Ligand®

Corporate Presentation

NOVEMBER 2021

Nasdaq: LGND

SAFE HARBOR STATEMENT

The following presentation contains forward-looking statements by Ligand and its partners that involve risks and uncertainties and reflect Ligand's and it's partners' judgment as of the date of this presentation. Words such as "plans," "believes," "expects," "projects," "could," "anticipates," and "will," and similar expressions, are intended to identify forward-looking statements. These forward-looking statements include, without limitation, expectations regarding research and development programs; the timing of the initiation or compilation of preclinical studies and clinical trials by Ligand and its partners; expectations regarding product approvals and potential for future revenue growth; launches by Ligand or its partners and the timing thereof; Ligand's plans to pursue a separation of the OmniAb business, including the makeup of the separated and retained businesses and their strategic focus and plans; the potential structure of the separation; and total addressable market for antibodies. Actual events or results may differ from Ligand's expectations due to risks and uncertainties inherit in Ligand's business, including the inherit risks of clinical development and regulatory approval of product candidates, including that FDA or foreign regulatory authorities may not agree with our or our partners' conclusions regarding the results of clinical trials; the OmniAb separation may not be completed in accordance with the expected plans or anticipated timeline or at all, and may not achieve the intended strategic, operational and financial benefits; Ligand may be unable to successfully integrate operations from acquired businesses or may face other difficulties as a result of acquisitions such as strain on operational resources; the total addressable market for antibodies or other therapeutics may be smaller than estimated; we face competition with respect to our technology platforms, including OmniAb, which may demonstrate greater market acceptance or superiority; partnered commercial products may not perform as expected; Ligand relies on collaborative partners for milestone and royalty payments, royalties, materials revenue, contract payments and other revenue projections; Ligand does not have contractual relationships with certain parties identified as partners and is dependent on WuXi Biologics Ireland Limited to enforce any contractual rights such as payment of royalties or milestones; the possibility that Ligand's and its partners' drug candidates might not be proved to be safe and efficacious and uncertainty regarding the commercial performance of Ligand's and/or its partners' products; and other risks and uncertainties described in its public filings with the Securities and Exchange Commission, available at www.sec.gov. Additional risks may apply to forward-looking statements made in this presentation. Information regarding partnered products and programs comes from information publicly released by our partners. Our trademarks, trade names and service marks referenced herein include Ligand, Captisol, Pelican Expression Technology, OmniAb, OmniChicken, OmniRat, OmniMouse, OmniFlic, OmniClic and OmniTaur . Each other trademark, trade name or service mark appearing in this presentation belongs to its owner.

The process for reconciliation between the non-GAAP adjusted financial numbers presented on slide 10 and the corresponding GAAP figures is shown in the earnings press release for the third quarter ended September 30, 2021 available at https://investor.ligand.com/press-releases. However, other than with respect to total revenues, the Company only provides financial guidance on an adjusted basis and does not provide reconciliations of such forward-looking adjusted measures to GAAP due to the inherent difficulty in forecasting and quantifying certain amounts that are necessary for such reconciliation. Ligand disclaims responsibility for any statement by a person other than its employees and the views expressed by persons other than Ligand employees do not necessarily reflect the views of Ligand.

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This presentation shall not constitute an offer to sell or a solicitation of an offer to buy securities, and shall not constitute an offer, solicitation or sale in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of that jurisdiction.

Ligand®

ABOUT LIGAND

Medical research and technology company discovering medicines, improving safety and reducing manufacturing costs

PEOPLE & INNOVATION

Robust platform of discovery tools and technologies needed to solve industry challenges

TECHNOLOGY

Superior support and engagement with pharmaceutical partners for a wide range of medical and health needs

PARTNERS

High growth and strong cash flow driven by diverse and growing portfolio of partnerships

FINANCIALS

LIGAND ADDS VALUE . . .

. . . JUST ASK OUR MORE THAN 130 PARTNERS

Our research and technology help partners…

Discover medicines

Improve safety

Reduce costs

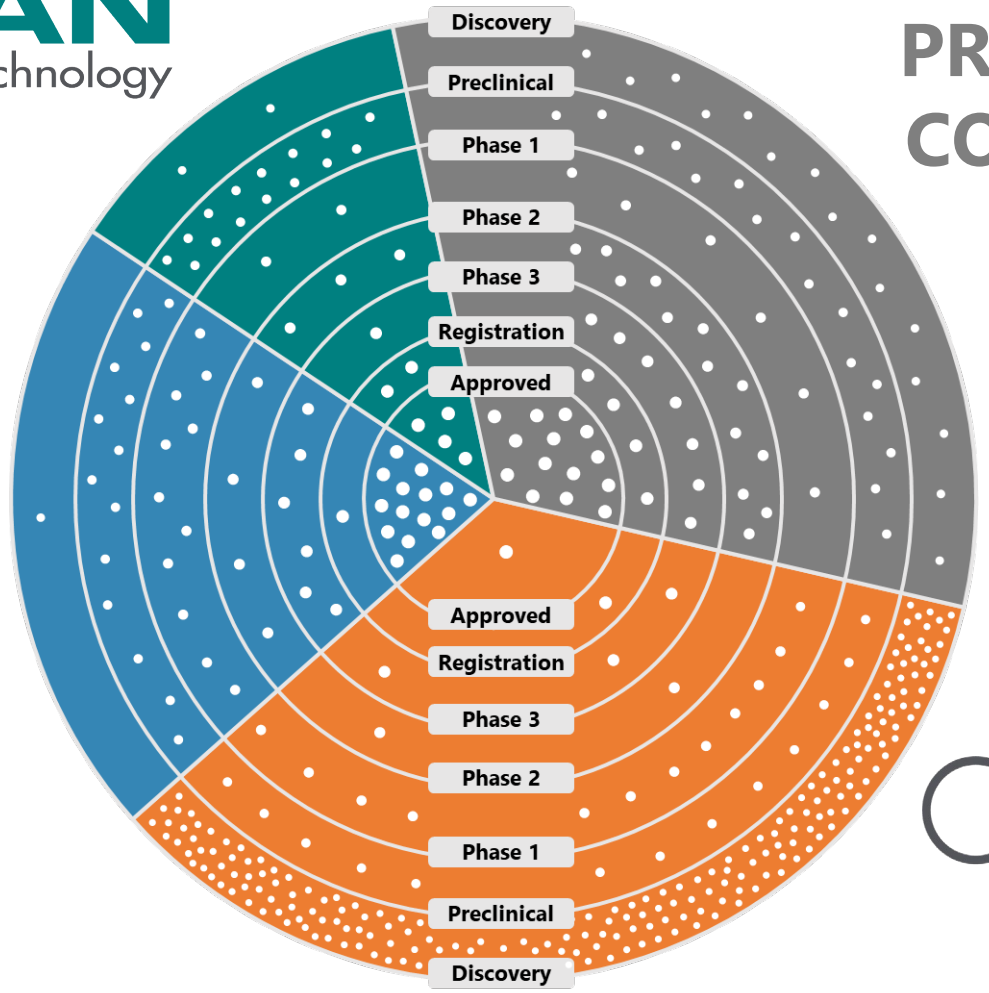
Ligand's technology and R&D support entitles us to **share in revenue of partners through royalties**

PARTNERED PIPELINE

BROAD PORTFOLIO WITH OVER 130 DIFFERENT PARTNERS

PELICAN™
P. fluorescens expression technology

CAPTISOL®



PROPRIETARY COMPOUNDS

OmniAb®

FIVE RECENT APPROVALS

OUR PROPRIETARY PLATFORMS ARE ENABLING IMPORTANT APPROVALS AND POSITIONING LIGAND FOR SUBSTANTIAL GROWTH OF ROYALTY REVENUE

