May 8, 2018

Ligand Reports First Quarter 2018 Financial Results

Conference Call Begins at 4:30 p.m. Eastern Time Today

SAN DIEGO--(BUSINESS WIRE)-- **Ligand Pharmaceuticals Incorporated (NASDAQ: LGND)** today reported financial results for the three months ended March 31, 2018, and provided an operating forecast and program updates. Ligand management will host a conference call today beginning at 4:30 p.m. Eastern time to discuss this announcement and answer questions.

"Our financial and business results for the first quarter were excellent, highlighted by significant progress with several of our leading partnered assets. Melinta Therapeutics launched newly-approved intravenous Baxdela in the U.S. and their partners made regulatory filings in new geographies. Sage Therapeutics filed a new drug application for intravenous brexanolone for the treatment of postpartum depression and Retrophin initiated a Phase 3 trial with sparsentan for treating focal segmental glomerulosclerosis. We also out-licensed our GRA program, previously our main internal development program, and initiated a new R&D program to address unmet needs in the diagnostic imaging market," said John Higgins, Chief Executive Officer of Ligand. "Ligand's Shots-on-Goal business model, with its focus on diversification and expense minimization, is continuing to generate increasing cash flow, and we expect this momentum to build throughout the remainder of 2018."

First Quarter 2018 Financial Results

Total revenues for the first quarter of 2018 were $56.2 million, compared with $29.3 million for the same period in 2017. Royalties were $20.8 million, compared with $24.2 million for the first quarter of 2017 and $14.2 million for the second quarter of 2017. Under the new accounting standard ASC 606, adopted as of the start of 2018, first quarter 2018 royalties should be compared with second quarter 2017 royalties due to the timing of revenue recognition. First quarter 2018 royalties primarily consisted of royalties from Promacta®, Kyprolis® and EVOMELA®. Material sales were $4.4 million, compared with $1.1 million for the same period in 2017 due to the timing of Captisol purchases for use in clinical trials and commercial products. License fees, milestones and other revenues were $30.9 million, compared with $3.9 million for the same period in 2017, primarily due to a $20 million upfront payment received upon the licensing of Ligand's GRA program and other milestones received.

Cost of goods sold was $0.8 million for the first quarter of 2018, compared with $0.3 million for the same period in 2017. Amortization of intangibles was $3.3 million, compared with $2.7 million for the same period in 2017. Research and development expense was

$7.4 million, compared with $8.7 million for the same period of 2017 due primarily to lower spending on the GRA program partnered in the first quarter 2018. General and administrative expense was $7.6 million, compared with $7.3 million for the same period in 2017.

GAAP net income for the first quarter of 2018 was $45.3 million, or $1.83 per diluted share, compared with $5.1 million, or $0.22 per diluted share for the same period in 2017. First quarter of 2018 included a one-time, non-cash gain due to a change in the accounting for our investment in Viking Therapeutics, which resulted in marking the investment to market. Adjusted net income for the first quarter of 2018 was $35.7 million, or $1.55 per diluted share, compared with adjusted net income of $12.6 million, or $0.57 per diluted share, for the same period in 2017.

As of March 31, 2018, Ligand had cash, cash equivalents and short-term investments of $264.4 million in addition to our $27.5 million investment in Viking Therapeutics. Cash generated from operations was $60.8 million for the first quarter of 2018.

2018 Financial Guidance

Ligand affirms previous guidance for 2018 revenue to be approximately $184 million, including royalties of approximately $116 million, material sales of approximately $23 million and license fees and milestones of approximately $45 million, with the potential for up to an additional $20 million in license fees and milestones. Ligand notes that with revenue of $184 million, adjusted earnings per diluted share would be approximately $4.85.

First Quarter 2018 and Recent Business Highlights

Promacta®/Revolade®

- Novartis reported first quarter 2018 net sales of Promacta/Revolade (eltrombopag) of $257 million, an $82 million or 47% increase over the same period in 2017.
- Novartis announced that the U.S. Food and Drug Administration (FDA) granted Breakthrough Therapy designation to Promacta for use in combination with standard immunosuppressive therapy for the treatment of patients with severe aplastic anemia as a first-line therapy.

