



ENABLING NEXT-GEN BIOLOGICS

CORPORATE PRESENTATION

Tom Isett, Chairman & CEO



Forward-Looking Statements

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.

Overview

Biologics Company

Contract development & manufacturing organization (“CDMO”) adding innovative, proprietary products

CDMO Services

Addressing \$6B market, including 3D Bioprinting



FastPharming System™

Novel manufacturing platform enables rapid production of high-quality biological medicines in plants

Vaccines/Therapeutics

Focus on COVID-19 vaccine and pulmonology with anti-fibrotic therapeutic asset

Management Team

New Leadership for Experienced Team

Thomas F. Isett

CEO & Chairman

- 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., & i.e. Advising, LLC

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

Robert B. Kay

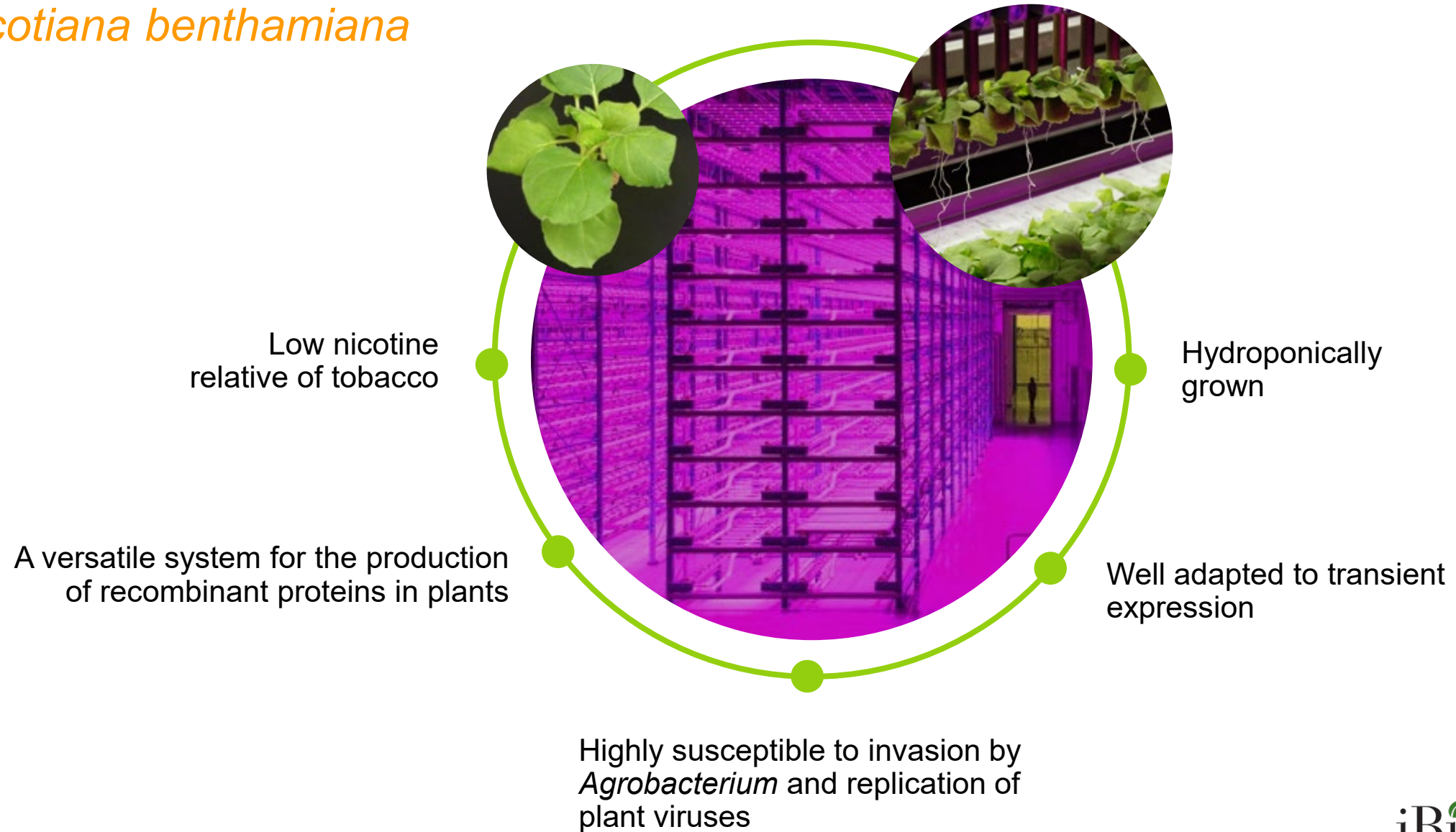
Founder & Director

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

TECHNOLOGY PLATFORM

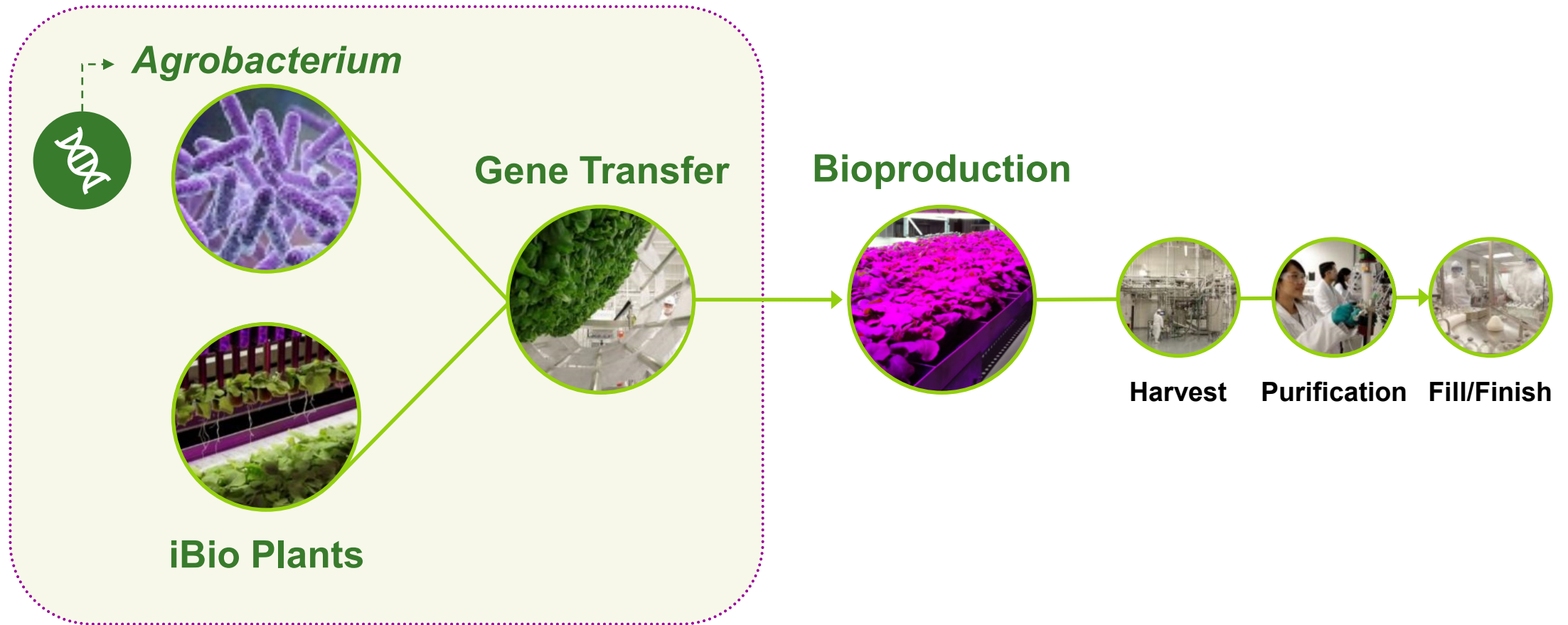
Our Bioreactor

Nicotiana benthamiana



The *FastPharming* System

Using Plants as Bioreactors



Skipping Cell Line Development Step Saves Months vs. Traditional Methods

FastPharming System

Advantages



Faster

- Saves months of development time vs. competing methods
- Research quantities available in just 8 weeks
- cGMP material in as little as 8 months