PROGRAM	PARTNER	TECH PLATFORM	APPROVAL
Pneumosil Pneumococcal Polysaccharide Conjugate Vaccine (Adsorbed, 10-Valent)	SERUM INSTITUTE OF INDIA Cyrus Poonawalla Group	PELICAN P. fluorescens expression technology	December 2020
RYLAZE™ asparaginase erwinia chrysanthemi (recombinant)-rywn for injection 10mg/0.5mL per vial	Jazz Pharmaceuticals	PELICAN P. fluorescens expression technology	June 2021
Kyprolis® (carfilzomib) for Injection	BeiGene AMGEN	CAPTISOL®	July 2021
Vaxneuvance™ Pneumococcal 15-valent Conjugate Vaccine	MERCK	PELICAN P. fluorescens expression technology	July 2021
Zimberelimab	gloria 誉衡生物 BIOSCIENCES	OmniAb®	August 2021

Not approved in all jurisdictions

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PARTNERED PIPELINE SNAPSHOT

Partner	Program	Therapy Area	Technology	Preclinical	Phase 1	Phase 2	Phase 3	Approved
AMGEN	*Kyprolis®*	Oncology	Captisol					
ACROTECH BIOPHARMA	*EVOMELA®*	Oncology	Captisol					
GILEAD	*Veklury®*	Infection	Captisol					
Alvogen	*Teriparatide*	Osteoporosis	Pelican					
SERUM INSTITUTE OF INDIA PVT. LTD.	*Pneumosil®*	Infection	Pelican					
Jazz Pharmaceuticals	*Rylaze™*	Oncology	Pelican					
MERCK	*Vaxneuvance™*	Infection	Pelican					
gloria 誉衡生物 (1)	Zimberelimab	Oncology	OmniAb					
Multiple Additional Partners and Programs				*Includes: ZULRESSO (Sage), MINNEBRO (Daiichi-Sankyo), NEXTERONE (Baxter), DUAVEE (Pfizer), and 22 Others*				
TRAVERE THERAPEUTICS	Sparsentan	Kidney Disease	NCE					
基石药业 (1) CSTONE PHARMACEUTICALS	Sugemalimab	Oncology	OmniAb					
ARCUS BIOSCIENCES	Zimberelimab	Oncology	OmniAb					
MARINUS PHARMACEUTICALS	Ganaxolone-IV	CNS	Captisol					
Verona Pharma	Ensifentrine	Respiratory	NCE					
NOVAN	SB206	Infection	NCE					
Multiple Additional Partners and Programs				*Includes 17 additional Phase 3 or Pivotal assets*				
Multiple Partners and Programs				*26 Phase 2 assets*				
Multiple Partners and Programs				*29 additional Phase 1 assets*				

Partnered pipeline also includes >200 preclinical and discovery programs

Status of partnered programs from information released by our partners and from clinicaltrials.gov

(1) Partnership is through a Ligand license with WuXi Biologics

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WE EXPECT A SUBSTANTIAL CALENDAR OF LATE-STAGE EVENTS

Next Six Quarters of Potential Events

Approvals	NDA Submissions		Major Data Events	
Sugemalimab Approval (China) 基石药业 CSTONE PHARMACEUTICALS	**Sparsentan** NDA Submissions TRAVERE THERAPEUTICS	**Sugemalimab** NDA Submission (US) 基石药业 CSTONE PHARMACEUTICALS · EQRx REMAKING MEDICINE	**Ensifentrine** Phase 3 data Verona Pharma	**VK2809** Phase 2 data VIKING THERAPEUTICS
Teriparatide TE (US) Alvogen	**Rylaze™** MAA Submission Jazz Pharmaceuticals	**Vaxneuvance™** Pediatric Submission MERCK	**Ganaxalone-IV** Phase 3 data MARINUS PHARMACEUTICALS	**Lasofoxifene** Phase 2 data Sermonix Pharmaceuticals

Based on clinicaltrials.gov or partner disclosures

DISCOVERY & MANUFACTURING PLATFORMS

CUTTING-EDGE, ROYALTY-BEARING TECHNOLOGIES THAT MAKE MAJOR LIFE-SAVING GLOBAL DRUGS POSSIBLE

Manufacturing/CMC	*Antibody Discovery*
PELICAN™ P. fluorescens expression technology	OmniAb®
Making production possible	***Delivering fully human antibodies***

Ligand's business model is based on providing drug discovery platforms, completing early-stage drug development and partnering

2021 FINANCIAL REVIEW

GUIDANCE GIVEN AT Q3 EARNINGS RELEASE

40%+

2021 revenue growth

30%+

2021 adjusted EPS growth

$265 - $275 million Total Revenue	**Royalty and Milestone combined exceeding previous $91 million expectations**
75% - 80% Gross Margin	**Strong gross margins even with outsized Captisol contribution**
$80 - $85 million Cash Expenses	**Cash operating expenses in line with original expectations**
$5.80 - $6.05 Adjusted EPS	**Adjusted EPS driven by high cash flow and low share count**

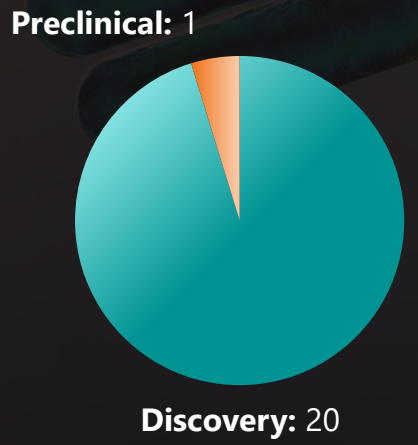
Note: Financial information taken from guidance provided in Q3 earnings release and discussed on Q3 earnings call


OmniAb®
BUSINESS OVERVIEW

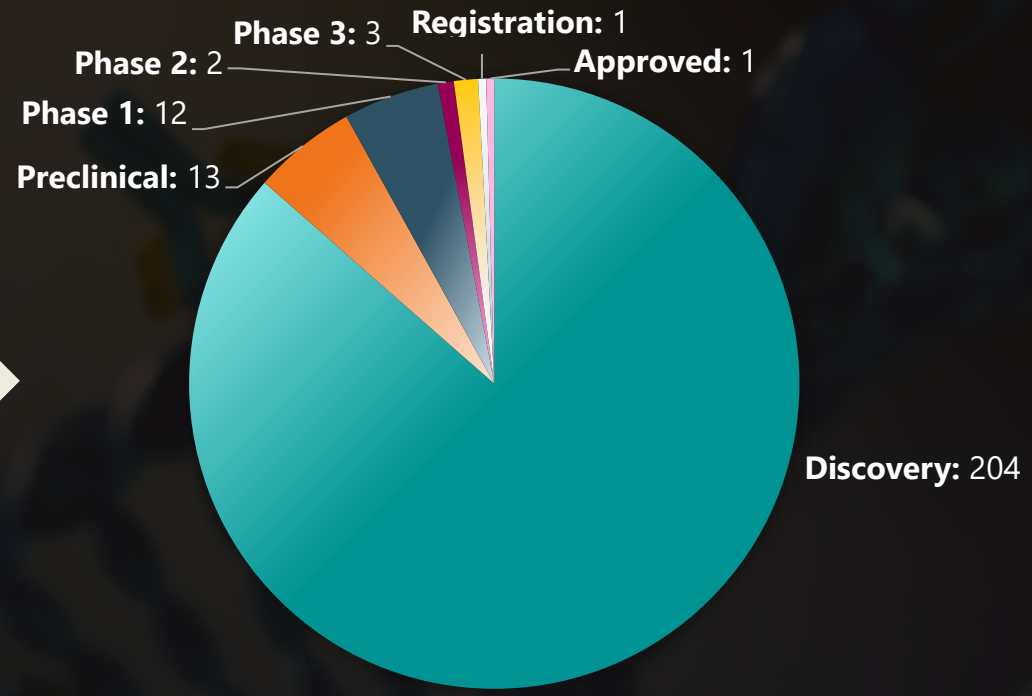
OMNIAB PARTNER PROGRAMS

PROGRESSION AND PERFORMANCE IN PROGRAMS BY STAGE OF DEVELOPMENT

2016 at Acquisition(1)



Today



Substantial progress in all phases, increase in discovery programs expected to **rapidly feed growth** in new clinical programs and future approvals

