

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-Q**

**Quarterly Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934**

**For the quarterly period ended June 30, 2021**

**or**

**Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

**For the Transition Period From \_\_\_\_\_ to \_\_\_\_\_ .**

**Commission File Number: 001-33093**



**LIGAND PHARMACEUTICALS INCORPORATED**

*(Exact name of registrant as specified in its charter)*

**Delaware**

*(State or other jurisdiction of  
incorporation or organization)*

**5980 Horton Street, Suite 405**

**Emeryville**

**CA**

*(Address of principal executive offices)*

**77-0160744**

*(I.R.S. Employer  
Identification No.)*

**94608**

*(Zip Code)*

**(858) 550-7500**

*(Registrant's Telephone Number, Including Area Code)*

**3911 Sorrento Valley Boulevard, Suite 110**

**San Diego, CA 92121**

*(Former Name or Former Address, if Changed Since Last Report)*

Securities registered pursuant to Section 12(b) of the Act:

Title of each class:

Trading symbol:

Name of each exchange on which registered:

**Common Stock, par value \$0.001 per share**

**LGND**

**The Nasdaq Global Market**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company,"

and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one)

Large Accelerated Filer

Accelerated Filer

Non-Accelerated Filer

Smaller Reporting Company

Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

As of July 30, 2021, the registrant had 16,676,532 shares of common stock outstanding.

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**LIGAND PHARMACEUTICALS INCORPORATED**  
**QUARTERLY REPORT**

**FORM 10-Q**

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GLOSSARY OF TERMS AND ABBREVIATIONS

Abbreviation	Definition
2020 Annual Report	Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on February 24, 2021
2023 Notes	\$750.0 million aggregate principal amount of convertible senior unsecured notes due 2023
Ab Initio	Ab Initio Biotherapeutics, Inc.
Amgen	Amgen, Inc.
ANDA	Abbreviated New Drug Application
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
Aziyo	Aziyo Med, LLC
CE	Captisol-enabled
Company	Ligand Pharmaceuticals Incorporated, including subsidiaries
CorMatrix	CorMatrix Cardiovascular, Inc.
CVR	Contingent value right
Crystal	Crystal Bioscience, Inc.
CStone Pharmaceuticals	CStone Pharmaceuticals (Suzhou) Co., Ltd.
CyDex	CyDex Pharmaceuticals, Inc.
Dianomi Therapeutics	Dianomi Therapeutics, Inc.
ESPP	Employee Stock Purchase Plan, as amended and restated
FASB	Financial Accounting Standards Board
FDA	Food and Drug Administration
GAAP	Generally accepted accounting principles in the United States
Gilead	Gilead Sciences, Inc.
GRA	Glucagon receptor antagonist
Icagen	Icagen, Inc.
IND	Investigational New Drug
Ligand	Ligand Pharmaceuticals Incorporated, including subsidiaries
Metabasis	Metabasis Therapeutics, Inc.
NDA	New Drug Application
Pfenex	Pfenex Inc.
Pfenex CVR	Contingent value rights agreement, dated September 30, 2020, by and between Ligand and Pfenex
Pfizer	Pfizer Inc.
Q2 2020	The Company's fiscal quarter ended June 30, 2020
Q2 2021	The Company's fiscal quarter ended June 30, 2021
SBC	Share-based compensation expense
SEC	Securities and Exchange Commission
Selexis	Selexis, SA
sNDA	Supplemental New Drug Application
Taurus	Taurus Biosciences, LLC
Teva	Teva Pharmaceuticals USA, Inc., Teva Pharmaceutical Industries Ltd. and Actavis, LLC, collectively
Travere	Travere Therapeutics, Inc.
Viking	Viking Therapeutics, Inc.
xCella	xCella Biosciences, Inc.
YTD	Year-to-date

## PART I - FINANCIAL INFORMATION

### Item 1. Condensed Consolidated Financial Statements

#### LIGAND PHARMACEUTICALS INCORPORATED CONDENSED CONSOLIDATED BALANCE SHEETS

(Unaudited)  
(in thousands, except par value)

	June 30, 2021	December 31, 2020
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 21,863	\$ 47,619
Short-term investments	279,972	363,567
Accounts receivable, net	58,156	56,847
Inventory	39,946	26,487
Income taxes receivable	4,694	2,217
Other current assets	6,270	3,822
Total current assets	410,901	500,559
Deferred income taxes, net	27,882	24,320
Intangible assets, net	572,006	595,330
Goodwill	190,517	189,662
Commercial license and other economic rights, net	10,638	10,979
Property and equipment, net	17,628	14,434
Operating lease right-of-use assets	6,500	6,892
Financing lease right-of-use assets	17,383	15,842
Other assets	2,828	4,267
Total assets	\$ 1,256,283	\$ 1,362,285
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 17,273	\$ 3,784
Accrued liabilities	10,107	18,530
Current contingent liabilities	5,650	39,884
Deferred revenue	17,147	29,435
Current operating lease liabilities	2,275	1,885
Current financing lease liabilities	45	6,593
Total current liabilities	52,497	100,111
2023 convertible senior notes, net	315,318	442,293
Long-term contingent liabilities	9,121	9,249
Deferred income taxes, net	60,053	64,598
Long-term operating lease liabilities	4,771	5,643
Other long-term liabilities	28,006	30,866
Total liabilities	469,766	652,760
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value; 5,000 shares authorized; zero issued and outstanding at June 30, 2021 and December 31, 2020	—	—
Common stock, \$0.001 par value; 60,000 shares authorized; 16,676 and 16,080 shares issued and outstanding at June 30, 2021 and December 31, 2020, respectively	17	16
Additional paid-in capital	346,578	318,358
Accumulated other comprehensive loss	(861)	(801)
Retained earnings	440,783	391,952
Total stockholders' equity	786,517	709,525
Total liabilities and stockholders' equity	\$ 1,256,283	\$ 1,362,285

*See accompanying notes to unaudited condensed consolidated financial statements.*

**LIGAND PHARMACEUTICALS INCORPORATED**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(Unaudited)**

(in thousands, except per share amounts)

	Three months ended		Six months ended	
	June 30,		June 30,	
	2021	2020	2021	2020
<b>Revenues:</b>				
Royalties	\$ 8,616	\$ 7,181	\$ 15,728	\$ 13,746
Captisol	62,509	24,468	93,781	45,577
Contract revenue	13,550	9,771	30,316	15,258
<b>Total revenues</b>	<b>84,675</b>	<b>41,420</b>	<b>139,825</b>	<b>74,581</b>
<b>Operating costs and expenses:</b>				
Cost of Captisol	30,593	7,644	38,746	12,327
Amortization of intangibles	11,779	3,875	23,565	7,410
Research and development	15,953	12,732	33,832	24,623
General and administrative	14,711	10,069	27,028	19,333
Other operating income	(34,100)	—	(33,800)	—
<b>Total operating costs and expenses</b>	<b>38,936</b>	<b>34,320</b>	<b>89,371</b>	<b>63,693</b>
<b>Income from operations</b>	<b>45,739</b>	<b>7,100</b>	<b>50,454</b>	<b>10,888</b>
<b>Other income (expense):</b>				
Gain (loss) from short-term investments	(6,864)	23,460	6,197	(7,281)
Interest income	233	1,969	529	6,699
Interest expense	(4,883)	(6,213)	(10,714)	(14,761)
Other income (expense), net	(924)	1,803	(7,401)	2,159
<b>Total other income (loss), net</b>	<b>(12,438)</b>	<b>21,019</b>	<b>(11,389)</b>	<b>(13,184)</b>
<b>Income (loss) before income taxes</b>	<b>33,301</b>	<b>28,119</b>	<b>39,065</b>	<b>(2,296)</b>
<b>Income tax benefit (expense)</b>	<b>(2,576)</b>	<b>(6,033)</b>	<b>9,766</b>	<b>251</b>
<b>Net income (loss)</b>	<b>\$ 30,725</b>	<b>\$ 22,086</b>	<b>\$ 48,831</b>	<b>\$ (2,045)</b>
<b>Basic net income (loss) per share</b>				
Basic net income (loss) per share	\$ 1.84	\$ 1.38	\$ 2.95	\$ (0.13)
Shares used in basic per share calculations	16,659	16,055	16,548	16,292
<b>Diluted net income (loss) per share</b>				
Diluted net income (loss) per share	\$ 1.79	\$ 1.32	\$ 2.84	\$ (0.13)
Shares used in diluted per share calculations	17,172	16,694	17,210	16,292

*See accompanying notes to unaudited condensed consolidated financial statements.*

**LIGAND PHARMACEUTICALS INCORPORATED**  
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
(Unaudited)  
(in thousands)

	Three months ended		Six months ended	
	June 30,		June 30,	
	2021	2020	2021	2020
Net income (loss):	\$ 30,725	\$ 22,086	\$ 48,831	\$ (2,045)
Unrealized net gain (loss) on available-for-sale securities, net of tax	(5)	2,742	(60)	(30)
Foreign currency translation	—	(185)	—	(2,064)
Comprehensive income (loss)	<u>\$ 30,720</u>	<u>\$ 24,643</u>	<u>\$ 48,771</u>	<u>\$ (4,139)</u>

*See accompanying notes to unaudited condensed consolidated financial statements.*

**LIGAND PHARMACEUTICALS INCORPORATED**  
**CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
(Unaudited)  
(in thousands)

	Common Stock		Additional paid in capital	Accumulated other comprehensive loss	Retained earnings	Total stockholders' equity
	Shares	Amount				
Balance at January 1, 2021	16,080	\$ 16	\$ 318,358	\$ (801)	\$ 391,952	\$ 709,525
Issuance of common stock under employee stock compensation plans, net	572	1	20,580	—	—	20,581
Share-based compensation	—	—	8,405	—	—	8,405
Unrealized net loss on available-for-sale securities, net of deferred tax	—	—	—	(55)	—	(55)
Reacquisition of equity due to 2023 debt extinguishment, net of tax	—	—	(9,086)	—	—	(9,086)
Warrant and bond hedge unwind transactions	—	—	396	—	—	396
Tax effect for 2023 Notes transactions	—	—	(2,032)	—	—	(2,032)
Net income	—	—	—	—	18,106	18,106
Balance at March 31, 2021	16,652	\$ 17	\$ 336,621	\$ (856)	\$ 410,058	\$ 745,840
Issuance of common stock under employee stock compensation plans, net	24	—	1,103	—	—	1,103
Share-based compensation	—	—	10,216	—	—	10,216
Unrealized net loss on available-for-sale securities, net of deferred tax	—	—	—	(5)	—	(5)
Reacquisition of equity due to 2023 debt extinguishment, net of tax	—	—	(1,073)	—	—	(1,073)
Tax effect for 2023 Notes transactions	—	—	(289)	—	—	(289)
Net income	—	—	—	—	30,725	30,725
Balance at June 30, 2021	16,676	\$ 17	\$ 346,578	\$ (861)	\$ 440,783	\$ 786,517

	Common Stock		Additional paid in capital	Accumulated other comprehensive loss	Retained earnings (Accumulated deficit)	Total stockholders' equity
	Shares	Amount				
Balance at January 1, 2020	16,823	\$ 17	\$ 367,326	\$ (216)	\$ 400,105	\$ 767,232
Issuance of common stock under employee stock compensation plans, net	105	—	(1,008)	—	—	(1,008)
Share-based compensation	—	—	5,653	—	—	5,653
Repurchase of common stock	(878)	(1)	(73,286)	—	—	(73,287)
Unrealized net loss on available-for-sale securities, net of deferred tax	—	—	—	(2,772)	—	(2,772)
Foreign currency translation adjustment	—	—	—	(1,879)	—	(1,879)
Reacquisition of equity due to 2023 debt extinguishment, net of tax	—	—	(2,745)	—	—	(2,745)
Cumulative-effect adjustment from adoption of ASU 2016-13, net of tax	—	—	—	—	(5,167)	(5,167)
Net loss	—	—	—	—	(24,131)	(24,131)
Balance at March 31, 2020	16,050	\$ 16	\$ 295,940	\$ (4,867)	\$ 370,807	\$ 661,896
Issuance of common stock under employee stock compensation plans, net	21	—	1,128	—	—	1,128
Share-based compensation	—	—	7,359	—	—	7,359
Unrealized net gain on available-for-sale securities, net of deferred tax	—	—	—	2,742	—	2,742
Foreign currency translation adjustment	—	—	—	(185)	—	(185)
Adjustment on reacquisition of equity due to 2023 debt extinguishment, net of tax	—	—	(23)	—	—	(23)
Net income	—	—	—	—	22,086	22,086
Balance at June 30, 2020	16,071	\$ 16	\$ 304,404	\$ (2,310)	\$ 392,893	\$ 695,003

*See accompanying notes to unaudited condensed consolidated financial statements.*

