Ligand®

THIRD QUARTER 2023 PERFORMANCE & OUTLOOK

November 8, 2023



Nasdaq: LGND

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The process for reconciliation between the non-GAAP adjusted financial numbers presented on slides 18 and 19 and the corresponding GAAP figures is shown in the earnings press release for the third quarter ended September 30, 2023 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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EXECUTION IN 2023

Commercial Products	8 major commercial-stage royalty streams (25 total)
Major Partner Catalysts	Continued advancement across development portfolio
Executing at Scale	Scaled our business development and investment capabilities Rapidly increasing level of investment activity with proactive origination
Strong Balance Sheet	$191 million of cash and investments as of Q3 after investment in Primrose Bio and acquisition of Novan assets
Lean Operating Structure	Expense reductions and revenue growth drive operating profit
Financial Performance	Increasing revenue and EPS guidance

Proven business model

BUSINESS DEVELOPMENT & INVESTMENTS TEAM SCALE UP

Proprietary origination is generating results

Investment Team	Paul Hadden, SVP Investments and Business Development, and 3 new associates Lauren Hay, VP Strategic Planning and Investment Analytics Keith Marschke, SVP Biology and Scientific Affairs
Board of Directors	Appointed Martine Zimmermann to Board of Directors Functional Background in regulatory affairs; complements existing science, clinical, and business expertise
Existing Corporate Team	Todd Davis, Chief Executive Officer Matthew Korenberg, President and Chief Operating Officer Tavo Espinoza, Chief Financial Officer Andrew Reardon, Chief Legal Officer
Boston Office	Established presence

SIGNIFICANT OPPORTUNITY IN THE CURRENT ENVIRONMENT

Multiple ways to add late-stage programs to the portfolio

Royalty Monetization

Acquire existing royalty contracts

- Inventors
- Universities
- Non-strategic assets held by companies

M&A

Identify companies with attractive royalty contracts and technology

Significant discounts in current equity environment

Operational team capable of cutting costs and restructuring

Project Finance

Fund late-stage clinical trials for royalty interest

- Derisked late-stage assets
- $10 – 40M per asset
- Revenue within a few years

Platforms

Focus on infrastructure-light and leverageable platforms:

Scalable → Limited operations

Broad applicability → Prolific

Enabling → Higher royalties

We will grow our portfolio using all of the above tactics

BUSINESS DEVELOPMENT PROCESS

Creating a global business development pipeline and execution capability

Invested $77M on four recent transactions

- Ovid royalty monetization **$30M**
- Acquisition of Tolerance Therapeutics **$20M**
- Spin-out and merger of Pelican Subsidiary and Primrose Bio project finance **$15M**
- Acquisition of Novan Assets **$12.2M**

Significant imbalance between the supply of alternative capital and the demand for it

BUSINESS DEVELOPMENT PROCESS

Proactive, outbound, deal sourcing process

Building the right team

- Capable of identifying attractive risk-reward investment opportunities
- Requires experience, relationships, discipline
- Senior team with strong track record in deal making
- Added talent with skills in sourcing, underwriting and execution

Asset selection criteria

- Strong clinical differentiation
- Addresses unmet need
- Solid patent protection
- Within a few years from market
- Therapeutically agnostic

M&A level due diligence

- Clinical trial design
- Pipeline
- Competition
- Regulatory strategy
- Intellectual property
- Commercial sales potential
- Market access
- Licenses and contracts

Q4 Pipeline: Over 25 actionable opportunities representing > $800M of potential investments

Increased level of investment activity in Q3 and early Q4

EXECUTING ON OUR STRATEGY – $30M INVESTED

OVID Royalty Monetization – October 2023

Ligand purchased 13% of Ovid Therapeutics' interest in royalties and milestones on the soticlestat program for $30M. The product is being developed by Takeda in two pivotal Phase 3 trials in Lennox-Gastaut and Dravet syndromes, both rare diseases in the US

- Ovid is eligible to receive sales and regulatory milestone payments of up to $660 million, as well as tiered royalties on global net sales of soticlestat at percentages ranging from the low double-digits up to 20%
- Ligand's 13% purchase entitles the Company to receive up to $86 million in sales and regulatory milestones, and tiered royalties up to 2.6% if soticlestat is approved
- Greenfield opportunity sourced, diligenced and negotiated by Ligand's investment team

