by Representative Counsel in connection with its Public Offering System filings (and related disclosure) with FINRA is true, correct and complete in all material respects.

2.10.29. **Disclosure**. Except with respect to the material terms and conditions of the transactions contemplated by this Agreement and the Certificate of Designation, the Company confirms that neither it nor any other Person acting on its behalf has provided any of the Underwriters or their agents or counsel with any information that it believes constitutes or might constitute material, non-public information which is not otherwise disclosed in the Prospectus Supplement. The Company understands and confirms that the Underwriters will rely on the foregoing representation in effecting transactions in securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Underwriters regarding the Company, their respective businesses and the transactions contemplated hereby, is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and agrees that no Underwriter makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3.2 hereof.

2.10.30. **Industry Data**. The statistical and market-related data included in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus are based on or derived from sources that the Company reasonably and in good faith believes are reliable and accurate or represent the Company's good faith estimates that are made on the basis of data derived from such sources, and the Company has obtained the written consent to the use of such data from sources to the extent required.

2.10.31. **Forward-Looking Statements**. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus has been made or reaffirmed by the Company without a reasonable basis or has been disclosed by the Company other than in good faith.

2.10.32. **No Integrated Offering**. Assuming the accuracy of the Underwriters' representations and warranties related thereto, neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Public Securities to be integrated with prior offerings by the Company for purposes of (i) the Securities Act, or (ii) any applicable shareholder approval provisions of the Exchange on which any of the securities of the Company are listed or designated.

2.10.33. **Margin Securities**. The Company owns no "margin securities" as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"), and none of the proceeds of Offering will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the shares of Common Stock to be considered a "purpose credit" within the meanings of Regulation T, U or X of the Federal Reserve Board.

2.10.34. **Subsidiaries.** The Companies subsidiaries are iBio Manufacturing LLC, iBIO DO BRASIL BIOFARMACÊUTICA LTDA. and iBio CDMO LLC.

2.10.35. **Tax Status**. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company (i) has made or filed all United States federal, state and local income and all foreign tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provisions shown on the financial statements filed with or as part of the Registration Statement which are reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim. Except as disclosed in writing to the Underwriters, (i) no issues have been raised (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company, and (ii) no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company. There are no tax liens against the assets, properties or business of the Company. The term "**taxes**" means all federal, state, local, foreign and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments or charges of any kind whatever, together with any interest and any penalties, additions to tax or additional amounts with respect thereto. The term "**returns**" means all returns, declarations, reports, statements and other documents required to be filed in respect to taxes.

2.10.36. **ERISA Compliance**. The Company, its subsidiaries, and any "employee benefit plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, "ERISA")) established or maintained by the Company, its subsidiaries, or their respective "ERISA Affiliates" (as defined below) are in compliance in all material respects with ERISA. "ERISA Affiliate" means, with respect to the Company, any member of any group of organizations described in Sections 414(b),(c),(m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "Code") of which the Company is a member. No "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any "employee benefit plan" established or maintained by the Company, its subsidiaries, or any of their respective ERISA Affiliates. No "employee benefit plan" established or maintained by the Company, subsidiaries, or any of their respective ERISA Affiliates, if such "employee benefit plan" were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA). Neither the Company, its subsidiaries, nor any of their respective ERISA Affiliates has incurred or reasonably expects to incur any material liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "employee benefit plan" or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each "employee benefit plan" established or maintained by the Company, its subsidiaries, or any of their respective ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and, to the Company's knowledge, nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification.

2.10.37. **Foreign Corrupt Practices**. Neither the Company, nor to the knowledge of the Company, any agent or other person acting on behalf of the Company, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act.

2.10.38. **Accountants**. The Company's independent registered public accounting firm is as set forth in the Prospectus. To the knowledge and belief of the Company, such accounting firm (i) is a registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2019.

2.10.39. **Acknowledgment Regarding Underwriters' Purchase of Public Securities**. The Company acknowledges and agrees that each of the Underwriters is acting solely in the capacity of an arm's length purchaser with respect to this Agreement and the transactions contemplated hereby and thereby. The Company further acknowledges that no Underwriter is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to this Agreement and the transactions contemplated hereby and any advice given by any Underwriter or any of their respective representatives or agents in connection with this Agreement and the Certificate of Designation and the transactions contemplated hereby and thereby is merely incidental to the Underwriters' purchase of the Public Securities. The Company further represents to each Underwriter that the Company's decision to enter into this Agreement and to file the Certificate of Designation has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives.

2.10.40. **Acknowledgment Regarding Underwriter's Trading Activity**. Anything in this Agreement or elsewhere herein to the contrary notwithstanding, it is understood and acknowledged by the Company that: (i) none of the Underwriters has been asked by the Company to agree, nor has any Underwriter agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Public Securities for any specified term; (ii) past or future open market or other transactions by any Underwriter, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities; (iii) any Underwriter, and counter-parties in "derivative" transactions to which any such Underwriter is a party, directly or indirectly, presently may have a "short" position in the shares of Common Stock, and (iv) each Underwriter shall not be deemed to have any affiliation with or control over any arm's length counter-party in any "derivative" transaction. The Company further understands and acknowledges that (y) one or more Underwriters may engage in hedging activities at various times during the period that the Public Securities are outstanding, and (z) such hedging activities (if any) could reduce the value of the existing stockholders' equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of this Agreement or the Certificate of Designation.

2.10.41. **Regulation M Compliance**. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Public Securities, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Public Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Company's Underwriter in connection with the placement of the Public Securities.

2.10.42. **FDA**. As to each product subject to the jurisdiction of the FDA or any non-U.S. counterpart that is manufactured, packaged, labeled, tested and/or distributed by the Company (each such product, a "**Product**"), such Product is being manufactured, packaged, labeled, tested and/or distributed by the Company in compliance with all applicable Health Care Laws relating to registration, investigational use, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company, and of the Company has not received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Product, (iii) except as set forth in the Registration Statement and Prospectus, imposes a clinical hold on any clinical investigation by the Company, (iv) enjoins production at any facility of the Company, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company, or (vi) otherwise alleges any violation of any Health Care Laws by the Company, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable Health Care Laws. The Company has not been informed by the FDA or any non-U.S. counterpart that the FDA or any non-U.S. counterpart will prohibit the marketing, sale, license or use in the United States or in any other territory any product proposed to be developed, produced or marketed by the Company nor has the FDA or any non-U.S. counterpart expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company. To the Company's knowledge, there are no legal or governmental proceedings relating to any Health Care Law pending or threatened to which the Company is a party, nor is it aware of any material violations of such acts or regulations by the Company, which would have a Material Adverse Effect. For purposes of this Agreement, " **Health Care Laws**" means: (i) the Federal Food, Drug, and Cosmetic Act and the regulations promulgated thereunder; (ii) all applicable federal, state, local and all applicable foreign health care related fraud and abuse laws, including, without limitation, the U.S. Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the U.S. Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), the U.S. Civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care 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), the statutes, regulations and directives of applicable government funded or sponsored healthcare programs, and the regulations promulgated pursuant to such statutes; (iii) the Standards for Privacy of Individually Identifiable Health Information (the "**Privacy Rule**"), the Security Standards, and the Standards for Electronic Transactions and Code Sets promulgated under HIPAA, the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the regulations promulgated thereunder and any state or non-U.S. counterpart thereof or other law or regulation the purpose of which is to protect the privacy of individuals or prescribers; (iv) Medicare (Title XVIII of the Social Security Act); (v) Medicaid (Title XIX of the Social Security Act); and (vi) any and all other applicable health care laws and regulations.

2.10.43. **Research Studies and Trials**. The research studies and trials conducted by or on behalf of, or sponsored by, the Company, or in which the Company has participated, that are described in the Registration Statement, Pricing Disclosure Package or the Prospectus, or the results of which are referred to in the Registration Statement, Pricing Disclosure Package or the Prospectus, as applicable, were and, if still pending, are being, conducted in all material respects in accordance with applicable experimental protocols, procedures and controls pursuant to, where applicable, accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company and all applicable statutes, rules and regulations of the FDA and other comparable drug and medical device regulatory agencies to which they are subject; the Company has no knowledge of any research studies or trials not described in the Registration Statement, Pricing Disclosure Package or the Prospectus the results of which reasonably call into question in any material respect the results of the research studies and trials described in the Registration Statement, Pricing Disclosure Package or the Prospectus; and except as described in the Registration Statement or Prospectus the Company has not received any written notices or correspondence from the FDA or any other foreign, state or local governmental body exercising comparable authority or any institutional review board or comparable authority requiring, suggesting or threatening the premature termination, suspension, material modification or clinical hold of any research studies or trials conducted by or on behalf of, or sponsored by, the Company or in which the Company has participated that are described in the Registration Statement, Pricing Disclosure Package or the Prospectus, and, to the Company's knowledge, there are no reasonable grounds for the same. The descriptions in the Registration Statement, the Pricing Disclosure Package, and the Prospectus of the results of such studies are accurate and complete in all material respects and fairly present the data derived from such studies, and to the Company's knowledge there is no large well-controlled clinical study the aggregate results of which are inconsistent with or otherwise call into question the results of any clinical study conducted by or on behalf of the Company that are described in the Registration Statement, the Pricing Disclosure Package, and the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package, and the Prospectus. Except as disclosed in the Registration Statement, the Pricing Disclosure Package, and the Prospectus the Company has not received any written notices or statements from the FDA or any other governmental agency that, (i) any investigational new drug application for potential product of the Company is or has been rejected or determined to be non-approvable or conditionally approvable; and (ii) any license, approval, permit or authorization to conduct any clinical trial of any potential product of the Company has been, will be or may be suspended, revoked, modified or limited. There has not been any violation of applicable law by the Company in its product development efforts, submissions or reports to any regulatory authority that could reasonably be expected to require investigation, corrective action or enforcement action, except where such violation would not, singly or in the aggregate, result in a Material Adverse Effect.

2.10.44. **Office of Foreign Assets Control**. Neither the Company nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("**OFAC**") and the Company will not, directly or indirectly, use the proceeds of the Offering hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

2.10.45. **U.S. Real Property Holding Corporation**. The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon Underwriter's request.

2.10.46. **Bank Holding Company Act**. Neither the Company nor to its knowledge any of its Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the "**BHCA**") and to regulation by the Board of Governors of the Federal Reserve System (the "**Federal Reserve**"). Neither the Company nor to its knowledge any of its Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor to its knowledge any of its Affiliates exercises a controlling influence over the management or policies of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve.

2.10.47. **Money Laundering**. The operations of the Company are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the "**Money Laundering Laws**"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

2.10.48. **PFIC Status**. The Company does not believe it is a Passive Foreign Investment Company ("**PFIC**") within the meaning of Section 1296 of the United States Internal Revenue Code of 1986, as amended, and does not believe it is likely to become a PFIC.

2.10.49. **Stamp or Other Tax**. No stamp or other issuance or transfer taxes or duties and no capital gains, income, withholding or other taxes are payable by or on behalf of the Placements Agents or any Underwriter to any political subdivision or taxing authority thereof or therein in connection with the sale and delivery by the Company of the Public Securities to or for the sale and delivery by Public Securities to the Underwriters.

2.10.50. **Lock-Up Agreements**. Schedule 3 hereto contains a complete and accurate list of the Company's officers and directors (collectively, the "**Lock-Up Parties**"). The Company has caused each of the Lock-Up Parties to deliver to the Representative an executed Lock-Up Agreement, in the form attached hereto as Exhibit A (the "**Lock-Up Agreement**"), prior to the execution of this Agreement.

2.10.51. **Related Party Transactions**.

(i) Business Relationships. There are no business relationships or related party transactions involving the Company or any other person required to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that have not been described as required.

(ii) **No Relationships with Customers and Suppliers**. No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, or any of the Company's affiliates, on the other hand, which is required to be described in the Pricing Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

(iii) **No Unconsolidated Entities**. There are no transactions, arrangements or other relationships between and/or among the Company, its subsidiaries, or any of their affiliates (as such term is defined in Rule 405 of the Securities Act) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's liquidity or the availability of or requirements for its capital resources required to be described in the Pricing Disclosure Package and the Prospectus or a document incorporated by reference therein which have not been described as required.

(iv) **No Loans or Advances to Affiliates**. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company or its subsidiaries to or for the benefit of any of the officers or directors of the Company or any of their respective family members, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.10.52. **Integration**. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the Offering to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities under the Securities Act.

2.10.53. **Board of Directors**. The Board of Directors of the Company is comprised of the persons set forth under the heading of the Pricing Prospectus and the Prospectus or documents incorporated therein by reference captioned "Management." The qualifications of the persons serving as board members and the overall composition.

2.10.54. **General**. Any certificate signed by any duly authorized officer of the Company and delivered to you or to Representative Counsel shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

2.10.55. **Minute Books**. The minute books of the Company have been made available to the Underwriters and counsel for the Underwriters, and such books (i) contain a complete summary of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company (or analogous governing bodies and interest holders, as applicable), since the time of its incorporation or organization through the date of the latest meeting and action, and (ii) accurately in all material respects reflect all transactions referred to in such minutes. There are no material transactions, agreements, dispositions or other actions of the Company that are not properly approved and/or accurately and fairly recorded in the minute books of the Company, as applicable.

2.10.56. **Confidentiality and Non-Competition**. To the Company's knowledge, no director, officer, key employee or consultant of the Company is subject to any confidentiality, non-disclosure, non-competition agreement or non-solicitation agreement with any employer or prior employer that could reasonably be expected to materially affect his ability to be and act in his respective capacity of the Company or be expected to result in a Material Adverse Effect.