Better

- No expensive, labor-intensive cell line development
- Avoids scale up challenges; just grow more plants
- Glycosylation controls for increased molecule quality/potency
- Lower upfront facility expense v. mammalian cell culture systems



Safer & Greener

- Lower contamination risks: mammalian viruses can't grow in plants
- Avoids plastic waste associated with producing proteins in “single-use systems” for mammalian cells

BUSINESS OVERVIEW



New Initiatives

Strategic Thrusts to Drive Growth



Core

Launched new **FastPharming** brand and services to gain share of \$6B biologics CDMO market

Adjacent

Entering high-growth 3D Bioprinting materials segment using **FastPharming's** strengths

Factory Solutions

Enabling clients to insource **FastPharming** Technology via “design & build” turn-key facility offering

Vx/Rx

Advancing IBIO-100 as a therapeutic for fibrotic diseases and IBIO-200 as a COVID-19 vaccine

Objectives

Value creation in services and proprietary products while aggressively defending IP

CDMO Services

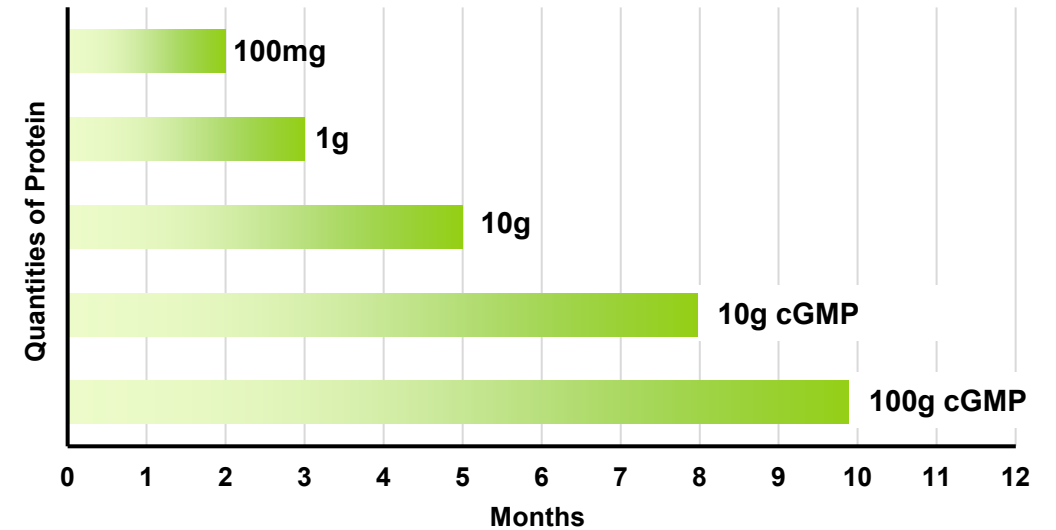
Expanding Capabilities

FastPharming Biologics Mfg Services

- Dec 2019: **FastGlycaneering** for increased molecule potency
- Aug 2019: Biinks for 3D Bioprinting
- Jun 2019: Fill-Finish services

State-of-the-Art Facility

- Automated hydroponics and vertical farming processes
- 130,000 sq.ft., centrally located cGMP facility