Kyprolis® (carfilzomib), an Amgen Product Utilizing Captisol

- On April 24, 2018, Amgen reported first quarter net sales of Kyprolis of $222 million, a $32 million or 17% increase over the same period in 2017. On May 9, 2018, Ono Pharmaceutical Company is expected to report Kyprolis sales in Japan for the most recent quarter.
- On January 17, 2018, Amgen announced that the FDA approved the supplemental New Drug Application to add overall survival (OS) data from the Phase 3 head-to-head ENDEAVOR trial to the Prescribing Information for Kyprolis.
- On January 30, 2018, Amgen announced that the Committee for Medicinal Products

for Human Use of the European Medicines Agency (CHMP) adopted a positive opinion recommending a label variation for Kyprolis to include updated OS data from the Phase 3 head-to-head ENDEAVOR trial in patients with relapsed or refractory multiple myeloma.

- On April 30, 2018, Amgen announced that the CHMP adopted a positive opinion recommending a label variation for Kyprolis to include the final overall survival (OS) data from the Phase 3 ASPIRE trial.

New Licensing Deals

- Ligand announced the signing of a license agreement granting Roivant Sciences exclusive global rights to develop and commercialize LGD-6972 (now named RVT-1502), Ligand's glucagon receptor antagonist (GRA). Under the terms of the agreement, Ligand received a $20 million upfront license fee, and is eligible to receive up to an additional $528.8 million of milestone payments and tiered royalties ranging from low double digits to the mid-teens, with the top tier applying to annual net sales above $3 billion. Roivant is responsible for all costs related to the program.
- Ligand announced worldwide license agreements with venBio Partners, Ferring Pharmaceuticals and Glenmark Pharmaceuticals to use the OmniAb platform technologies to discover fully human antibodies. The agreement with venBio permits the venture capital firm's portfolio companies to enter into worldwide OmniAb platform agreements under previously agreed-upon terms. Ligand is eligible to receive annual access payments, milestone payments and royalties on future net sales of any antibodies discovered under these licenses.

Additional Pipeline and Partner Developments

- Sage Therapeutics announced the submission of a New Drug Application to the FDA for an intravenous (IV) formulation of brexanolone for the treatment of postpartum depression.
- Retrophin announced first patient enrollment in the Phase 3 DUPLEX Study evaluating the long-term nephroprotective potential of sparsentan for the treatment of focal segmental glomerulosclerosis. Topline data from the 36-week interim efficacy endpoint analysis are expected in the second half of 2020.
- Retrophin announced that the company received regulatory feedback from both the FDA and European Medicines Agency (EMA) on the development pathway for sparsentan in IgA nephropathy and that a single registration-enabling Phase 3 clinical trial is expected to be initiated in the fourth quarter of 2018
- Melinta Therapeutics announced the U.S. launch of the Captisol-enabled IV formulation of Baxdela for the treatment of adult patients with acute bacterial skin and skin structure infections caused by designated susceptible bacteria.
- Melinta Therapeutics announced that The Menarini Group and Eurofarma Laboratórios submitted regulatory applications for delafloxacin (Baxdela in the U.S.) in the European Union and Argentina, respectively.
- CASI Pharmaceuticals announced a $50 million private placement to prepare for

commercialization in China, including potentially for EVOMELA, which has a regulatory application outstanding under priority review.