(1) Estimated based on diligence at the time of acquisition

OmniAb

ANTIBODIES AND INDUSTRY DEMAND

HIGHER SUCCESS RATES FOR ANTIBODY MEDICINES DRIVE OUR INDUSTRY'S NEED FOR DISCOVERY TECHNOLOGY

Existing Industry limitations

- **Current approaches burdened with critical disadvantages** – lack of antibody diversity, lengthy timelines, excess costs and lack of flexibility

Increasing Antibody Market

- **>$235B in antibody sales by 2025** (up from >$180B in 2020)
- **41 blockbuster antibodies in 2020** (up from 36 in 2019)
- Five best-selling antibodies had ~$55B of sales in 2020

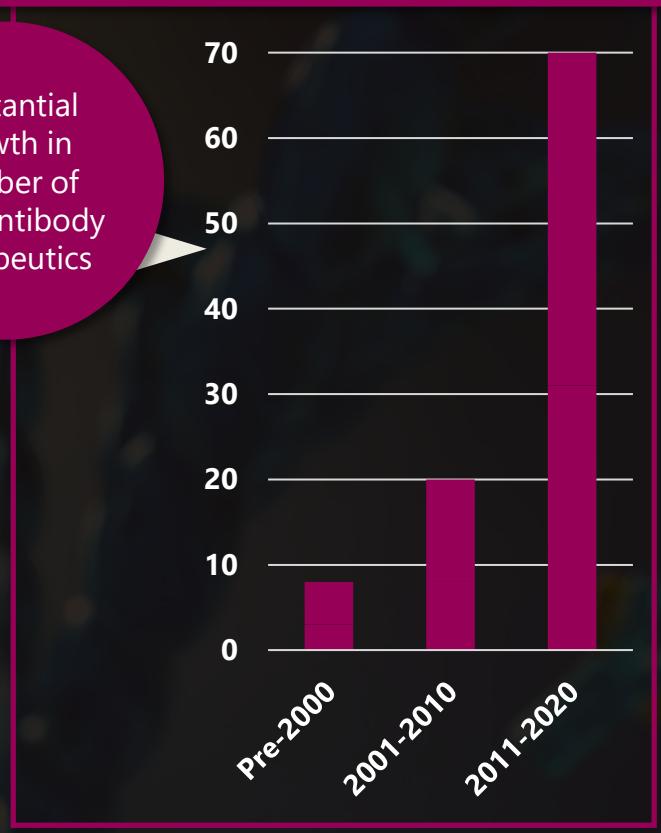
Higher Success Rates

Type of Drug	*Clinical Success Rates(1)*
Small Molecules	6.2%
Biologics/Antibodies	**11.5%**

Historical success rates for antibody classes is **nearly twice the rate** of small molecules

Acceleration of Regulatory Approvals (FDA and EMA)

Substantial growth in number of new antibody therapeutics



Sources:
2020 Sales of Recombinant Therapeutic Antibodies, Proteins, Biosimilars & Other Biologics (La Merie Publishing).
Clinical Development success rates 2006-2019 (Bio, Biomedtracker and Amplion).
Tables of approved mAbs and antibodies in review available at https://www.antibodysociety.org/resources/approved-antibodies/
(1) Defined as composite success rate of clinical development from Phase I trials to regulatory submission.

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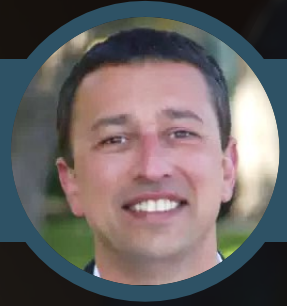
OMNIAB BOARD CONSIDERATIONS AND LEADERSHIP

Sarah Boyce
Board Member Nominee
CEO, Avidity Biosciences
Board Member, Berkeley Lights
Former: Akcea, Ionis, Forest Labs

Jennifer Cochran, PhD
Board Member Nominee
Professor of Bioengineering, Stanford University
Founder of multiple tech companies



Sunil Patel
Board Member Nominee
Public & Private Biotech Executive
Former: OncoMed, Abgenix, Gilead, BiPar Sciences, Allos Therapeutics, Connetics

John Higgins
Board Member
CEO, Ligand
Former: CFO, Connetics

Matt Foehr
President / CEO / Board Member
Board Member, Viking Therapeutics
Exec at Ligand, GlaxoSmithKline, Stiefel Labs, Connetics

Charles Berkman
Chief Legal Officer
SVP, General Counsel and Secretary, Ligand
Former: Baker & McKenzie, Lyon & Lyon

OmniAb


OmniAb®
THE OMNIAB PLATFORM

OMNIAB AT A GLANCE

MISSION: ENABLE THE RAPID DEVELOPMENT OF INNOVATIVE THERAPEUTICS BY PUSHING THE FRONTIERS OF DRUG DISCOVERY TECHNOLOGIES

Biologically Driven Antibody Discovery Platform

- *Harness the power of BIOLOGICAL INTELLIGENCE™ and high-throughput screening technologies to discover high quality antibodies*
- *The only four species platform (transgenic rat, mouse and chicken, and cow-derived)*

Differentiated Business Model

- *50+ global partners and 200+ active discovery programs*
- *One approved OmniAb-derived product and 18 clinical stage antibodies*

One of the Largest Greenfields in the Pharma Industry

- *Antibody therapeutic market expected to grow from >$180B in 2020 to >$235B by 2025*

Globally Recognized Science and Team

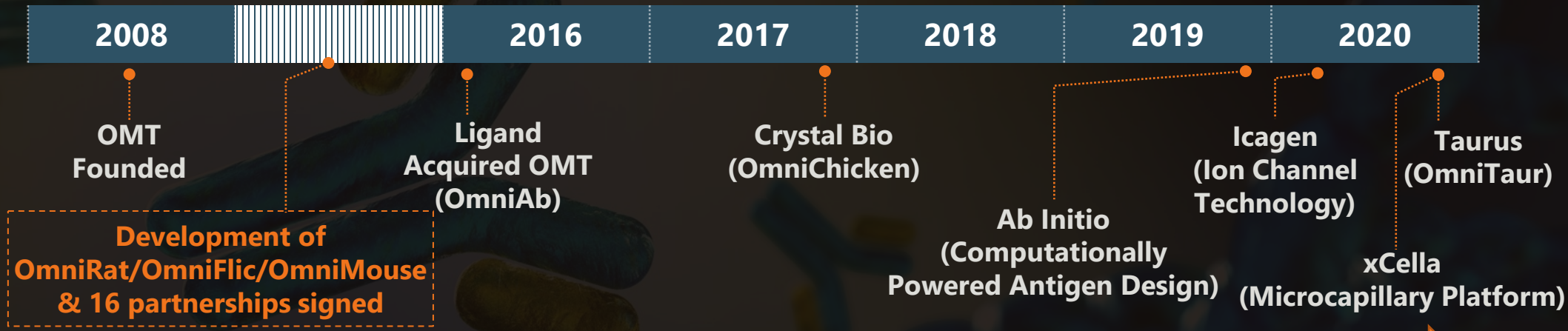
- *History of firsts in genetic engineering*
- *Facilities: Emeryville, CA; Durham, NC; Tucson, AZ*
- *Employees: 70*

Source:
2020 Sales of Recombinant Therapeutic Antibodies, Proteins, Biosimilars & Other Biologics (La Merie Publishing).

