



## Enabling Next-Gen Biologics with the *FastPharming System*<sup>™</sup>

- **CDMO:** Rapid delivery of eco-friendly, high-quality biologics for biotech, biopharm, academic and government clients
- **Therapeutics/Vaccines:** Proprietary product development using *FastPharming* Technologies



## Free Writing Prospectus Disclosure

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- Issuer Free Writing Prospectus Issued Pursuant to SEC Rule 433
- This free writing prospectus relates to the proposed public offering of shares of common stock, shares of Series C Convertible Preferred Stock and warrants to purchase common stock of iBio, Inc. (the “Company”) all of which are being registered on a Registration Statement on Form S-1 (No. **333-233504**) (the “Registration Statement”). This free writing prospectus should be read together with the preliminary prospectus dated August 28, 2019 included in that Registration Statement, which can be accessed through the following link:

[https://www.sec.gov/Archives/edgar/data/1420720/000114420419042112/tv528322\\_s-1.htm](https://www.sec.gov/Archives/edgar/data/1420720/000114420419042112/tv528322_s-1.htm)

- Before you invest, you should read the preliminary prospectus in that registration statement (including the risk factors described therein) and other documents the Company has filed with the SEC for more complete information about the Company and this offering. You may get these documents for free by visiting EDGAR on the SEC Web site at [www.sec.gov](http://www.sec.gov). Alternatively, the Company, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it by calling: 1-800-727-7922.

## Forward-Looking Statements

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STATEMENTS INCLUDED IN THIS PRESENTATION RELATED TO IBIO, INC. MAY CONSTITUTE FORWARD-LOOKING STATEMENTS WITHIN THE MEANING OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995. SUCH STATEMENTS INVOLVE A NUMBER OF RISKS AND UNCERTAINTIES SUCH AS COMPETITIVE FACTORS, TECHNOLOGICAL DEVELOPMENT, MARKET DEMAND, AND THE COMPANY'S ABILITY TO OBTAIN NEW CONTRACTS AND ACCURATELY ESTIMATE NET REVENUES DUE TO VARIABILITY IN SIZE, SCOPE AND DURATION OF PROJECTS. FURTHER INFORMATION ON POTENTIAL RISK FACTORS THAT COULD AFFECT THE COMPANY'S FINANCIAL RESULTS CAN BE FOUND IN THE COMPANY'S REPORTS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

## Offering Summary

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<b>Issuer</b>	<b>iBio, Inc.</b>
Exchange / Ticker	NYSE American: IBIO
Offering Size	Up to \$15M (100% Secondary)
Over Allotment	15% (100% Secondary)
Offering Details	Common Stock, Preferred Stock and Warrants
Use of Proceeds	We intend to use the net proceeds from this offering for working capital and general corporate purposes
Sole Book-Runner	A.G.P / Alliance Global Partners

## Management Team

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**Robert B. Kay, CEO and Executive Chairman**

- Accomplished business strategist, senior manager with M&A, JV, international licensing expertise
- JD from New York University (NYU); BA from Cornell University

**Thomas F. Isett, Managing Director**

- Business leadership for bioprocess businesses during 25 combined years with GE, Lonza and BD
- Advisory and/or leadership roles in >\$20B of M&A transactions
- Founded BD Advanced Bioprocessing, Commence Bio, Inc., and i.e. Advising, LLC

**James P. Mullaney, CPA, Chief Financial Officer**

- 20+ years experience leading finance functional excellence
- Member of PwC's Audit practice, KPMG's CFO Advisory Services practice

**Terence E. Ryan, Ph.D., Chief Scientific Officer**

- 20+ years with Wyeth (Pfizer) Research, GlaxoSmithKline, Celera Genomics, and Regeneron
- Ph.D. and MS in Microbiology, Rutgers University; AB in Biology, Princeton University

**Robert L. Erwin, President**

- Founded Large Scale Biology Corporation
- Chairman, Icon Genetics AG for 7 years; current Chairman of the Board for privately held Novici Biotech