**LIGAND PHARMACEUTICALS INCORPORATED**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Unaudited)  
(in thousands)

	Six months ended June 30,	
	2021	2020
<b>Cash flows from operating activities:</b>		
Net income (loss)	\$ 48,831	\$ (2,045)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Change in estimated fair value of contingent liabilities	(33,502)	(371)
Depreciation and amortization of intangible assets	25,179	7,869
Amortization of premium (discount) on investments, net	109	1,198
Amortization of debt discount and issuance fees	9,073	12,442
Amortization of commercial license and other economic rights	206	2,733
Loss (gain) on debt extinguishment	7,175	(659)
Share-based compensation	18,621	13,012
Deferred income taxes	(9,766)	(8,890)
Loss (gain) from short-term investments	(6,197)	7,281
Other	595	(1,499)
Changes in operating assets and liabilities:		
Accounts receivable, net	(2,659)	(11,466)
Inventory	(2,326)	6,977
Accounts payable and accrued liabilities	(4,340)	2,909
Income tax receivable and payable	(2,477)	8,673
Deferred revenue	(14,605)	7,268
Other assets and liabilities	(2,786)	(4,128)
Net cash provided by operating activities	<u>31,131</u>	<u>41,304</u>
<b>Cash flows from investing activities:</b>		
Purchase of short-term investments	(96,136)	(336,726)
Proceeds from sale of short-term investments	150,648	179,431
Proceeds from maturity of short-term investments	34,600	452,405
Cash paid for acquisition, net of cash acquired	—	(15,140)
Purchase of property and equipment	(4,794)	(791)
Other	135	2,600
Net cash provided by investing activities	<u>84,453</u>	<u>281,779</u>
<b>Cash flows from financing activities:</b>		
Repurchase of 2023 Notes	(153,381)	(203,210)
Payments under financing lease obligations	(9,188)	(1,134)
Proceeds from convertible bond hedge settlement	16,855	—
Payments to convertible bond holders for warrant purchases	(16,459)	—
Net proceeds from stock option exercises and ESPP	27,584	1,550
Taxes paid related to net share settlement of equity awards	(5,901)	(1,429)
Share repurchase	—	(73,287)
Payments to CVR Holders	(1,050)	(1,800)
Net cash used in financing activities	<u>(141,540)</u>	<u>(279,310)</u>
Effect of exchange rate changes on cash	—	(160)
Net increase (decrease) in cash, cash equivalents and restricted cash	(25,956)	43,613
Cash, cash equivalents and restricted cash at beginning of period	47,963	72,273
Cash, cash equivalents and restricted cash at end of period	<u>\$ 22,007</u>	<u>\$ 115,886</u>
<b>Supplemental disclosure of cash flow information:</b>		
Interest paid	\$ 1,737	\$ 2,531
Taxes paid	\$ 3,552	\$ —
Restricted cash in other current assets	\$ 144	\$ 730
<b>Supplemental schedule of non-cash activity:</b>		
Accrued fixed asset purchases	\$ 359	\$ 292
Accrued inventory purchases	\$ 12,695	\$ 3,553
Unrealized loss on AFS investments	\$ (60)	\$ (38)

*See accompanying notes to unaudited condensed consolidated financial statements.*

**LIGAND PHARMACEUTICALS INCORPORATED**  
**Notes to Condensed Consolidated Financial Statements**  
**(Unaudited)**

*Unless the context requires otherwise, references in this report to “Ligand,” “we,” “us,” the “Company,” and “our” refer to Ligand Pharmaceuticals Incorporated and its consolidated subsidiaries.*

**1. Basis of Presentation and Summary of Significant Accounting Policies**

***Basis of Presentation***

Our condensed consolidated financial statements include the financial statements of Ligand and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. We have included all adjustments, consisting only of normal recurring adjustments, which we considered necessary for a fair presentation of our financial results. These unaudited condensed consolidated financial statements and accompanying notes should be read together with the audited consolidated financial statements included in our 2020 Annual Report. Interim financial results are not necessarily indicative of the results that may be expected for the full year.

***Reclassifications***

Certain amounts in the prior period condensed consolidated financial statements have been reclassified to conform with the current period presentation. Specifically, “contract revenue” and “service revenue” presented in the condensed consolidated statement of operations for the three and six months ended June 30, 2021 have been combined into “contract revenue” in the condensed consolidated statement of operations to conform with the current period presentation.

***Significant Accounting Policies***

We have described our significant accounting policies in *Note 1, Basis of Presentation and Summary of Significant Accounting Policies* of the Notes to Consolidated Financial Statements in our 2020 Annual Report.

***Use of Estimates***

The preparation of condensed consolidated financial statements in conformity with GAAP requires the use of estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and the accompanying notes. Actual results may differ from those estimates.

***Impact of COVID-19 Pandemic***

The current COVID-19 worldwide pandemic has presented substantial public health and economic challenges and is affecting our employees and partners, patients, communities and business operations, as well as the U.S. and global economy and financial markets. International and U.S. governmental authorities in impacted regions have taken actions in an effort to slow the spread of COVID-19, including issuing varying forms of “stay-at-home” orders, and restricting business functions outside of one’s home. In response, we have restricted in-person access to our executive offices, our administrative employees are mostly working remotely, and we have limited the number of staff in our research and development laboratories and other facilities. The continued spread of the COVID-19 pandemic and the measures taken by the governments of countries have affected, and could continue to affect, our business and the business of our partners, including future disruptions to our supply chain and the manufacture or shipment of drug substance and finished drug product for Captisol, delays by us or our partners in the initiation or enrollment of patients in clinical trials, discontinuations by patients enrolled in clinical trials, difficulties launching or commercializing products and other related activities, which could delay ongoing clinical trials, increase development costs, reduce royalty revenues and have a material adverse effect on our business, financial condition and results of operations. Several of our partners have reported that their operations have been impacted including delays in research and development programs and deprioritizing clinical trials in favor of treating patients who have contracted the virus or to prevent the spread of the virus. This may lead to clinical trial protocol deviations or to discontinuation of treatment for patients who are currently enrolled in the clinical trials being conducted by us or our partners. In addition, certain of our partners have reported negative impacts on product sales which will impact our royalty revenues.

Some of our partners are working to develop drugs to treat COVID-19. For example, we are supplying Captisol to partners, including Gilead and the Gilead consortium (a consortium of manufacturing partners that Gilead is working with to bring efforts together to help maximize global supply) for remdesivir, the first FDA-approved treatment for COVID-19 for the

treatment of patients with COVID-19 requiring hospitalization. In addition, certain of our OmniAb partners have initiated antibody discovery programs for the potential treatment of COVID-19.

The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, the businesses of our partners, our results of operations and our financial condition will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19, the actions taken to contain it or treat its impact, including the timing and extent of governments reopening or further restricting activities, the emergence and spread of COVID-19 variants, and the economic impact on local, regional, national and international markets.

#### ***Accounting Standards Not Yet Adopted***

In August 2020, the FASB issued ASU 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity’s Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity*. The new guidance simplifies accounting for convertible instruments by removing major separation models required under current GAAP. This standard removes certain settlement conditions that are required for equity contracts to qualify for the derivative scope exception and it also simplifies the diluted earnings per share calculation in certain areas. This standard is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020 and adoption must be as of the beginning of the Company’s annual fiscal year. We are currently evaluating the impact of this standard on our consolidated financial statements and related disclosures. We intend to adopt this standard on January 1, 2022.

We do not believe that any other recently issued, but not yet effective accounting pronouncements, if adopted, would have a material impact on our condensed consolidated financial statements or disclosures.

#### ***Revenue***

Our revenue is generated primarily from royalties on sales of products commercialized by our partners, Captisol material sales, and contract revenue for services, license fees and development, regulatory and sales based milestone payments.

#### ***Royalties***

We receive royalty revenue on sales by our partners of products covered by patents that we own. We do not have future performance obligations under these license arrangements. We generally satisfy our obligation to grant intellectual property rights on the effective date of the contract. However, we apply the royalty recognition constraint required under the guidance for sales-based royalties which requires a sales-based royalty to be recorded when the underlying sale occurs. Therefore, royalties on sales of products commercialized by our partners are recognized in the quarter the product is sold. Our partners generally report sales information to us on a one quarter lag. Thus, we estimate the expected royalty proceeds based on an analysis of historical experience and interim data provided by our partners including their publicly announced sales. Differences between actual and estimated royalty revenues are adjusted for in the period in which they become known, typically the following quarter.

#### ***Contract Revenue***

Our contract revenue includes service revenue, license fees and future contingent milestone based payments. We recognize service revenue for contracted R&D services performed for our customers over time. We measure our progress using an input method based on the effort we expend or costs we incur toward the satisfaction of our performance obligation. We estimate the amount of effort we expend, including the time we estimate it will take us to complete the activities, or costs we incur in a given period, relative to the estimated total effort or costs to satisfy the performance obligation. This results in a percentage that we multiply by the transaction price to determine the amount of revenue we recognize each period. This approach requires us to make estimates and use judgement. If our estimates or judgements change over the course of the collaboration, they may affect the timing and amount of revenue that we recognize in the current and future periods.

We include contingent milestone based payments in the estimated transaction price when there is a basis to reasonably estimate the amount of the payment. These estimates are based on historical experience, anticipated results and our best judgment at the time. If the contingent milestone based payment is sales-based, we apply the royalty recognition constraint and record revenue when the underlying sale has taken place. Significant judgments must be made in determining the transaction price for our sales of intellectual property. Because of the risk that products in development with our partners will not reach development based milestones or receive regulatory approval, we generally recognize any contingent payments that would be due to us upon or after the development milestone or regulatory approval.

#### ***Captisol Sales***

We recognize revenue when control of Captisol material is transferred to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when the performance obligations have been satisfied. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. We consider a performance obligation satisfied once we have transferred control of the product, meaning the customer has the ability to use and obtain the benefit of the Captisol material or intellectual property license right. We recognize revenue for satisfied performance obligations only when we determine there are no uncertainties regarding payment terms or transfer of control. We have elected to recognize the cost for freight and shipping when or after control over Captisol material has transferred to the customer as an expense in cost of Captisol. Sales tax and other taxes we collect concurrent with revenue-producing activities are excluded from revenue. We expense incremental costs of obtaining a contract when incurred if the expected amortization period of the asset that we would have recognized is one year or less or the amount is immaterial. We did not incur any incremental costs of obtaining a contract during the periods reported.

#### *Deferred Revenue*

Depending on the terms of the arrangement, we may also defer a portion of the consideration received because we have to satisfy a future obligation. We use an observable price to determine the stand-alone selling price for separate performance obligations or a cost plus margin approach when one is not available.

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer advances and deposits (contract liabilities) on the consolidated balance sheet. Except for royalty revenue and certain service revenue, we generally receive payment at the point we satisfy our obligation or soon after. Therefore, we do not generally carry a contract asset balance. Any fees billed in advance of being earned are recorded as deferred revenue. During the three and six months ended June 30, 2021, the amount recognized as revenue that was previously deferred was \$10.3 million, and \$16.1 million, respectively. During the three and six months ended June 30, 2020, the amount recognized as revenue that was previously deferred was \$2.0 million and \$2.4 million, respectively.

#### *Disaggregation of Revenue*

The following table represents disaggregation of royalties, Captisol and contract revenue (in thousands):

	Three months ended		Six months ended	
	June 30,		June 30,	
	2021	2020	2021	2020
<b>Royalties</b>				
Kyprolis	\$ 5,440	\$ 5,481	\$ 9,727	\$ 9,886
Evomela	2,193	1,199	4,526	2,775
Other	983	501	1,475	1,085
	<u>\$ 8,616</u>	<u>\$ 7,181</u>	<u>\$ 15,728</u>	<u>\$ 13,746</u>
<b>Captisol</b>	\$ 62,509	\$ 24,468	\$ 93,781	\$ 45,577
<b>Contract revenue</b>				
Service Revenue	\$ 7,360	\$ 4,582	\$ 12,822	\$ 7,939
License Fees	1,050	660	2,093	1,635
Milestone	3,600	3,472	12,017	3,806
Other	1,540	1,057	3,384	1,878
	<u>\$ 13,550</u>	<u>\$ 9,771</u>	<u>\$ 30,316</u>	<u>\$ 15,258</u>
<b>Total</b>	<u>\$ 84,675</u>	<u>\$ 41,420</u>	<u>\$ 139,825</u>	<u>\$ 74,581</u>

### Short-term Investments

Our short-term investments consist of the following at June 30, 2021 and December 31, 2020 (in thousands):

	June 30, 2021				December 31, 2020			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
Bank deposits	\$ 33,560	\$ 13	\$ (2)	\$ 33,571	\$ 84,120	\$ 35	\$ (1)	\$ 84,154
Corporate bonds	25,965	62	(2)	26,025	30,512	99	(1)	30,610
Agency bonds	2,500	—	(1)	2,499	4,499	2	—	4,501
Commercial paper	19,258	12	—	19,270	45,459	27	(1)	45,485
Corporate equity securities	5,807	172	(310)	5,669	4,466	360	(1,388)	3,438
Mutual fund	151,949	53	—	152,002	151,512	386	—	151,898
Treasury bill	—	—	—	—	3,999	—	—	3,999
Warrants	—	713	—	713	—	393	—	393
	\$ 239,039	\$ 1,025	\$ (315)	\$ 239,749	\$ 324,567	\$ 1,302	\$ (1,391)	\$ 324,478
Viking common stock				40,223				32,763
Viking warrants				—				6,326
Total short-term investments				<u>\$ 279,972</u>				<u>\$ 363,567</u>

During the six months ended June 30, 2021, we exercised all outstanding Viking warrants to purchase 1.5 million shares of Viking's common stock at an exercise price of \$ .50 per share. As of June 30, 2021, we have zero Viking warrants outstanding.