OmniAb®

OMNIAB HISTORY

OVER 12 YEARS OF INVESTMENT BUILT OUR BEST-IN-CLASS PLATFORM



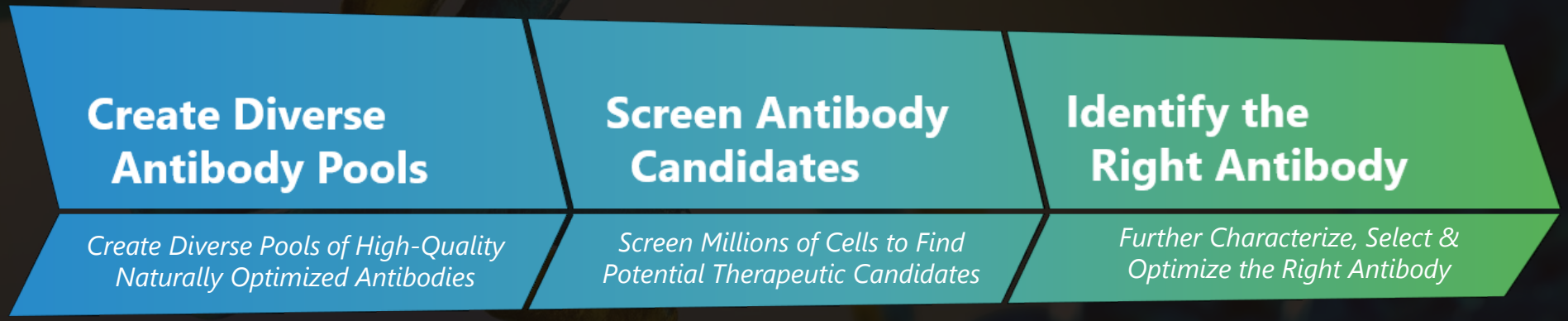
Significant Internal Investment and R&D

- *Next generation animals (Bispecifics, HCO, etc.)*
- *Expanded state-of-the art labs and added capacity*
- *AI-powered single-cell microcapillary platform*
- *Characterization and optimization team*

Strategically built tech platform to optimally harness the power of *BIOLOGICAL INTELLIGENCE™*

OmniAb®

THE OMNIAB PLATFORM



Technology offering addresses critical industry needs and is paired with our highly specialized and efficient operation

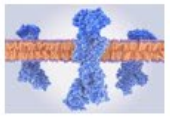
We leverage our proprietary and differentiated technologies rather than commoditized industry services that are widely available from CROs or built into big pharma

THE OMNIAB PLATFORM

OmniAb Technologies

Create Diverse Antibody Pools

Create Diverse Pools of High-Quality Naturally Optimized Antibodies



Computational Antigen Design & Proprietary Reagents

OmniRat OmniMouse

OmniChicken

Robust Antibodies for Any Target

OmniFlic OmniClic

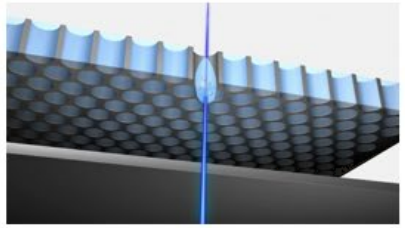
Bispecific Antibody Generation

OmniTaur

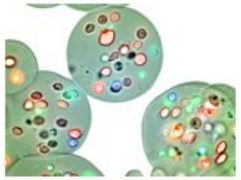
Cow-inspired Antibodies for Difficult Targets

Screen Antibody Candidates

Screen Millions of Cells to Find Potential Therapeutic Candidates



xPloration High-Throughput Single Cell Screening

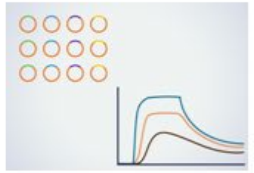


Gel Encapsulated Microenvironment (GEM) Single Cell Screening

Identify the Right Antibody

Further Characterize, Select & Optimize the Right Antibody

- *Custom Bioinformatics*
- *Next Generation Sequencing (NGS) Hit Expansion*



- *Comprehensive Functional Characterization*
- *Proprietary Ion Channel Assays*

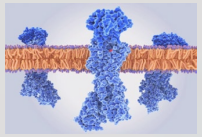
Technology offering addresses the most critical challenges of antibody discovery

OmniAb

THE OMNIAB PLATFORM

Create Diverse Antibody Pools → Screen Antibody Candidates → Identify the Right Antibody

Antibody Generation Technologies



Computational Antigen Design & Proprietary Reagents

OmniRat OmniMouse

OmniChicken

Robust Antibodies for Any Target

OmniFlic

OmniClic

Bispecific Antibody Generation

OmniTaur

Cow-inspired Antibodies for Difficult Targets

We believe generating **large and diverse** pools of high-quality antibodies increases the likelihood of **discovering the antibody** with the **most desirable therapeutic characteristics**

- Industry's only four-species platform
- 18 clinical and one approved antibody(1)
- A heritage of genetic engineering capabilities
- Carefully designed transgenes for robust response
- Bispecific and cow-inspired technologies enable next generation therapeutics

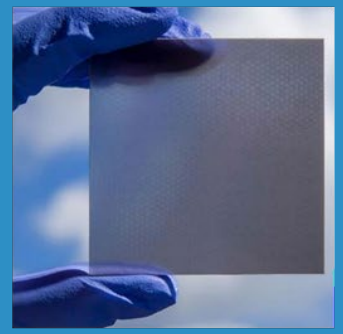
(1) In August 2021, zimberelimab was approved in China for the treatment of recurrent or refractory classical Hodgkin's lymphoma.

THE OMNIAB PLATFORM

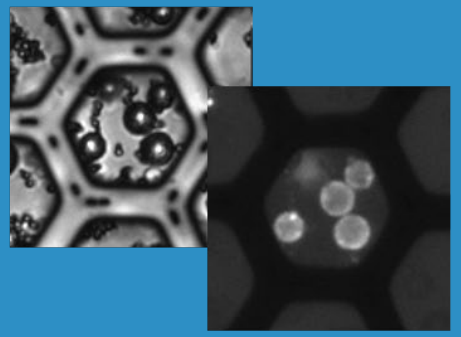
Create Diverse Antibody Pools → **Screen Antibody Candidates** → Identify the Right Antibody

xPloration Microcapillary Technology

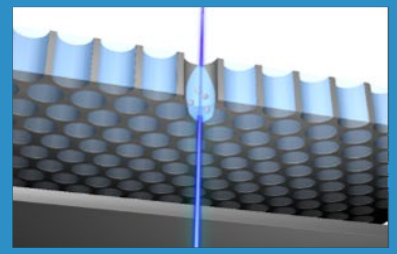
Image millions of cells



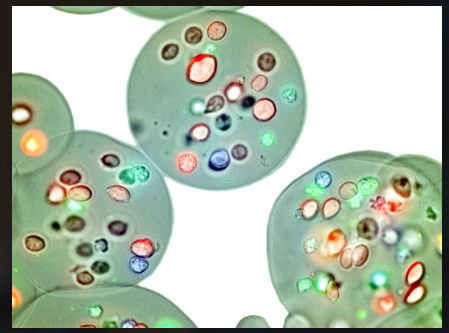
Diverse and flexible assays



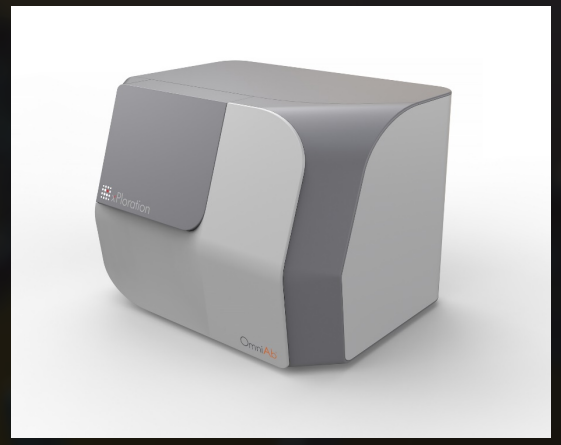
Rapidly recover 1,000's of antibody sequences



Gel Encapsulated Microenvironment (GEM)



xPloration 2.0 (in development)

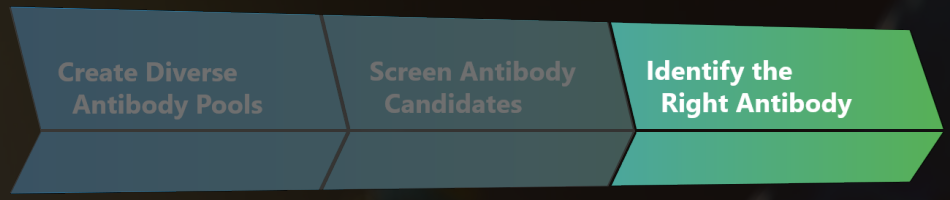


We offer two powerful single B-cell screening technologies: the **xPloration and GEM assay**

Multi-parameter screening of **tens of millions** of cells in **hours instead of weeks**