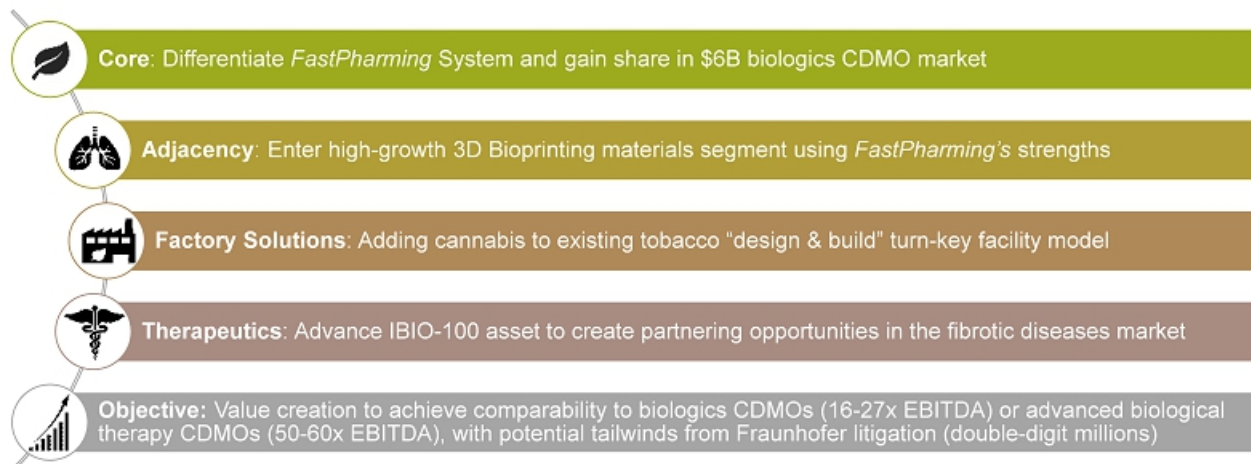
## New Management Actions: FQ4'19 – FQ1'20 Highlights

- Refreshed strategy
- Enhanced brand & commercial capabilities
  - New website & CRM
  - Tradeshow and symposia plan
  - Began hiring commercial team members
- Installed S&OP process to drive teamwork and financial rigor
- Re-evaluating proprietary product opportunities
  - IBIO-100 (formerly CFB-03)
  - Classical Swine Fever Vaccine
  - Bioprocess consumables

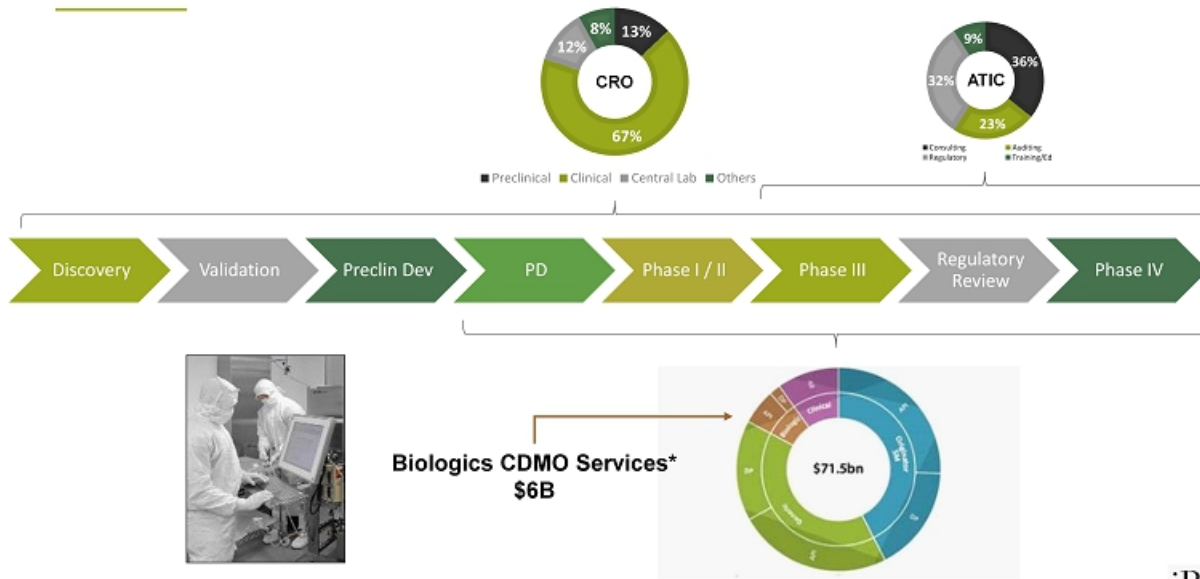
### New / Expanded, Announced Deals



## New Thrusts to Drive Shareholder Value



# Biological Medicines: Outsourcing Landscape



Enabling Next-Gen Biologics

\* Pharma & Biotech 2017 Review of outsourced manufacturing. [Resists Healthcare \(2017\)](#)