Gain (loss) from short-term investments in our condensed consolidated statements of operations includes both realized and unrealized gain (loss) from our short-term investments in public equity and warrant securities.

Allowances are recorded for available-for-sale debt securities with unrealized losses. This limits the amount of credit losses that can be recognized for available-for-sale debt securities to the amount by which carrying value exceeds fair value and requires the reversal of previously recognized credit losses if fair value increases. The provisions of the credit losses standard did not have a material impact on our available-for-sale debt securities during the three and six months ended June 30, 2021.

The following table summarizes our available-for-sale debt securities by contractual maturity (in thousands):

	June 30, 2021	
	Amortized Cost	Fair Value
Within one year	\$ 57,997	\$ 58,050
After one year through five years	23,286	23,316
Total	<u>\$ 81,283</u>	<u>\$ 81,366</u>

Our investment policy is capital preservation and we only invested in U.S.-dollar denominated investments. We held a total of seven positions which were in an unrealized loss position as of June 30, 2021. We believe that we will collect the principal and interest due on our debt securities that have an amortized cost in excess of fair value. The unrealized losses are largely due to changes in interest rates and not to unfavorable changes in the credit quality associated with these securities that impacted our assessment on collectability of principal and interest. We do not intend to sell these securities and it is not more-likely-than-not that we will be required to sell these securities before the recovery of the amortized cost basis. Accordingly, no credit losses were recognized for the three and six months ended June 30, 2021.

### Accounts Receivable and Allowance for Credit Losses

Our accounts receivable arise primarily from sales on credit to customers. We establish an allowance for credit losses to present the net amount of accounts receivable expected to be collected. The allowance is determined by using the loss-rate method, which requires an estimation of loss rates based upon historical loss experience adjusted for factors that are relevant to determining the expected collectability of accounts receivable. Some of these factors include macroeconomic conditions that correlate with historical loss experience, delinquency trends, aging behavior of receivables and credit and liquidity quality indicators for industry groups, customer classes or individual customers. During the three and six months ended June 30, 2021, we considered the current and expected future economic and market conditions including, but not limited to, the anticipated unfavorable impacts of the COVID-19 pandemic on our business and recorded an adjustment of \$0.04 million and \$0.1 million of allowance for credit losses, respectively, as of June 30, 2021.

### Inventory

Inventory, which consists of prepaid inventory and finished goods, is stated at the lower of cost or net realizable value. We determine cost using the first-in, first-out method or the specific identification method.

As of June 30, 2021, we have made advanced payments for inventory from our supplier of Captisol totaling \$0.2 million. We have applied credits for such inventory purchases of \$15.8 million and will utilize the remaining advanced payments to offset a portion of the purchase price for future Captisol purchases.

### Goodwill and Other Identifiable Intangible Assets

Goodwill and other identifiable intangible assets consist of the following (in thousands):

	June 30, 2021	December 31, 2020
Indefinite-lived intangible assets		
Goodwill	\$ 190,517	\$ 189,662
Definite lived intangible assets		
Complete technology	277,980	277,740
Less: accumulated amortization	(71,276)	(63,600)
Trade name	2,642	2,642
Less: accumulated amortization	(1,378)	(1,312)
Customer relationships	40,700	40,700
Less: accumulated amortization	(16,932)	(15,597)
Contractual relationships	362,000	362,000
Less: accumulated amortization	(21,730)	(7,243)
Total goodwill and other identifiable intangible assets, net	<u>\$ 762,523</u>	<u>\$ 784,992</u>

### Commercial License and Other Economic Rights

Commercial license and other economic rights consist of the following (in thousands):

	June 30, 2021			December 31, 2020		
	Gross	Adjustments <sup>(1)</sup>	Net	Gross	Adjustments <sup>(2)</sup>	Net
Aziyo and CorMatrix	\$ 17,696	\$ (9,470)	\$ 8,226	\$ 17,696	\$ (9,588)	\$ 8,108
Selexis and Dianomi	10,602	(8,190)	2,412	10,602	(7,731)	2,871
Total	<u>\$ 28,298</u>	<u>\$ (17,660)</u>	<u>\$ 10,638</u>	<u>\$ 28,298</u>	<u>\$ (17,319)</u>	<u>\$ 10,979</u>

(1) Amounts represent accumulated amortization to principal of \$ 11.7 million and credit loss adjustments of \$ 6.0 million as of June 30, 2021.

(2) Amounts represent accumulated amortization to principal of \$ 11.3 million and credit loss adjustments of \$ 6.0 million as of December 31, 2020.

Commercial license and other economic rights represent a portfolio of future milestone and royalty payment rights acquired from Selexis in April 2013 and April 2015, CorMatrix in May 2016, and Dianomi in January 2019. Commercial license rights acquired are accounted for as financial assets and other economic rights are accounted for as funded research and development as further discussed below and in Note 1, Basis of Presentation and Summary of Significant Accounting Policies of the Notes to Consolidated Financial Statements in our 2020 Annual Report.

In May 2017, we entered into a Royalty Agreement with Aziyo pursuant to which we will receive royalties from certain marketed products that Aziyo acquired from CorMatrix. We account for the Aziyo commercial license right as a financial asset,

and in accordance with ASC 310, *Receivables*, we amortize the commercial license right using the effective interest method whereby we forecast expected cash flows over the term of the arrangement to arrive at an annualized effective interest. The annual effective interest associated with the forecasted cash flows from the Royalty Agreement with Aziyo as of June 30, 2021 is 23%. Revenue is calculated by multiplying the carrying value of the commercial license right by the effective interest. The payments received during the six months ended June 30, 2021 were accordingly allocated between revenue and the amortization of the commercial license rights.

Prior to 2020, we accounted for commercial license rights related to developmental pipeline products such as Selexis and Dianomi on a non-accrual basis. We continue to account for commercial license rights related to Dianomi on a non-accrual basis as of June 30, 2021, but starting in 2020, given the expected cash flow from the Selexis program, we started to account for the Selexis commercial license right as a financial asset in accordance with ASC 310, and amortize the commercial license right using the effective interest method whereby we forecast expected cash flows over the term of the arrangement to arrive at an annualized effective interest. The annual effective interest associated with the forecasted cash flows from the royalty agreement with Selexis as of June 30, 2021 is 21%. Revenue is calculated by multiplying the carrying value of the commercial license right by the effective interest. The payments received during the six months ended June 30, 2021 were accordingly allocated between revenue and the amortization of the commercial license rights.

We recorded a \$5.5 million pre-tax reserve for credit losses upon adoption of the credit losses standard (ASU 2016-13) on January 1, 2020. We estimated the credit losses at the individual asset level by considering the performance against the programs, the company operating performance and the macroeconomic forecast. In addition, we have judgmentally applied credit loss risk factors to the future expected payments with consideration given to the timing of the payment. Given the higher inherent credit risk associated with longer term receivables, we applied a lower risk factor to the earlier years and progressively higher risk factors to the later years. During the six months ended June 30, 2021, we further considered the current and expected future economic and market conditions surrounding novel coronavirus (COVID-19) pandemic and concluded no further adjustment was needed on the allowance for credit losses as of June 30, 2021.

#### ***Accrued Liabilities***

Accrued liabilities consist of the following (in thousands):

	<b>June 30, 2021</b>	<b>December 31, 2020</b>
Compensation	\$ 3,684	\$ 8,810
Professional fees	977	977
Amounts owed to former licensees	446	421
Royalties owed to third parties	52	693
Return reserve	105	687
Acquisition related liabilities	1,500	1,500
Subcontractor	—	733
Supplier	681	604
Accrued interest	295	464
Other	2,367	3,641
Total accrued liabilities	<u>\$ 10,107</u>	<u>\$ 18,530</u>

#### ***Share-Based Compensation***

Share-based compensation expense for awards to employees and non-employee directors is a non-cash expense and is recognized on a straight-line basis over the vesting period until the last tranche vests. The following table summarizes share-based compensation expense recorded as components of research and development expenses and general and administrative expenses for the periods indicated (in thousands):

	<b>Three months ended</b>		<b>Six months ended</b>	
	<b>June 30,</b>		<b>June 30,</b>	
	<b>2021</b>	<b>2020</b>	<b>2021</b>	<b>2020</b>
SBC - Research and development expenses	\$ 4,556	\$ 3,019	\$ 8,495	\$ 5,416
SBC - General and administrative expenses	5,660	4,340	10,126	7,596
	<u>\$ 10,216</u>	<u>\$ 7,359</u>	<u>\$ 18,621</u>	<u>\$ 13,012</u>

The fair-value for options that were awarded to employees and directors was estimated at the date of grant using the Black-Scholes option valuation model with the following weighted-average assumptions:

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
Risk-free interest rate	0.9%	0.4%	0.5%	1.1%
Dividend yield	—	—	—	—
Expected volatility	54%	69%	62%	55%
Expected term	5.5	5.1	5.0	4.8

A limited amount of performance-based restricted stock units (PSUs) contain a market condition based on our relative total shareholder return ranked on a percentile basis against the NASDAQ Biotechnology Index over a three-year performance period, with a range of 0% to 200% of the target amount granted to be issued under the award. Share-based compensation cost for these PSUs is measured using the Monte-Carlo simulation valuation model and is not adjusted for the achievement, or lack thereof, of the performance conditions.

#### *Net Income (Loss) Per Share*

Basic net income (loss) per share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted net income per share is computed based on the sum of the weighted average number of common shares and potentially dilutive common shares outstanding during the period. Diluted net loss per share is computed based on the sum of the weighted average number of common shares outstanding during the period.

Potentially dilutive common shares consist of shares issuable under the 2023 Notes, stock options and restricted stock. The 2023 Notes have a dilutive impact when the average market price of our common stock exceeds the applicable conversion price of the respective notes. It is our intent and policy to settle conversions through combination settlement, which involves payment in cash equal to the principal portion and delivery of shares of common stock for the excess of the conversion value over the principal portion. Potentially dilutive common shares from stock options and restricted stock are determined using the average share price for each period under the treasury stock method. In addition, the following amounts are assumed to be used to repurchase shares: proceeds from exercise of stock options and the average amount of unrecognized compensation expense for the awards. See *Note 4, Convertible Senior Notes* and *Note 6, Stockholders' Equity*.

The following table presents the calculation of weighted average shares used to calculate basic and diluted earnings per share (in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2021	2020	2021	2020
Weighted average shares outstanding:	16,659	16,055	16,548	16,292
Dilutive potential common shares:				
Restricted stock	69	40	90	—
Stock options	444	599	572	—
Shares used to compute diluted income per share	17,172	16,694	17,210	16,292
Potentially dilutive shares excluded from calculation due to anti-dilutive effect	5,087	7,832	4,684	8,988

For the six months ended June 30, 2020, all of the 0.6 million weighted average shares of outstanding equity awards as of June 30, 2020 were anti-dilutive due to the net loss for the period.

## 2. Fair Value Measurements

### Assets and Liabilities Measured on a Recurring Basis

The following table presents the hierarchy for our assets and liabilities measured at fair value (in thousands):

	June 30, 2021				December 31, 2020			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Assets:</b>								
Short-term investments, excluding Viking <sup>(1)</sup>	\$ 5,669	\$ 233,368	\$ 712	\$ 239,749	\$ 3,438	\$ 320,647	\$ 393	\$ 324,478
Investment in Viking common stock	40,223	—	—	40,223	32,763	—	—	32,763
Investment in Viking warrants <sup>(2)</sup>	—	—	—	—	6,326	—	—	6,326
<b>Total assets</b>	<b>\$ 45,892</b>	<b>\$ 233,368</b>	<b>\$ 712</b>	<b>\$ 279,972</b>	<b>\$ 42,527</b>	<b>\$ 320,647</b>	<b>\$ 393</b>	<b>\$ 363,567</b>
<b>Liabilities:</b>								
Crystal contingent liabilities <sup>(3)</sup>	\$ —	\$ —	\$ 800	\$ 800	\$ —	\$ —	\$ 800	\$ 800
CyDex contingent liabilities	—	—	376	376	—	—	508	508
Metabasis contingent liabilities <sup>(4)</sup>	—	3,930	—	3,930	—	3,821	—	3,821
Icagen contingent liabilities <sup>(5)</sup>	—	—	5,625	5,625	—	—	6,404	6,404
Pfenex contingent liabilities <sup>(6)</sup>	—	—	3,800	3,800	—	—	37,600	37,600
xCella contingent liabilities <sup>(7)</sup>	—	—	240	240	—	—	—	—
Amounts owed to former licensor	31	—	—	31	60	—	—	60
<b>Total liabilities</b>	<b>\$ 31</b>	<b>\$ 3,930</b>	<b>\$ 10,841</b>	<b>\$ 14,802</b>	<b>\$ 60</b>	<b>\$ 3,821</b>	<b>\$ 45,312</b>	<b>\$ 49,193</b>