- Aldeyra Therapeutics announced enrollment of the first patient in a Phase 3 clinical trial of topical ocular reproxalap for the treatment of allergic conjunctivitis and also enrollment of the first patient in a Phase 2b clinical trial of reproxalap for the treatment of dry eye disease.
- Aldeyra Therapeutics presented the results of a Phase 2a dry eye disease clinical trial of topical ocular reproxalap at the Association for Research in Vision and Ophthalmology 2018 Annual Meeting.
- Exelixis announced that its partner Daiichi Sankyo had submitted a regulatory application for esaxerenone (CS-3150) in patients with hypertension to the Japanese Pharmaceutical and Medical Devices Agency.
- Takeda Pharmaceuticals highlighted the Phase 3 initiation of pevonedistat and its TAK-020 program during its presentation at the JP Morgan 36th Annual Healthcare Conference.
- Merrimack Pharmaceuticals announced it had dosed the first patient in its Phase 2 SHERBOC study of MM-121 (seribantumab) in patients with heregulin-positive, hormone receptor-positive and HER2-negative post-menopausal metastatic breast cancer.
- Viking Therapeutics announced the pricing of a $63.3 million public offering of common stock (including over-allotment exercise) with proceeds to fund continued development of VK5211, VK2809 and VK0214.
- Opthea announced commencing a Phase 1b/2a trial evaluating the safety and efficacy of OPT-302 in patients with center-involved diabetic macular edema.
- Syros Pharmaceuticals announced new preclinical data showing that Captisol-enabled SY-1365, a first-in-class selective cyclin-dependent kinase 7 inhibitor currently in a Phase 1 trial in patients with advanced solid tumors, demonstrated potent anti-tumor activity in multiple models of heavily pretreated ovarian cancer.
- Aptevo Therapeutics announced that it had submitted an Investigational New Drug application to the FDA to evaluate APVO436 in a Phase 1 clinical study for the treatment of patients with relapsed or refractory acute myeloid leukemia or myelodysplastic syndrome.
- Aptevo Therapeutics presented new data for APVO436 at the American Association for Cancer Research (AACR) 2018 Annual Meeting.
- OmniAb partner Ferring Pharmaceuticals announced it is expanding its capabilities in biologics by constructing a new CHF30 million biotech center and manufacturing site.
- Arcus Biosciences presented a poster on OmniAb-derived GLS-010 (AB122) at the AACR 2018 Annual Meeting.
- Nucorion Pharmaceuticals presented preclinical data for its novel liver-targeting prodrug technology program, NCO-1010, for the potential treatment of hepatitis B at

the European Association for the Study of the Liver's International Liver Congress.

Internal Research and Development

- Ligand announced initiation of an internally funded program to develop through proof-of-concept contrast agents with reduced renal toxicity for diagnostic imaging procedures. This development program will leverage Ligand's Captisol technology, as well as intellectual property obtained through its acquisition of Verrow Pharmaceuticals for $2 million in cash plus earn outs.
- Ligand presented a poster at the National Lipid Association's 2018 Scientific Sessions showing that Ligand's LTP Technology significantly improves liver targeting of the statin rosuvastatin (Crestor®), and may potentially be an effective strategy to increase the therapeutic index of statins and reduce statin intolerance.
- A paper by Ligand scientists entitled "Chickens with humanized immunoglobulin genes generate antibodies with high affinity and broad epitope coverage to conserved targets" was published in the journal *MAbs*, highlighting the use of OmniChicken in antibody drug discovery.

Adjusted Financial Measures

The Company reports adjusted net income and adjusted net income per diluted share in addition to, and not as a substitute for, or superior to, financial measures calculated in accordance with GAAP. The Company's financial measures under GAAP include stock-based compensation expense, amortization of debt-related costs, amortization related to acquisitions and intangible assets, changes in contingent liabilities, net losses of Viking Therapeutics, mark-to-market adjustment for amounts owed to licensors, fair value adjustments to Viking Therapeutics convertible note receivable and warrants, unissued shares relating to the Senior Convertible Notes and others that are listed in the itemized reconciliations between GAAP and adjusted financial measures included at the end of this press release. However, other than with respect to total revenue, the Company only provides 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, including adjustments that could be made for changes in contingent liabilities, net losses of Viking Therapeutics, stock-based compensation expense, mark-to-market adjustments for amounts owed to licensors, effects of any discrete income tax items and fair value adjustments to Viking Therapeutics convertible note receivable. Management has excluded the effects of these items in its adjusted measures to assist investors in analyzing and assessing the Company's past and future core operating performance. Additionally, adjusted earnings per diluted share is a key component of the financial metrics utilized by the Company's board of directors to measure, in part, management's performance and determine significant elements of management's compensation.

Conference Call

Ligand management will host a conference call today beginning at 4:30 p.m. Eastern time (1:30 p.m. Pacific time) to discuss this announcement and answer questions. To

participate via telephone, please dial (833) 591-4752 from the U.S. or (720) 405-1612 from outside the U.S., using the conference ID 2259939. To participate via live or replay webcast, a link is available at www.ligand.com.

About Ligand Pharmaceuticals

Ligand is a biopharmaceutical company focused on developing or acquiring technologies that help pharmaceutical companies discover and develop medicines. Our business model creates value for stockholders by providing a diversified portfolio of biotech and pharmaceutical product revenue streams that are supported by an efficient and low corporate cost structure. Our goal is to offer investors an opportunity to participate in the promise of the biotech industry in a profitable, diversified and lower-risk business than a typical biotech company. Our business model is based on doing what we do best: drug discovery, early-stage drug development, product reformulation and partnering. We partner with other pharmaceutical companies to leverage what they do best (late-stage development, regulatory affairs and commercialization) to ultimately generate our revenue.