## Redefined, Differentiated “Core” Biologics CDMO Service Offering



## iBio: differentiated biologics CDMO offering + new Fill/Finish services

### FastPharming™ Biologics Mfg Services

- Ramping up global commercial capabilities
- New website/branding highlighting advantages
- **\$6B** biologics CDMO market growing >9%
- Introducing glycan engr. services for ↑ potency
- iBio expanding range into advanced biologics<sup>1</sup>



### Fill and Finish Services

- New F/F offering launched June 2019
- First (gene therapy) client won mid-June
- Favorable market conditions (supply constraints)
- Line extension for 5mL fills planned for Q3'FY20
- iBio revenue capacity >\$10M with line extension

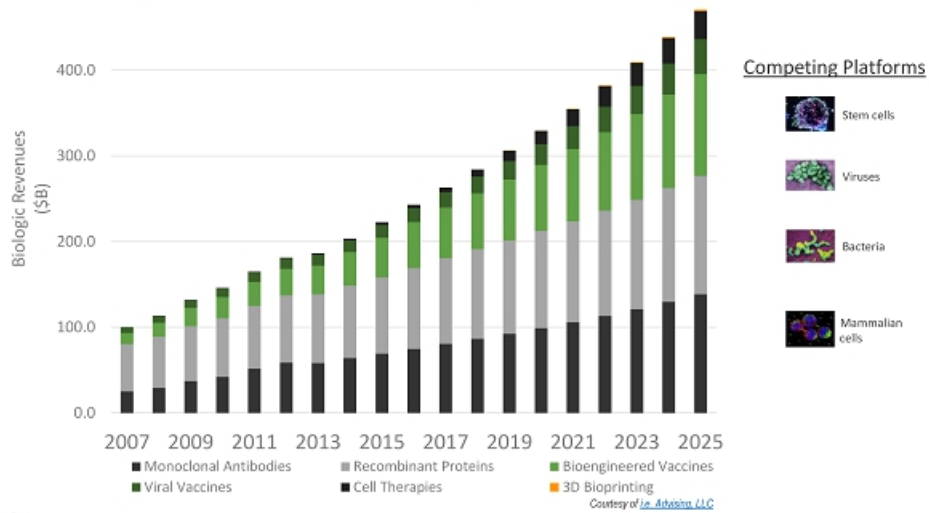


Enabling Next-Gen Biologics

**iBio**  
<sup>1</sup>Gene therapies, 3D-bioprinting & biofabrication materials, etc.

## Meanwhile, iBio remains well-positioned...

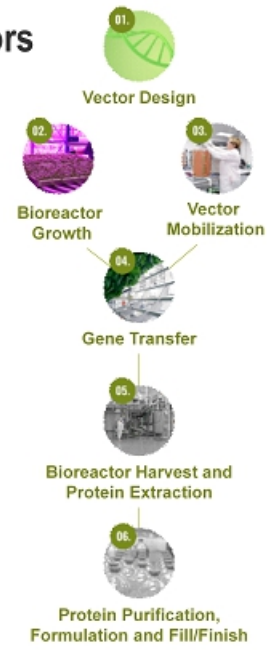
...to provide mfg services to the high-growth **\$275B biologics industry**



# iBio's *FastPharming* System uses Plants as Bioreactors

- **Faster:** Saves months in initial setup vs. mammalian systems
- **Better:**
  - ✓ No expensive, labor intensive cell line development
  - ✓ Avoids scale up challenges – just plant more plants
  - ✓ More glycosylation controls to help increase potency
  - ✓ Lower upfront facility expense v. mammalian/CHO
- **Safer:** No inherent adventitious agents from animal-derived components and no competency for agent replication
- **Greener:** Avoids plastic waste associated with "single-use systems" commonly deployed in mammalian cell culture operations

*Advantages of iBio's novel, plant-based manufacturing methods gaining traction*



# “Pharming” going mainstream

*“Compared with proteins derived from mammalian cells, proteins from genetically engineered plants are easy to scale up and synthesize with other proteins, and they remain stable at room temperature for longer periods”*

**WSJ**  
July 19, 2019

*“...timelines are constantly being challenged and there are continued calls for faster commercialization...the traditional processing methods [like CHO] are proving to be something of a bottleneck”*

*“Now that plant expression technology has matured and proven its commercial viability, it is increasingly recognized as a valid manufacturing option”*

**BioPharm International**  
June 1, 2019

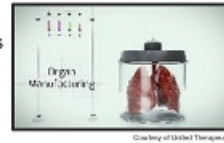


## Supporting 3D-Bioprinting of Organs with the *FastPharming* System

U.S. Organ Shortage



Demand gap + new biofabrication techs  
creating market for  
3D bioprinted tissues and organs...