Increased level of investment activity in Q3 and early Q4

EXECUTING ON OUR STRATEGY – $20M INVESTED

Tolerance Acquisition / Royalty Monetization – October 2023

Ligand acquires Tolerance Therapeutics for $20M. The sole asset at Tolerance is a less than 1% royalty bearing license on worldwide net sales of TZIELD® which is an approved treatment offering the first disease-modifying therapy in type 1 diabetes ("T1D"). It is a CD3-directed antibody indicated to delay the onset of Stage 3 T1D in adults and children ages 8 years and older with Stage 2 T1D

- TZIELD was granted Breakthrough Therapy Designation in 2019 and was approved by the U.S. Food and Drug Administration in November 2022
- TZIELD is marketed by Sanofi S.A. following its acquisition of Provention Bio, Inc., in 2023 for $2.9 billion. Sanofi recently announced new data from TZIELD's PROTECT Phase 3 trial which showed TZIELD's potential to slow the progression of Stage 3 type 1 diabetes in newly diagnosed children and adolescents
- Originated this special situation through intermediary networks, diligenced and negotiated by Ligand's investment team

Increased level of investment activity in Q3 and early Q4

EXECUTING ON OUR STRATEGY – $15M INVESTED

Spin-out and Merger of Pelican Subsidiary and Primrose Bio Project Finance – September 2023

Ligand spun-out the Pelican subsidiary through a merger with Primordial Genetics, to form Primrose Bio. Primrose Bio is a leading synthetic biology company with solutions to the industry's protein design, formulation and expression challenges

- Ligand retains existing royalties from Pelican commercial products and a portion of PeliCRM197's future revenues
- Merger of equals between Pelican and Primrose Bio. Equity Ownership – Primordial / Ligand: 50.1% / 49.9%
- Broadened economic rights by acquiring a portion of two existing Primordial Genetics contracts in return for $15M
- Transaction will reduce Ligand's ongoing operating cash expenses and be immediately accretive
- Proprietary Origination: Primrose Bio initially known to the scientific staff and entered broader discussions

PORTFOLIO MANAGEMENT & UPDATES

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PARTNERED PIPELINE SNAPSHOT

Over 75 additional active programs with economic rights

Partner	Program	Therapy Area	Phase 1	Phase 2	Phase 3	NDA	Approved
AMGEN	Kyprolis®	Oncology					
TRAVERE THERAPEUTICS	FILSPARI™	Kidney Disease					
ACROTECH BIOPHARMA / CASI Pharmaceuticals	EVOMELA®	Oncology					
Alvogen	Teriparatide	Endocrinology					
Jazz Pharmaceuticals	Rylaze™	Oncology					
MERCK	Vaxneuvance™	Infectious Disease					
SERUM INSTITUTE OF INDIA PVT. LTD.	Pneumosil®	Infectious Disease					
sanofi	TZIELD®	Endocrinology					
Verona Pharma	Ensifentrine	Respiratory					
MARINUS PHARMACEUTICALS	Ganaxolone-IV	CNS					
MERCK	V116	Infectious Disease					
Takeda	Soticlestat	CNS					

REVIEW OF 2023 KEY PROGRAM PROGRESS

2023 has produced many successful advancements for key portfolio programs

Partner	Program	Indication	Event	Date	Royalty
NOVAN *	Berdazimer Gel	Molluscum	NDA Submission	January 6, 2023	NA
TRAVERE THERAPEUTICS	Filspari	IgAN	US Approval	February 17, 2023	9%
palvella THERAPEUTICS	PTX-022	Microcystic Lymphatic Malformations	Phase 2 Data	March 9, 2023	5% to 9.8%
Verona Pharma	Ensifentrine	COPD	NDA Submission	June 27, 2023	Low-single-digit
VIKING THERAPEUTICS	VK-2809	NASH	Phase 2b Data	May 16, 2023	3.5% to 7.5%
Jazz Pharmaceuticals	Enrylaze	ALL/LBL	EU Approval	September 21, 2023	3% to 5%
MERCK	V116	Pneumococcal Disease	Phase 3 Data	July 27, 2023	Low-single-digit