Ligand's Captisol® platform technology is a patent-protected, chemically modified cyclodextrin with a structure designed to optimize the solubility and stability of drugs. OmniAb® is a patent-protected transgenic animal platform used in the discovery of fully human mono- and bispecific therapeutic antibodies. Ligand has established multiple alliances, licenses and other business relationships with the world's leading pharmaceutical companies including Novartis, Amgen, Merck, Pfizer, Celgene, Gilead, Janssen, Baxter International and Eli Lilly.

Follow Ligand on Twitter @Ligand_LGND.

Forward-Looking Statements

This news release contains forward-looking statements by Ligand that involve risks and uncertainties and reflect Ligand's judgment as of the date of this release. Words such as "plans," "believes," "expects," "anticipates," and "will," and similar expressions, are intended to identify forward-looking statements. These forward-looking statements include, without limitation, statements regarding: Ligand's future revenue, including the timing, mix and volume of Captisol orders, the timing of the initiation or completion of preclinical studies and clinical trials by Ligand and its partners, the timing of regulatory filings with the FDA and other regulatory agencies, the timing of new product launches by Ligand and its partners and the related royalties Ligand expects to receive from its partners, and guidance regarding the full-year 2018 financial results. Actual events or results may differ from Ligand's expectations due to risks and uncertainties inherent in Ligand's business, including, without limitation: Ligand may not receive expected revenue from royalties, Captisol material sales and license fees and milestone revenue; Ligand and its partners may not be able to timely or successfully advance any product(s) in its internal or partnered pipeline; Ligand may not achieve its guidance for 2018 or any portion thereof or beyond; Ligand's 2018 revenues may not be at the levels as currently anticipated; Ligand may not be able to create future revenues and cash flows by developing innovative therapeutics; results of any clinical study may not be timely, favorable or confirmed by

later studies; products under development by Ligand or its partners may not receive regulatory approval; there may not be a market for the product(s) even if successfully developed and approved; Ligand's partners may terminate any of its agreements or development or commercialization of any of its products; Ligand may not generate expected revenues under its existing license agreements and may experience significant costs as the result of potential delays under its supply agreements; Ligand and its partners may experience delays in the commencement, enrollment, completion or analysis of clinical testing for its product candidates, or significant issues regarding the adequacy of its clinical trial designs or the execution of its clinical trials, which could result in increased costs and delays, or limit Ligand's ability to obtain regulatory approval; unexpected adverse side effects or inadequate therapeutic efficacy of Ligand's product(s) could delay or prevent regulatory approval or commercialization; and Ligand may not be able to successfully implement its strategic growth plan and continue the development of its proprietary programs. The failure to meet expectations with respect to any of the foregoing matters may reduce Ligand's stock price. Additional information concerning these and other risk factors affecting Ligand can be found in prior press releases available at www.ligand.com as well as in Ligand's public periodic filings with the Securities and Exchange Commission available at www.sec.gov. Ligand disclaims any intent or obligation to update these forward-looking statements beyond the date of this release, including the possibility of additional license fees and milestone revenues we may receive. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Other Disclaimers and Trademarks

The information in this press release regarding certain third-party products and programs, including Promacta, a Novartis product, and Kyprolis, an Amgen product, comes from information publicly released by the owners of such products and programs. Ligand is not responsible for, and has no role in, the development of such products or programs.

Ligand owns or has rights to trademarks and copyrights that it uses in connection with the operation of its business including its corporate name, logos and websites. Other trademarks and copyrights appearing in this press release are the property of their respective owners. The trademarks Ligand owns include Ligand®, Captisol® and OmniAb®. Solely for convenience, some of the trademarks and copyrights referred to in this press release are listed without the ®, © and ™ symbols, but Ligand will assert, to the fullest extent under applicable law, its rights to its trademarks and copyrights.