iBio Product & Service Development Team

FastPharming Facility Leadership



**Sylvain Marcel,
Ph.D.**

Vice President of Protein
Expression Sciences



**Brian R. Berquist,
Ph.D.**

Vice President of Downstream
Process Development



**Peter Kipp
Ph.D.**

VP Translational
Medicine













Jack Owens

Director of Quality
Assurance

Projects

Using *FastPharming* Technology

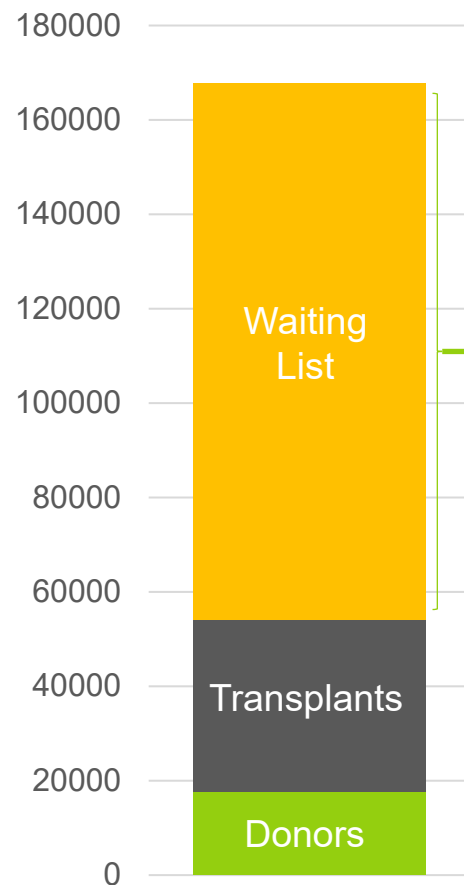
Financial Sponsor	Mfg / Clin Trial Sponsor	Tech Platform	Indication	Status
 	<i>Fraunhofer / Fraunhofer</i>	Subunit vaccine + Alum	<i>H5N1/H1N1 Influenza</i>	Completed Phase 1 Clinical Trials
 National Institute of Mental Health	<i>Fraunhofer / Fraunhofer</i>	Subunit vaccine + LicKM	<i>Anthrax</i>	Phase 1
	<i>Fraunhofer / Fraunhofer</i>	VLP + Alum (blocking strategy)	<i>Malaria</i>	Phase 1
	<i>Fraunhofer / Sabin</i>	Soluble Antigen	<i>Hookworm</i>	Phase 1
	iBio / CC-Pharming	mAb	Anti-cancer Biobetter	Preclinical
	<i>iBio / IIAD</i>	E2 subunit vaccine	<i>CSFV</i>	Challenge study/Animal trials
	<i>Fraunhofer / Fiocruz</i>	Subunit + LicKM + Alum	<i>Yellow Fever</i>	Animal Efficacy demonstrated
	--		Facility Design	Conceptual & Basic Design Completed
	--		Pilot-Facility Design	Design Completed, Construction underway

Vaccine programs italicized

Adjacent CDMO Services

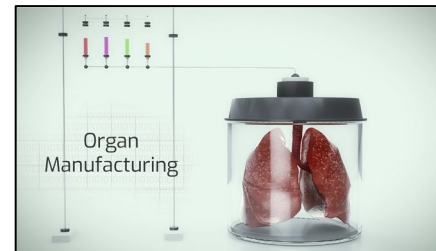
BioInks to Support 3D-Bioprinting

U.S. Organ Shortage



From organdonor.gov

Demand gap creates market for 3D-Bioprinted tissues and organs...



Courtesy of United Therapeutics

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

FastPharming is uniquely suited to advanced bioink mfg

- Safer: Mammalian viruses don't grow in plants
- Quicker: Shortened time-to-market
- Better: Easier to scale-up to large quantities for whole organs

United Therapeutics (Aug 2019)

Multi-year bioink development and supply agreement

Factory Solutions

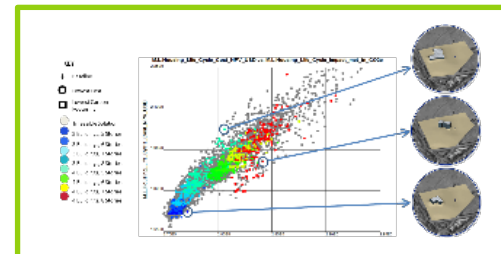
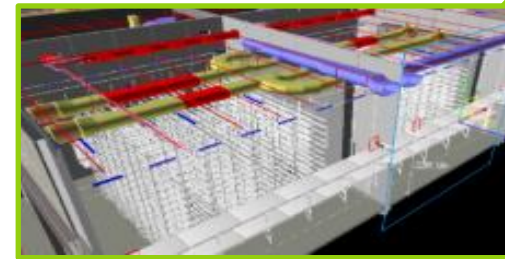
Allows Clients to Insource Plant-based Bioprocessing

Facility “Design & Build” Services

- Factory Solutions for clients using iBio’s **FastPharming** System:
- Capability to provide Factory Solutions for plant-based bioprocessing without **FastPharming** Technologies
- Opportunity to establish smaller, modular facilities ready-to-ship for upstream development

CC-Pharming, Ltd.