2.10.57. **Insider Transactions**. All transactions by the Company with office holders or control persons of the Company have been duly approved by the board of directors of the Company, or duly appointed committees or officers thereof, if and to the extent required under applicable law.

2.10.58. **Shell Status**. The Company is not presently and has not been an issuer identified as a "Shell" company.

2.10.59. **Promotional Stock Activities**. Neither the Company, its subsidiaries, the officers of the Company or its subsidiaries, or any affiliates or agents of the Company or its subsidiaries have engaged in any stock promotional activity that could give rise to a complaint or inquiry by the Commission alleging (i) a violation of the anti-fraud provisions of the federal securities laws, (ii) violations of the anti-touting provisions, (iii) improper "gun-jumping", or (iv) promotion without proper disclosure of compensation.

3. **Covenants of the Company**. The Company covenants and agrees as follows:

3.1 **Amendments to Registration Statement**. The Company shall deliver to the Representative, prior to filing, any amendment or supplement to the Registration Statement, the Preliminary Prospectus, the Pricing Disclosure Package or Prospectus proposed to be filed after the date of this Agreement and not file any such amendment or supplement to which the Representative shall reasonably object in writing.

3.2 **Federal Securities Laws**.

3.2.1. **Compliance**. The Company, subject to Section 3.2.2, shall comply with the requirements of Rule 424(b) and Rule 430A, and will notify the Representative promptly, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement or any amendment or supplement to any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus shall have been filed and when any post-effective amendment to the Registration Statement shall become effective; (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 any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, including any document incorporated or deemed to be 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, the Pricing Disclosure Package or the Prospectus, or of the suspension of the qualification of the Public 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 Securities Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the Offering of the Public Securities. The Company shall effect all filings required under Rule 424(b) of the Securities Act Regulations, in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and shall 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 shall use its best efforts 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.

3.2.2. **Continued Compliance**. The Company shall comply with the Securities Act, the Securities Act Regulations, the Exchange Act and the Exchange Act Regulations so as to permit the completion of the distribution of the Public Securities as contemplated in this Agreement and in the Registration Statement, the Pricing Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172 of the Securities Act Regulations ("**Rule 172**"), would be) required by the Securities Act to be delivered in connection with sales of the Public Securities, 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 Pricing Disclosure Package or the Prospectus in order that the Pricing 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 Pricing Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the Securities Act or the Securities 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 Pricing 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 reasonably 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 Exchange Act or the Exchange Act Regulations within 48 hours prior to the Applicable Time. The Company shall give the Representative notice of its intention to make any such filing from the Applicable Time until the later of the Closing Date and the exercise in full or expiration of the Over-allotment Option specified in Section 1.2 hereof and will furnish the Representative with copies of the related document(s) 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.

3.3 **Delivery to the Underwriters of Registration Statements**. The Company has delivered or made available or shall deliver or make available to the Representative and counsel for the Representative, 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 to be incorporated by reference therein) and signed copies of all consents and certificates of experts, and will also deliver to the Underwriters, 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.

3.4 **Delivery to the Underwriters of Prospectuses**. The Company has delivered or made available or will deliver or make available 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 Securities Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities 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.

3.5 **Events Requiring Notice to the Representative**. The Company shall use its commercially reasonable best efforts to cause the Registration Statement to remain effective with a current prospectus for at least nine (9) months after the Applicable Time, and shall notify the Representative immediately and confirm the notice in writing: (i) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (ii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (iv) of the receipt of any comments or request for any additional information from the Commission; and (v) of the happening of any event during the period described in this Section 3.5 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement, the Pricing Disclosure Package or the Prospectus untrue or that requires the making of any changes in (a) the Registration Statement in order to make the statements therein not misleading, or (b) in the Pricing Disclosure Package or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company shall make every reasonable effort to obtain promptly the lifting of such order.

3.6 **Exchange Act Registration**. For a period of three (3) years after the date of this Agreement, the Company shall use its commercially reasonable best efforts to maintain the registration of the shares of Common Stock under the Exchange Act. The Company shall not deregister the shares of Common Stock under the Exchange Act without the prior written consent of the Representative, such consent not to be unreasonably withheld. Notwithstanding the foregoing, this section shall not restrict a sale, merger or similar transaction involving the Company; provided, however, that the Company has not and is not undertaking, discussing or contemplating any such action, as described in Section 2.10.11 herein, that has not been brought to the attention of the Representative.

3.7 **Free Writing Prospectuses**. The Company agrees that, unless it obtains the prior written consent of the Representative, it shall not make any offer relating to the Public 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, however, that the Representative shall be deemed to have consented to each Issuer General Use Free Writing Prospectus 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 Underwriters 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 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 Underwriters 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.

3.8 **Review of Financial Statements**. For a period of three (3) years after the date of this Agreement, the Company, at its expense, shall cause its regularly engaged independent registered public accounting firm to review (but not audit) the Company's financial statements for each of the three fiscal quarters immediately preceding the announcement of any quarterly financial information, provided that this section shall not restrict a sale, merger or similar transaction involving the Company. Notwithstanding the foregoing, the Company has not and is not undertaking, discussing or contemplating any such action, as described in Section 2.10.11 herein, that has not been brought to the attention of the Representative.

3.9 **Listing**. The Company shall use its commercially reasonable best efforts to maintain the listing of the shares of Common Stock (including the Public Securities) on the Exchange for at least three years from the date of this Agreement, provided that this section shall not restrict a sale, merger or similar transaction involving the Company. Notwithstanding the foregoing, the Company has not and is not undertaking, discussing or contemplating any such action, as described in Section 2.10.11 herein, that has not been brought to the attention of the Representative.

3.10 **Financial Public Relations Firm**. The Company has engaged a financial public relations firm reasonably acceptable to the Representative and shall retain such firm or another firm reasonably acceptable to the Representative for a period of not less than two (2) years after the Effective Date. The Representative acknowledges that the Company's current financial public relations firm is acceptable to the Representative.

3.11 **Reports to the Representative**.

3.11.1. **Periodic Reports, etc**. For a period of three (3) years after the date of this Agreement, the Company shall furnish or make available to the Representative copies of such financial statements and other periodic and special reports as the Company from time to time furnishes generally to holders of any class of its securities and also promptly furnish to the Representative: (i) a copy of each periodic report the Company shall be required to file with the Commission under the Exchange Act and the Exchange Act Regulations; (ii) a copy of every press release and every news item and article with respect to the Company or its affairs which was released by the Company; (iii) a copy of each Form 8-K prepared and filed by the Company; (iv) five copies of each registration statement filed by the Company under the Securities Act; and (v) such additional documents and information with respect to the Company and the affairs of any future subsidiaries of the Company as the Representative may from time to time reasonably request; provided the Representative shall sign, if requested by the Company, a Regulation FD compliant confidentiality agreement which is reasonably acceptable to the Representative and Representative Counsel in connection with the Representative's receipt of such information. Documents filed with the Commission pursuant to its EDGAR system shall be deemed to have been delivered to the Representative pursuant to this Section 3.11.1.

3.11.2. **Transfer Agent; Transfer Sheets**. For a period of three (3) years after the date of this Agreement, the Company shall retain a transfer agent and registrar acceptable to the Representative (the "**Transfer Agent**") and shall furnish to the Representative at the Company's sole cost and expense such transfer sheets of the Company's securities as the Representative may reasonably request, including the daily and monthly consolidated transfer sheets of the Transfer Agent and DTC, provided that this section shall not restrict a sale, merger or similar transaction involving the Company. Notwithstanding the foregoing, the Company has not and is not undertaking, discussing or contemplating any such action, as described in Section 2.10.11 herein, that has not been brought to the attention of the Representative. Continental Stock Transfer & Trust Company is acceptable to the Representative to act as Transfer Agent for the shares of Common Stock.

3.11.3. **Trading Reports**. During such time as the Public Securities are listed on the Exchange, the Company shall provide to the Representative, at the Company's expense, such reports published by Exchange relating to price trading of the Public Securities, as the Representative shall reasonably request.

3.12 **Payment of Expenses**. The Company agrees to pay on the Closing Date and the Option Closing Date, all expenses incident to the performance of the obligations of the Company under this Agreement, including but not limited to (a) all filing fees and communication expenses relating to the registration of the Public Securities to be sold in this Offering with the Commission; (b) all Public Filing System filing fees associated with the review of the Offering by FINRA; (c) all fees and expenses relating to the listing of such Public Securities on the Exchange and on such other stock exchanges as the Company and Representative together determine; (d) all fees, expenses and disbursements relating to the registration or qualification of the Public Securities offered under the "blue sky" securities laws of such states and other jurisdictions as the Representative may reasonably designate (including, without limitation, all filing and registration fees, and the reasonable fees of "blue sky" counsel); (e) all fees, expenses and disbursements relating to the registration, qualification or exemption of the Public Securities under the securities laws of such foreign jurisdictions as the Representative may reasonably designate; (f) the costs of all mailing and printing of the underwriting documents (including, without limitation, the Underwriting Agreement, any Blue Sky Surveys and, if appropriate, any Agreement Among Underwriters, Selected Dealers' Agreement, Underwriters' Questionnaire and Power of Attorney), registration statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Representative may reasonably deem necessary; (g) the costs and expenses of the Company's public relations firm; (h) the costs of preparing, printing and delivering certificates representing the Public Securities to be offered in this offering; (i) fees and expenses of the transfer agent for the securities; (j) stock transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Representative; (k) the fees and expenses of the Company's accountant; (l) the fees and expenses of the Company's legal counsel and other agents and representatives; and (m) up to $135,000 of the out of pocket expenses incurred by the Underwriters including up to $100,000 for legal fees of counsel to the Underwriter, and including up to $35,000 for IPREO software related expenses, background check expenses, tombstones and marketing related expenses, including road show expenses if they are incurred. Notwithstanding the foregoing, any advance received by the Underwriters will be reimbursed to the Company to the extent not actually incurred in compliance with FINRA Rule 5110(f)(2)(C). In the event that this Agreement shall not be carried out for any reason whatsoever, except in the case of a default by the Underwriters, pursuant to Section 6.2 below, within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Underwriters their actual and accountable out-of-pocket expenses related to the transactions contemplated herein then due and payable (including the fees and disbursements of Representative Counsel) up to $135,000 and upon demand the Company shall pay the full amount of such actual and accountable out-of-pocket expenses to the Underwriters; *provided, however,* that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement. The Representative may deduct from the net proceeds of the Offering payable to the Company on the Closing Date, or the Option Closing Date, if any, the expenses set forth herein to be paid by the Company to the Underwriters.

3.13 **Application of Net Proceeds**. The Company shall apply the net proceeds from the Offering received by it in a manner consistent with the application thereof described under the caption "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

3.14 **Delivery of Earnings Statements to Security Holders**. The Company shall make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth (15^{th}) full calendar month following the date of this Agreement, an earnings statement (which need not be certified by independent registered public accounting firm unless required by the Securities Act or the Securities Act Regulations, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve (12) consecutive months beginning after the date of this Agreement.

3.15 **Stabilization**. Neither the Company nor, to its knowledge, any of its employees, directors or shareholders (without the consent of the Representative) has taken or shall take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities.

3.16 **Internal Controls**. The Company shall maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

3.17 **Accountants**. As of the date of this Agreement, the Company shall continue to retain a nationally recognized independent registered public accounting firm for a period of at least three (3) years after the date of this Agreement. The Representative acknowledges that the Auditor is acceptable to the Representative.

3.18 **FINRA**. The Company shall advise the Representative (who shall make an appropriate filing with FINRA) if it is or becomes aware that Company or any of its affiliates (within the meaning of FINRA's Conduct Rule 5121(f)(1)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section 1(ee) of the By-laws of FINRA) of, any member firm of FINRA.

3.19 **No Fiduciary Duties**. The Company acknowledges and agrees that the Underwriters' responsibility to the Company is solely contractual in nature and that none of the Underwriters or their affiliates or any selling agent shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement.

3.20 **Company Lock-Up Agreements**.

3.20.1. **Restriction on Sales of Capital Stock**. The Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of 90 days after the date of this Agreement (the "**Lock-Up Period**"), (i) 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, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (ii) file or cause to be filed any registration statement with the Commission relating to the offering of any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; or (iii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of capital stock of the Company, whether any such transaction described in clause (i), (ii) or (iii) above is to be settled by delivery of shares of capital stock of the Company or such other securities, in cash or otherwise.

The restrictions contained in this Section 3.20.1 shall not apply to (i) the shares of Common Stock, Firm Warrants or Option Warrants to be sold hereunder, (ii) the issuance by the Company of shares of Common Stock upon the exercise of a stock option or warrant or the conversion of a security outstanding on the date hereof, of which the Representative has been advised in writing; (iii) the issuance by the Company of stock options or shares of capital stock of the Company under any equity compensation plan of the Company; or (iv) the transfer, issuance, sale or disposition of Common Stock or any security convertible into or exercisable or exchangeable for Common Stock pursuant to an investment in which a single strategic investor (and not an organization primarily engaged in the business of capital raising) acquires over twenty five percent (25%) of the fully diluted capitalization of the date thereof, (v) the issuance of any securities of the Company in connection with a merger, joint venture, licensing arrangement or any other similar non-capital raising transaction, or (vi) the issuance of securities of the Company to consultants in the Company's ordinary course of business.

3.21 **Release of D&O Lock-Up Period**. If the Representative, in its sole discretion, agrees to release or waive the restrictions set forth in the Lock-Up Agreements for an officer or director of the Company and provide the Company with notice of the impending release or waiver at least three (3) Business Days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit B hereto through a major news service at least two (2) Business Days before the effective date of the release or waiver.