LIGAND PHARMACEUTICALS, INCORPORATED
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in thousands)

	Three Months Ended March 31,	
	2018	**2017**
Revenues:		

Royalties	$	20,820	$	24,230
Material sales		4,391		1,121
License fees, milestones and other revenues		30,946		3,916
Total revenues		56,157		29,267
Operating costs and expenses:				
Cost of goods sold		788		341
Amortization of intangibles		3,278		2,715
Research and development		7,407		8,673
General and administrative		7,643		7,322
Total operating costs and expenses		19,116		19,051
Income from operations		37,041		10,216
Other expense, net		(1,866)		(2,800)
Increase in contingent liabilities		(960)		(140)
Gain (Loss) from Viking		21,097		(1,083)
Total other expense, net		18,271		(4,023)
Income before income taxes		55,312		6,193
Income tax expense		(10,033)		(1,114)
Net income:	$	45,279	$	5,079
Basic net income per share	$	2.13	$	0.24
Shares used in basic per share calculation		21,209		20,938
Diluted net income per share	$	1.83	$	0.22
Shares used in diluted per share calculations		24,800		23,019

LIGAND PHARMACEUTICALS, INCORPORATED
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited, in thousands)

		March 31, 2018		December 31, 2017
ASSETS				
Current assets:				
Cash, cash equivalents and short-term investments	$	264,353	$	201,661
Investment in Viking		27,535		—
Accounts receivable		37,108		25,596
Note receivable from Viking		3,877		3,877
Inventory		10,531		4,373
Other current assets		5,647		1,514

Total current assets	349,051	237,021
Deferred income taxes	69,368	84,422
Goodwill and other identifiable intangible assets	311,267	314,543
Investment in Viking	—	6,438
Commercial license rights	19,969	19,526
Other assets	5,013	9,071
Total assets	$ 754,668	$ 671,021
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$ 11,887	$ 9,636
Current portion of contingent liabilities	7,545	4,703
2019 convertible senior notes, net	227,547	224,529
Total current liabilities	246,979	238,868
Long-term portion of contingent liabilities	6,376	9,258
Other long-term liabilities	4,135	4,248
Total liabilities	257,490	252,374
Equity component of currently redeemable convertible notes	16,078	18,859
Total Ligand Pharmaceuticals stockholders' equity	481,100	399,788
Total liabilities and stockholders' equity	$ 754,668	$ 671,021

LIGAND PHARMACEUTICALS INCORPORATED
ADJUSTED FINANCIAL MEASURES
(Unaudited, in thousands)

	Three months ended March 31,	
	2018	**2017**
Net income	$ 45,279	$ 5,079
Stock-based compensation expense	4,555	6,045
Non-cash interest expense[(1)]	3,018	2,838
Amortization related to acquisitions	4,836	2,906
Increase in contingent liabilities[(2)]	960	140
(Gain) Loss from Viking	(21,097)	1,083
Other[(3)]	(717)	(85)
Income tax effect of adjusted reconciling items above	1,866	(4,482)
Valuation allowance release	(1,666)	—
Excess tax benefit from stock-based compensation[(4)]	(1,372)	(875)
Adjusted net income	$ 35,662	$ 12,649

Diluted per-share amounts attributable to common shareholders:		
Net income	$ 1.83	$ 0.22
Stock-based compensation expense	0.18	0.26
Non-cash interest expense[(1)]	0.12	0.12
Amortization related to acquisitions	0.20	0.13
Increase in contingent liabilities[(2)]	0.04	0.01
(Gain) Loss from Viking	(0.85)	0.05
Other[(3)]	(0.03)	—
Income tax effect of adjusted reconciling items above	0.08	(0.19)
Valuation allowance release	(0.07)	—
Excess tax benefit from stock-based compensation[(4)]	(0.06)	(0.04)
2019 Senior Convertible Notes share count adjustment	0.11	0.02
Adjusted net income	$ 1.55	$ 0.57
GAAP-Weighted average number of common shares-diluted	24,800	23,019
Less: 2019 Senior Convertible Notes share count adjustment	1,719	941
Adjusted weighted average number of common shares-diluted	23,081	22,078

(1) Non-cash debt related costs is calculated in accordance with the authoritative accounting guidance for convertible debt instruments that may be settled in cash.

(2) Changes in fair value of contingent consideration related to CyDex and Metabasis transactions.

(3) Amounts due to Bristol-Myers Squibb relating to the Retrophin license agreement, fair market value adjustment on Viking note and warrants and absorbed losses from an investment accounted for under the equity method.

(4) Excess tax benefits from stock-based compensation are recorded as a discrete item within the provision for income taxes on the consolidated statement of income pursuant to ASU 2016-09, which was previously recognized in additional paid-in capital on the consolidated statement of stockholders' equity.

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