>\$2B industry  
>\$1B supplies  
by 2025

- iBio's production of biologics in plants is uniquely suited for the manufacture of advanced bioinks for 3D Bioprinting
  - Safer: Mammalian viruses don't grow in plants
  - Quicker: *FastPharming* shortens time-to-market for clients
  - Better: Easier to scale-up high-quality biofabrication materials
- Announced multi-year bioink development and supply agreement with [United Therapeutics](#) in August 2019

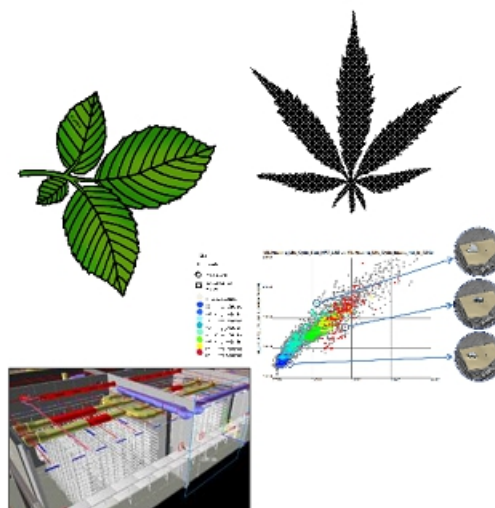
## Enabling Global Adoption of *FastPharming* with Turn-Key “Factory Solutions”

- Opportunities in global, turn-key bioprocess facilities market (\$2B)
  - Facility design & build for clients using iBio's *FastPharming* System: "In country, for country"
  - Factory Solutions for plant-based bioprocessing without proprietary *FastPharming* technologies
    - Tobacco and lettuce for biopharmaceuticals
    - Tobacco for 3D-bioprinting materials



### Executing CC-Pharming programs

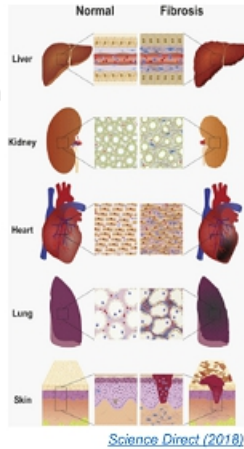
- Revenue recognition of \$1.8M through FYE'19
- New scope expansion opportunity
- New [Research License](#) for other "biomaterials"
- Royalties on [CC-P biosimilar rituximab](#) sales in China



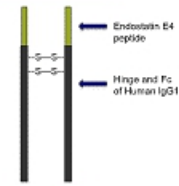
## Investing in Asset Development for Anti-Fibrotic Therapies

### Fibrotic Disorders Unmet Medical Needs

- Estimated to be involved in ~45% of U.S. deaths from all diseases
- No cures
- Arise due to pathologic proliferation of cellular matrix in any organ
- Organ transplants undertaken in some late-stage diseases
- Multi-billion dollar market\* opportunity



### iBio Innovative Solution E4 Peptide



- E4 derived from endostatin
- Strong pre-clinical data v. standard of care
- Optimally produced in **FastPharming** System
- Intrinsic properties enable a product that could be dosed orally