- Excluding our investment in Viking, our short-term investments in marketable debt and equity securities are classified as available-for-sale securities based on management's intentions and are at level 2 of the fair value hierarchy, as these investment securities are valued based upon quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market. Short-term investments in mutual funds are valued at their net asset value (NAV) on the last day of the period. We have classified marketable securities with original maturities of greater than one year as short-term investments based upon our ability and intent to use any and all of those marketable securities to satisfy the liquidity needs of our current operations. In addition, we have investment in warrants resulting from Seelos Therapeutics Inc. milestone payments that were settled in shares during the first quarter of 2019 and are at level 3 of the fair value hierarchy, based on Black Scholes value estimated by management on the last day of the period.
- Investment in Viking warrants, which we received as a result of Viking's partial repayment of the Viking note receivable and our purchase of Viking common stock and warrants in April 2016, are classified as level 1 as the fair value is determined using quoted market prices in active markets for the same securities. The change of the fair value is recorded in "Gain (loss) from short-term investments" in our condensed consolidated statement of operations. During the six months ended June 30, 2021, we exercised all of the outstanding Viking warrants.
- The fair value of Crystal contingent liabilities was determined using a probability weighted income approach. Most of the contingent payments are based on development or regulatory milestones as defined in the merger agreement with Crystal. The fair value is subjective and is affected by changes in inputs to the valuation model including management's estimates regarding the timing and probability of achievement of certain developmental and regulatory milestones. Changes in these estimates may materially affect the fair value.
- In connection with our acquisition of Metabasis in January 2010, we issued Metabasis stockholders four tradable CVRs, one CVR from each of four respective series of CVR, for each Metabasis share. The CVRs entitle Metabasis stockholders to cash payments as frequently as every six months as cash is received by us from proceeds from the sale or partnering of any of the Metabasis drug development programs, among other triggering events. The liability for the CVRs is determined using quoted prices in a market that is not active for the underlying CVR. The carrying amount of the liability may fluctuate significantly based upon quoted market prices and actual amounts paid under the agreements may be materially different than the carrying amount of the liability. Several of the Metabasis drug development programs have been outlicensed to Viking, including VK2809. VK2809 is a novel selective TR- $\beta$  agonist with potential in multiple indications, including hypercholesterolemia, dyslipidemia, NASH, and X-ALD. Under the terms of the agreement with Viking, we may be entitled to up to \$375 million of development, regulatory and commercial milestones and tiered royalties on potential future sales including a \$10 million payment upon initiation of a Phase 3 clinical trial.
- The fair value of Icagen contingent liabilities was determined using a probability weighted income approach. Most of the contingent payments are based on certain revenue milestones as defined in the asset purchase agreement with Icagen. The fair value is subjective and is affected by changes in inputs to the valuation model including management's estimates regarding the timing and probability of achievement of certain developmental and regulatory milestones. Changes in these estimates may materially affect the fair value. During the six months ended June 30, 2021, we paid \$1.1 million contingent liability based on revenue milestones to former Icagen shareholders.
- The fair value of Pfenex contingent liabilities was determined using a probability-adjusted income approach. These cash flows were then discounted to present value using a discount rate based on the market participants' cost of debt reflective of the Company. During the three and six months ended June 30, 2021, we reduced the contingent liability by \$34.1 million and \$33.8 million, respectively, primarily due to the lower probability of achieving the specific development and regulatory milestone by December 31, 2021 as defined by the Pfenex CVR. See further detail on Pfenex CVR in *Note 3, Acquisitions*.
- The fair value of xCella contingent liabilities is determined when it is probable that the earnout liability will occur and the amount can be reasonably estimated. Management concluded that no earnout liability would be recognized at the acquisition date in September 2020. During the first quarter of 2021, management recorded an earnout liability to be allocated to the cost of the acquired assets due to contingencies being met as part of the acquisition agreement.

A reconciliation of the level 3 financial instruments as of June 30, 2021 is as follows (in thousands):

Fair value of level 3 financial instruments as of December 31, 2020	\$	45,312
Payments to CVR holders and other contingent payments		(1,050)
Fair value adjustments to contingent liabilities		(33,661)
Contingent liabilities from xCella asset acquisition		240
Fair value of level 3 financial instruments as of June 30, 2021	\$	<u>10,841</u>

#### ***Assets Measured on a Non-Recurring Basis***

We apply fair value techniques on a non-recurring basis associated with valuing potential impairment losses related to our goodwill, indefinite-lived intangible assets and long-lived assets.

We evaluate goodwill and indefinite-lived intangible assets annually for impairment and whenever circumstances occur indicating that goodwill might be impaired. We determine the fair value of our reporting unit based on a combination of inputs, including the market capitalization of Ligand, as well as Level 3 inputs such as discounted cash flows, which are not observable from the market, directly or indirectly. We determine the fair value of our indefinite-lived intangible assets using the income approach based on Level 3 inputs.

During the second quarter of 2021, in connection with the Pfenex CVR fair value evaluation, we also evaluated the related indefinite-lived contractual relationship intangible for recoverability and concluded there was no impairment.

Other than the above mentioned triggering event, there were no other triggering events identified and no indication of impairment of our goodwill, indefinite-lived intangible assets, or long-lived assets during the three and six months ended June 30, 2021.

### **3. Acquisitions**

#### ***Pfenex Acquisition***

On October 1, 2020, we acquired Pfenex, which develops next-generation and novel protein therapeutics to improve existing therapies and create new therapies for biological targets linked to critical, unmet diseases using a protein expression technology platform.

The preliminary purchase price of \$465.1 million included \$429.6 million cash consideration paid upon acquisition, and a contingent CVR payment of up to \$77.8 million in cash based on a certain specified milestone with an estimated initial fair value of \$37.0 million. The CVR will only be paid in full if the milestone is achieved by December 31, 2021. The amount of the CVR included in the purchase price was reduced by \$1.5 million that was determined to be post-combination expense. The fair value of the CVR liability was determined using a probability-adjusted income approach. These cash flows were then discounted to present value using a discount rate based on market participants' cost of debt reflective of the Company, which was 7.1%. The liability is periodically assessed based on events and circumstances related to the underlying milestone, and any change in fair value is recorded in our consolidated statements of operations.

In connection with the acquisition, a portion of Pfenex's equity awards that were outstanding and unvested prior to the acquisition became fully vested per the terms of the merger agreement. The acceleration of vesting required us to allocate the fair value of the equity attributable to pre-combination service to the purchase price and the remaining amount was considered our post-combination expense. We paid \$17.3 million in cash for equity compensation, which is attributable to pre-combination services and is reflected as a component of the total purchase price paid of \$429.6 million. In addition, the fair value of equity compensation attributable to the post-combination service period was \$8.7 million. These amounts were associated with the accelerated vesting of stock options previously granted to Pfenex employees and were fully paid in cash, which was recognized as general and administrative expenses during the fourth quarter of 2020.

The following table sets forth an allocation of the preliminary purchase price to the identifiable tangible and intangible assets acquired and liabilities assumed, with the excess recorded to goodwill (in thousands):

Cash	\$	51,407
Restricted cash		200
Accounts and unbilled receivables		1,359
Property and equipment, net		7,823
Right-of-use asset		3,070
Other assets		1,338
Intangibles acquired		385,000
Goodwill <sup>(1)</sup>		91,837
Accounts payable		(6,814)
Accrued liabilities		(8,455)
Deferred revenue		(3,908)
Lease liabilities		(3,070)
Other liabilities		(1,382)
Deferred tax liabilities, net		(53,296)
	<u>\$</u>	<u>465,109</u>

(1) Goodwill represents the excess of the purchase price over the preliminary fair value of the underlying assets acquired and liabilities assumed. Goodwill is attributable to the assembled workforce of experienced personnel at Pfenex and expected synergies. None of the goodwill is expected to be deductible for tax purposes.

Acquired intangibles include \$362 million of contractual relationships and \$23 million of core technology. The fair values of the contractual relationships were based on the discounted cash flow method that estimated the present value of the potential royalties, milestones, collaboration and product revenue streams derived from the licensing of the related technologies over the estimated contractual relationship period. The fair value of the contractual relationships is being amortized on a straight-line basis over the weighted average estimated useful life of 12.9 years. The fair values of the acquired technologies were based on the discounted cash flow method that estimated the present value of the potential royalties, milestones, collaboration and product revenue streams derived from the licensing of the related technologies over the estimated useful lives. These projected cash flows were discounted to present value using discount rate, which varies from 12% to 15%. The total acquired intangibles are being amortized on a straight-line basis over the weighted average estimated useful life of 13.0 years.

The estimated fair values of assets acquired and liabilities assumed, including deferred tax assets and liabilities, and purchased intangibles are provisional. The accounting for these amounts falls within the measurement period and therefore we may adjust these provisional amounts to reflect new information obtained about facts and circumstances that existed as of the acquisition date.

The following summary presents our unaudited pro forma consolidated results of operations for the three and six months ended June 30, 2020 as if the Pfenex acquisition had occurred on January 1, 2020, which gives effect to certain transaction accounting adjustments, including amortization of acquired intangibles and share based compensation expense for retained Pfenex employees. The pro forma financial information is not necessarily indicative of the operating results that would have occurred had the acquisition been consummated as of the date indicated, nor is it necessarily indicative of future operating results (in thousands, except per share amounts):

	<b>Three months ended June 30, 2020</b>		<b>Six months ended June 30, 2020</b>	
Revenue	\$	42,201	\$	76,044
Net income (loss)	\$	7,435	\$	(30,505)
<b>Net income (loss) per common share:</b>				
Basic	\$	0.46	\$	(1.87)
Diluted	\$	0.45	\$	(1.87)

#### ***Taurus Acquisition***

On September 9, 2020, we acquired Taurus, which discovers and develops novel antibodies from immunized cows and cow-derived libraries. The purchase price of \$1.1 million included \$4.6 million in cash, and a \$0.5 million holdback to satisfy indemnification obligations which will be settled by September 2021. We also issued nontransferable CVRs for up to \$4.5 million tied to partnered and internal research and development and for up to \$25.0 million as a 25% share of post-clinical Taurus product revenues (including milestone payments) received by us. We evaluated this acquisition in accordance with ASC 805, *Business Combinations*, to discern whether the assets and operations of Taurus met the definition of a business. We concluded that substantially all of the fair value of the gross assets acquired is concentrated in the acquired core technology.

Accordingly, we accounted for this transaction as an asset acquisition. Of the \$5.1 million consideration transferred, we recognized (1) \$0.05 million of tangible assets acquired, and (2) \$5.0 million of core completed technology intangibles acquired. The core technology is being amortized on a straight-line basis over the estimated useful life of 10 years. We account for the CVRs in accordance with ASC 450, *Contingencies*, when the contingency is resolved and the liability becomes payable. None of the CVRs are recognized as of June 30, 2021.

#### ***xCella Acquisition***

On September 8, 2020, we acquired xCella, an antibody discovery company. We paid \$7.1 million in cash (including a \$0.5 million holdback to satisfy indemnification obligations which will be settled by September 2021), and issued earnout rights for up to \$5.0 million tied to our use of the xCella technology for partnered research and development and for up to \$25.75 million as a 25% share of any future milestone payments we received under a certain existing xCella partner arrangement. We evaluated this acquisition in accordance with ASC 805, *Business Combinations*, to discern whether the assets and operations of xCella met the definition of a business. We concluded that substantially all of the fair value of the gross assets acquired is concentrated in the acquired core technology. Accordingly, we accounted for this transaction as an asset acquisition. Of the \$7.1 million consideration transferred, we recognized (1) \$0.2 million of tangible assets acquired, (2) \$(0.1) million of liabilities assumed, (3) \$7.8 million of core completed technology acquired, and (4) \$(0.8) million of deferred tax liability. The core technology is being amortized on a straight-line basis over the estimated useful life of 15 years. We account for the earnout rights in accordance with ASC 450, *Contingencies*, when the contingency is resolved and the liability becomes payable. None of the earnout rights are recognized as of the acquisition date. During the three months ended June 30, 2021, no contingencies were resolved during the period. During the six months ended June 30, 2021, we recognized \$0.2 million in earnout rights when certain contingencies were resolved during the period.

#### ***Icagen Acquisition***

On April 1, 2020, we acquired the core assets, including its partnered programs and ion channel technology, from Icagen and certain of its affiliates. The acquisition was accounted for as a business combination and we applied the acquisition method of accounting. Accordingly, we recorded the tangible and intangible assets acquired and liabilities assumed at their estimated fair values as of the applicable date of acquisition. We did not incur any material acquisition-related costs.

The purchase price of \$19.9 million included \$15.1 million cash consideration paid upon acquisition, and a contingent earn-out payment of up to \$25.0 million of cash payments based on certain revenue milestones with an estimated fair value of \$4.8 million. The fair value of the earn-out liability was determined using a probability weighted income approach incorporating the estimated future cash flows from expected future milestones. These cash flows were then discounted to present value using a discount rate based on the market participants' cost of debt reflective of Icagen. Refer to *Note 2, Fair Value Measurement*, for further discussion. The liability will be periodically assessed based on events and circumstances related to the underlying milestones, and any change in fair value will be recorded in our consolidated statements of operations. The carrying amount of the liability may fluctuate significantly and actual amount paid may be materially different than the carrying amount of the liability. As the acquisition is not considered significant, pro forma information has not been provided. The results of Icagen have been included in our results of operations since the date of acquisition.