- Presently building pilot plant in China
- Large scale facility design underway
- Royalties from rituximab biosimilar



NEW PRODUCT & SERVICE

PIPELINE



Therapeutics

IBIO-100 for Fibrotic Diseases

Fibrotic Disorders – Many Unmet Medical Needs

- Involved in ~45% of U.S. deaths from all diseases
- No cures - organ transplants undertaken in some late-stage diseases
- Limited number of palliative treatments for most indications
- Many patients forego currently available treatments due to poor tolerability

IBIO-100

- Endostatin E4 peptide that reduces fibrosis by impacting extracellular matrices
- Strong pre-clinical data: reduced skin thickness/fibrosis in scleroderma/IPF models *and* reduced fibrotic tissue in human lungs removed for transplant
- Optimally produced in iBio's **FastPharming** System
- iBio received Orphan Drug Designation for systemic scleroderma
- Intrinsic properties enable a product that could be dosed orally

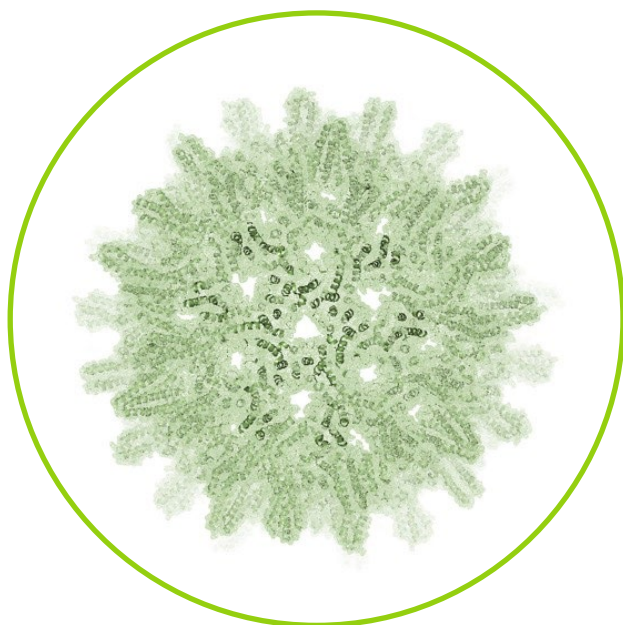
IBIO-100
Collagen Derivative



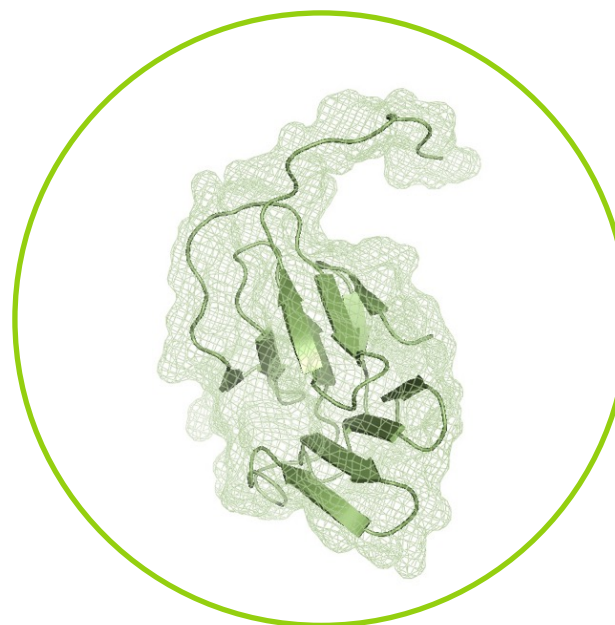
COVID-19 Vaccine Development

Provisional Patent Filings for 2 Prospective Vaccine Platforms

Virus Like Particle (“VLP”)



LicKM / Subunit



March 12, 2020: iBio disclosed new patent filings for its VLP platform technology and its lichenase carrier immunostimulatory (“LicM”) adjuvant technology (US Patent 9,012,199), in conjunction with its **FastPharming** Manufacturing System for treating or preventing infections with the SARS-CoV-2 virus