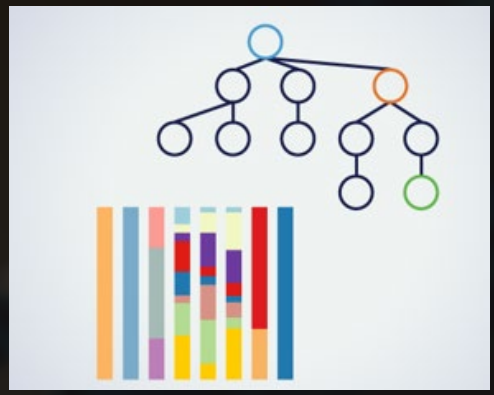
AI **selects** and **ranks** thousands of **promising therapeutic candidates** from immense amounts of phenotypic data

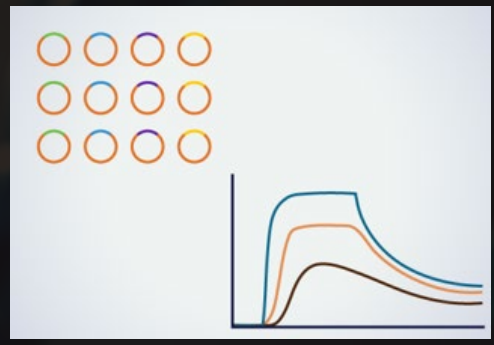
THE OMNIAB PLATFORM



Our discovery teams are **flexibly positioned** to work closely with partners to **identify the right antibody**

- Data from multi-parameter screening and performance assays used in combination with bioinformatics
- Assays include high-throughput epitope binning and kinetics analysis, and target-specific functional assays
- Next generation sequencing (NGS) hit expansion to identify variant antibodies with improved characteristics
- Proprietary assays for ion channel and transporter targets



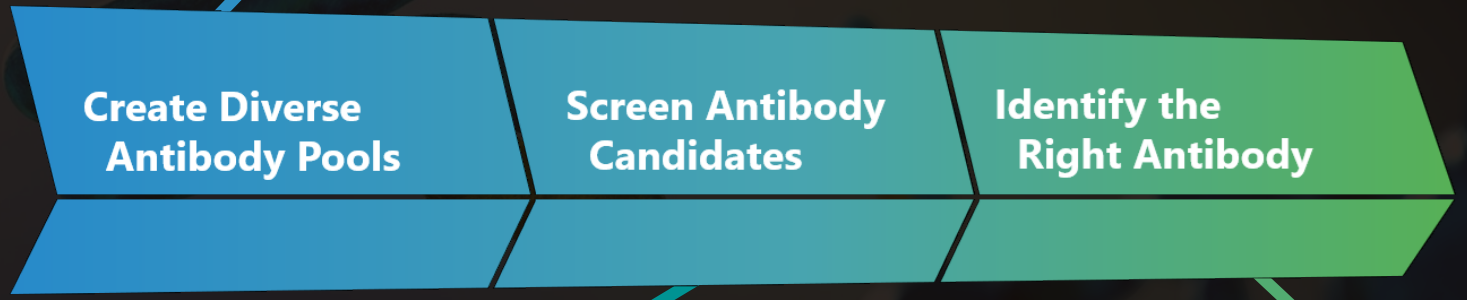


OmniAb

THE OMNIAB PLATFORM

EXTENSIVE BIOLOGICAL CAPABILITIES ON ION CHANNELS AND TRANSPORTERS

Proprietary cell lines enable high speed antigen production



Cutting-edge assays facilitate high-throughput screens in GEM and xPloration platforms

Proprietary assays leveraged for discovery and characterization of ion channel antibodies

Within OmniAb are differentiated best capabilities for viable *target-to-lead* delivery for difficult and high-value ion channel targets

OmniAb

PARTNERSHIP BUSINESS MODEL

OMNIAB BUSINESS MODEL

OUR AGREEMENTS ARE STRUCTURED TO ALIGN ECONOMIC AND SCIENTIFIC INTERESTS WITH OUR PARTNERS

License partnerships designed to include:

- *Technology access and collaboration/service fees*
- *Milestones*
- *Royalties on commercial sales*

We have nearly **$1.5 billion in contracted milestones** (for approximately 300 events) from active OmniAb programs today, with **continued growth expected** as **partners expand use of the platform** and as we add new partners

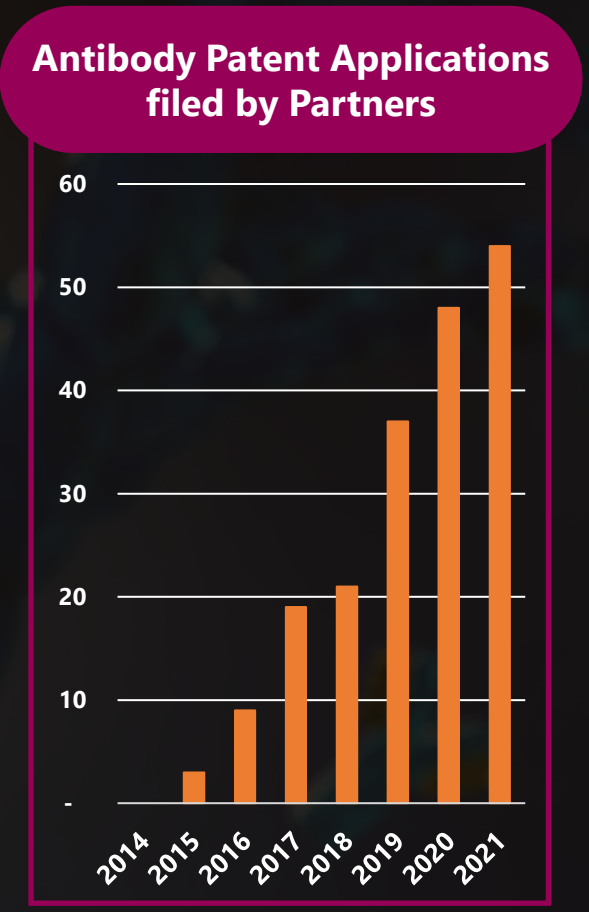
OMNIAB INTELLECTUAL PROPERTY ADVANTAGE

PARTNERS FILING PATENTS ON OMNIAB-DERIVED ANTIBODIES CREATES DURABLE ROYALTY STREAMS AND A LENGTHY INTELLECTUAL PROPERTY TAIL

- We maintain a broad intellectual property estate with multiple long duration patent families covering each major element of our technology platform
- Licenses are structured so that royalties are linked to the patents for the antibodies discovered with OmniAb, thereby creating **a lengthy coverage tail**

>**50 patent filings by our partners** claiming an OmniAb-derived antibody as primary invention, with expiries up to 2041

Over **300 patents** issued worldwide



OmniAb

SELECT OMNIAB PARTNERS

>50 COMPANIES CURRENTLY HAVE ACCESS TO OMNIAB ANTIBODIES

AMGEN

Aptevo Therapeutics

Boehringer Ingelheim

基石药业 CSTONE PHARMACEUTICALS

Genmab

GigaGen A Grifols Company

gloria 誉衡生物 BIOSCIENCES

janssen

MERCK

ONO PHARMACEUTICAL CO.,LTD.