The allocation of the purchase price consisted of (1) \$1.8 million of fair value of tangible assets acquired, (2) \$(0.8) million of liabilities assumed, (3) \$12.8 million of acquired intangibles, (4) \$(3.7) million of deferred revenue in connection with assumed performance obligations under a collaboration agreement, (5) \$0.8 million of deferred tax asset associated with the deferred revenue, and (6) \$9.0 million of goodwill, the majority of which is deductible for tax purposes.

Acquired intangibles include \$11.1 million of customer relationships and \$1.7 million of core technology. The fair values of the customer relationships were based on a discounted cash flow analysis incorporating the estimated future cash flows from these relationships during the contractual term. These cash flows were then discounted to present value using a discount rate of 17%. The fair value of the customer relationships is being amortized on a straight-line basis over the weighted average estimated useful life of 9.6 years. The fair value of the core technology was based on the discounted cash flow method that estimated the present value of the potential royalties, milestones, and collaboration revenue streams derived from the licensing of the related technologies. These projected cash flows were discounted to present value using a discount rate of 17%. The fair value of the core technology is being amortized on a straight-line basis over the estimated useful life of 10 years. The total acquired intangibles are being amortized on a straight-line basis over the estimated useful life of 9.7 years.

#### 4. Convertible Senior Notes

##### 0.75% Convertible Senior Notes due 2023

In May 2018, we issued \$750.0 million aggregate principal amount of 0.75% convertible senior notes. The net proceeds from the offering, after deducting the initial purchasers' discount and offering expenses, were approximately \$733.1 million. The 2023 Notes will be convertible into cash, shares of common stock, or a combination of cash and shares of common stock, at our election, based on an initial conversion rate, subject to adjustment, of 4.0244 shares per \$1,000 principal amount of the 2023 Notes which represents an initial conversion price of approximately \$248.48 per share.

Holders of the 2023 Notes may convert the notes at any time prior to the close of business on the business day immediately preceding November 15, 2022, under any of the following circumstances:

- (1) during any fiscal quarter (and only during such fiscal quarter) commencing after September 30, 2018, if, for at least 20 trading days (whether or not consecutive) during the 30 consecutive trading day period ending on the last trading day of the immediately preceding fiscal quarter, the last reported sale price of our common stock on such trading day is greater than 130% of the conversion price on such trading day;
- (2) during the five business day period immediately following any 10 consecutive trading day period, in which the trading price per \$1,000 principal amount of notes was less than 98% of the product of the last reported sale price of our common stock on such trading day and the conversion rate on each such trading day; or
- (3) upon the occurrence of certain specified corporate events as specified in the indenture governing the notes.

The notes will have a dilutive effect to the extent the average market price per share of common stock for a given reporting period exceeds the conversion price of \$248.48. As of June 30, 2021, the "if-converted value" did not exceed the principal amount of the 2023 Notes. In connection with the issuance of the 2023 Notes, we incurred \$16.9 million of issuance costs, which primarily consisted of underwriting, legal and other professional fees. The portion of these costs allocated to the liability component totaling \$13.7 million is amortized to interest expense using the effective interest method over the five year expected life of the 2023 Notes. It is our intent and policy to settle conversions through combination settlement, which essentially involves payment in cash equal to the principal portion and delivery of shares of common stock for the excess of the conversion value over the principal portion.

During the six months ended June 30, 2021, we repurchased \$149.6 million in principal of the 2023 Notes for \$153.7 million in cash, including accrued interest of \$0.3 million. We accounted for the repurchase as a debt extinguishment, which resulted in (1) a loss of \$7.2 million reflected in other income (expense), net, in our condensed consolidated statement of operations for the six months ended June 30, 2021, (2) a \$13.5 million reduction in debt discount, and (3) a \$10.2 million reduction to additional paid in capital, net of tax, related to the reacquisition of the equity component in our condensed consolidated balance sheet as of June 30, 2021.

##### *Convertible Bond Hedge and Warrant Transactions*

In conjunction with the 2023 Notes, in May 2018, we entered into convertible bond hedges and sold warrants covering 3,018,327 shares of our common stock to minimize the impact of potential dilution to our common stock and/or offset the cash payments we are required to make in excess of the principal amount upon conversion of the 2023 Notes. The convertible bond hedges have an exercise price of \$248.48 per share and are exercisable when and if the 2023 Notes are converted. We paid \$40.3 million for these convertible bond hedges. If upon conversion of the 2023 Notes, the price of our common stock is above the exercise price of the convertible bond hedges, the counterparties will deliver shares of common stock and/or cash with an aggregate value approximately equal to the difference between the price of common stock at the conversion date and the exercise price, multiplied by the number of shares of common stock related to the convertible bond hedge transaction being exercised. The convertible bond hedges and warrants described below are separate transactions entered into by us and are not part of the terms of the 2023 Notes. Holders of the 2023 Notes and warrants will not have any rights with respect to the convertible bond hedges.

Concurrently with the convertible bond hedge transactions, we entered into warrant transactions whereby we sold warrants covering approximately 3,018,327 shares of common stock with an exercise price of approximately \$315.38 per share, subject to certain adjustments. We received \$90.0 million for these warrants. The warrants have various expiration dates ranging from August 15, 2023 to February 6, 2024. The warrants will have a dilutive effect to the extent the market price per share of

common stock exceeds the applicable exercise price of the warrants, as measured under the terms of the warrant transactions. The common stock issuable upon exercise of the warrants will be in unregistered shares, and we do not have the obligation and do not intend to file any registration statement with the SEC registering the issuance of the shares under the warrants.

In January 2021, we entered into amendments with Barclays Bank PLC, Deutsche Bank AG, and Goldman Sachs & Co. LLC to the convertible note hedges transactions we initially entered into in connection with the issuance of the 2023 Notes. The amendments provide that the options under the convertible note hedges corresponding to such repurchased 2023 Notes will remain outstanding notwithstanding such repurchase.

In March 2021, in connection with the repurchases of \$104.5 million in principal of the 2023 Notes for \$109.1 million in cash, including accrued interest of \$0.2 million, during the quarter ended March 31, 2021, we entered into Warrant Early Unwind Agreements and Bond Hedge Unwind Agreements with Barclays Bank PLC, Deutsche Bank AG, and Goldman Sachs & Co. LLC to unwind a portion of the convertible note hedges transactions we initially entered into in connection with the issuance of the 2023 Notes. We paid \$16.5 million as part of the Warrant Early Unwind Agreements reducing the number of shares covered by the warrants from 3,018,327 to 2,597,750. We received \$16.9 million as part of the Bond Hedge Early Unwind Agreements reducing the number of options under the convertible bond hedges to 645,500. These unwind transactions resulted in a \$0.4 million net increase in additional paid-in-capital in our condensed consolidated balance sheet as of March 31, 2021.

The following table summarizes information about the 2023 Notes (in thousands):

	June 30, 2021	December 31, 2020
Principal amount of the 2023 Notes outstanding	\$ 345,729	\$ 495,280
Unamortized discount (including unamortized debt issuance cost)	(30,411)	(52,987)
Total long-term portion of notes payable	<u>\$ 315,318</u>	<u>\$ 442,293</u>
Carrying value of equity component of the 2023 Notes	\$ 27,776	\$ 48,397
Fair value of the 2023 Notes outstanding (Level 2)	\$ 341,687	\$ 466,053

## 5. Income Tax

Our effective tax rate may vary from the U.S. federal statutory tax rate due to the change in the mix of earnings in various state jurisdictions with different statutory rates, benefits related to tax credits, and the tax impact of non-deductible expenses, stock award activities and other permanent differences between income before income taxes and taxable income. The effective tax rate for the three and six months ended June 30, 2021 was 7.7% and (25.0)%, respectively. The variance from the U.S. federal statutory tax rate of 21% for the three and six months ended June 30, 2021 was significantly impacted by tax benefits related to (1) a \$34.1 million Pfenex CVR adjustment recorded during the second quarter of 2021 due to the lower probability of achieving the specific development and regulatory milestone by December 31, 2021 as defined by the Pfenex CVR, and (2) net excess tax windfalls from share-based compensation resulting from increased stock option exercise activity, stock award vesting and appreciation of our stock price during the period. The effective tax rate for the three and six months ended June 30, 2020 was 21.5% and 10.9%, respectively. The variances from the U.S. federal statutory tax rate of 21% for the three and six months ended June 30, 2020 were primarily attributable to the mix of earnings in the jurisdictions with lower statutory rates than the U.S. offset by tax deductions related to stock award activities and tax deductions related to foreign derived intangible income tax credits.

## 6. Stockholders' Equity

We grant options and awards to employees and non-employee directors pursuant to a stockholder approved stock incentive plan, which is described in further detail in *Note 9, Stockholders' Equity*, of the Notes to Consolidated Financial Statements in our 2020 Annual Report.

The following is a summary of our stock option and restricted stock activity and related information:

	Stock Options		Restricted Stock Awards	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Grant Date Fair Value
Balance as of December 31, 2020	2,561,822	\$ 85.59	206,202	\$ 106.88
Granted	318,381	\$ 164.30	158,456	\$ 171.44
Options exercised/RUs vested	(533,451)	\$ 52.00	(95,607)	\$ 126.49
Forfeited	(83,489)	\$ 106.98	(6,790)	\$ 126.23
Balance as of June 30, 2021	2,263,263	\$ 103.79	262,261	\$ 138.23

As of June 30, 2021, outstanding options to purchase 1.3 million shares were exercisable with a weighted average exercise price per share of \$91.50.

### Employee Stock Purchase Plan

The price at which common stock is purchased under the Amended Employee Stock Purchase Plan, or ESPP, is equal to 85% of the fair market value of the common stock on the first or last day of the offering period, whichever is lower. As of June 30, 2021, 46,866 shares were available for future purchases under the ESPP.

### Share Repurchases

We did not have any share repurchases during the six months ended June 30, 2021.

On September 11, 2019, our Board of Directors approved a stock repurchase program authorizing, but not obligating, the repurchase of up to \$00.0 million of our common stock from time to time over the next three years. We expect to acquire shares primarily through open-market transactions and may enter into Rule 10b5-1 trading plans, to facilitate open-market repurchases. The timing and amount of repurchase transactions will be determined by management based on our evaluation of market conditions, share price, legal requirements and other factors. Authorization to repurchase \$248.8 million of our common stock remained available as of June 30, 2021.

## 7. Commitment and Contingencies: Legal Proceedings

We record an estimate of a loss when the loss is considered probable and estimable. Where a liability is probable and there is a range of estimated loss and no amount in the range is more likely than any other number in the range, we record the minimum estimated liability related to the claim in accordance with ASC 450, *Contingencies*. As additional information becomes available, we assess the potential liability related to our pending litigation and revises our estimates. Revisions in our estimates of potential liability could materially impact our results of operations.

On April 9, 2019, CyDex, our wholly-owned subsidiary, received a Paragraph IV certification Notice Letter from Alembic Global Holdings SA ("Alembic") stating that Alembic had submitted an ANDA to the FDA, seeking approval to manufacture, offer to sell, and sell a generic version of EVOMELA® prior to the expiration of any of the '077 patent; the '088 patent, the '582 patent, or U.S. Patent No. 10,040,872 ("the '872 patent"), and alleging that these patents, each of which relates to Captisol, are invalid, unenforceable, and/or would not be infringed by Alembic's ANDA product. On May 23, 2019, CyDex filed a complaint against Alembic, Alembic Pharmaceuticals, Ltd., and Alembic Pharmaceuticals, Inc. in the U.S. District Court for the District of Delaware, asserting that the filing of Alembic's ANDA constitutes infringement of each of the '088 patent and the '582 patent. The parties entered into a settlement agreement on June 1, 2021 and the lawsuit has been dismissed.

On September 16, 2019, CyDex received a Paragraph IV certification Notice Letter from Lupin Ltd. ("Lupin") stating that Lupin had submitted an ANDA to the FDA, seeking approval to manufacture, offer to sell, and sell a generic version of EVOMELA® prior to the expiration of any of the '077 patent; the '088 patent, the '582 patent, or the '872 patent, and alleging

that these patents, each of which relates to Captisol, are invalid, unenforceable, and/or would not be infringed by Lupin's ANDA product. CyDex filed a complaint on October 29, 2019, alleging patent infringement against Lupin. Lupin filed an answer on December 11, 2019 and counterclaimed for declaratory judgments of invalidity and non-infringement as to all four patents and CyDex filed its answer to Lupin's counterclaims on January 2, 2020. The parties entered into a settlement agreement on April 26, 2021 and the lawsuit has been dismissed.

On October 31, 2019, we received three civil complaints filed in the US District Court for the Northern District of Ohio on behalf of several Indian tribes. The Northern District of Ohio is the Court that the Judicial Panel on Multi-District Litigation ("JPML") has assigned more than one thousand civil cases which have been designated as a Multi-District Litigation ("MDL") and captioned In Re: National Prescription Opiate Litigation. The allegations in these complaints focus on the activities of defendants other than the company and no individualized factual allegations have been advanced against us in any of the three complaints. We reject all claims raised in the complaints and intend to vigorously defend these matters.