About Virus-Like Particles

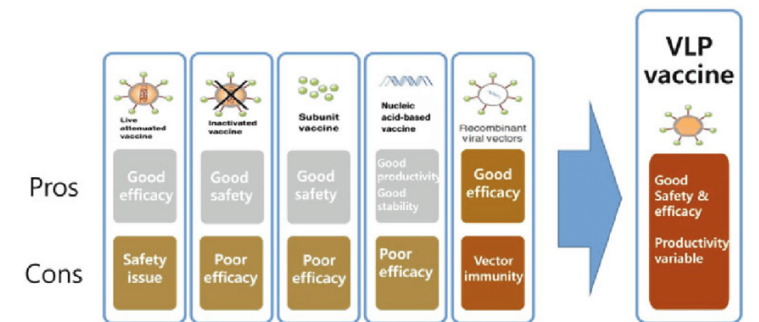
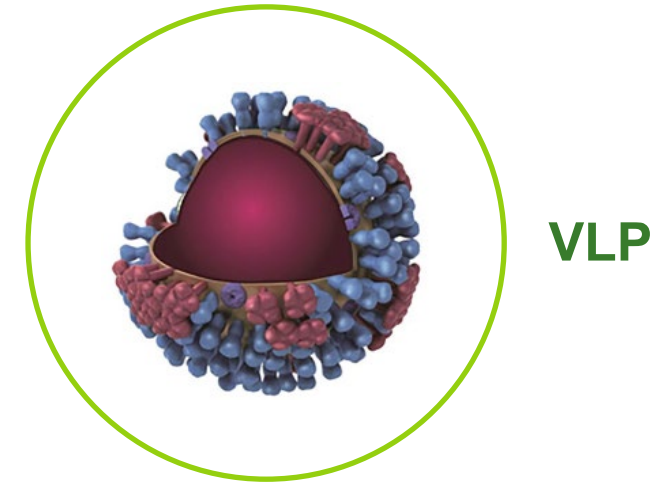
“VLPs” – Attractive Candidates for Vaccines

Description

- Present authentic antigens at high density
- Do not contain DNA or RNA; no risk of infection
- Produced in eukaryotic expression systems – including a Phase III clinical trial using *N. benthamiana*

Notable VLPs

- Gardasil® - human papilloma virus [HPV]
- Mosquirix™ - malaria
- Sci-B-Vac™ - hepatitis B virus [HepB]



*Caption 1

iBio's VLP Platform

IBIO-200 for COVID-19 Disease

Description

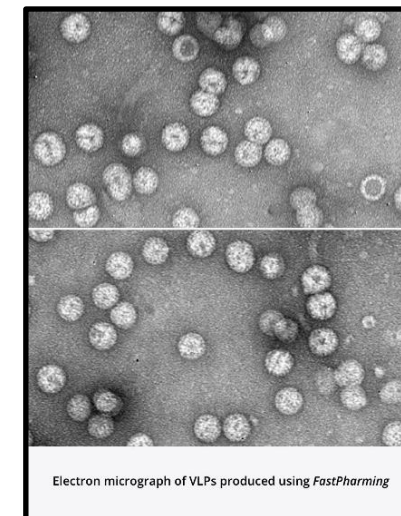
- SARS-CoV-2 derived antigen is fused to a self-assembling protein partner to generate the VLP
- Antigen is displayed in a repetitive structure and geometry, and the particle is decorated with oligomannose so as to resemble the structure of a naturally occurring virus

Manufacturing

- **FastPharming** System yields consistently high-quality nanoparticles
- Estimating capacity at 200M-700M doses/year, excluding any benefits that might be realized in combination with an adjuvant which may increase immunogenicity

Development Partners

- **Infectious Disease Research Institute [IDRI]:** [Clinical Trials & Adjuvant Technologies](#)
- **Texas A&M University:** [Immunization Studies & Characterization](#)
- **CC-Pharming, Ltd:** Leverage of previous MERS-coronavirus work by CC-Pharming scientists and pre-clinical/clinical trials management in China



iBio's LicKM Subunit Platform

IBIO-201 for COVID-19 Disease

- Consists of a soluble antigen fused to iBio's proprietary lichenase thermostable immunomodulator protein
- Potential to increase both the potency of subunit vaccines as well as the durability of the immune response
- IBIO-201 is being tested in parallel as part of immunization studies that TAMUS laboratories is currently conducting on the Company's VLP program, IBIO-200