3.22 **Blue Sky Qualifications**. The Company shall use its commercially reasonable best efforts, in cooperation with the Underwriters, if necessary, to qualify the Public 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 Public 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.

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

3.24 **Smaller Reporting Company**. As of the time of the initial filing of the Registration Statement and as of the date hereof, the Company was a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act Regulations.

3.25 **Press Releases**. Prior to the Closing Date and any Option Closing Date, the Company shall not issue any press release or other communication directly or indirectly or hold any press conference with respect to the Company, its condition, financial or otherwise, or earnings, business affairs or business prospects (except for routine oral marketing communications in the ordinary course of business and consistent with the past practices of the Company and of which the Representative is notified), without the prior written consent of the Representative, which consent shall not be unreasonably withheld, unless in the judgment of the Company and its counsel, and after notification to the Representative, such press release or communication is required by law.

3.26 **Sarbanes-Oxley**. The Company shall at all times comply with all applicable provisions of the Sarbanes-Oxley Act in effect from time to time.

3.27 **IRS Forms**. The Company shall deliver to each Underwriter (or its agent), prior to or at the Closing Date, a properly completed and executed Internal Revenue Service ("**IRS**") Form W-9 or an IRS Form W-8, as appropriate, together with all required attachments to such form.

3.28 **Additional Compensation to the Representative**. As additional compensation, the Company will issue the Representative or its designees, at the Closing Date and any Option Closing Date, shares (the "**Representative's Compensation Shares**") of Common Stock equal to two percent (2%) of the aggregate number of Shares sold in the Offering. Except as provided in FINRA Rule 5110(g)(2), the Representative's Compensation Shares have been deemed underwriting compensation by FINRA and shall not be sold, transferred, assigned, pledged, or hypothecated, or the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such shares by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this Offering, pursuant to FINRA Rule 5110(g)(1). The Company has also granted the Representative the right to receive the compensation described above in connection with any future public or private offering or other capital raising transaction by the Company to investors (excluding the Pre-Existing Relationship Investors) that were "brought over the wall" by the Representative with the Company's consent during the Representative's sixty (60)-day engagement period that commenced on July 22, 2019, as long as such offering or capital raising transaction is consummated within the five (5)-month period following the introduction to such investors subsequent to July 22, 2019 ("Tail Compensation"). Notwithstanding the foregoing, no Tail Compensation shall be due if the Offering fails to close due to the Representative's gross negligence or willful misconduct or a material breach of the Representative's obligations under this Underwriting Agreement.

4. **Conditions of Underwriters' Obligations**. The obligations of the Underwriters to purchase and pay for the Public Securities, as provided herein, shall be subject to (i) the continuing accuracy of the representations and warranties of the Company as of the date hereof and as of the Closing Date and the Option Closing Date, if any; (ii) the accuracy of the statements of officers of the Company made pursuant to the provisions hereof; (iii) the performance by the Company of its obligations hereunder; and (iv) the following conditions:

4.1 **Regulatory Matters**.

4.1.1. **Effectiveness of Registration Statement; Required Filings**. The Registration Statement has been declared effective by the Commission under the Securities Act and, at the Closing Date and any Option Closing Date, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the Securities 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 by the Commission. The Company has complied with each request (if any) from the Commission for additional information. The Prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) (without reliance on Rule 424(b)(8)) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A under the Securities Act Regulations. The Registration Statement meets the requirements set forth in Rule 415(a)(1)(iii) under the Securities Act with respect to the Warrant Shares and the Conversion Shares and complies with said Rule.

4.1.2. **FINRA Clearance**. On or before the date of this Agreement, the Representative shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement.

4.1.3. **Exchange Stock Market Clearance**. On the Closing Date, the Company's shares of Common Stock, including the Firm Shares, the Warrant Shares, the Conversion Shares and the Option Securities, shall have been approved for listing on the Exchange, subject only to official notice of issuance.

4.2 **Company Counsel Matters**.

4.2.1. **Closing Date Opinion of Counsel**. On the Closing Date, the Representative shall have received the favorable opinion and negative assurance letter of Andrew Abramowitz, PLLC, with offices located at 565 5th Ave #9, New York, New York 10017, counsel to the Company, dated the Closing Date and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

4.2.2. **Opinion of Special Intellectual Property Counsel for the Company**. On the Closing Date, the Representative shall have received the opinion of Fish & Richardson, special intellectual property counsel for the Company, dated the Closing Date, addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

4.2.3. **Option Closing Date Opinion of Counsel**. On the Option Closing Date, if any, the Representative shall have received the favorable opinion of such counsel listed in Section 4.2.1, dated the Option Closing Date, addressed to the Representative and in form and substance reasonably satisfactory to the Representative, confirming as of the Option Closing Date, the statements made by such counsel in its respective opinion delivered on the Closing Date.

4.2.4. **Reliance**. In rendering such opinions, such counsel may rely: (i) as to matters involving the application of laws other than the laws of the United States and jurisdictions in which they are admitted, to the extent such counsel deems proper and to the extent specified in such opinion, if at all, upon an opinion or opinions (in form and substance reasonably satisfactory to the Representative) of other counsel reasonably acceptable to the Representative, familiar with the applicable laws; and (ii) as to matters of fact, to the extent they deem proper, on certificates or other written statements of officers of the Company and officers of departments of various jurisdictions having custody of documents respecting the corporate existence or good standing of the Company, provided that copies of any such statements or certificates shall be delivered to Representative Counsel if requested.

4.2.5. **Certificate of Designation**. On the Closing Date, the Representative shall have received evidence of the filing and acceptance of the Certificate of Designation from the Secretary of State of the State of Delaware..

4.3 **Comfort Letters**.

4.3.1. **Cold Comfort Letter**. At the time this Agreement is executed, you shall have received a cold comfort letter containing statements and information of the type customarily included in accountants' comfort letters with respect to the financial statements and certain financial information contained or incorporated or deemed incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, addressed to the Representative and in form and substance satisfactory in all respects to you and to the Auditor, dated as of the date of this Agreement.

4.3.2. **Bring-down Comfort Letter**. On the Closing Date and the Option Closing Date, you shall have received from the Auditor a letter, dated as of the Closing Date or the Option Closing Date, as applicable, to the effect that the Auditor reaffirms the statements made in the letter furnished pursuant to Section 4.3.1, except that the specified date referred to shall be a date not more than three (3) business days prior to the Closing Date or the Option Closing Date, as applicable.

4.4 **Officers' Certificates**.

4.4.1. **Officers' Certificate**. The Company shall have furnished to the Representative a certificate, dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date)), of its Chief Executive Officer, and its Chief Financial Officer stating that (i) such officers have carefully examined the Registration Statement, the Pricing Disclosure Package, any Issuer Free Writing Prospectus and the Prospectus and, in their opinion, the Registration Statement and each amendment thereto, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date) did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the Pricing Disclosure Package, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), any Issuer Free Writing Prospectus as of its date and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the Applicable Time, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus, (iii) to the best of their knowledge after reasonable investigation, as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date) (except for those representations and warranties qualified which refer to facts existing at a specific date, which shall be true and correct as of such date), the representations and warranties of the Company in this Agreement are true and correct and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date (or any Option Closing Date if such date is other than the Closing Date), and (iv) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the Pricing Disclosure Package, any Material Adverse Effect in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a Material Adverse Effect or a prospective Material Adverse Effect, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company, except as set forth in the Prospectus.

4.4.2. **Chief Financial Officer's Certificate**. At the Closing Date, and the Option Closing Date, if any, the Representative shall have received a certificate executed by the Chief Financial Officer of the Company, dated the Closing Date or the Option Date, as the case may be, respectively, in form and substance satisfactory to the Representative.

4.4.3. **Secretary's Certificate**. At the Closing Date, and the Option Closing Date, if any, the Representative shall have received a certificate of the Company signed by the Secretary of the Company, dated the Closing Date or the Option Date, as the case may be, respectively, certifying: (i) that each of the Charter and Bylaws is true and complete, has not been modified and is in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Offering are in full force and effect and have not been modified; (iii) as to the accuracy and completeness of all correspondence between the Company or its counsel and the Commission; and (iv) as to the incumbency of the officers of the Company. The documents referred to in such certificate shall be attached to such certificate.

4.5 **No Material Changes**. Prior to and on the Closing Date and each Option Closing Date, if any: (i) there shall have been no Material Adverse Effect or development involving a prospective Material Adverse Effect in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (ii) no action, suit or proceeding, at law or in equity, shall have been pending or to the Company's knowledge threatened against the Company or any Insider before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding may materially adversely affect the business, operations, prospects or financial condition or income of the Company, except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (iii) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or to the Company's knowledge threatened by the Commission; and (iv) the Registration Statement, the Pricing Disclosure Package and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations and shall conform in all material respects to the requirements of the Securities Act and the Securities Act Regulations, and neither the Registration Statement, the Pricing Disclosure Package nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

4.6 **No Material Misstatement or Omission**. The Underwriters shall not have discovered and disclosed to the Company on or prior to the Closing Date and each Option Closing Date, if any, that the Registration Statement or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of counsel for the Underwriters, is material or omits to state any fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the Registration Statement, the Pricing Disclosure Package or the Prospectus or any amendment or supplement thereto contains an untrue statement of fact which, in the opinion of such counsel, is material or omits to state any fact which, in the opinion of such counsel, is material and is necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading.

4.7 **Delivery of Agreements**.

4.7.1. **Lock-Up Agreements**. On or before the date of this Agreement, the Company shall have delivered to the Representative executed copies of the Lock-Up Agreements from each of the persons listed in Schedule 3 hereto.

4.8 **Good Standings**. The Representative shall have received at the time this Agreement is executed, and at the Closing Date and at each Option Closing Date (if any), satisfactory evidence of the good standing of the Company and its subsidiaries in their respective jurisdictions of organization and their good standing as foreign entities in such other jurisdictions as the Representative may request, in each case in writing or any standard form of telecommunication from the appropriate governmental authorities of such jurisdictions.

4 . 9 **Additional Documents**. At the Closing Date and at each Option Closing Date (if any) Representative Counsel shall have been furnished with such documents and opinions as they may reasonably require for the purpose of enabling Representative Counsel to deliver an opinion to the Underwriters, 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 Public Securities as herein contemplated shall be satisfactory in form and substance to the Representative and Representative Counsel.

5. **Indemnification**.

5.1 **Indemnification of the Underwriters**.

5.1.1. **General**. Subject to the conditions set forth below, the Company agrees to indemnify and hold harmless each Underwriter, its affiliates and each of its and their respective directors, officers, members, employees, representatives and agents and each person, if any, who controls any such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively the "Underwriter Indemnified Parties," and each an "**Underwriter Indemnified Party**"), against any and all loss, liability, claim, damage and expense whatsoever (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) to which they or any of them may become subject under the Securities Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (i) the Registration Statement, the Pricing Disclosure Package, the Preliminary Prospectus, or the Prospectus (as from time to time each may be amended and supplemented); (ii) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering, including any "road show" or investor presentations made to investors by the Company (whether in person or electronically); or (iii) any application or other document or written communication (in this Section 5, collectively called "application") executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Public Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, the Exchange or any other national securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon, and in conformity with, the Underwriters' Information. With respect to any untrue statement or omission or alleged untrue statement or omission made in the Pricing Disclosure Package, the indemnity agreement contained in this Section 5.1.1 shall not inure to the benefit of any Underwriter Indemnified Party to the extent that any loss, liability, claim, damage or expense of such Underwriter Indemnified Party results from the fact that a copy of the Prospectus was not given or sent to the person asserting any such loss, liability, claim or damage at or prior to the written confirmation of sale of the Public Securities to such person as required by the Securities Act and the Securities Act Regulations, and if the untrue statement or omission has been corrected in the Prospectus, unless such failure to deliver the Prospectus was a result of non-compliance by the Company with its obligations under Section 3.3 hereof.

5.1.2. **Procedure**. If any action is brought against an Underwriter Indemnified Party in respect of which indemnity may be sought against the Company pursuant to Section 5.1.1, such Underwriter Indemnified Party shall promptly notify the Company in writing of the institution of such action and the Company shall assume the defense of such action, including the employment and fees of counsel (subject to the reasonable approval of such Underwriter Indemnified Party) and payment of actual expenses. Such Underwriter Indemnified Party shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such Underwriter Indemnified Party unless (i) the employment of such counsel at the expense of the Company shall have been authorized in writing by the Company in connection with the defense of such action, or (ii) the Company shall not have employed counsel to have charge of the defense of such action, or (iii) such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from or additional to those available to the Company (in which case the Company shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events the reasonable fees and expenses of not more than one additional firm of attorneys selected by the Underwriter Indemnified Party (in addition to local counsel) shall be borne by the Company. Notwithstanding anything to the contrary contained herein, if any Underwriter Indemnified Party shall assume the defense of such action as provided above, the Company shall have the right to approve the terms of any settlement of such action, which approval shall not be unreasonably withheld.

5 . 2 **Indemnification of the Company**. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the foregoing indemnity from the Company to the several Underwriters, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, the Underwriters' Information. In case any action shall be brought against the Company or any other person so indemnified based on any Preliminary Prospectus, the Registration Statement, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or any application, and in respect of which indemnity may be sought against any Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other person so indemnified shall have the rights and duties given to the several Underwriters by the provisions of Section 5.1.2. The Company agrees promptly to notify the Representative of the commencement of any litigation or proceedings against the Company or any of its officers, directors or any person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in connection with the issuance and sale of the Public Securities or in connection with the Registration Statement, the Pricing Disclosure Package, or the Prospectus or any Issuer Free Writing Prospectus.

5.3 **Contribution**.