In May and August of 2019, Pfenex Inc., which was acquired by us in October 2020, filed three petitions (IPR2019-01027, IPR2019-01028 and IPR2019-01478) for inter partes review of U.S. Patent No. 9,422,345 ("the '345 patent," entitled "Expression System"), which is owned by GlaxoSmithKline Biologicals S.A. ("GSK"), with the Patent Trial and Appeal Board ("PTAB") of the U.S. Patent and Trademark Office. In November 2019 and February 2020, the Board instituted trial on invalidity grounds in IPR2019-01028, but exercised its discretion not to institute trial on IPR2019-01027 or IPR2019-01478. In May 2020, GSK filed two petitions (IPR2020-00890 and IPR2020-00962) for inter partes review of U.S. Patent No. 8,530,171 ("the '171 patent," entitled "High Level Expression of Recombinant Toxin Proteins"), which is owned by Pfenex, with the PTAB of the U.S. Patent and Trademark Office. On June 29, 2020, GSK filed a motion to withdraw IPR2020-00890, which was granted on August 28, 2020. In October 2020, Pfenex and GSK executed a confidential settlement agreement agreeing to terminate the proceedings before the PTAB resolving these issues. Pfenex and GSK filed a joint motion to terminate IPR2019-01028 and IPR2020-00962 on October 30, 2020, and an amended joint motion to terminate on November 4, 2020. A decision granting the parties' joint motion to terminate in IPR2019-01028 was issued on November 12, 2020. The PTAB subsequently granted the parties' joint motion to terminate in IPR2020-00962 on December 30, 2020.

On January 12, 2021, Abvivo submitted a JAMS arbitration demand naming the Company as respondent. Abvivo claimed that the Company was in violation of the assignment provision of that certain Commercial Platform License and Services Agreement ("CPLSA"), dated October 9, 2019, by and among OMT and Crystal, on the one hand, and Abvivo, on the other hand because the Company allegedly withheld its consent to a proposed assignment required for Abvivo to negotiate a discovery and development alliance with certain third parties. On January 26, 2021, we submitted a response to the demand, denying all claims and alleging counterclaims against Abvivo and Brian Lundstrom, a Company employee and the sole owner of Abvivo. We alleged that Mr. Lundstrom breached his fiduciary duty of loyalty to the Company and that Abvivo and Mr. Lundstrom fraudulently induced the Company, OMT and Crystal into certain business transactions and contracts. Abvivo and Mr. Lundstrom's response to these counterclaims was due on February 9, 2021, but they did not submit a response. Under JAMS rules, the counterclaims were deemed denied. On February 22, 2021, Abvivo submitted documents to JAMS which indicated that it sought to dismiss its claim without prejudice. On February 25, 2021, we submitted additional counterclaims against Abvivo and Mr. Lundstrom. These counterclaims alleged that Abvivo and Mr. Lundstrom made false promises regarding the CPLSA, Abvivo's breach of and failure to perform under the CPLSA, and Abvivo's infringement of certain Ligand trademarks. On March 11, 2021, Abvivo and Mr. Lundstrom submitted an answer to our amended counterclaims denying all of the claims and asserting various affirmative defenses. On June 21, 2021, the parties executed a confidential settlement agreement that settled all claims in this arbitration. On June 29, 2021, the parties jointly submitted to JAMS a dismissal with prejudice of all claims by all parties in the arbitration.

CyDex and Baxter Healthcare Corp. ("Baxter") are parties to a license agreement relating to Ligand's Captiso technology and, more specifically, relating to Captisol-enabled Nexterone (amiodarone HCl premixed injection). Baxter contends that it has overpaid royalties for several years, and seeks both refunds of those overpayment and a reduced royalty going forward. CyDex contends that Baxter has not paid the royalties due to CyDex under the terms of the license agreement. On April 6, 2021, Baxter initiated an arbitration with the American Arbitration Association pursuant to the arbitration provision of the license agreement. On April 21, 2021, CyDex filed an Answering Statement and Counterdemand. On May 5, 2021, Baxter filed an Answering Statement in response to CyDex's Counterdemand. On June 30, 2021, the parties' held a Preliminary Hearing before the arbitrator. The arbitration is in its early stages.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

*Caution:* This discussion and analysis may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed in Part II, Item 1A. Risk Factors. This outlook represents our current judgment on the future direction of our business. These statements include those related to our Captisol-related revenues and manufacturing capacity, our Kyprolis and other product royalty revenues, the impact of COVID-19, product returns, and product development. Actual events or results may differ materially from our expectations. For example, there can be no assurance that our revenues or expenses will meet any expectations or follow any trend(s), that we will be able to retain our key employees or that we will be able to enter into any strategic partnerships or other transactions. We cannot assure you that we will receive expected Kyprolis, Captisol and other product revenues to support our ongoing business or that our internal or partnered pipeline products will progress in their development, gain marketing approval or achieve success in the market. In addition, ongoing or future arbitration, litigation or disputes with third parties may have a material adverse effect on us. Such risks and uncertainties, and others, could cause actual results to differ materially from any future performance suggested. We undertake no obligation to make any revisions to these forward-looking statements to reflect events or circumstances arising after the date of this quarterly report. This caution is made under the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act.

We use our trademarks, trade names and services marks in this report as well as trademarks, trade names and service marks that are the property of other organizations. Solely for convenience, trademarks and trade names referred to in this report appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trade marks and trade names.

References to "Ligand Pharmaceuticals Incorporated," "Ligand," the "Company," "we" or "our" include Ligand Pharmaceuticals Incorporated and our wholly owned subsidiaries.

### Overview

We are a biopharmaceutical company focused on developing or acquiring technologies that help pharmaceutical companies discover and develop medicines. We employ research technologies such as antibody discovery technologies, ion channel discovery technology, *Pseudomonas fluorescens* protein expression technology, formulation science and liver targeted pro-drug technologies to assist companies in their work toward securing prescription drug and biologic approvals. We currently have partnerships and license agreements with over 130 pharmaceutical and biotechnology companies. Over 300 programs are in various stages of commercialization, development or research and are fully funded by our collaboration partners and licensees. We have contributed novel research and technologies for approved medicines that treat cancer, osteoporosis, fungal infections and postpartum depression, among others. Our collaboration partners and licensees have programs currently in clinical development targeting cancer, seizure, diabetes, cardiovascular disease, muscle wasting, liver disease, and kidney disease, among others. We have over 1,400 issued patents worldwide.

We have assembled our large portfolio of fully-funded programs either by licensing our own proprietary drug development programs, licensing our platform technologies such as Captisol or OmniAb to partners for use with their proprietary programs, or acquiring existing partnered programs from other companies. Fully-funded programs, which we refer to as "shots on goal," are those for which our partners pay all of the development and commercialization costs. For our internal programs, we generally plan to advance drug candidates through early-stage drug development or clinical proof-of-concept and then seek partners to continue development and potential commercialization.

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 management and commercialization) to ultimately generate our revenue. We believe that focusing on discovery and early-stage drug development while benefiting from our partners' development and commercialization expertise will reduce our internal expenses and allow us to have a larger number of drug candidates progress to later stages of drug development.

Our revenue consists of three primary elements: royalties from commercialized products, sale of Captisol material, and contract revenue from license, milestone and other service payments. In addition to discovering and developing our own

proprietary drugs, we selectively pursue acquisitions to bring in new assets, pipelines, and technologies to aid in generating additional potential new revenue streams.

### **Impact of COVID-19 Pandemic**

Please see *Impact of COVID-19 Pandemic* described in Item 1. Condensed Consolidated Financial Statements - *Note 1, Basis of Presentation and Summary of Significant Accounting Policies*. For additional information on the various risks posed by the COVID-19 pandemic, please read Item 1A. "Risk Factors" included in this report and in our 2020 Annual Report.

### **Portfolio Program Updates**

#### ***OmniAb® Platform Updates***

OmniAb is our industry-leading, AI- and BI- (Biological Intelligence) powered multi-species antibody platform for the discovery of mono and bispecific therapeutic human antibodies. As of June 30, 2021, 19 different OmniAb-derived antibodies have been studied in approximately 77 active or completed clinical trials. We expect the first regulatory approvals for OmniAb-derived antibodies in 2021.

Arcus Biosciences announced initial efficacy and safety from one of the cohorts in ARC-6, a randomized Phase 1b/2 platform study evaluating the combination of etrumadenant (dual adenosine A2a/A2b receptor antagonist) plus zimberelimab (an OmniAb-derived, anti-PD1 antibody) and docetaxel in people with taxane-naïve metastatic castration-resistant prostate cancer. Arcus also announced encouraging clinical results from an interim analysis of the Phase 2 ARC-7 study evaluating the safety and efficacy of anti-TIGIT mAb domvanalimab-based combinations with or without zimberelimab as a first-line treatment of PDL1-high non-small cell lung cancer (NSCLC). The zimberelimab monotherapy arm showed activity similar to that of marketed anti-PD-1 antibodies studied by other companies in this setting.

Janssen provided an update on their Phase 1 trial results for teclistamab in heavily pretreated patients with multiple myeloma suggesting deep and durable responses, and also announced FDA Breakthrough Therapy Designation for teclistamab for the treatment of relapsed or refractory multiple myeloma. Teclistamab is an OmniAb-derived bispecific antibody targeting BCMA and CD3.

CStone Pharmaceuticals announced OmniAb-derived anti-PD-L1 antibody sugemalimab met its primary endpoint in the first-in-class registrational clinical trial for Stage III NSCLC and plans to submit a New Drug Application in China for this expanded indication.

Aptevo Therapeutics announced positive Phase 1 clinical data for APVO436 from the dose-escalation portion of their Phase 1 trial in adults with relapsed acute myeloid leukemia, and initiation of the expansion phase of the study using the recommended dose identified in Part 1. APVO436 is an OmniAb-derived bispecific antibody targeting CD123 and CD3 for the potential treatment of hematological malignancies.

Harbour BioMed reported positive topline results for the Phase 2 proof-of-concept trial of batoclimab, a novel anti-FcRn antibody, in Chinese patients with generalized myasthenia gravis. Harbor BioMed plans to initiate a Phase 3 study in this indication in the second half of 2021.

During the second quarter of 2021, we entered into OmniAb licensing agreements with GenScript Biotech and ImmuNext.

#### ***Pelican Platform Updates***

The Pelican Expression Technology™ is our proprietary *Pseudomonas fluorescens* protein expression technology that has major collaborations with Jazz Pharmaceuticals, Merck, Serum Institute of India and Alvogen, each of which has potential to contribute meaningfully to our royalty revenue. In addition, large pharma and small biotech partners continue to expand their use of our PeliCRM™ (CRM197), a non-toxic mutant diphtheria toxin vaccine carrier protein produced using Pelican Expression Technology, adding to near-term revenue.

Jazz Pharmaceuticals recently received FDA approval for Rylaze™, formerly JZP458, for the treatment of acute lymphoblastic leukemia (ALL) or lymphoblastic lymphoma (LBL). Rylaze is a recombinant *Erwinia asparaginase* used as a

component of a multi-agent chemotherapeutic regimen for the treatment of pediatric and adult patients with ALL or LBL who are hypersensitive to E. coli-derived asparaginase products. In July, Jazz launched Rylaze and announced that the National Comprehensive Cancer Network® (NCCN) added Rylaze to the Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for ALL in pediatric and adult patients.

Merck received FDA approval for VAXNEUVANCE™, formerly V114, for the prevention of pneumococcal disease in adults. VAXNEUVANCE is a 15-valent pneumococcal vaccine utilizing our CRM197 vaccine carrier protein produced using the Pelican Expression Technology platform. Additionally, Merck announced positive results from initial Phase 3 pediatric clinical trials for VAXNEUVANCE in pneumococcal disease. CRM197, produced by the Pelican Expression Technology™, is also used by Merck in its investigational vaccine candidates, including V116.

#### Other Business Updates

BeiGene received approval in China of Kyprolis (carfilzomib) in combination with dexamethasone for adult patients with relapsed or refractory multiple myeloma who have received at least two prior therapies, including a proteasome inhibitor and an immunomodulatory agent. This is the first approval of Kyprolis in China. BeiGene licensed Kyprolis in 2019 for commercialization and development in China under a strategic collaboration with Amgen.

Roche and Ligand expanded an existing collaboration agreement utilizing the Icagen Ion Channel Technology platform to a third program for the development and commercialization of small molecule ion channel modulators for the treatment of neurological diseases. Roche made an upfront cash payment to us and will also provide research funding. In addition, we are eligible to receive up to \$274 million in research, development and commercial milestone payments, as well as royalties on net sales should a drug from the collaboration be commercialized.

Travere Therapeutics announced completion of enrollment in the pivotal Phase 3 PROTECT clinical trial to evaluate the long-term nephroprotective potential of sparsentan in IgA nephropathy. Travere anticipates topline interim efficacy data in the third quarter of 2021. In May 2021, Travere announced that the FDA indicated the available data from the interim assessment in the pivotal, Phase 3 DUPLEX study in focal segmental glomerulosclerosis would not be adequate to support an accelerated approval at this time. The FDA indicated an application for accelerated approval may be possible after additional eGFR data accrue in the first-half of 2022.