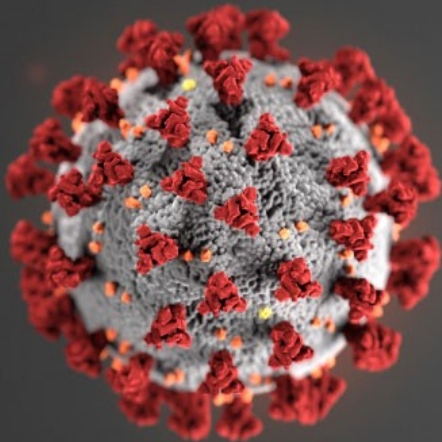


Contract Manufacturing for COVID-19 Countermeasures

Uniquely Positioned for Rapid Response

Vaccine & Therapeutics Production

- iBio facility built in 2010 with funding from Defense Advanced Research Projects Agency [DARPA]
- Part of the “[Blue Angel](#)” initiative to establish facilities capable of rapid delivery of medical countermeasures to a pandemic
- **FastPharming** Technology addresses a key objective: “insufficient capability to provide vaccines against pandemics caused by new strains, as well as infections caused by intentional biothreats...”



Pandemic



Highly contagious
novel respiratory virus



No pre-existing
diagnostics, treatment
or vaccine



Time is of the essence,
to deliver virus-related
materials

CREATING VALUE



Dynamic, Continuing IP Development with Appropriate Global Protection

80+

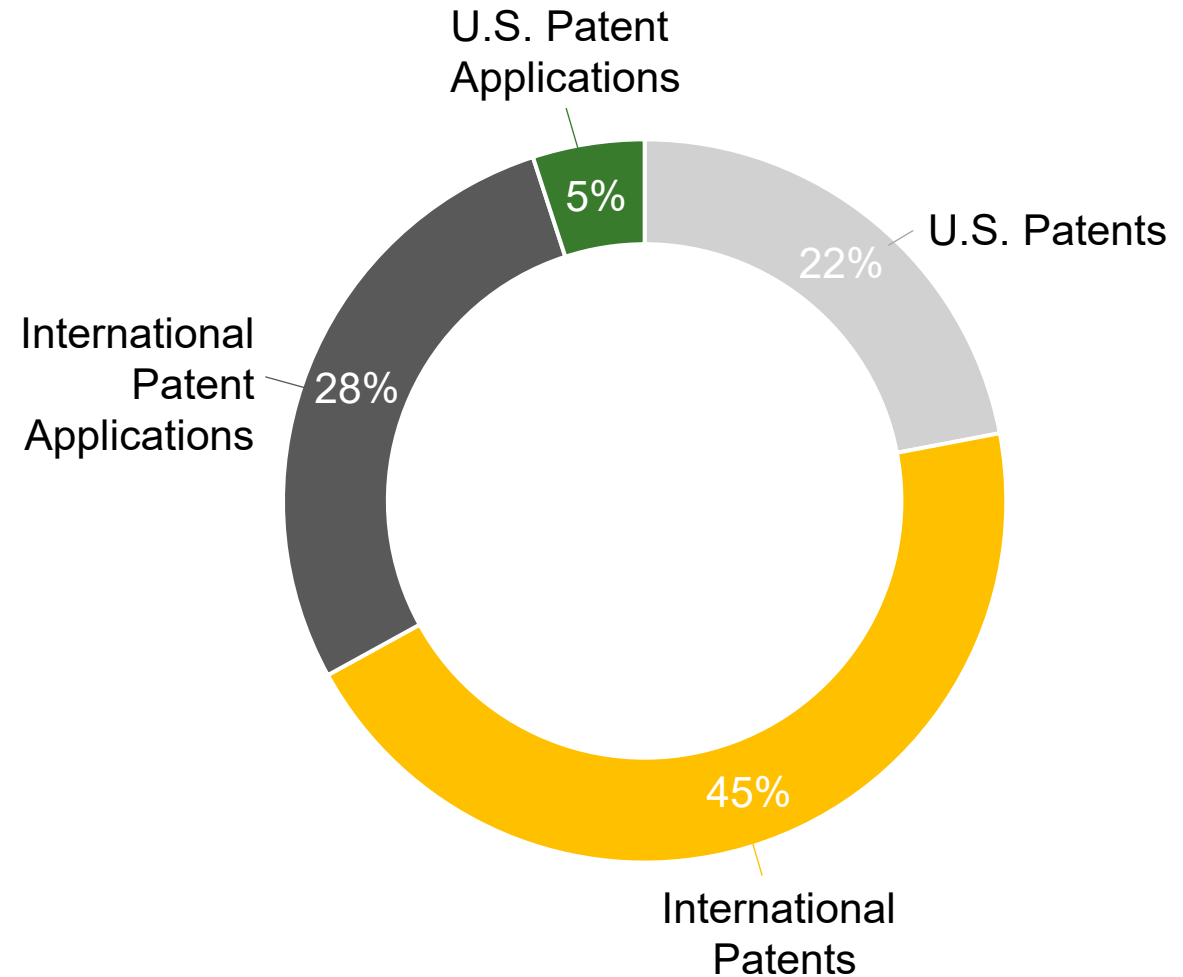
Issued Patents
in various countries
(26 U.S.)