5.3.1. **Contribution Rights**. If the indemnification provided for in this Section 5 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 5.1 or 5.2 in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the Offering of the Public Securities, or (ii) if the allocation provided by clause (i) above 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 the Underwriters, on the other, with respect to the statements or omissions that resulted in such loss, claim, damage or liability, or action in respect thereof, 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, with respect to such Offering shall be deemed to be in the same proportion as the total net proceeds from the Offering of the Public Securities purchased under this Agreement (before deducting expenses) received by the Company, as set forth in the table on the cover page of the Prospectus, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the shares of Common Stock purchased under this Agreement, as set forth in the table on the cover page of the Prospectus, on the other hand. The relative fault shall be determined by reference to whether the 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 the Underwriters, the intent of the parties and their relative 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 contributions pursuant to this Section 5.3.1 were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section 5.3.1 shall be deemed to include, for purposes of this Section 5.3.1, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 5.3.1 in no event shall an Underwriter be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the Offering of the Public Securities exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

5.3.2. **Contribution Procedure**. Within fifteen (15) days after receipt by any party to this Agreement (or its representative) of notice of the commencement of any action, suit or proceeding, such party will, if a claim for contribution in respect thereof is to be made against another party ("contributing party"), notify the contributing party of the commencement thereof, but the failure to so notify the contributing party will not relieve it from any liability which it may have to any other party other than for contribution hereunder. In case any such action, suit or proceeding is brought against any party, and such party notifies a contributing party or its representative of the commencement thereof within the aforesaid 15 days, the contributing party will be entitled to participate therein with the notifying party and any other contributing party similarly notified. Any such contributing party shall not be liable to any party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution without the written consent of such contributing party. The contribution provisions contained in this Section 5.3.2 are intended to supersede, to the extent permitted by law, any right to contribution under the Securities Act, the Exchange Act or otherwise available. Each Underwriter's obligations to contribute pursuant to this Section 5.3 are several and not joint.

6. **Default by an Underwriter**.

6.1 **Default Not Exceeding 10% of Firm Securities or Option Securities** If any Underwriter or Underwriters shall default in its or their obligations to purchase the Firm Securities or the Option Securities, and if the number of the Firm Securities or the Option Securities with respect to which such default relates does not exceed in the aggregate 10% of the number of Firm Securities or the Option Securities that all Underwriters have agreed to purchase hereunder, then such Firm Securities or the Option Securities to which the default relates shall be purchased by the non-defaulting Underwriters in proportion to their respective commitments hereunder.

6.2 **Default Exceeding 10% of Firm Securities or the Option Securities** In the event that the default addressed in Section 6.1 relates to more than 10% of the Firm Securities or the Option Securities, you may in your discretion arrange for yourself or for another party or parties to purchase such Firm Securities or the Option Securities to which such default relates on the terms contained herein. If, within one (1) Business Day after such default relating to more than 10% of the Firm Securities or the Option Securities, you do not arrange for the purchase of such Firm Securities or the Option Securities, then the Company shall be entitled to a further period of one (1) Business Day within which to procure another party or parties satisfactory to you to purchase said Firm Securities or the Option Securities on such terms. In the event that neither you nor the Company arrange for the purchase of the Firm Securities or the Option Securities to which a default relates as provided in this Section 6, this Agreement will automatically be terminated by you or the Company without liability on the part of the Company (except as provided in Sections 3.11 and 5 hereof) or the several Underwriters (except as provided in Section 5 hereof); provided, *however*, that if such default occurs with respect to the Option Securities, this Agreement will not terminate as to the Firm Securities; and *provided*, *further*, that nothing herein shall relieve a defaulting Underwriter of its liability, if any, to the other Underwriters and to the Company for damages occasioned by its default hereunder.

6.3 **Postponement of Closing Date**. In the event that the Firm Securities or Option Securities to which the default relates are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, you or the Company shall have the right to postpone the Closing Date or Option Closing Date for a reasonable period, but not in any event exceeding five (5) Business Days, in order to effect whatever changes may thereby be made necessary in the Registration Statement, the Pricing Disclosure Package or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus that in the opinion of counsel for the Underwriter may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any party substituted under this Section 6 with like effect as if it had originally been a party to this Agreement with respect to such shares of Common Stock.

7. **Additional Covenants**.

7.1 **Board Composition and Board Designations**. The Company shall ensure that: (i) the qualifications of the persons serving as members of the Board of Directors and the overall composition of the Board comply with the Sarbanes-Oxley Act, with the Exchange Act and with the listing rules of the Exchange or any other national securities exchange, as the case may be, in the event the Company seeks to have its Public Securities listed on another exchange or quoted on an automated quotation system, and (ii) if applicable, at least one member of the Audit Committee of the Board of Directors qualifies as an "audit committee financial expert," under Regulation S-K and the listing rules of the Exchange.

7.2 **Prohibition on Press Releases and Public Announcements**. The Company shall not issue press releases or engage in any other publicity, without the Representative's prior written consent, for a period ending at 5:00 p.m., Eastern time, on the first (1st) Business Day following the 40th day after the Closing Date, other than normal and customary releases issued in the ordinary course of the Company's business.

7.3 **Right of First Refusal**. During the period ending twelve (12) months after the Closing Date (the "**ROFR Period**"), the Company grants the Representative the right of first refusal to act as a lead managing underwriter or book runner, or as a lead placement agent, for any and all future equity, equity-linked or debt (excluding commercial bank debt) offerings during the ROFR Period (the "**ROFR**"), of the Company, or any successor to or any subsidiary of the Company (each a "**Subject Transaction**"), on competitive compensation terms. The Company shall notify the Representative of its intention to pursue a Subject Transaction, including the material terms thereof, by providing written notice thereof in accordance with Section 9.1. If the Representative fails to exercise its Right of First Refusal with respect to any Subject Transaction within five (5) Business Days after the mailing of such written notice, provided that the Representative confirms in writing to the Company its receipt of such written notice, then the Representative shall have no further claim or right with respect to the Subject Transaction. Notwithstanding the foregoing, at any time after the date that is six (6) months following the Closing Date, the Company may elect to exclude any Subject Transaction from the ROFR hereunder by written notice to the Underwriter delivered in accordance with Section 9.1 (an "**Excluded Transaction**"), provided that the Company shall be required to pay 3% of the gross proceeds to the Company from any Excluded Transaction (an "**Excluded Transaction Payment**") completed during the remainder of the ROFR Period. Any Excluded Transaction Payments shall be due within 30 days of the closing of the Excluded Transaction.

8. **Effective Date of this Agreement and Termination Thereof**

8.1 **Effective Date**. This Agreement shall become effective when both the Company and the Representative have executed the same and delivered counterparts of such signatures to the other party.

8.2 **Termination**. The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in your opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on the New York Stock Exchange or the Nasdaq Stock Market LLC shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction; or (iii) if the United States shall have become involved in a new war or an increase in major hostilities; or (iv) if a banking moratorium has been declared by a New York State or federal authority; or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets; or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in your opinion, make it inadvisable to proceed with the delivery of the Firm Securities or Option Securities; or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder; or (viii) if the Representative shall have become aware after the date hereof of such a Material Adverse Effect in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Representative's judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Public Securities or to enforce contracts made by the Underwriters for the sale of the Public Securities.

8.3 **Expenses**. Notwithstanding anything to the contrary in this Agreement, except in the case of a default by the Underwriters, pursuant to Section 6.2 above, in the event that this Agreement is terminated prior to the Closing Date for any reason whatsoever, within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Underwriters their actual and accountable out-of-pocket documented expenses related to the transactions contemplated herein then due and payable (including the out-of-pocket and documented fees and disbursements of Representative Counsel) up to $135,000, and upon demand the Company shall pay the full amount thereof up to the cap to the Representative on behalf of the Underwriters; provided, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement.

8.4 **Survival of Indemnification**. Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Section 5 shall remain in full force and effect and shall not be in any way affected by, such election or termination or failure to carry out the terms of this Agreement or any part hereof.

8.5 **Representations, Warranties, Agreements to Survive**. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company 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 or (ii) delivery of and payment for the Public Securities.

9. **Miscellaneous**.

9.1 **Notices**. All communications hereunder, except as herein otherwise specifically provided, shall be in writing and shall be mailed (registered or certified mail, return receipt requested), personally delivered or sent by facsimile transmission and confirmed and shall be deemed given when so delivered or faxed and confirmed or if mailed, two (2) days after such mailing.

If to the Representative:

A.G.P./Alliance Global Partners
590 Madison Avenue, 36th Floor
New York, New York 10022
Attn: Mr. David Bocchi, Managing Director of Investment Banking
Fax No.: (212) 813-1047

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

Zysman, Aharoni, Gayer and Sullivan & Worcester LLP
1633 Broadway
New York, New York 10019
Attention: Oded Har-Even, Esq.
Fax No.: (212) 660-3000

If to the Company:

iBio, Inc.
600 Madison Avenue, Suite 1601
New York, NY 10022-1737
Attn: Robert B. Kay, Chief Executive Officer
Fax No.: (302) 356-1173

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

Andrew Abramowitz, PLLC
565 5th Ave #9
New York, New York 10017
Attention: Andrew Abramowitz, Esq.
Fax No.: (212) 972-8883

9.2 **Headings**. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

9.3 **Amendment**. This Agreement may only be amended by a written instrument executed by each of the parties hereto.

9.4 **Entire Agreement**. This Agreement (together with the other agreements and documents being delivered pursuant to or in connection with this Agreement) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof and thereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof.

9.5 **Binding Effect**. This Agreement shall inure solely to the benefit of and shall be binding upon the Representative, the Underwriters, the Company and the controlling persons, directors and officers referred to in Section 5 hereof, and their respective successors, legal representatives, heirs and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provisions herein contained. The term "successors and assigns" shall not include a purchaser, in its capacity as such, of securities from any of the Underwriters.

9.6 **Governing Law; Consent to Jurisdiction; Trial by Jury**. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Agreement shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 9.1 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. The Company agrees that the prevailing party(ies) in any such action shall be entitled to recover from the other party(ies) all of its reasonable attorneys' fees and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor. 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.

9.7 **Execution in Counterparts**. This Agreement may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts has been signed by each of the parties hereto and delivered to each of the other parties hereto. Delivery of a signed counterpart of this Agreement by facsimile or email/pdf transmission shall constitute valid and sufficient delivery thereof.

9.8 **Waiver, etc**. The failure of any of the parties hereto to at any time enforce any of the provisions of this Agreement shall not be deemed or construed to be a waiver of any such provision, nor to in any way effect the validity of this Agreement or any provision hereof or the right of any of the parties hereto to thereafter enforce each and every provision of this Agreement. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Agreement shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

[Signature Page Follows]

If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between us.

Very truly yours,

IBIO, INC.

By: _____
Name: Robert B. Kay
Title: Chief Executive Officer

Confirmed as of the date first written above mentioned, on behalf of itself and as Representative of the several Underwriters named on Schedule 1 attached hereto:

A.G.P./ALLIANCE GLOBAL PARTNERS

By: _____
Name: Thomas J. Higgins
Title: Managing Director, Investment Banking

SCHEDULE 1

Underwriter	Total Number of Firm Shares to be Purchased	Total Number of Preferred Shares to be Purchased	Total Number of Series A Warrants to be Purchased	Total Number of Series B Warrants to be Purchased	Number of Option Shares to be Purchased if the Over-Allotment Option is Fully Exercised by the Representative	Number of Series A Warrants to be Purchased if the Over-Allotment Option is Fully Exercised by the Representative	Number of Series B Warrants to be Purchased if the Over-Allotment Option is Fully Exercised by the Representative
A.G.P./Alliance Global Partners							
TOTAL							

SCHEDULE 2-A

Pricing Information

Number of Firm Shares:

Number of Preferred Shares:

Number of Series A Warrants:

Number of Series B Warrants:

Number of Option Shares:

Number of Series A Warrants Comprising Option Warrants:

Number of Series B Warrants Comprising Option Warrants:

Public Offering Price per Firm Share:

Public Offering Price per Preferred Share:

Public Offering Price per Firm Warrant:

Firm Warrant Exercise Price:

Underwriting Discount per Firm Share sold to Pre-Existing Relationship Investors:

Underwriting Discount per Firm Share sold to Investors that are not Pre-Existing Relationship Investors:

Underwriting Discount per Preferred Share sold to Pre-Existing Relationship Investors:

Underwriting Discount per Preferred Share sold to Investors that are not Pre-Existing Relationship Investors:

Underwriting Discount per Firm Warrant sold to Pre-Existing Relationship Investors:

Underwriting Discount per Firm Warrant sold to Investors that are not Pre-Existing Relationship Investors:

Proceeds to Company per Firm Share (before expenses):

Proceeds to Company per Preferred Share (before expenses):

Proceeds to Company per Firm Warrant (before expenses):

SCHEDULE 2-B

Issuer General Use Free Writing Prospectus

Issuer General Use Free Writing Prospectus filed with the Commission on September 17, 2019 and as amended and filed on October 10, 2019

SCHEDULE 3

List of Lock-Up Parties

Robert B. Kay

Robert L. Erwin

Terence E. Ryan, Ph.D.

James P. Mullaney

General James T. Hill

Glenn Chang

John D. McKey, Jr.

Phillip K. Russell, M.D.

Seymour Flug

Tom Isett

EXHIBIT A

Lock-Up Agreement

_____, 2019

A.G.P./Alliance Global Partners
590 Madison Avenue, 36th Floor
New York, New York 10022

As Underwriter named on Schedule 1 to the
Underwriting Agreement referenced below

Re: Public Offering of iBio, Inc.