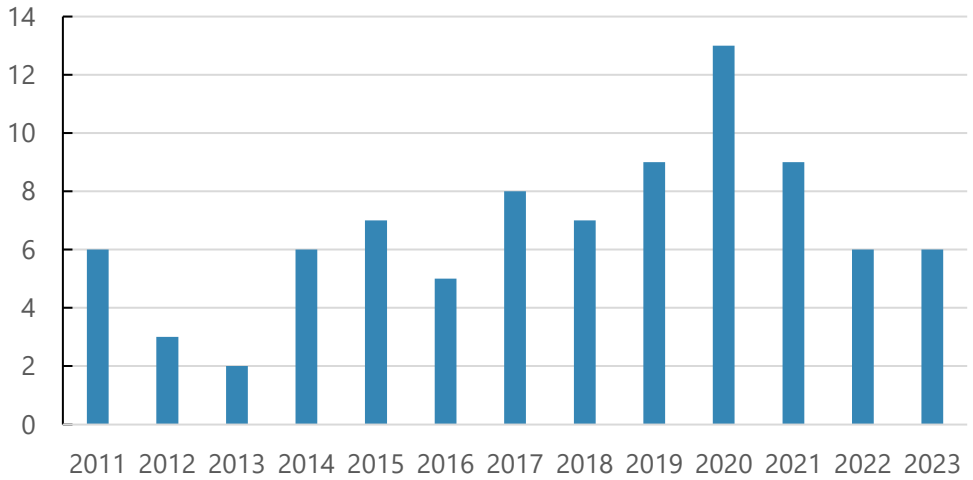
** Assets acquired from Novan by a Ligand wholly owned subsidiary*

LICENSING AND BROADER PORTFOLIO PROGRESS

The broader portfolio has also seen significant advancements in 2023 and the Captisol licensing business continues to thrive

Partner	Program	Indication	Event	Date	Royalty
新通药物 XINTONG PHARMA (Xintong)	Pradefovir	Hepatitis B	China NDA Acceptance	May 16, 2023	9%
ANEBULO PHARMACEUTICALS	ANEB-001	Acute Cannabinoid Intoxication	Phase 2 Data	March 28, 2023	2% to 6%
NOVARTIS	Tafinlar + Mekinist	Solid Tumors	Pediatric NDA Approval	March 16, 2023	< 1%

History of New Captisol Partnerships



2023 Captisol Partnerships

Program	Stage	Therapy Area	Date Executed
Copper Metabolism	Ph I	Menkes Disease	02/06/23
Casein Kinase Inhibitor	Ph I	COPD	02/23/23
PDE4	Ph I	Neuropsych	02/23/23
TYK2	Ph I	Autoimmune	04/19/23
LAT1 Inhibitor	Ph III	Advanced Solid Tumors	09/06/23

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FOLLOW ON INVESTMENT – $12M INVESTED

Acquisition of Novan Assets – September 2023

Ligand acquired certain assets of Novan for $12.2M

- Ligand previously funded portions of the Phase 3 program for NDA-stage berdazimer gel in exchange for royalty economics
- Berdazimer gel remains on track for a PDUFA goal date of January 5, 2024, as the first potential at-home treatment for molluscum contagiosum
- Acquisition includes all assets related to the NITRICIL delivery technology platform and the rights to the Sitavig program
- Team remains in place at Raleigh, North Carolina facilities driving manufacturing operations and regulatory process
- Novan team is preparing for commercial launch in second half 2024
- Ligand objective: incubate business to spin-out or strategic partnership

KEY UPCOMING PIPELINE CATALYSTS

Beyond the existing approved royalty streams, a number of late-stage partnered products with anticipated catalysts in 2024