39+

Active Patent Applications
(26 U.S.)

More Applications
progressing to filing

Inventions
address technologies,
products, methods,
processes



iBio v. Fraunhofer

Aggressively Defending Intellectual Property

Fraunhofer USA (“FhUSA”) Litigation

- Memorandum opinion issued in 2016 in Delaware Court of Chancery favored iBio
- Depositions completed; trial date TBD in light of current court closures due to COVID-19
- iBio’s litigation costs and expenses related to current counsel fully-funded through appeal
- Trial being rescheduled from May 2020 to late-2020 or early 2021 due to COVID-19 pandemic

German Parent of FhUSA

- January 2020 motion filed to include Fraunhofer-Gesellschaft in US case
- Learnings from 2019 depositions and documents revealed Fraunhofer-Gesellschaft illicitly used iBio’s intellectual property with new and different 3rd parties

Strategy Development and Execution

FastPharming

- Speeds time-to-market vs. traditional approaches
- Powerful glycan engineering tools can increase product potency and quality
- Easy, consistent scale-up

IP Well Protected
>\$15M Case v. Fraunh.

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

CDMO Services

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

Biologics CDMO Market
\$6B

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

3D-Bioprinting

- Contract manufacturing of “animal free” bioinks used in 3D bioprinting of tissues and organs
- *FastPharming* System’s speed and flexibility suited to emerging demands

Bioprinting Supplies
~\$1B by 2025

- United Therapeutics: catalyst for iBio’s supply of biomaterials to new, high-growth segment
- Developing proprietary portfolio of bioinks and biomaterials

IBIO-100 Anti-Fibrotic

- Addresses unmet medical needs for fibrotic diseases
- U.S. Orphan Drug Designation for systemic scleroderma
- Next step: IND-enabling studies

Fibrosis Market
>\$10B

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

IBIO-200/201 COVID-19 Vaccines

- Rapidly designed and entered two platforms into the race
- Deployed proprietary VLP and LicKM technologies
- Immunization studies underway at TAMU

Over 1 Million Cases in U.S & 3.3 Million Globally

- Estimated 500M dose capacity in *FastPharming* Facility
- Potential for a high-potency vaccine with IDRI adjuvants

Investment

Summary



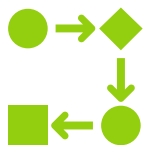
Core CDMO Services

Differentiating offering in core biologics CDMO market: From monoclonal antibodies to COVID-19 vaccines



Proprietary Product Pipeline

Driving development of therapeutic targeting fibrotic disease (IBIO-100) and COVID-19 vaccines (IBIO-200 & IBIO-201)



New & Adjacent Services

Adding new services for BioInks, glycan engineering, and more



Intellectual Property

Aggressively defending intellectual property



Factory Solutions

Enhancing Factory Solutions “design-and-build” services



Talent

Adding new talent with a focus upon execution

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