Pfizer

SANOFI

Seagen

symphogen a Servier Company

Takeda

WuXi Biologics Global Solution Provider

THE POWER OF OMNIAB PARTNER CASE STUDIES

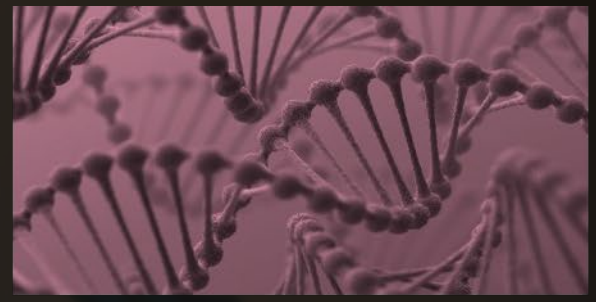
Partner A
Emerging Biotech

- **Novel multi-transmembrane target** for triple negative breast cancer
- All previously-known antibodies to target could only bind to denatured or fixed form, **therefore unsuitable for therapeutic use**
- **Our antigen tech** was applied to deliver mg-scale quantities of purified receptor **in native conformation** for immunization and screening
- **OmniChicken immunization led to discovery of a large and diverse panel of fully-human antibodies** capable of binding target on live tissues

Partner B
Big Pharma

- Growth factor target, **highly conserved among mammals**
- Human version of target non-immunogenic in other rodents; **no titer achieved despite numerous immunization attempts by partner**
- Genetic knockout of target gene attempted in mice **but was lethal**
- **OmniChicken** immunization led to robust titers and diverse fully-human antibody panels
- **>90% of sequences recovered had excellent developability profiles** based on multi-parameter *in-silico* analysis

Partner C
Established Biotech



- Partner has history of success in developing antibodies, **with large discovery group and expanding novel biology**
- Partner needed a flexible, scalable antibody discovery solution to **start dozens of new programs every year**
- **Deep collaboration to develop next generation rodents**, which were tested in parallel with active novel programs
- OmniAb wholly owns rights to next-generation animals and can include them in the OmniAb technology offering to other partners

Partner D
Global Pharma

- Asia-based **global pharma player** that is **establishing a new and substantial presence in antibody space** with large investment and expansion of global antibody team
- Partner need OmniAb's antibody discovery engine to power their growth
- **Selected OmniAb as core technology** to feed robust discovery and development efforts
- Developed three-way collaboration with **deep repertoire analysis to rapidly identify best binders** for bispecific antibodies

OmniAb

OMNIAB CLINICAL AND APPROVED PARTNER PIPELINE

ONE APPROVED PRODUCT AND 18 CLINICAL OMNIAB-DERIVED ANTIBODIES

Partner	Program	Source Animal	Area	Target	Preclinical	Phase 1	Phase 2	Phase 3	Registration	Approved
gloria 誉衡生物 ARCUS BIOSCIENCES	Zimberelimab	OmniRat	Oncology	PD-1						
基石药业 CSTONE PHARMACEUTICALS	Sugemalimab	OmniRat	Oncology	PD-L1						
Genentech * A Member of the Roche Group	Tiragolumab	OmniRat	Oncology	TIGIT						
HANALL BIOPHARMA HARBOUR BIOMED IMMUNOVANT	Batoclimab	OmniRat	Immunology	FcRn						
janssen Johnson & Johnson	Teclistamab	OmniRat	Oncology	BCMA x CD3						
Genmab	GEN1046	OmniRat	Oncology	PD-L1 x 4-1BB						
Undisclosed	Undisclosed	OmniRat	Undisclosed	Undisclosed						
Aptevo Therapeutics	APVO436	OmniMouse	Oncology	CD123 x CD3						
janssen Johnson & Johnson	JNJ-67371244	OmniMouse	Oncology	CD33 x CD3						
janssen Johnson & Johnson	JNJ-70218902	OmniRat	Oncology	Undisclosed						
MERCK	M6223	OmniRat	Oncology	TIGIT						
symphogen	SYM022	OmniRat	Oncology	LAG-3						
symphogen	SYM023	OmniRat	Oncology	TIM-3						
symphogen	SYM024	OmniRat	Oncology	CD73						
Teneobio *	TNB-383B	OmniFlic	Oncology	BCMA x CD3						
Teneobio *	TNB-486	OmniFlic	Oncology	CD19 x CD3						
Teneobio *	TNB-585	OmniFlic	Oncology	PSMA x CD3						
GENEKEY	SAL003	OmniRat	Metabolic	PCSK9						
Undisclosed	Undisclosed	OmniRat	Undisclosed	Undisclosed						

Animal launch year: OmniRat 2012; OmniMouse 2014; OmniFlic 2014; OmniChicken 2016; OmniClic 2019; OmniTaur 2020.
Notes: Most advanced status for each program shown. Zimberelimab Approval in China by Gloria Biosciences.
* Indicates programs with fully paid licenses, for which we will not receive future payments.

OmniAb®

COMPETITIVE BENCHMARKING

THREE CLEAR LEADERS IN INTEGRATED ANTIBODY DISCOVERY

		OmniAb	AbCellera	ADIMAB
Active Partners		>50	35	80(1)
Active Programs		>200	69	Undisclosed(1)
Programs by Stage	Marketed	1	1	1
	Registration	1	-	>40
	Phase 3	3	-	
	Phase 2	2	1	
	Phase 1	12	1	
Technologies Capabilities	Antigen Generation	✓✓✓	✓	X
	Species Diversity	✓✓✓	✓	✓
	Screening Capabilities	✓✓✓	✓✓✓	✓✓
	Identification	✓✓✓	✓✓✓	✓✓
	Analyze	✓	✓✓✓	✓✓
	Engineer	✓	✓✓	✓✓✓

Sources:
AbCellera Q3 2021 10Q dated 11/10/21; Adimab "Update on 2020 Partnership Activities" press release dated 2/11/21; Technologies capabilities based on Ligand's internal assessment.
(1) Adimab does not disclose if programs or partnerships are ongoing or terminated.

OMNIAB TEAM

SCIENTIFIC LEADERSHIP

Bill Harriman, PhD
SVP, Antibody Discovery
Co-Founder/CSO, Crystal Bioscience
Trellis, Roche, Abgenix
UCSF-Immunology, Haas MBA

Marie-Cecile Van De Lavoir, PhD, DVM
VP, Operations
Co-Founder/COO, Crystal Bioscience
Origen Therapeutics, Inventor Germ Cell Technology
Fulbright Scholar, UCSF, Utrecht, Guelph, Cornell

Christel Iffland, PhD
VP, Antibody Technology
Co-inventor, Avelumab
EMD Serono
Dana Farber, Albert Einstein College

Doug Krafte, PhD
SVP, Ion Channels
Site Head and General Manager, Icagen
Pfizer Pain & Sensory Disorders, Aurora Biosciences
Univ. Rochester, Vanderbilt

Shelley Izquierdo, PhD
Sr. Director, Antibody Discovery
Crystal Bioscience, Trellis
UC Berkeley

Phil Leighton, PhD
Sr. Director, Molecular Biology
Genetic Engineering Lead, Crystal Bioscience and Origen
Princeton, UCSF

Bob Chen, PhD
Sr. Director, Systems Engineering
Co-Founder/CTO, xCella Bio
Stanford Bioengineering

Ellen Collarini, PhD
Sr. Director, Cell Biology
Crystal Bioscience, Trellis, Roche
Univ. Michigan, Univ. College-London

OmniAb®

FINANCIAL REVIEW

ADVANCED PIPELINE DRIVING DIVERSIFIED REVENUE

KEY INFORMATION

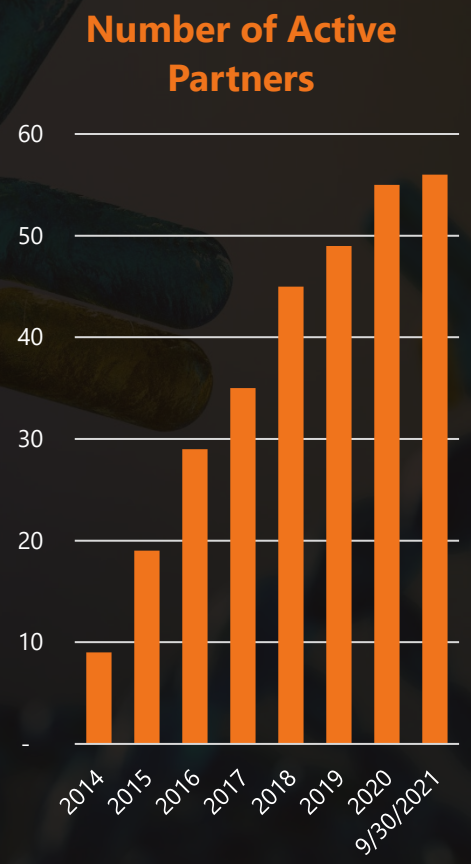
- *Expanded to **>50 active partners** with whom we have active license agreements or who have an active program*
- ***Significant active program growth** since acquisition*
- ***Royalty revenue expected to grow significantly** starting in late 2021 with average royalty rates typically in the low- to mid-single digits*
- *Iterative improvements of antibody discovery engine expected to continue driving **royalty rates** and **market share** higher*