Partner	Program	Indication	Event	Expected Timing	Royalty
TRAVERE THERAPEUTICS	Filspari	IgAN	EMA Approval	H1 2024	9%
NOVAN*	Berdazimer Gel	Molluscum	FDA Approval	January 5, 2024 (PDUFA)	NA
MERCK	V116	Pneumonia	BLA Submission	2024	Low-single-digit
Verona Pharma	Ensifentrine	COPD	FDA Approval	June 26, 2024 (PDUFA)	Low-single-digit
Takeda	Soticlestat	Dravet & Lennox-Gastaut Syndromes	Phase 3 Data	2024	Tiered up to 2.6%
MARINUS	Ganaxolone	RSE	Phase 3 Data	H1 2024	Low-to-mid-single-digit
VIKING THERAPEUTICS	VK-2809	NASH	Phase 2 Histology Data	H1 2024	3.5% - 7.5%

** Assets acquired from Novan by a Ligand wholly owned subsidiary*

FINANCIAL REVIEW AND 2023 GUIDANCE

Q3 2023 FINANCIAL PERFORMANCE

$ in millions, except for per share amounts (unaudited)	Three Months Ended September 30, 2023	2022
Revenues:		
Royalties	$23.9	$19.3
Captisol - Core	8.6	3.6
Captisol - COVID	-	32.4
Contract revenue	0.4	4.0
Total Revenues	**$32.9**	**$59.2**
Operating Costs and Expenses:		
Cost of Captisol	3.5	14.2
Amortization of intangibles	8.2	8.6
R&D Expense	5.5	9.2
G&A Expense	14.7	14.9
Total Operating Expenses	**$31.9**	**$46.9**
Loss from sale of Pelican	1.1	-
Operating Income (Loss)	(0.1)	12.3
Gain (loss) from short-term of investments	(13.2)	(0.9)
GAAP Net Income (Loss) from Cont. Ops	(12.8)	9.6
Non-GAAP Net Income (Loss) from Cont. Ops	**$17.9**	**$10.5**
GAAP Diluted EPS	($0.74)	$0.56
Non-GAAP Diluted EPS	$1.02	$1.50
Non-GAAP Diluted EPS ***(ex-COVID-19 related Captisol gross profit)***	**$1.02**	**$0.60**

- **Royalty revenue grows 24%**
- **Total revenue grows 22% when excluding Captisol used for COVID**
- **Total R&D plus G&A decrease 17% post Pelican spin-out**
- **Adjusted diluted EPS increases 70% to $1.02**

REVENUE & EPS – Q3 2023 RESULTS & UPDATED GUIDANCE

Captisol Sales Exceeding Internal Forecasts

- YoY royalty revenue grows 24% due to strong sales of Kyprolis, launch of Filspari and continued growth of Rylaze and Vaxneuvance
- Lean cost structure post Pelican spin-out contributes to 70% YoY EPS growth
- Captisol sales exceeded our internal forecasts, increasing guidance to $27-$28M

	Q3 2023 Actuals	Prior FY 2023 Guidance	Updated FY 2023 Guidance
Royalty Revenue	$23.9M	$82M - $84M	$82M - $84M
Captisol Sales	$8.6M	$25M	$27 - $28M
Contract Revenue	$0.4M	$17M	$17M
Total Revenue	$32.9M	$124M - $126M	$126M - $129M
Adjusted EPS	$1.02	$5.10 - $5.25	$5.25 - $5.40

- **Revenue guidance range increased from $124-$126M to $126-$129M**
- **2023 EPS guidance range increased $0.15 from $5.10-$5.25 to $5.25-$5.40**
- **Gains from sales of Viking Therapeutics stock in first nine months accounts for $1.50 in 2023 EPS**

CLOSING COMMENTS / ANALYST DAY

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TWELVE MONTHS OF CHANGE

	Fall 2022	Fall 2023 Run Rate
Headcount	170	35
Platforms	Captisol OmniAb Pelican	Captisol
Focus	Platform Technologies	8 Key Commercial Royalties Captisol
Annual Royalty Revenue	$73 million	Growing from mid $80 millions
Annual Cash Operating Expenses	~$92 million	In the mid $30 millions
Adjusted EPS*	$2.44	Growing through ~$4.00*

Join us December 12, 2023, in New York City at the Harvard Club for Analyst and Investor Day

** Excluding VKTX stock sales*

Q&A

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