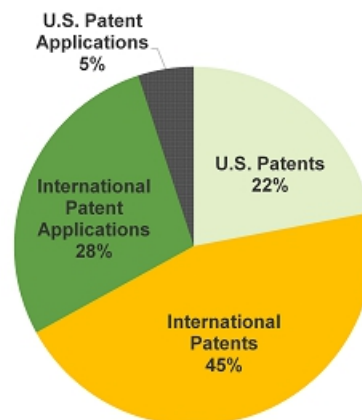


## About iBio & IBIO-100

<i>Breakthrough Anti-Fibrotic Therapies</i>	
Company	Established 2008 - NYSE American
Locations	New York, NY (HQ)   Bryan, TX (Labs/Mfg)
Tech Description	E4 anti-fibrotic peptide [CFB-03] & <b>FastPharming</b> <sup>TM</sup> System for biologics manufacturing
Science	E4 Peptide: Collagen XVIII derivative (causes lowering of fibrosis triggers/impact on ECM) <b>FastPharming</b> System: Molecule expression in hydroponically grown <i>N. benthamiana</i> plants
Pre-clinical Efficacy	Reduced lung weight, inflammation and fibrosis at levels comparable to Pirfenidone in a bleomycin-induced mouse model
Lead Indication	Systemic scleroderma or idiopathic pulmonary fibrosis (IPF)
Regulatory	Orphan Drug Designation for systemic scleroderma (Jul 2016)
Route of Admin	Oral (TBD) or IV
Market	Only 2 products for IPF, no approved medicines in systemic sclerosis. Active partnering space, even for pre-clin assets Market IPF alone expected to reach \$5.9B by 2025*

## Dynamic, Continuing Invention with Appropriate Global Protection

- 80+ issued patents in various countries (26 U.S.)
- 39+ active patent applications (6 U.S.)
- More applications progressing to filing
- Inventions address technologies, products, methods, processes



## iBio v. Fraunhofer

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- Memorandum opinion in Delaware Court of Chancery (2016) and other developments favor iBio
- Depositions finished by October 2019; trial currently scheduled for May 4-15, 2020
- If successful, then award/settlement to be split 50-50 with counsel (Kirkland & Ellis)

## Value Proposition

### CDMO Services

- Process Development
- cGMP Manufacturing
- Fill / Finish
- Bioanalytics
- Quality & Regulatory
- Factory Solutions

#### Biologics CDMO Market: \$6B

- Added Fill/Finish
- Developing bioanalytics capability
- Launching Factory Solutions

### FastPharming

- Speeds time-to-market vs. traditional approaches
- Powerful glycan engineering tools can increase potency, quality of clients' products
- Easy, consistent scale-up

#### IP Well Protected

- 80 issued patents in various countries (26 U.S.)
- 39 active patent applications
- Aggressively defending

### iBIO-100 Anti-Fibrotic

- Addresses unmet medical needs for fibrotic diseases
- U.S. Orphan Drug Designation for systemic scleroderma
- Next milestones: Toxicology and cGMP manufacturing

#### Fibrosis Market: >\$2B

- ~125K patients in U.S. alone
- ~60% forego treatment

### Regen Med/3D-Bioprinting

- Contract manufacturing of "animal free" bioinks used in 3D bioprinting of tissues and organs
- Plants provide other advantages over competing expression technologies

#### Bioprinting: ~\$1B by 2025

- United Therapeutics: catalyst for iBio's supply of biomaterials to this new, high-growth segment
- Launching marketing efforts in bioprinting sub-segment

#### Recent, Select Biologics CDMO Deals

"Advanced Therapy" CDMO Transactions: Thermo Fisher / Brammer Bio ([\\$1.7B](#)); Catalent / Paragon ([\\$1.2B](#))

Traditional Biologics CDMO Deals: Thermo Fisher / Patheon ([\\$7.2B](#)); Catalent / Cook ([\\$950M](#))

## Investment Summary

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- **Differentiating** offering in core biologics CDMO market to achieve valuations comparable to competitors
- **Adding** new services for Fill/Finish & 3D Bioprinting materials to create significant growth potential
- **Enhancing** Factory Solutions “design-and-build” services for tobacco, cannabis, and other plant-based manufacturing
- **Driving** development of lead therapeutic asset to create partnering opportunities
- **Aggressively defending** intellectual property v. Fraunhofer
- **Adding** new management with a focus upon execution

## Cap Table

Type	Issued	Outstanding *	Common Equivalent **	Full Conversion
Common Stock	24,152,455	24,152,455	24,152,455	24,152,455
Series A Convertible Preferred Stock	6,300	387	430,000	24,582,455
Series B Convertible Preferred Stock	5,785	5,785	6,427,771	31,010,226
CMO Preferred Tracking Stock	1	1	-	31,010,226

\* Current Outstanding as of August 22, 2019

\*\* Note that one share of Series A & B Convertible Preferred Stock converts into 1,111.11 shares of Common



## Contact

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## Enabling Next-Gen Biologics with the *FastPharming System*<sup>™</sup>

- **CDMO:** Rapid delivery of eco-friendly, high-quality biologics for biotech, biopharm, academic and government clients
- **Therapeutics:** Proprietary product development using *FastPharming Tech* for anti-fibrotic compounds and vaccines