Ladies and Gentlemen:

The undersigned understands that you (the "***Underwriter***") propose to enter into an Underwriting Agreement (the "***Underwriting Agreement***") providing for the purchase by the Underwriter of shares (the "***Stock***") of common stock, par value $0.001 per share (the "***Common Stock***"), warrants (the "***Warrants***") to purchase shares of Common Stock and Series C Convertible Preferred Stock, par value $0.001 per share (the "***Series C Preferred Stock***") of iBio, Inc., a Delaware corporation (the "***Company***"), and that the Underwriter proposes to reoffer the Stock, the Warrants and the Series C Preferred Stock to the public (the "***Offering***").

In consideration of the execution of the Underwriting Agreement by the Underwriter, and for other good and valuable consideration, the undersigned hereby irrevocably agrees that, without the prior written consent of the Underwriter, the undersigned will not, directly or indirectly, (a) offer for sale, sell, pledge, or otherwise transfer or dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of) any shares of Common Stock (including, without limitation, shares of Common Stock that may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the Securities and Exchange Commission (the "***Commission***") and shares of Common Stock that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for Common Stock; (b) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of Common Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise; (c) except as provided for below, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock or any other securities of the Company; or (d) publicly disclose the intention to do any of the foregoing for a period commencing on the date hereof and ending ninety (90) days after the date of the effective date of the Registration Statement relating to the Offering (such 90-day period, the "***Lock-Up Period***").

The foregoing paragraph shall not apply to (a) transactions relating to shares of Common Stock or other securities acquired in the open market after the completion of the Offering, *provided that* no filing under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), shall be required or shall be voluntarily made in connection with such transfers; (b) bona fide gifts of shares of any class of the Company's capital stock or any security convertible into Common Stock, in each case that are made exclusively between and among the undersigned or members of the undersigned's family, or affiliates of the undersigned, including its partners (if a partnership) or members (if a limited liability company); (c) any transfer of shares of Common Stock or any security convertible into Common Stock by will or intestate succession upon the death of the undersigned; (d) transfer of shares of Common Stock or any security convertible into Common Stock to an immediate family member (for purposes of this Lock-Up Letter Agreement, "**immediate family**" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin) or any trust, limited partnership, limited liability company or other entity for the direct or indirect benefit of the undersigned or any immediate family member of the undersigned; *provided* that, in the case of clauses (b), (c) and (d) above, it shall be a condition to any such transfer that (i) the transferee/donee agrees to be bound by the terms of this Lock-Up Letter Agreement (including, without limitation, the restrictions set forth in the preceding sentence) to the same extent as if the transferee/donee were a party hereto; (ii) each party (donor, donee, transferor or transferee) shall not be required by law (including without limitation the disclosure requirements of the Securities Act of 1933, as amended (the "***Securities Act***"), and the Exchange Act) to make, and shall agree to not voluntarily make, any filing or public announcement of the transfer or disposition prior to the expiration of the 90-day period referred to above; and (iii) the undersigned notifies the Underwriter at least two (2) business days prior to the proposed transfer or disposition; (e) the transfer of shares to the Company to satisfy withholding obligations for any equity award granted pursuant to the terms of the Company's stock option/incentive plans, such as upon exercise, vesting, lapse of substantial risk of forfeiture, or other similar taxable event, in each case on a "cashless" or "net exercise" basis (which, for the avoidance of doubt shall not include "cashless" exercise programs involving a broker or other third party), *provided* that as a condition of any transfer pursuant to this clause (e), that if the undersigned is required to file a report under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock during the Lock-Up Period, the undersigned shall include a statement in such report, and if applicable an appropriate disposition transaction code, to the effect that such transfer is being made as a share delivery or forfeiture in connection with a net value exercise, or as a forfeiture or sale of shares solely to cover required tax withholding, as the case may be; (f) transfers of shares of Common Stock or any security convertible into or exercisable or exchangeable for Common Stock pursuant to a bona fide third party tender offer made to all holders of the Common Stock, merger, consolidation or other similar transaction involving a change of control (as defined below) of the Company, including voting in favor of any such transaction or taking any other action in connection with such transaction, *provided* that in the event that such merger, tender offer or other transaction is not completed, the Common Stock and any security convertible into or exercisable or exchangeable for Common Stock shall remain subject to the restrictions set forth herein; (g) the exercise of warrants or the exercise of stock options granted pursuant to the Company's stock option/incentive plans or otherwise outstanding on the date hereof; *provided*, that the restrictions shall apply to shares of Common Stock issued upon such exercise or conversion; (h) the establishment of any contract, instruction or plan that satisfies all of the requirements of Rule 10b5-1 (a "***Rule 10b5-1 Plan***") under the Exchange Act; *provided*, *however*, that no sales of Common Stock or securities convertible into, or exchangeable or exercisable for, Common Stock, shall be made pursuant to a Rule 10b5-1 Plan prior to the expiration of the Lock-Up Period; *provided further*, that the Company is not required to report the establishment of such Rule 10b5-1 Plan in any public report or filing with the Commission under the Exchange Act during the lock-up period and does not otherwise voluntarily effect any such public filing or report regarding such Rule 10b5-1 Plan; and (i) any demands or requests for, exercise any right with respect to, or take any action in preparation of, the registration by the Company under the Securities Act of the undersigned's shares of Common Stock, provided that no transfer of the undersigned's shares of Common Stock registered pursuant to the exercise of any such right and no registration statement shall be filed under the Securities Act with respect to any of the undersigned's shares of Common Stock during the Lock-Up Period. For purposes of clause (f) above, "**change of control**" shall mean the consummation of any bona fide third party tender offer, merger, purchase, consolidation or other similar transaction the result of which is that any "**person**" (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of a majority of total voting power of the voting stock of the Company.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the undersigned's securities subject to this Lock-Up Letter Agreement except in compliance with this Lock-Up Letter Agreement.

It is understood that, if the Company notifies the Underwriter that it does not intend to proceed with the Offering, if the Underwriting Agreement does not become effective, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Stock, the undersigned will be released from its obligations under this Lock-Up Letter Agreement.

The undersigned understands that the Company and the Underwriter will proceed with the Offering in reliance on this Lock-Up Letter Agreement.

Whether or not the Offering actually occurs depends on a number of factors, including market conditions. Any Offering will only be made pursuant to an Underwriting Agreement, the terms of which are subject to negotiation between the Company and the Underwriter.

This Lock-Up Letter Agreement shall automatically terminate upon the earliest to occur, if any, of (a) the termination of the Underwriting Agreement before the sale of any Stock, Warrants or Series C Preferred Stock to the Underwriter; or (b) November 8, 2019, in the event that the Underwriting Agreement has not been executed by that date.

This Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof. Delivery of a signed copy of this Lock-Up Agreement by facsimile or e-mail/.pdf transmission shall be effective as the delivery of the original hereof.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Letter Agreement and that, upon request, the undersigned will execute any additional documents necessary in connection with the enforcement hereof. Any obligations of the undersigned shall be binding upon the heirs, personal representative, successors and assigns of the undersigned.

[Signature page follows]

Very truly yours,

(Name)

(Signature)

(Name of Signatory, in the case of entities – Please Print)

(Title of Signatory, in the case of entities – Please Print)

Address:

EXHIBIT B

Form of Press Release

iBio, Inc.

[Date]

iBio, Inc. (the "Company") announced today that A.G.P./Alliance Global Partners, acting as representative for the underwriters in the Company's recent public offering of shares of Common Stock, is [waiving] [releasing] a lock-up restriction with respect to shares of Common Stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on , 20 , and the shares may be sold on or after such date.

This press release is not an offer or sale of the securities in the United States or in any other jurisdiction where such offer or sale is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the Securities Act of 1933, as amended.

Exhibit 3.7

IBIO, INC.

CERTIFICATE OF DESIGNATION OF PREFERENCES,

RIGHTS AND LIMITATIONS

OF

SERIES C CONVERTIBLE PREFERRED STOCK

PURSUANT TO SECTION 151 OF THE

DELAWARE GENERAL CORPORATION LAW

The undersigned does hereby certify that:

1. He is the Chief Executive Officer of iBio, Inc., a Delaware corporation (the "**Corporation**").

2. The Corporation is authorized to issue up to 1,000,000 shares of preferred stock, $0.001 par value per share, in one or more series.

3. Pursuant to authority expressly conferred upon the Board of Directors of the Corporation (the "**Board**") by the Corporation's Certificate of Incorporation, as amended (the "**Certificate of Incorporation**"), the Board on [ ], 2019 adopted the following resolutions creating a series of shares of preferred stock designated as the Series C Convertible Preferred Stock, none of which shares have been issued:

RESOLVED, that the Board hereby designates the Series C Convertible Preferred Stock and the number of shares constituting such series and hereby fixes the rights, powers, preferences, privileges and restrictions relating to such series as follows:

TERMS OF SERIES C CONVERTIBLE PREFERRED STOCK

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

"**Affiliate**" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

"**Alternate Consideration**" shall have the meaning set forth in Section 7(d).

"**Beneficial Ownership Limitation**" shall have the meaning set forth in Section 6(d).

"**Bloomberg**" means Bloomberg L.P.

"**Business Day**" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any other dayon which the Federal Reserve Bank of New York is closed.

"**Buy-In**" shall have the meaning set forth in Section 6(c)(iv).

"**Certificate of Designations**" means this Certificate of Designations of Preferences, Rights and Limitations of the Series C Convertible Preferred Stock of the Corporation.

"**Closing Sale Price**" means, for any security as of any date, the last closing trade price for such security on the principal Trading Market, as reported by Bloomberg, or, if the principal Trading Market begins to operate on an extended hours basis and does not designate the closing trade price, then the last trade price of such security prior to 4:00 p.m., New York time, as reported by Bloomberg, or, if no last trade price is reported for such security by Bloomberg, the average of the ask prices of any market makers for such security as reported in the "pink sheets" by OTC Markets Group Inc. If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Corporation and the Holders of a majority of the then outstanding shares of Preferred Stock. All such determinations shall be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during such period.

"**Commission**" means the United States Securities and Exchange Commission.

"**Common Stock**" means the Corporation's common stock, par value $0.001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified or changed.

"**Common Stock Equivalents**" means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"**Conversion Amount**" means the sum of the Stated Value at issue.

"**Conversion Date**" shall have the meaning set forth in Section 6(a).

"**Conversion Price**" shall have the meaning set forth in Section 6(b).

"**Conversion Shares**" means, collectively, the shares of Common Stock issuable upon conversion of the shares of Preferred Stock in accordance with the terms hereof.

"**Convertible Securities**" means any stock or other security (other than Options) that is at any time and under any circumstances, directly or indirectly, convertible into, exercisable or exchangeable for, or which otherwise entitles the holder thereof to acquire, any shares of Common Stock.

"**DTC**" shall have the meaning set forth in Section 6(c)(i).

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"**Exempt Issuance**" means the issuance of (a) shares of Common Stock or options to employees, officers or directors of the Corporation pursuant to any stock or option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Corporation or a majority of the members of a committee of non-employee directors established for such purpose for services rendered to the Corporation, (b) securities upon the exercise or exchange of or conversion of any securities issued pursuant to the Underwriting Agreement and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of the Underwriting Agreement, provided that such securities have not been amended since the date of the Underwriting Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of any such securities or to extend the term of such securities, (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Corporation, provided that such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the ninety (90) day period following the Original Issue Date, and provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Corporation and shall provide to the Corporation additional benefits in addition to the investment of funds, but shall not include a transaction in which the Corporation is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

"**Fundamental Transaction**" shall have the meaning set forth in Section 7(d).

"**Holder**" shall have the meaning set forth in Section 2.

"**Liquidation**" shall have the meaning set forth in Section 5.

"**New York Courts**" shall have the meaning set forth in Section 8(d).

"**Notice of Conversion**" shall have the meaning set forth in Section 6(a).

"**Options**" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

"**Original Issue Date**" means the date of the first issuance of any shares of the Preferred Stock regardless of the number of transfers of any particular shares of Preferred Stock and regardless of the number of certificates which may be issued to evidence such Preferred Stock.

"**Person**" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"**Preferred Stock**" shall have the meaning set forth in Section 2.

"**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"**Share Delivery Date**" shall have the meaning set forth in Section 6(c).

"**Stated Value**" shall have the meaning set forth in Section 2.

"**Subsidiary**" means any subsidiary of the Corporation and shall, where applicable, also include any direct or indirect subsidiary of the Corporation formed or acquired after the date hereof.

"**Successor Entity**" shall have the meaning set forth in Section 7(d).

"**Trading Day**" means a day on which the principal Trading Market is open for business.

"**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 NYSE American; the Nasdaq Capital Market; the Nasdaq Global Market; the Nasdaq Global Select Market; the New York Stock Exchange; the OTC Markets or the OTC Bulletin Board (or any successors to any of the foregoing).

"**Transfer Agent**" means Continental Stock Transfer and Trust Company, Inc., the current transfer agent of the Corporation, with a mailing address of 1 State Street, 30th Floor, New York, NY 10004 and a facsimile number of (212) 616-7617 and any successor transfer agent of the Corporation.

"**Underwriting Agreement**" means the underwriting agreement, dated as of October [ ], 2019, among the Corporation and A.G.P./Alliance Global Partners as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms.

"**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 principal Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (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 in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the 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 Preferred Stock then outstanding and reasonably acceptable to the Corporation, the fees and expenses of which shall be paid by the Corporation.

Section 2. Designation, Amount and Par Value. The series of preferred stock shall be designated as the Series C Convertible Preferred Stock (the "**Preferred Stock**") and the number of authorized shares so designated shall be [ ] shares of Preferred Stock (which amount shall not be amended without the written consent of the holders (each, a "**Holder**" and collectively, the "**Holders**") of a majority of the shares of Preferred Stock then outstanding. Each share of Preferred Stock shall have a par value of $0.001 per share and a stated value equal to $1,000 per share, subject to adjustment for stock splits, stock dividends, recapitalizations, reclassifications or other similar events occurring after the Original Issue Date (the "**Stated Value**").