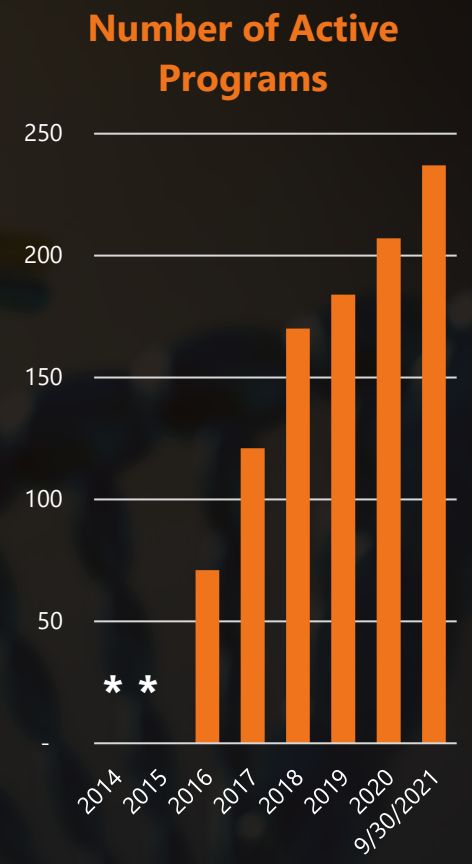
Long-term value of our business will be **driven by downstream royalty payments**

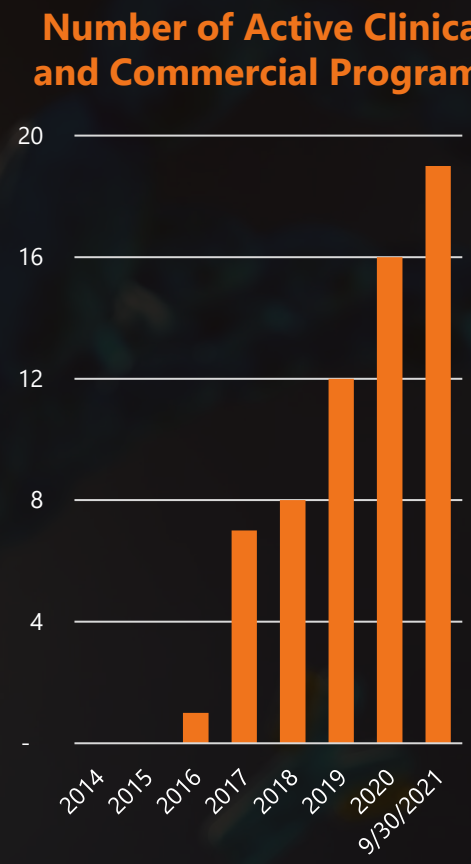
OMNIAB KEY PERFORMANCE INDICATORS

HIGHLY SCALABLE BUSINESS MODEL

- **Strong consistent growth** in key performance indicators
  - Active Partners(1): >30% CAGR since 2014
  - Active Programs(2): >25% CAGR since 2016
- **Highly scalable**, with a large number of programs performed entirely by partners







(1) Represents the unique number of partners with whom we have active license agreements or who have an active program.
(2) Represents programs for which an antigen is introduced into our animals and remains so as long as the program is actively being developed or commercialized. Cumulative number of antibody campaign starts is over 500.
* Active Programs not tracked prior to acquisition of Open Monoclonal Technology, Inc. in January 2016.

OmniAb

ZIMBERELIMAB APPROVED

FIRST OMNIAB ANTIBODY APPROVAL

- On August 30, 2021, zimberelimab (GLS-010), an OmniAb-derived fully human anti-PD-1 mAb, was approved in China for the treatment of recurrent or refractory classical Hodgkin's lymphoma
  - Marks the first approval of an OmniAb-derived mAb
- In 2015, GloriaBio contracted with WuXi Biologics to discover and develop zimberelimab in China using Ligand's transgenic rat platform, OmniRat
  - Zimberelimab entered clinic in March 2017, and NDA was submitted to China NMPA in February 2020
- GloriaBio is also investigating zimberelimab in advanced solid tumors, and was granted Breakthrough Therapy Designation for treatment of patients with recurrent/metastatic cervical cancer in March 2021
- Zimberelimab is being developed by Arcus Bioscience, in collaboration with Gilead, in North America, Europe, Japan and certain other territories through a 2017 license agreement


OmniAb®
WWW.OMNIAB.COM

PELICAN™
P. fluorescens expression technology

PELICAN EXPRESSION TECHNOLOGY

Overview

PELICAN SOLVING OUR INDUSTRY'S PROTEIN PRODUCTION CHALLENGES

PELICAN™
P. fluorescens expression technology

Ligand's Pelican Expression Technology™ Platform uniquely enables complex protein drug production with quality and efficiency

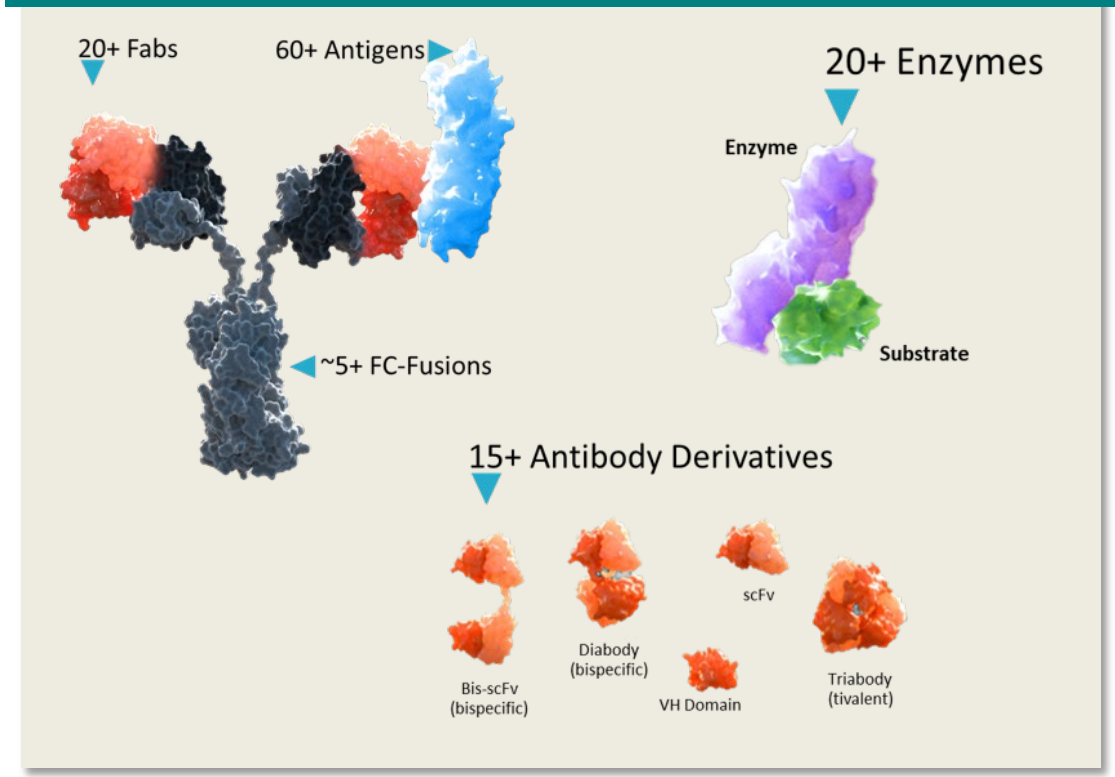
- Global therapeutic protein market estimated at **$100B+** and growing
- Clinical and commercial success achieved with protein therapeutics is **increasing demand for technologies** that deliver competitively positioned products with desired physical properties
- Protein therapeutics are often of a physical size that is orders of magnitude larger than small-molecule drugs and exhibit **complex secondary, tertiary and quaternary structures that must be maintained in production** – critical to enable *state-of-the-art* drugs relevant to the industry today and in the future