Novan announced positive topline results from the pivotal Phase 3 B-SIMPLE5 trial of SB206, a topical antiviral gel, for the treatment of molluscum contagiosum. The clinical trial achieved statistical significance ( $p < 0.0001$ ) for the primary endpoint of complete clearance of all lesions at Week 12, and statistical significance for all secondary endpoints including proportion achieving a lesion count of 0 or 1 at Week 12, proportion achieving  $\geq 90\%$  clearance of lesions at Week 12 and complete clearances of all lesions at Week 8. Novan intends to submit an NDA by the third quarter of 2022.

Sermonix Pharmaceuticals announced complete enrollment in its Phase 2 clinical trial studying lasofoxifene in combination with Eli Lilly's FDA-approved CDK 4 and 6 inhibitor abemaciclib to treat ESR1-mutated metastatic breast and gynecological cancers. Lasofoxifene is an investigational, nonsteroidal selective estrogen receptor modulator. Sermonix expects initial data from the trial to be available in the first half of 2022.

#### Results of Operations

##### Revenue

(Dollars in thousands)

	Q2 2021	Q2 2020	Change	% Change	YTD 2021	YTD 2020	Change	% Change
Royalties	\$ 8,616	\$ 7,181	\$ 1,435	20 %	\$ 15,728	\$ 13,746	\$ 1,982	14 %
Captisol	62,509	24,468	38,041	155 %	93,781	45,577	48,204	106 %
Contract revenue	13,550	9,771	3,779	39 %	30,316	15,258	15,058	99 %
Total revenue	\$ 84,675	\$ 41,420	\$ 43,255	104 %	\$ 139,825	\$ 74,581	\$ 65,244	87 %

Royalty revenue is a function of our partners' product sales and the applicable royalty rate. Kyprolis royalty rates are under a tiered royalty rate structure with the highest tier being 3.0%. Evomela has a fixed royalty rate of 20%. Contract revenue includes service revenue, license fees and development, regulatory and sales based milestone payments.

The following table represents royalty revenue by program:

(in millions)	Q2 2021 Estimated Partner Product Sales	Effective Royalty Rate	Q2 2021 Royalty Revenue	Q2 2020 Partner Product Sales	Effective Royalty Rate	Q2 2020 Royalty Revenue
Kyprolis	\$ 266.5	2.0 %	\$ 5.4	\$ 269.1	2.0 %	\$ 5.5
Evomela	11.0	20.0 %	2.2	6.0	20.0 %	1.2
Other	41.3	2.4 %	1.0	40.8	1.2 %	0.5
Total	\$ 318.8		\$ 8.6	\$ 315.9		\$ 7.2

(in millions)	YTD 2021 Estimated Partner Product Sales	Effective Royalty Rate	YTD 2021 Royalty Revenue	YTD 2020 Partner Product Sales	Effective Royalty Rate	YTD 2020 Royalty Revenue
Kyprolis	\$ 527.1	1.8 %	\$ 9.7	\$ 555.1	1.8 %	\$ 9.9
Evomela	22.2	20.0 %	4.5	13.9	20.0 %	2.8
Other	68.4	2.2 %	1.5	86.6	1.3 %	1.1
Total	\$ 617.7		\$ 15.7	\$ 655.6		\$ 13.7

#### Q2 2021 vs. Q2 2020

Total revenue increased by \$43.3 million, or 104%, to \$84.7 million in Q2 2021 compared to \$41.4 million in Q2 2020 primarily reflecting higher sales of Captisol for use in the manufacturing of remdesivir. Contract revenue increased in Q2 2021 compared to Q1 2020, with the increase primarily attributable to (1) the timing of partner milestone events and (2) the additional contract revenue of \$5.2 million from our Pelican Expression Technology, acquired in October 2020.

#### YTD 2021 vs. YTD 2020

Total revenue increased by \$65.2 million, or 87%, to \$139.8 million in YTD 2021 compared to \$74.6 million in the same period last year primarily reflecting higher sales of Captisol for use in the manufacturing of remdesivir. Contract revenue increased in the first half of 2021 compared to the same period last year, with the increase primarily attributable to (1) the timing of partner milestone events and (2) the additional contract revenue of \$8.0 million and \$8.5 million from the acquisitions of Icagen in April 2020 and Pfenex in October 2020, respectively.

#### Operating Costs and Expenses

(Dollars in thousands)	Q2 2021	% of Revenue	Q2 2020	% of Revenue	YTD 2021	% of Revenue	YTD 2020	% of Revenue
Cost of Captisol	\$ 30,593		\$ 7,644		\$ 38,746		\$ 12,327	
Amortization of intangibles	11,779		3,875		23,565		7,410	
Research and development	15,953		12,732		33,832		24,623	
General and administrative	14,711		10,069		27,028		19,333	
Other operating income	(34,100)		—		(33,800)		—	
Total operating costs and expenses	\$ 38,936	46%	\$ 34,320	83%	\$ 89,371	64%	\$ 63,693	85%

#### Q2 2021 vs. Q2 2020

Total operating costs and expenses during Q2 2021 increased by \$4.6 million, or 13%, compared to Q2 2020 primarily due to additional operating costs attributable to Pfenex, which we acquired on October 1, 2020, as well as an increase in Captisol sales for the current period. The increase was partially offset by a \$34.1 million non-cash valuation adjustment recorded in the second quarter of 2021 to reduce the Pfenex CVR liability. See additional information on the Pfenex CVR liability in *Note 2, Fair Value Measurements*.

Cost of Captisol increased primarily due to higher Captisol sales during Q2 2021 compared to Q2 2020. Cost of Captisol as a percentage of Captisol revenue was 49% in Q2 2021 compared to 31% in Q2 2020, with the increase primarily due to the significant sales to the Gilead consortium partners in India who had sales prices lower than other customers during Q2 2021.

Amortization of intangibles increased in Q2 2021 compared to the same period in 2020 primarily due to the amortization of contractual relationships and technologies acquired from Pfenex in October 2020.

At any one time, we are working on multiple programs. As such, we generally do not track our R&D expenses on a specific program basis. Our R&D expenses increased year over year in Q2 2021 due to the \$4.2 million costs associated with our Pfenex acquisition, which primarily consisted of salaries and lab costs.

General and administrative expenses increased in Q2 2021 compared to the same period in 2020 primarily due to the additional expenses from the Pfenex acquisition as well as increased share-based compensation expense.

Other operating income in Q2 2021 included a \$34.1 million non-cash valuation adjustment to reduce the Pfenex CVR liability. The decrease in Pfenex CVR liability is due to an expected lower probability of achieving the required milestone under the Pfenex CVR Agreement, which provides for payment to Pfenex CVR holders upon notice from the FDA that teriparatide injection receives an "A" therapeutic equivalence designation relative to the listed drug, FORTEO, by December 31, 2021. Based on feedback from the FDA, our commercial partner, Alvogen, will perform and submit to the FDA the results from an assessment to address concerns relating to potential innate immunogenicity, reducing the probability of achieving the milestone by December 31, 2021. There were no items recorded in other operating income in Q2 2020.

#### YTD 2021 vs. YTD 2020

Total operating costs and expenses during YTD 2021 increased by \$25.7 million, or 40%, compared to YTD 2020 primarily due to additional operating costs attributable to Icagen and Pfenex, as well as higher Captisol sales during YTD 2021. The increases were partially offset a \$34.1 million non-cash valuation adjustment to reduce the Pfenex CVR liability. See additional disclosure on the Pfenex CVR liability in *Note 2, Fair Value Measurements*.

Cost of Captisol increased primarily due to higher Captisol sales during YTD 2021 compared to YTD 2020. Cost of Captisol as a percentage of Captisol revenue was 41% in YTD 2021 compared to 27% in YTD 2020, with the increase primarily due to the significant sales to the Gilead consortium partners in India who had sales prices lower than other customers during Q2 2021.

Amortization of intangibles increased in YTD 2021 compared to the same period in 2020 primarily due to the amortization of contractual relationships and technologies acquired from Icagen in April 2020 and Pfenex in October 2020.

At any one time, we are working on multiple programs. As such, we generally do not track our R&D expenses on a specific program basis. Our R&D expenses increased year over year in YTD 2021 due to the \$9.2 million costs associated with our Pfenex acquisition, which primarily consisted of salaries and lab costs.

General and administrative expenses increased in YTD 2021 compared to the same period in 2020 primarily due to the additional expenses from the Pfenex and Icagen acquisitions as well as increased share-based compensation expense.

Other operating income in YTD 2021 primarily included a \$34.1 million non-cash valuation adjustment to reduce the Pfenex CVR liability during Q2 2021 as mentioned above. There were no items recorded in other operating income in YTD 2020.

#### Other Income (Expense)

(Dollars in thousands)	Q2 2021	Q2 2020	Change	YTD 2021	YTD 2020	Change
Gain (loss) from short-term investments	\$ (6,864)	\$ 23,460	\$ (30,324)	\$ 6,197	\$ (7,281)	\$ 13,478
Interest income	233	1,969	(1,736)	529	6,699	(6,170)
Interest expense	(4,883)	(6,213)	1,330	(10,714)	(14,761)	4,047
Other income (expense), net	(924)	1,803	(2,727)	(7,401)	2,159	(9,560)
Total other income (expense), net	\$ (12,438)	\$ 21,019	\$ (33,457)	\$ (11,389)	\$ (13,184)	\$ 1,795

#### Q2 2021 vs. Q2 2020

The fluctuation in the gain (loss) from short-term investments is primarily driven by the changes in the fair value of our ownership in Viking common stock and warrants (an unrealized loss of \$8.3 million in Q2 2021 as compared to an unrealized gain of \$23.5 million in Q2 2020).

Interest income consists primarily of interest earned on our short-term investments. The decrease over the prior period was due to the decrease in our short-term investment balance.

Interest expense includes the 0.75% coupon cash interest expense in addition to the non-cash accretion of discount (including the amortization of debt issuance cost) on our 2023 Notes for the three months ended June 30, 2021. The decrease was primarily due to lower average debt outstanding balance during Q2 2021 as compared to Q2 2020. In Q2 2021, we repurchased \$45.1 million in principal of the 2023 Notes for \$44.6 million in cash, including accrued interest of \$0.03 million. See *Note 4, Convertible Senior Notes*.

Other income (expense), net, in Q2 2021 included a \$2.3 million loss on debt extinguishment in connection with the 2023 Notes repurchase during the three months ended June 30, 2021.

#### YTD 2021 vs. YTD 2020

The fluctuation in the gain (loss) from short-term investments is primarily driven by the changes in the fair value of our ownership in Viking common stock and warrants (an unrealized gain of \$0.9 million in YTD 2021 as compared to an unrealized loss of \$6.2 million in YTD 2020).

Interest income consists primarily of interest earned on our short-term investments. The decrease over the prior period was due to the decrease in our short-term investment balance.

Interest expense includes the 0.75% coupon cash interest expense in addition to the non-cash accretion of discount (including the amortization of debt issuance cost) on our 2023 Notes for the six months ended June 30, 2021. The decrease was primarily due to lower average debt outstanding balance during YTD 2021 as compared to YTD 2020. During YTD 2021, we repurchased \$149.6 million in principal of the 2023 Notes for \$153.7 million in cash, including accrued interest of \$0.3 million. See *Note 4, Convertible Senior Notes*.

Other income (expense), net, in YTD 2021 included a \$7.2 million loss on debt extinguishment in connection with the 2023 Notes repurchase during the six months ended June 30, 2021.

<b>Income Tax Benefit (Expense)</b>							
(Dollars in thousands)							
	<b>Q2 2021</b>	<b>Q2 2020</b>	<b>Change</b>	<b>YTD 2021</b>	<b>YTD 2020</b>	<b>Change</b>	
Income (loss) before income taxes	\$ 33,301	\$ 28,119	\$ 5,182	\$ 39,065	\$ (2,296)	\$ 41,361	
Income tax benefit (expense)	(2,576)	(6,033)	3,457	9,766	251	9,515	
Income (loss) from operations	\$ 30,725	\$ 22,086	\$ 8,639	\$ 48,831	\$ (2,045)	\$ 50,876	
Effective tax rate	7.7 %	21.5 %		(25.0) %	10.9 %		

We compute our income tax provision by applying the estimated annual effective tax rate to income from operations and adding the effects of any discrete income tax items specific to the period. The effective tax rate for the three and six months ended June 30, 2021 was 7.7% and (25.0)%, respectively. The variance from the U.S. federal statutory tax rate of 21% for the three and six months ended June 30, 2021 was significantly impacted by tax benefits related to (1) a \$34.1 million Pfenex CVR adjustment recorded during the second quarter of 2021 due to the lower probability of achieving the specific development and regulatory milestone by December 31, 2021 as defined by the Pfenex CVR, and (2) net excess tax windfalls from share-based compensation resulting from increased stock option exercise activity, stock award vesting and appreciation of our stock price during the period. The effective tax rate for the three and six months ended June 30, 2020 was 21.5% and 10.9%, respectively. The variances from the U.S. federal statutory tax rate of 21% for the three and six months ended June 30, 2020 were primarily attributable to the mix of earnings in the jurisdictions with lower statutory rates than the U.S. offset by tax deductions related to stock award activities and tax deductions related to foreign derived intangible income tax credits.