Section 3. Dividends. Except for stock dividends or distributions for which adjustments are to be made pursuant to Section 7, the Holders shall be entitled to receive, and the Corporation shall pay, dividends on shares of Preferred Stock equal (on an as-if-converted-to-Common-Stock basis, without regard to conversion limitations herein) to and in the same form as dividends actually paid on shares of the Common Stock when, as and if such dividends are paid on shares of Common Stock. The Corporation shall not pay any dividends on the Common Stock unless the Corporation simultaneously complies with this provision. No other dividends shall be paid or accrued on shares of Preferred Stock.

Section 4. Voting Rights; Ranking. Except as otherwise provided herein or as otherwise required by law, the Preferred Stock shall have no voting rights. However, as long as any shares of Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Preferred Stock or otherwise alter or amend this Certificate of Designation, (b) amend its Certificate of Incorporation or other charter documents in any manner that adversely affects any rights of the Holders, (c) amend the number of authorized shares of Preferred Stock, (d) issue any shares of Preferred Stock other than pursuant to this Certificate of Designations or (e) enter into any agreement with respect to any of the foregoing. The Preferred Stock shall rank *pari passu* to the Common Stock, the Corporation's Series A Convertible Preferred Stock, par value $0.001 per share ("**Series A Preferred Stock**") and the Corporation's Series B Convertible Preferred Stock, par value $0.001 per share ("**Series B Preferred Stock**").

Section 5. Liquidation. Upon any liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary (a "**Liquidation**"), the Holders shall be entitled to receive out of the assets, whether capital or surplus, of the Corporation the same amount that a holder of Common Stock would receive if the Preferred Stock were fully converted (disregarding for such purposes any conversion limitations hereunder) into Common Stock at the Conversion Price, which amounts shall be paid *pari passu* with all holders of Common Stock, the Series A Preferred Stock and the Series B Preferred Stock. The Corporation shall mail written notice of any such Liquidation, not less than 45 days prior to the payment date stated therein, to each Holder.

Section 6. Conversion.

a) Conversions at Option of Holder. Each share of Preferred Stock shall be convertible, at any time and from time to time from and after the Original Issue Date at the option of the Holder thereof, into that number of validly issued, fully paid and non-assessable shares of Common Stock (subject to the limitations set forth in Section 6(d)) determined by dividing the Stated Value of such share of Preferred Stock by the Conversion Price. Holders shall effect conversions by delivering to the Corporation (via facsimile, email or otherwise as set forth herein) the form of conversion notice attached hereto as Annex A (a "**Notice of Conversion**"). Each Notice of Conversion shall specify the number of shares of Preferred Stock to be converted, the number of shares of Preferred Stock owned prior to the conversion at issue, the number of shares of Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable Holder delivers by facsimile, email or otherwise as set forth herein such Notice of Conversion to the Corporation (such date, the "**Conversion Date**"). If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be the date that such Notice of Conversion to the Corporation is deemed delivered hereunder. No ink-original Notice of Conversion shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Conversion form be required. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. To effect conversions of shares of Preferred Stock, a Holder shall not be required to surrender the certificate(s) representing the shares of Preferred Stock to the Corporation unless all of the shares of Preferred Stock represented thereby are so converted, in which case such Holder shall deliver the certificate representing such shares of Preferred Stock promptly following the Conversion Date at issue. Shares of Preferred Stock converted into Common Stock or redeemed in accordance with the terms hereof shall be canceled and shall not be reissued.

b) Conversion Price. The conversion price for the Preferred Stock shall equal $[ ], subject to adjustment herein (the "**Conversion Price**").

c) Mechanics of Conversion.

i. Delivery of Conversion Shares Upon Conversion. Not later than the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) after each Conversion Date (the "**Share Delivery Date**"), the Corporation shall deliver, or cause to be delivered, to the converting Holder (A) the number of Conversion Shares being acquired upon the conversion of the Preferred Stock, which Conversion Shares shall be free of restrictive legends and trading restrictions and (B) a bank check in the amount of accrued and unpaid dividends, if any. In accordance with the delivery instructions set forth in the Notice of Conversion, as applicable, the Corporation shall use its best efforts to deliver the Conversion Shares required to be delivered by the Corporation under this Section 6 electronically through the Depository Trust Company ("**DTC**") or another established clearing corporation performing similar functions. As used herein, "**Standard Settlement Period**" means the standard settlement period, expressed in a number of Trading Days, on the Corporation's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Conversion. Notwithstanding the foregoing, with respect to any Notice(s) of Conversion delivered by 12:00 p.m. (New York time) on the Original Issue Date, the Corporation agrees to deliver the Conversion Shares subject to such notice(s) by 4:00 p.m. (New York time) on the Original Issue Date.

ii. Failure to Deliver Conversion Shares. If, in the case of any Notice of Conversion, such Conversion Shares are not delivered to or as directed by the applicable Holder by the Share Delivery Date, the Holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such Conversion Shares, to rescind such conversion, in which event the Corporation shall promptly return to the Holder any original Preferred Stock certificate delivered to the Corporation and the Holder shall promptly return to the Corporation the Conversion Shares issued to such Holder pursuant to the rescinded Notice of Conversion.

iii. Partial Liquidated Damages. If the Corporation fails to deliver to a Holder such Conversion Shares pursuant to Section 6(c)(i) by the Share Delivery Date applicable to such conversion, the Corporation shall pay to such Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Stated Value of Preferred Stock being converted, $10 per Trading Day for each Trading Day after the Share Delivery Date until such Conversion Shares are delivered or the Holder rescinds such conversion. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

iv. Compensation for Buy-In on Failure to Timely Deliver Conversion Shares Upon Conversion. In addition to any other rights available to the Holder, if the Corporation fails for any reason to deliver to a Holder the applicable Conversion Shares by the Share Delivery Date pursuant to Section 6(c)(i), and if after such Share Delivery Date such Holder is required by its brokerage firm 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 such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "**Buy-In**"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount, if any, by which (x) such Holder's total purchase price (including any brokerage commissions) for the Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Preferred Stock equal to the number of shares of Preferred Stock submitted for conversion (in which case, such conversion shall be deemed rescinded) or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(c)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted conversion of shares of Preferred Stock with respect to which the actual sale price of the Conversion Shares (including any brokerage commissions) giving rise to such purchase obligation was a total of $10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder $1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to such Holder in respect of the Buy-In and, upon request of the Corporation, 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 Corporation's failure to timely deliver Conversion Shares upon conversion of the shares of Preferred Stock as required pursuant to the terms hereof.

v. Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Preferred Stock as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holder (and the other holders of the Preferred Stock), not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments and restrictions of Section 7) upon the conversion of the then outstanding shares of Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and nonassessable.

vi. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the conversion of the Preferred Stock. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such conversion, the Corporation 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 Conversion Price or round up to the next whole share.

vii. Transfer Taxes and Expenses. The issuance of Conversion Shares on conversion of the Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such Conversion Shares, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such Conversion Shares upon conversion in a name other than that of the Holders of such shares of Preferred Stock and the Corporation shall not be required to issue or deliver such Conversion Shares unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Conversion and all fees to the DTC (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Conversion Shares.

d) Beneficial Ownership Limitation. Notwithstanding anything to the contrary herein, the Corporation shall not effect any conversion of the Preferred Stock, and a Holder shall not have the right to convert any portion of the Preferred Stock, to the extent that, after giving effect to the conversion set forth on the applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any Persons acting as a group together with such Holder or any of such Holder's Affiliates (such Persons, "**Attribution Parties**")) would beneficially own 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 such Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Preferred Stock with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted Stated Value of Preferred Stock beneficially owned by such Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including, without limitation, the Preferred Stock) beneficially owned by such Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 6(d), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 6(d) applies, the determination of whether the Preferred Stock is convertible (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and of how many shares of Preferred Stock are convertible shall be in the sole discretion of such Holder, and the submission of a Notice of Conversion shall be deemed to be such Holder's determination of whether the shares of Preferred Stock may be converted (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and how many shares of Preferred Stock are convertible, in each case subject to the Beneficial Ownership Limitation. To ensure compliance with this restriction, each Holder will be deemed to represent to the Corporation each time it delivers a Notice of Conversion that such conversion will not violate the restrictions set forth in this paragraph and the Corporation shall have no obligation to verify or confirm the accuracy of such representation. 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. For purposes of this Section 6(d), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (i) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (ii) a more recent public announcement by the Corporation or (iii) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request (which may be via email) of a Holder, the Corporation shall within two (2) Trading Days confirm orally and in writing to such 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 Corporation, including the Preferred Stock, by such 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% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Preferred Stock held by the applicable Holder. A Holder, upon not less than sixty-one (61) days' prior notice to the Corporation, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 6(d) applicable to its Preferred Stock provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon conversion of this Preferred Stock held by the Holder and the provisions of this Section 6(d) shall continue to apply. Any such increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Corporation and shall only apply to such Holder and no other Holder. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6(d) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation contained herein 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 Preferred Stock.

e) Principal Market Regulation. The Corporation shall not issue any shares of Common Stock upon conversion of any shares of Preferred Stock or otherwise pursuant to the terms of this Certificate of Designations if the issuance of such shares of Common Stock would exceed the aggregate number of shares of Common Stock which the Corporation may issue upon conversion of the Preferred Stock or otherwise pursuant to the terms of this Certificate of Designations without breaching the Corporation's obligations under the rules or regulations of the principal Trading Market (the number of shares which may be issued without violating such rules and regulations, the "**Exchange Cap**"), except that such limitation shall not apply in the event that the Corporation (i) obtains the approval of its stockholders as required by the applicable rules of the principal Trading Market for issuances of shares of Common Stock in excess of such amount, (ii) obtains a written opinion from outside counsel to the Corporation that such approval is not required, which opinion shall be reasonably satisfactory to the Holders of a majority of the then outstanding shares of Preferred Stock or (iii) issues the Preferred Stock through an effective registration statement in connection with a public offering in accordance with the rules and regulations of the principal Trading Market. Until such approval or such written opinion is obtained or unless such effective registration statement is available, no Holder shall be issued in the aggregate, upon conversion of any Preferred Stock or otherwise pursuant to the terms of this Certificate of Designations, shares of Common Stock in an amount greater than the product of (A) the Exchange Cap as of the Original Issue Date multiplied by (B) the quotient of (1) the aggregate original Stated Value of the Preferred Stock issued to such Holder divided by (2) the aggregate original Stated Value of the Preferred Stock issued to all Holders (with respect to each Holder, the "**Exchange Cap Allocation**"). In the event that any Holder shall sell or otherwise transfer any of such Holder's shares of Preferred Stock, the transferee shall be allocated a pro rata portion of such Holder's Exchange Cap Allocation with respect to such portion of such shares of Preferred Stock so transferred, and the restrictions of the prior sentence shall apply to such transferee with respect to the portion of the Exchange Cap Allocation so allocated to such transferee. Upon conversion in full of a Holder's Preferred Stock, the difference (if any) between such Holder's Exchange Cap Allocation and the number of shares of Common Stock actually issued to such Holder upon such Holder's conversion in full of such Preferred Stock shall be allocated to the respective Exchange Cap Allocations of the remaining Holders of Preferred Stock on a pro rata basis in proportion to the shares of Common Stock underlying the Preferred Stock then held by each such Holder of Preferred Stock. In the event that the Corporation is prohibited from issuing any shares of Common Stock pursuant to this Section 6(e) (the "**Exchange Cap Shares**") to a Holder, the Corporation shall pay cash to such Holder in exchange for the redemption of such number of shares of Preferred Stock held by the Holder that are not convertible into such Exchange Cap Shares at a price equal to the sum of (i) the product of (A) such number of Exchange Cap Shares and (B) the Closing Sale Price on the Trading Day immediately preceding the date such Holder delivers the applicable Notice of Conversion with respect to such Exchange Cap Shares to the Corporation and (ii) to the extent such Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Holder of Exchange Cap Shares, brokerage commissions, if any, of such Holder incurred in connection therewith.

Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while this Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, this Preferred Stock), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event, and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to this Section 7(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 re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 7(a) above, if at any time the Corporation 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 any class of 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 conversion of such Holder's Preferred Stock (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, 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).

c) Pro Rata Distributions. During such time as this Preferred Stock is outstanding, if the Corporation declares or makes any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "**Distribution**"), at any time after the issuance of this Preferred Stock, 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 conversion of this Preferred Stock (without regard to any limitations on conversion 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, 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).

d) Fundamental Transaction. If, at any time while this Preferred Stock is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation 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 50% or more of the outstanding Common Stock, (iv) the Corporation, 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, or (v) the Corporation, 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 or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "**Fundamental Transaction**"), then, upon any subsequent conversion of this Preferred Stock, the Holder shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of this Preferred Stock), the number of shares of Common Stock of the successor or acquiring corporation or of the Corporation, 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 Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of this Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one (1) share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion 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 conversion of this Preferred Stock following such Fundamental Transaction. The amount of any consideration to be received by a Holder in connection with a Fundamental Transaction shall be payable in the same type or form of consideration (and in the same proportion) that is being offered and paid to the holders of Common Stock of the Corporation 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. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the foregoing provisions and evidencing the Holders' right to convert such preferred stock into Alternate Consideration. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the "**Successor Entity**") to assume in writing all of the obligations of the Corporation under this Certificate of Designation in accordance with the provisions of this Section 7(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the holder of this Preferred Stock, deliver to the Holder in exchange for this Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Preferred Stock, which is convertible 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 conversion of this Preferred Stock (without regard to any limitations on the conversion of this Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the conversion 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 conversion price being for the purpose of protecting the economic value of this Preferred Stock 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 Certificate of Designation referring to the "Corporation" shall refer instead to the Successor Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation with the same effect as if such Successor Entity had been named as the Corporation herein. For the avoidance of doubt, if, at any time while this Preferred Stock is outstanding, a Fundamental Transaction occurs, pursuant to the terms of this Section 7(d), the Holder shall not be entitled to receive more than one of (i) the consideration receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Preferred Stock is convertible immediately prior to such Fundamental Transaction or (ii) the assumption by the Successor Entity of all of the obligations of the Corporation under this Certificate of Designation and the option to receive a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Certificate of Designation.

f) Subsequent Equity Sales. If, while at any time that shares of the Preferred Stock are outstanding, the Corporation or any Subsidiary, as applicable sells or grants any option to purchase or sells or grants any right to reprice, or otherwise disposes of or issues (or announces any sale, grant or any option to purchase or other disposition), any Common Stock or Common Stock Equivalents entitling any Person to acquire shares of Common Stock at an effective price per share that is lower than the then Conversion Price (such lower price, the "**Base Conversion Price**" and such issuances, collectively, a "**Dilutive Issuance**") (if the holder of the Common Stock or Common Stock Equivalents so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, make-whole provisions that result in the payment or issuance of cash, shares of Common Stock or any other consideration, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which are issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share that is lower than the Conversion Price, such issuance shall be deemed to have occurred for less than the Conversion Price on such date of the Dilutive Issuance), then the Conversion Price shall be reduced to equal the higher of the (i) Base Conversion Price or (ii) $0.05 (the "**Floor Price**"), which Floor Price shall be subject to adjustment in accordance with Section 7(a). For the avoidance of doubt, if more than one security is issued in a transaction that is being analyzed to determine whether a Dilutive Issuance has occurred and/or to determine a Base Conversion Price, each security so issued shall be analyzed separately with respect to such determinations such that the lowest effective price per share with respect to each such security shall be used. For example, if the existing conversion price hereunder is $1.00 and the Corporation issues units for $0.90 per unit, with each unit comprised of one (1) share of Common Stock and one (1) warrant exercisable for one (1) share of Common Stock, which new warrant has an exercise price of $1.50 per share, the Base Conversion Price will be $0.90. Notwithstanding the foregoing, no adjustment will be made under this Section 7(f) in respect of an Exempt Issuance. The Corporation shall notify the Holders in writing, no later than the Trading Day following the issuance of any Common Stock or Common Stock Equivalents subject to this Section 7(f), indicating therein the applicable issuance price, or applicable reset price, exchange price, conversion price and other pricing terms (such notice, the "**Dilutive Issuance Notice**"). For purposes of clarification, whether or not the Corporation provides a Dilutive Issuance Notice pursuant to this Section 7(f), upon the occurrence of any Dilutive Issuance, the Holders are entitled to receive a number of Conversion Shares based upon the Base Conversion Price on or after the date of such Dilutive Issuance, regardless of whether a Holder accurately refers to the Base Conversion Price in the Notice of Conversion. For all purposes of the foregoing (including, without limitation, determining the Base Conversion Price under this Section 7(f)), the following shall be applicable:

i. Issuance of Options. If the Corporation in any manner grants or sells any Options and the lowest price per share for which one share of Common Stock is at any time issuable upon the exercise of any such Option or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option or otherwise pursuant to the terms thereof is less than the Conversion Price then in effect, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Corporation at the time of the granting or sale of such Option for such price per share. For purposes of this Section 7(f)(i), the "lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Options or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option or otherwise pursuant to the terms thereof" shall be equal to (1) the lower of (x) the sum of the lowest amounts of consideration (if any) received or receivable by the Corporation with respect to any one share of Common Stock upon the granting or sale of such Option, upon exercise of such Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option or otherwise pursuant to the terms thereof and (y) the lowest exercise price set forth in such Option for which one share of Common Stock is issuable upon the exercise of any such Options or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option or otherwise pursuant to the terms thereof minus (2) the sum of all amounts paid or payable to the holder of such Option (or any other Person) upon the granting or sale of such Option, upon exercise of such Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option or otherwise pursuant to the terms thereof plus the value of any other consideration received or receivable by, or benefit conferred on, the holder of such Option (or any other Person). Except as contemplated below, no further adjustment of the Conversion Price shall be made upon the actual issuance of such shares of Common Stock or of such Convertible Securities upon the exercise of such Options or otherwise pursuant to the terms of or upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities.

ii. Issuance of Convertible Securities. If the Corporation in any manner issues or sells any Convertible Securities and the lowest price per share for which one share of Common Stock is at any time issuable upon the conversion, exercise or exchange thereof or otherwise pursuant to the terms thereof is less than the Conversion Price then in effect, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Corporation at the time of the issuance or sale of such Convertible Securities for such price per share. For the purposes of this Section 7(f)(ii), the "lowest price per share for which one share of Common Stock is issuable upon the conversion, exercise or exchange thereof or otherwise pursuant to the terms thereof" shall be equal to (1) the lower of (x) the sum of the lowest amounts of consideration (if any) received or receivable by the Corporation with respect to one share of Common Stock upon the issuance or sale of the Convertible Security and upon conversion, exercise or exchange of such Convertible Security or otherwise pursuant to the terms thereof and (y) the lowest conversion price set forth in such Convertible Security for which one share of Common Stock is issuable upon conversion, exercise or exchange thereof or otherwise pursuant to the terms thereof minus (2) the sum of all amounts paid or payable to the holder of such Convertible Security (or any other Person) upon the issuance or sale of such Convertible Security plus the value of any other consideration received or receivable by, or benefit conferred on, the holder of such Convertible Security (or any other Person). Except as contemplated below, no further adjustment of the Conversion Price shall be made upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities or otherwise pursuant to the terms thereof, and if any such issuance or sale of such Convertible Securities is made upon exercise of any Options for which adjustment of the Conversion Price has been or is to be made pursuant to other provisions of this Section 7(f), except as contemplated below, no further adjustment of the Conversion Price shall be made by reason of such issuance or sale.

iii. Change in Option Price or Rate of Conversion. If the purchase or exercise price provided for in any Options, the additional consideration, if any, payable upon the issue, conversion, exercise or exchange of any Convertible Securities, or the rate at which any Convertible Securities are convertible into or exercisable or exchangeable for shares of Common Stock increases or decreases at any time (other than proportional changes in conversion or exercise prices, as applicable, in connection with an event referred to in Section 7(a)), the Conversion Price in effect at the time of such increase or decrease shall be adjusted to the Conversion Price which would have been in effect at such time had such Options or Convertible Securities provided for such increased or decreased purchase price, additional consideration or increased or decreased conversion rate, as the case may be, at the time initially granted, issued or sold. For purposes of this Section 7(f)(iii), if the terms of any Option or Convertible Security that was outstanding as of the Initial Exercise Date are increased or decreased in the manner described in the immediately preceding sentence, then such Option or Convertible Security and the shares of Common Stock deemed issuable upon exercise, conversion or exchange thereof shall be deemed to have been issued as of the date of such increase or decrease. No adjustment pursuant to this Section 7(f) shall be made if such adjustment would result in an increase of the Conversion Price then in effect.

iv. Calculation of Consideration Received. If any shares of Common Stock, Options or Convertible Securities are issued or sold or deemed to have been issued or sold for cash, the consideration received therefor will be deemed to be the gross amount of consideration received by the Corporation therefor (without deduction for underwriting discounts, commissions or the like). If any shares of Common Stock, Options or Convertible Securities are issued or sold for a consideration other than cash, the amount of such consideration received by the Corporation will be the fair value of such consideration, except where such consideration consists of publicly traded securities, in which case the amount of consideration received by the Corporation for such securities will be the arithmetic average of the VWAPs of such security for each of the five (5) Trading Days immediately preceding the date of receipt. If any shares of Common Stock, Options or Convertible Securities are issued to the owners of the non-surviving entity in connection with any merger in which the Corporation is the surviving entity, the amount of consideration therefor will be deemed to be the fair value of such portion of the net assets and business of the non-surviving entity as is attributable to such shares of Common Stock, Options or Convertible Securities (as the case may be). The fair value of any consideration other than cash or publicly traded securities will be determined jointly by the Corporation and the Holder. If such parties are unable to reach agreement within ten (10) days after the occurrence of an event requiring valuation (the "**Valuation Event**"), the fair value of such consideration will be determined within five (5) Trading Days after the tenth (10^{th}) day following such Valuation Event by an independent, reputable appraiser jointly selected by the Corporation and the Holder. The determination of such appraiser shall be final and binding upon all parties absent manifest error and the fees and expenses of such appraiser shall be borne by the Corporation.

v. Record Date. If the Corporation takes a record of the holders of shares of Common Stock for the purpose of entitling them (A) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (B) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issuance or sale of the shares of Common Stock deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase (as the case may be).

g) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, 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 any treasury shares of the Corporation) issued and outstanding.

h) Notice to the Holders.

i. Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Conversion by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of this Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at least fifteen (15) calendar days prior to the applicable record or effective date hereinafter specified, 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 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 Common Stock of record shall be entitled to exchange their shares of the 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. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to convert the Conversion Amount of this Preferred Stock (or any part hereof) during the 15-day period commencing on the date of such notice through the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 8. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by facsimile, by email or sent by a nationally recognized overnight courier service, addressed to the Corporation at:

iBio, Inc.
600 Madison Avenue, Suite 1601
New York, NY 10022-1737
Facsimile: 302-356-1173
Email: robertbkay@ibioinc.com
Attention: Robert B. Kay

with a copy (for informational purposes only) to:

Andrew Abramowitz, PLLC
565 Fifth Avenue, 9th Floor
New York, NY 10017
Facsimile: (212) 972-8883
Email: aa@aalegalnyc.com
Attention: Andrew Abramowitz, Esq.

or such other facsimile number, email address or address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section 8. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, by email or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, email address or address of such Holder appearing on the books of the Corporation, or if no such facsimile number, email address or address appears on the books of the Corporation, at the principal place of business of such Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address set forth in this Section 8 prior to 12:00 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address set forth in this Section 8 on a day that is not a Trading Day or later than 12:00 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the Person to whom such notice is required to be given. Notwithstanding any other provision of this Certificate of Designation, where this Certificate of Designation provides for notice of any event to a Holder, if the Preferred Stock is held in global form by DTC (or any successor depositary), such notice may be delivered via DTC (or such successor depositary) pursuant to the procedures of DTC (or such successor depositary).

b) Absolute Obligation. Except as expressly provided herein, no provision of this Certificate of Designation shall alter or impair the obligation of the Corporation, which is absolute and unconditional, to pay liquidated damages and accrued dividends, as applicable, on the shares of Preferred Stock at the time, place, and rate, and in the coin or currency, herein prescribed.

c) Lost or Mutilated Preferred Stock Certificate. If a Holder's Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership hereof reasonably satisfactory to the Corporation.

d) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of Delaware, without regard to the principles of conflict of laws thereof. Each of the Corporation and each Holder agrees that all legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by this Certificate of Designation (whether brought against the Corporation, a Holder or any of their respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the "**New York Courts**"). Each of the Corporation and each Holder hereby irrevocably submits to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such proceeding. Each of the Corporation and each Holder hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such Person at the address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. Each of the Corporation and each Holder 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 Certificate of Designation or the transactions contemplated hereby. If the Corporation or any Holder shall commence an action or proceeding to enforce any provisions of this Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

e) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that Person (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation on any other occasion. Any waiver by the Corporation or a Holder must be in writing.

f) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

g) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

h) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

i) Status of Converted or Redeemed Preferred Stock. If any shares of Preferred Stock shall be converted, redeemed or reacquired by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series C Convertible Preferred Stock.

j) Transfer of Preferred Stock. A Holder may transfer some or all of its shares of Preferred Stock without the consent of the Corporation in accordance with applicable securities laws. If a Holder transfers any shares of Preferred Stock, as applicable, the Holder shall surrender the certificate representing the Preferred Stock to the Corporation, whereupon the Corporation will forthwith issue and deliver upon the order of such Holder a new certificate representing the Preferred Stock, registered as such Holder may request, representing the outstanding number of shares of Preferred Stock being transferred by such Holder and, if less than the entire outstanding shares of Preferred Stock is being transferred, a new certificate to such Holder representing the outstanding shares of Preferred Stock not being transferred.

k) Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief. The remedies provided in this Certificate of Designations shall be cumulative and in addition to all other remedies available under this Certificate of Designations, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the Holder's right to pursue actual and consequential damages for any failure by the Corporation to comply with the terms of this Certificate of Designations. The Corporation covenants to the Holder that there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Corporation (or the performance thereof). The Corporation acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Corporation therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any such breach or any such threatened breach, without the necessity of showing economic loss and without any bond or other security being required. The Corporation shall provide all information and documentation to the Holder that is requested by the Holder to enable the Holder to confirm the Corporation's compliance with the terms and conditions of this Certificate of Designations.

l) Amendments. This Certificate of Designations or any provision hereof may be amended by obtaining the affirmative vote at a meeting duly called for such purpose, or written consent without a meeting in accordance with the DGCL, of the Holders of a majority of the then outstanding shares of Preferred Stock, voting separately as a single class, and with such other stockholder approval, if any, as may then be required pursuant to the DGCL and the Certificate of Incorporation.