PELICAN A UNIQUE VALUE-DRIVING PLATFORM

PELICAN™
P. fluorescens expression technology

- Pelican delivers **significant competitive advantages to our partners**, including:
  - ✓ Speed to identifying production strain
  - ✓ Success rates in a variety of formats resulting in minimization of time/cost of development
  - ✓ Efficiency and decreased long-term cost-of-goods
- Significant institutional knowledge of protein production developed over **three decades**
- A commercially validated platform with **four recent approvals**, including latest in 2021 via partnerships with Jazz and Merck

The Pelican Expression Platform™ has maintained a **success rate of over 80%** in expressing a variety of "lead" protein candidates

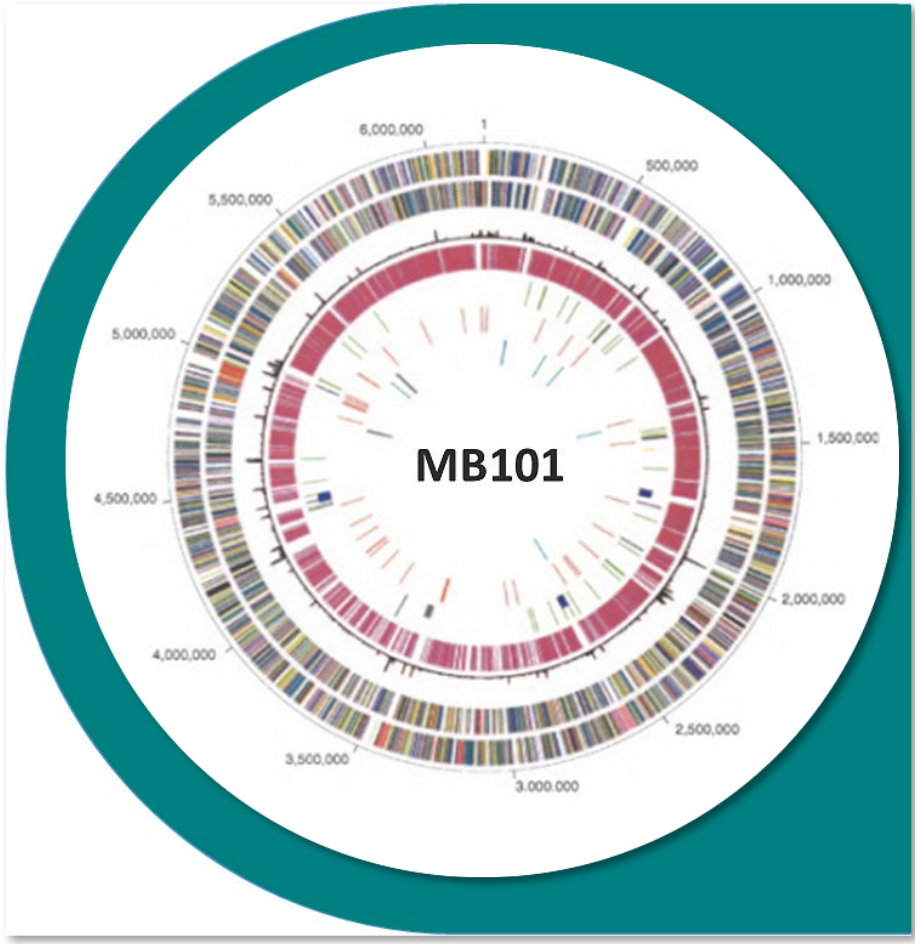


Ligand®

PELICAN THE INDUSTRY'S DEEPEST PROKARYOTIC PROTEIN PRODUCTION PLATFORM

The Pelican Platform leverages ***P. fluorescens*** **-** A GRAM-NEGATIVE, NON-PATHOGENIC, METABOLICALLY VERSATILE ORGANISM:

- Genomic, RNAseq, and proteomics data leveraged to engineer host strains and design expression plasmids
- Animal origin-free and used with antibiotic-free processes
- High-throughput growth and test methods
- Rapid fermentation and purification development and scale-up **expedite partners' program timelines**



RYLAZE™ PELICAN PARTNERSHIP

RECENT APPROVAL

PELICAN
P. fluorescens expression technology

Jazz Pharmaceuticals

RYLAZE™
asparaginase erwinia chrysanthemi (recombinant)-rywn
for injection 10mg/0.5mL per vial

RELY ON RYLAZE—THE ONLY RECOMBINANT *ERWINIA* ASPARAGINASE APPROVED FOR THE TREATMENT OF ALL/LBL[1]

- Jazz' Rylaze™ is a Recombinant Erwinia asparaginase for ALL/LBL, enabled by the Pelican Expression Technology™
  - High quality, reliable supply for a major unmet need
  - >$200 M market potential in US alone
- Approved in US on June 30, launched July 15, 2021
  - 1+ year supply available at launch
- Jazz launch focused on pediatric oncologists; majority of ALL incidence in children
  - Education and awareness campaigns on-going
- National Comprehensive Cancer Network® added Rylaze™ to ALL Clinical Practice Guidelines
- EU filing anticipated in 2022; Japan submission to follow

CRM197 PELICAN PARTNERSHIP

VAXNEUVANCE™ PNEUMOCOCCAL VACCINE RECENT APPROVAL

PELICAN™
P. fluorescens expression technology

MERCK

- Merck's Vaxneuvance™ approved in the US on July 16, 2021, for the prevention of pneumococcal disease in adults
  - 15-valent pneumococcal vaccine utilizing Ligand's CRM197 vaccine carrier protein produced using the Pelican Expression Technology platform
- Vaxneuvance will compete directly with Pfizer's Prevnar13® (2020 worldwide sales of $5.9 B) and the recently-approved Prevnar20™
- Vaxneuvance sBLA for pediatric population submitted recently, 1-2 years ahead of estimated Prevnar20 pediatric submission
  - If approved, market opportunity estimated to more than double
- Merck's follow-on pneumococcal vaccine candidate V116, currently in Phase 2, also uses CRM197 produced using the Pelican Expression Technology™

NOW APPROVED

Vaxneuvance™
Pneumococcal 15-valent Conjugate Vaccine

CAPTISOL TECHNOLOGY

Overview

CAPTISOL TECHNOLOGY

CAPTISOL®
A Ligand TECHNOLOGY

- Addresses consistent and enduring industry need: **formulation solubility and stability**
  - An *"estimated that 70% of new drug candidates are practically insoluble in water"* (Sanches & Ferreira, *Int. J. of Pharmaceutics*, 2019)
- Clinical and regulatory success, combined with vast safety database **have significantly increased awareness, visibility and use** of the technology and positioned it for growth
- Ligand continually focuses on **quality, reliability and customer service**

Ligand®

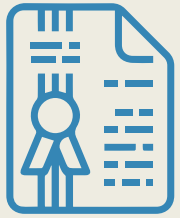
CAPTISOL KEY TECHNOLOGY FEATURES

CAPTISOL® A Ligand TECHNOLOGY

Global Reach

Captisol-enabled drugs are marketed in >70 countries

>50 partners have Captisol-enabled drugs in development



Intellectual Property

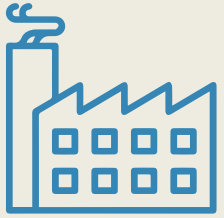
Substantial know-how

Patents extend until 2033*

Drug Master Files

Type 4 and 5 DMFs in U.S. with >20,000 pages containing manufacturing, safety data (IV, inhaled, SubQ, oral, etc.)

Also have DMFs in Japan, China and Canada



Manufacturing, Quality & Scale

Manufacturing is conducted in cGMP plants via validated processes, distribution out of multiple facilities

Substantial capacity increases recently completed

* Ligand maintains a broad global patent portfolio for Captisol with more than 400 issued patents worldwide relating to the technology (including over 40 in the U.S.) and with the latest expiration date in 2033. Other patent applications covering methods of making Captisol, if issued, extend to 2040.

Ligand®

Corporate Presentation

NOVEMBER 2021

Nasdaq: LGND