****

RESOLVED, FURTHER, that the Chairman, the president or any vice-president, and the secretary or any assistant secretary, of the Corporation be and they hereby are authorized and directed to prepare and file this Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock in accordance with the foregoing resolution and the provisions of Delaware law.

[Signature page follows]

IN WITNESS WHEREOF, the Corporation has caused the undersigned to execute this Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock on this [ ] day of October 2019.

IBIO, INC.

By: _____
Name: Robert B. Kay
Title: Chief Executive Officer

ANNEX A

NOTICE OF CONVERSION

Reference is made to the Certificate of Designations of Preferences, Rights and Limitations (the "**Certificate of Designations**") of the Series C Convertible Preferred Stock, par value $0.001 per share (the "**Preferred Stock**"), of iBio, Inc., a Delaware corporation (the "**Corporation**"). In accordance with and pursuant to the Certificate of Designations, the undersigned hereby elects to convert the number of shares of Preferred Stock indicated below into shares of common stock, par value $0.001 per share, of the Corporation (the "**Common Stock**"), as of the date specified below. If shares of Common Stock are to be issued in the name of a Person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. No fee will be charged to the Holder for any conversion, except for any such transfer taxes.

Conversion calculations:

Date to Effect Conversion: _____

Number of shares of Preferred Stock owned prior to Conversion: _____

Number of shares of Preferred Stock to be Converted: _____

Aggregate Stated Value of shares of Preferred Stock to be Converted: _____

Number of shares of Common Stock to be Issued: _____

Applicable Conversion Price:_____

Number of shares of Preferred Stock subsequent to Conversion: _____

Address for Delivery: _____

or

DWAC Instructions:

DTC Participant: _____

DTC No: _____

Account No: _____

[HOLDER]

By: _____
Name:
Title:

Date: _____ ___, _____

Exhibit 5.1

ANDREW ABRAMOWITZ, PLLC
565 Fifth Avenue, 9th Floor
New York, New York 10017

October 23, 2019

iBio, Inc.
600 Madison Avenue, Suite 1601
New York, New York 10022

Dear Sirs:

We have acted as counsel to iBio, Inc., a Delaware corporation (the "Company") in connection with the Registration Statement on Form S-1 (333-233504), as amended through the date hereof, filed by the Company with the Securities and Exchange Commission (the "Commission") on August 28, 2019 (as it may be amended the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"). The Registration Statement relates to the underwritten public offering (the "Offering") of shares of the Company's common stock, par value $.001 per share ("Common Shares"), shares of the Company's Series C Convertible Preferred Stock, $0.001 par value ("Series C Preferred Shares" and together with the Common Shares, the "Shares"), Series A Warrants to purchase shares of the Company's common stock ("Series A Warrants") and Series B Warrants to purchase shares of the Company's common stock (together with the Series A Warrants, the "Warrants"), to certain purchasers. The Shares and Warrants are being sold to the underwriter named in, and pursuant to, an underwriting agreement to be entered into by and among the Company and such underwriter.

We have examined the originals, or certified, conformed or reproduction copies, of all such records, agreements, instruments and documents as we have deemed relevant or necessary as the basis for the opinion hereinafter expressed. In all such examinations, we have assumed the genuineness of all signatures on originals or certified copies and the conformity to original or certified copies of all copies submitted to us as conformed or reproduction copies. As to various questions of fact relevant to such opinion, we have relied upon, and assumed the accuracy of, certificates and oral or written statements and other information of or from public officials, officers or representatives of the Company, and others.

Based upon the foregoing, and the laws of the State of Delaware, we are of the opinion that (i) the Common Shares have been duly authorized and, when issued and sold in the manner described in the underwriting agreement and the Registration Statement, will be validly issued, fully paid and non-assessable, (ii) the Series C Preferred Shares have been duly authorized and, when issued and sold in the manner described in the underwriting agreement and the Registration Statement, and in accordance with the Certificate of Designation, Preferences and Rights for the Series C Convertible Preferred Stock, which is to be filed with the Delaware Secretary of State prior to the issuance of shares of the Series C Preferred Stock (the "Series C Certificate of Designation"), will be validly issued, fully paid and non-assessable, (iii) the shares of common stock issuable upon conversion of the Series C Preferred Shares, when issued upon conversion of Series C Preferred Shares in accordance with the Series C Certificate of Designation, will be validly issued, fully paid and non-assessable, and (v) the Warrants, when issued and sold in accordance with the underwriting agreement and the Registration Statement, will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting creditors' rights generally and by general equitable principles (regardless of whether such enforceability is considered in a proceeding at law or in equity) and implied covenants of good faith and fair dealings, and the shares of common stock underlying the Warrants, when issued and sold against payment therefor in accordance with the terms of the Warrants and in accordance with the underwriting agreement and the Registration Statement, will be duly authorized, validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the prospectus forming a part of the Registration Statement.

Very truly yours,
/s/ ANDREW ABRAMOWITZ, PLLC

Exhibit 10.15

LEAK-OUT AGREEMENT

October ●, 2019

This agreement (the "**Leak-Out Agreement**") is being delivered to you in connection with an understanding by and between iBio, Inc., a Delaware corporation (the "**Company**"), and the person or persons named on the signature pages hereto (collectively, the "**Holder**").

Reference is hereby made to (a) the Underwriting Agreement, dated October ●, 2019, by and among the Company and A.G.P./Alliance Global Partners ("**AGP**"), as representative of the several underwriters, in connection with the follow-on underwritten public offering (the "**Offering**") of the Company (the "**UA**") pursuant to which the Holder and certain other purchasers acquired (i) shares of Common Stock of the Company ("**Shares**"), (ii) Series C Convertible Preferred Stock (the "**Preferred**"), whose terms are governed by a certain Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock, dated October ●, 2019 (the "**CoD**"), and (iii) warrants of the Company to purchase Shares, the "**Firm Common Warrants**," and together with the Shares and Preferred, the "**Securities**") and (b) the registration statement on Form S-1 (File No. 333-233504) ("**Registration Statement**"). Capitalized terms not defined herein shall have the meaning as set forth in the UA, unless otherwise set forth herein.

The Holder agrees solely with the Company that from the pricing date of the Offering that the UA is entered into by the Company and AGP (the "**Effective Date**") and ending at 4:00 pm (New York City time) on _____, 2019[1] (such period, the "**Restricted Period**"), neither the Holder, nor any affiliate of such Holder which (x) had or has knowledge of the transactions contemplated by the UA, (y) has or shares discretion relating to such Holder's investments or trading or information concerning such Holder's investments, including in respect of the Securities, or (z) is subject to such Holder's review or input concerning such affiliate's investments or trading (together, the " **Holder's Trading Affiliates**"), collectively, shall sell, dispose or otherwise transfer, directly or indirectly, (including, without limitation, any sales, short sales, swaps or any derivative transactions that would be equivalent to any sales or short positions) on any Trading Day during the Restricted Period (any such date, a "**Date of Determination**"), shares of Common Stock of the Company, or shares of common stock of the Company underlying any Convertible Securities or Options (each as defined in the CoD), held by the Holder on the date hereof, as well as the Shares and the shares of Common Stock of the Company issuable upon exercise of the Preferred and Firm Common Warrants (collectively, the "**Restricted Securities**"), in an amount representing more than [ ]%[2] of the average daily volume of Common Stock as reported by Bloomberg, LP on each applicable Date of Determination ("**Leak-Out Percentage**"); provided that the Leak-Out Percentage shall not be in effect on any day on which the price of the Common Stock trades by 200% over the Public Offering Price; provided, further, that the foregoing restriction shall not apply to any actual "long" (as defined in Regulation SHO of the Securities Exchange Act of 1934, as amended) sales by the Holder or any of the Holder's Trading Affiliates at a price greater than $0.● (in each case, as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar events occurring after the date hereof).

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1 *35 days*

2 *Pro rata portion of 35% among investors executing Leak-Out Agreements, based on the aggregate amount to be paid by each such investor for the Securities.*

Notwithstanding anything herein to the contrary, during the Restricted Period, the Holder may, directly or indirectly, sell or transfer all, or any part, of any Restricted Securities to any Person (an "**Assignee**") in a transaction which does not need to be reported on the consolidated tape on the Principal Market, without complying with (or otherwise limited by) the restrictions set forth in this Leak-Out Agreement; provided, that as a condition to any such sale or transfer an authorized signatory of the Company and such Assignee duly execute and deliver a leak-out agreement in the form of this Leak-Out Agreement (an "**Assignee Agreement**", and each such transfer a "**Permitted Transfer**") and, subsequent to a Permitted Transfer, sales of the Holder and the Holder's Trading Affiliates and all Assignees (other than any such sales that constitute Permitted Transfers) shall be aggregated for all purposes of this Leak-Out Agreement and all Assignee Agreements.

Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Leak-Out Agreement must be in writing and shall be given in accordance with the terms of the UA.

This Leak-Out Agreement constitutes the entire agreement among the parties hereto with respect to the subject matter hereof and supersedes all prior negotiations, letters and understandings relating to the subject matter hereof and are fully binding on the parties hereto.

This Leak-Out Agreement may be executed simultaneously in any number of counterparts. Each counterpart shall be deemed to be an original, and all such counterparts shall constitute one and the same instrument. This Leak-Out Agreement may be executed and accepted by facsimile or PDF signature and any such signature shall be of the same force and effect as an original signature.

The terms of this Leak-Out Agreement shall be binding upon and shall inure to the benefit of each of the parties hereto and their respective successors and assigns.

This Leak-Out Agreement may not be amended or modified except in writing signed by each of the parties hereto.

All questions concerning the construction, validity, enforcement and interpretation of this Leak-Out Agreement shall be governed by the applicable provisions of the UA.

Each party hereto acknowledges that, in view of the uniqueness of the transactions contemplated by this Leak-Out Agreement, the other party or parties hereto may not have an adequate remedy at law for money damages in the event that this Leak-Out Agreement has not been performed in accordance with its terms, and therefore agrees that such other party or parties shall be entitled to seek specific enforcement of the terms hereof in addition to any other remedy it may seek, at law or in equity.

The Holder acknowledges that it is not a party to the UA and AGP has acted as representative of the several underwriters and all of the purchasers in the Offering. The obligations of the Holder under this Leak-Out Agreement are several and not joint with the obligations of any other holder of any of the Securities issued under the UA (each, an "**Other Holder**") or any other holder of any of the Securities issued under the Registration Statement that is not a signatory to the UA (each, a '**Prospectus Purchaser Other Holder**") under any other agreement, and the Holder shall not be responsible in any way for the performance of the obligations of any Other Holder or any Prospectus Purchaser Other Holder under any such other agreement. Nothing contained in this Leak-Out Agreement, and no action taken by the Holder pursuant hereto, shall be deemed to constitute the Holder and Other Holders or any Prospectus Purchaser Other Holder as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Holder and the Other Holders or any Prospectus Purchaser Other Holder are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by this Leak-Out Agreement and the Company acknowledges that the Holder and the Other Holders or any Prospectus Purchaser Other Holder are not acting in concert or as a group with respect to such obligations or the transactions contemplated by this Leak-Out Agreement or any other agreement. The Company and the Holder confirm that the Holder has independently participated in the negotiation of the transactions contemplated hereby with the advice of its own counsel and advisors. The Holder shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Leak-Out Agreement, and it shall not be necessary for any Other Holder or any Prospectus Purchaser Other Holder to be joined as an additional party in any proceeding for such purpose.

The Company hereby represents and warrants as of the date hereof and covenants and agrees from and after the date hereof that none of the terms offered to any Other Holder or any Prospectus Purchaser Other Holder that purchases $250,000 or more of the Securities in the Offering with respect to any restrictions on the sale of Securities substantially in the form of this Leak-Out Agreement (or any amendment, modification, waiver or release thereof) (each a "**Settlement Document**"), is or will be more favorable to such Other Holder than those of the Holder and this Leak-Out Agreement. If, and whenever on or after the date hereof, the Company enters into a Settlement Document with terms that are materially different from this Leak-Out Agreement, then (i) the Company shall provide notice thereof to the Holder promptly following the occurrence thereof and (ii) the terms and conditions of this Leak-Out Agreement shall be, without any further action by the Holder or the Company, automatically amended and modified in an economically and legally equivalent manner such that the Holder shall receive the benefit of the more favorable terms and/or conditions (as the case may be) set forth in such Settlement Document, provided that upon written notice to the Company at any time the Holder may elect not to accept the benefit of any such amended or modified term or condition, in which event the term or condition contained in this Leak-Out Agreement shall apply to the Holder as it was in effect immediately prior to such amendment or modification as if such amendment or modification never occurred with respect to the Holder. The provisions of this paragraph shall apply similarly and equally to each Settlement Document.

[The remainder of the page is intentionally left blank]

The parties hereto have executed this Leak-Out Agreement as of the date first set forth above.

Sincerely,

IBIO, INC.

By: _____
Name:
Title:

Agreed to and Accepted:

"HOLDER"

By: _____
Name:
Title:

Acknowledged:

A.G.P./Alliance Global Partners
By: A.G.P./Alliance Global Partners

By: _____
Name:
Title:

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
iBio, Inc.

We consent to the incorporation by reference in this Amendment No. 2 to the Registration Statement on Form S-1/A (File No. 333-233504) of iBio, Inc. of our report, dated August 26, 2019, which includes an explanatory paragraph relating to the Company's ability to continue as a going concern, on our audits of the consolidated financial statements of iBio, Inc. and Subsidiaries as of June 30, 2019 and 2018 and for the years then ended, which report is included in the Annual Report on Form 10-K of iBio, Inc. for the year ended June 30, 2019. We also consent to the reference to our firm under the caption "Experts".

/s/ CohnReznick LLP

Roseland, New Jersey

October 23, 2019