#### Liquidity and Capital Resources

As of June 30, 2021, our cash, cash equivalents, and short-term investments totaled \$301.8 million, which decreased by \$109.4 million from the end of last year due to factors described in the *Cash Flow Summary* below. Our primary source of liquidity, other than our holdings of cash, cash equivalents, and short-term investments, has been cash flows from operations. Our ability to generate cash from operations provides us with the financial flexibility we need to meet operating, investing, and financing needs.

Historically, we have liquidated our short-term investments and/or issued debt and equity securities to finance our business needs as a supplement to cash provided by operating activities. Our short-term investments include U.S. government

debt securities, investment-grade corporate debt securities, mutual funds and certificates of deposit. We have established guidelines relative to diversification and maturities of our investments in order to provide both safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates. Additionally, we own certain securities which are classified as short-term investments that we received as a result of a milestone and an upfront license payment as well as 6.7 million shares of common stock in Viking.

In May 2018, we issued an aggregate principal amount of \$750.0 million of the 2023 Notes. In conjunction of the 2023 Notes offering, we used a portion of the proceeds from such issuance totaling \$49.7 million to repurchase 260,000 shares of our common stock. During the six months ended June 30, 2021, we repurchased \$149.6 million in principal of the 2023 Notes for \$153.7 million in cash, including accrued interest of \$0.3 million. After the repurchases, \$345.7 million in principal amount of the 2023 Notes remain outstanding. We may continue to use cash on hand to repurchase additional 2023 Notes through open-market transactions, including through Rule 10b5-1 trading plan to facilitate open-market repurchases, or otherwise, from time to time. The timing and amount of repurchase transactions will be determined by management based on the evaluation of market conditions, trading price of the 2023 Notes, legal requirements and other factors. The 2023 Notes were not convertible as of June 30, 2021. It is our intent and policy to settle conversions through combination settlement, which essentially involves payment in cash equal to the principal portion and delivery of shares of common stock for the excess of the conversion value over the principal portion. See *Note 4, Convertible Senior Notes*.

We believe that our existing funds, cash generated from operations and existing sources of and access to financing are adequate to fund our need for working capital, capital expenditures, debt service requirements, continued advancement of research and development efforts, potential stock repurchases and other business initiatives we plan to strategically pursue, including acquisitions and strategic investments.

As of June 30, 2021, we had \$14.8 million in fair value of contingent consideration liabilities associated with prior acquisitions to be settled in future periods.

#### ***Leases and Off-Balance Sheet Arrangements***

We lease our office facilities under operating lease arrangements with varying terms through September 2026. In addition, we signed our new Emeryville office lease in June 2021 as discussed below under the "*Contractual Obligations*" section. The lease agreements provide for increases in annual rents based on changes in the Consumer Price Index or fixed percentage increases between 3.0% to 4.0%. We had no off-balance sheet arrangements at June 30, 2021 and December 31, 2020.

#### ***Cash Flow Summary***

(Dollars in thousands)

	<u>YTD 2021</u>	<u>YTD 2020</u>
Net cash provided by (used in):		
Operating activities	\$ 31,131	\$ 41,304
Investing activities	\$ 84,453	\$ 281,779
Financing activities	\$ (141,540)	\$ (279,310)

During the six months ended June 30, 2021, we repurchased \$149.6 million in principal of the 2023 Notes for \$153.7 million in cash, including accrued interest of \$0.3 million. During the six months ended June 30, 2020, we repurchased \$234.4 million in principal of the 2023 Notes for \$203.8 million in cash, including accrued interest of \$0.6 million, used \$73.3 million to repurchase our common stock, and paid \$15.1 million in cash for the Icagen acquisition.

#### ***Contractual Obligations***

There have been no material changes outside the ordinary course of business to the Contractual Obligations table set forth in our 2020 Annual Report, other than our operating lease obligation will increase by approximately \$22 million (undiscounted cash outflow) in connection with our new Emeryville office lease signed in June 2021 with projected commencement dates of July 2021 for the first phase of occupancy and April 2022 for the second phase over the next 10 year term.

#### ***Critical Accounting Policies***

Certain of our policies require the application of management judgment in making estimates and assumptions that affect the amounts reported in our consolidated financial statements and the disclosures made in the accompanying notes. Those estimates and assumptions are based on historical experience and various other factors deemed applicable and reasonable under the circumstances. The use of judgment in determining such estimates and assumptions is by nature, subject to a degree of uncertainty. Accordingly, actual results could differ materially from the estimates made. There have been no material changes in our critical accounting policies and estimates as compared to the critical accounting policies and estimates described in our 2020 Annual Report, other than the adoption of the Accounting Standards Updates described in Item 1. Condensed consolidated Financial Statements - Note 1, *Basis of Presentation and Summary of Significant Accounting Policies*, related to allowance for credit losses.

### **Item 3. Quantitative and Qualitative Disclosures about Market Risk**

There were no substantial changes to our market risks in the three and six months ended June 30, 2021, when compared to the disclosures in Item 7A of our 2020 Annual Report.

### **Item 4. Controls and Procedures**

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures as of June 30, 2021 were effective to ensure that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

There were no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## **PART II. OTHER INFORMATION**

### **Item 1. Legal Proceedings**

For information that updates the disclosures set forth under Part I. Item 3. Legal Proceedings in our 2020 Annual Report, refer to *Note 7, Commitment and Contingencies: Legal Proceedings*, to the Condensed Consolidated Financial Statements contained in Part I. Item 1. of this report.

### **Item 1A. Risk Factors**

There have been no material changes to the risk factors included in Part I. Item 1A. Risk Factors in our 2020 Annual Report, other than as set forth below:

#### ***Future revenue from sales of Captisol material to our license partners may be lower than expected.***

Revenues from sales of Captisol material to our collaborative partners, including Amgen, Gilead and the Gilead consortium, represent a significant portion of our current revenues. Any setback that may occur with respect to Captisol could significantly impair our operating results and/or reduce the market price of our stock. Setbacks for Captisol could include problems with shipping, distribution, manufacturing, product safety, marketing, government regulation or reimbursement, licenses and approvals, intellectual property rights, competition with existing or new products and physician or patient acceptance of the products using Captisol. In addition, revenue from Captisol sales related to remdesivir may not continue or materially increase due to a number of factors, including: if Gilead successfully develops or manufactures an alternative formulation of remdesivir that does not incorporate Captisol or uses less Captisol in such formulation; if remdesivir is later shown to not be effective or safe for the treatment of COVID-19; the FDA revises or revokes its approval of remdesivir; if alternative therapies or vaccines are approved; or the risk of COVID-19 infection significantly diminishes, in which case the commercial opportunity could be materially and adversely affected. For example, Gilead has announced plans to develop an

inhaled dosage form of remdesivir that uses less Captisol than the current formulation and expects result from an ongoing proof-of-concept study later this year.

If products or product candidates incorporating Captisol material were to cause any unexpected adverse events, the perception of Captisol safety could be seriously harmed. If this were to occur, we may not be able to sell Captisol unless and until we are able to demonstrate that the adverse event was unrelated to Captisol, which we may not be able to do. Further, the FDA could require us to submit additional information for regulatory review or approval, including data from extensive safety testing or clinical testing of products using Captisol. This would be expensive and it may delay the marketing of Captisol-enabled products and receipt of revenue related to those products, which could significantly impair our operating results and/or reduce the market price of our stock.

We obtain Captisol from Hovione, our third party manufacturer, primarily at their facilities in Ireland and Portugal. If Hovione were to cease to be able, for any reason, to supply Captisol to us in the amounts we require, or decline to supply Captisol to us, we would be required to seek an alternative source, which could potentially take a considerable length of time and impact our revenue and customer relationships. In the event of a Captisol supply interruption, we are permitted to designate and, with Hovione's assistance, qualify one or more alternate suppliers, although there is no assurance that we could do so timely or at an acceptable cost, if at all. In addition to manufacturing at Hovione's facilities in Ireland and Portugal, we have now added final step processing capacity for Captisol in both the United States and England.

We maintain inventory of Captisol, which has a five year shelf life, at three geographically dispersed storage locations in the United States and Europe. If we were to encounter problems maintaining our inventory, such as natural disasters, at one or more of these locations, it could lead to supply interruptions. In addition, we will rely on Hovione to expand manufacturing capacity of Captisol and any failure by Hovione to timely implement such increased capacity could adversely affect our ability to supply Captisol to our partners. While we believe we maintain adequate inventory of Captisol to meet our current partner needs, and our planned expansion of Captisol capacity will be sufficient to meet future partner needs, our estimates and projections for Captisol demand may not be correct and any supply interruptions could materially adversely impact our operating results. In addition, our plan to invest additional capital for the expansion of Captisol manufacturing capacity may not yield a return on investment if future Captisol sales fall below our expectations.

We currently depend on our arrangements with our partners and licensees to sell products using our Captisol technology. These agreements generally provide that our partners may terminate the agreements at will. If our partners discontinue sales of products using Captisol, fail to obtain regulatory approval for products using Captisol, fail to satisfy their obligations under their agreements with us, choose to utilize a competing product, or if we are unable to establish new licensing and marketing relationships, our financial results and growth prospects would be materially affected. Furthermore, we maintain significant accounts receivable balances with certain customers purchasing Captisol materials, which may result in the concentration of credit risk. We generally do not require any collateral from our customers to secure payment of these accounts receivable. If any of our major customers were to default in the payment of their obligations to us, our business, operating results and cash flows could be adversely affected.

Further, under most of our Captisol outlicenses, the amount of royalties we receive will be reduced or will cease when the relevant patent expires. Our low-chloride patents and foreign equivalents are not expected to expire until 2033, our high purity patents and foreign equivalents are not expected to expire until 2029 and our morphology patents and foreign equivalents are not expected to expire until 2026 in United States, but the initially filed patents relating to Captisol expired starting in 2010 in the United States and in 2016 in most countries outside the United States. If our other intellectual property rights are not sufficient to prevent a generic form of Captisol from coming to market and if in such case our partners choose to terminate their agreements with us, our Captisol revenue may decrease significantly.

***Our OmniAb antibody platform faces specific risks, including the fact that no product using antibodies from the platform has been approved by the FDA or similar regulatory agency.***

None of our collaboration partners using our OmniAb antibody platform have received approval from the FDA or similar regulatory agency to market a product discovered from our platform. In addition, only a subset of our collaboration partners' product candidates have been tested in late stage clinical trials. If one of our OmniAb collaboration partners' product candidates fails during preclinical studies or clinical trials, our other OmniAb collaboration partners may decide to abandon product candidates using antibodies generated from the OmniAb platform, whether or not such failure is attributable to the platform. OmniAb collaboration partners may terminate their programs without penalty. In addition, our OmniAb platform is covered by 167 patents worldwide (including 32 patents within the U.S. and 7 patents in the European Union) and are subject to the same risks as our patent portfolio discussed elsewhere in this report and our 2020 Annual Report, including the risk that our patents may infringe on third party patent rights or that our patents may be invalidated. As a result of these factors, the future

revenue generated from this platform may be materially lower than what we currently anticipate. Further, we face significant competition from other companies selling human antibody-generating rodents, especially mice which compete with our OmniMouse platform, including the VelocImmune mouse, the AlivaMab mouse, the Alloy mouse and the Kymouse. Many of our competitors have greater financial, technical and human resources than we do and may be better equipped to develop, manufacture and market competing antibody platforms. Our competitors may render our OmniAb antibody platform obsolete, or limit the commercial value of any product candidates developed using our platform, by advances in existing technological approaches or the development of new or different approaches, potentially eliminating the advantages that we believe our platform offers.

***Third party intellectual property may prevent us or our partners from developing our potential products; our and our partners' intellectual property may not prevent competition; and any intellectual property issues may be expensive and time consuming to resolve.***

The manufacture, use or sale of our potential products or our licensees' products or potential products may infringe the patent rights of others. If others obtain patents with conflicting claims, we may be required to obtain licenses to those patents or to develop or obtain alternative technology. We may not be able to obtain any such licenses on acceptable terms, or at all. Any failure to obtain such licenses could delay or prevent us from pursuing the development or commercialization of our potential products.

Generally, our success will depend on our ability and the ability of our partners to obtain and maintain patents and other intellectual property rights for our and their potential products. Our patent position is uncertain and involves complex legal and technical questions for which legal principles are unresolved. Even if we or our partners do obtain patents, such patents may not adequately protect the technology we own or have licensed.

We permit our partners to list our patents that cover their branded products in the Orange Book. If a third party files an NDA or ANDA for a generic drug product that relies in whole or in part on studies contained in our partner's NDA for their branded product, the third party will have the option to certify to the FDA that, in the opinion of that third party, the patents listed in the Orange Book for our partner's branded product are invalid, unenforceable, or will not be infringed by the manufacture, use or sale of the third party's generic drug product. A third party certification that a new product will not infringe Orange Book-listed patents, or that such patents are invalid, is called a paragraph IV patent certification. If the third party submits a paragraph IV patent certification to the FDA, a notice of the paragraph IV patent certification must be sent to the NDA owner and the owner of the patents that are subject to the paragraph IV patent certification notice once the third-party's NDA or ANDA is accepted for filing by the FDA. A lawsuit may then be initiated to defend the patents identified in the notice. The filing of a patent infringement lawsuit within 45 days of the receipt of notice of a paragraph IV patent certification automatically prevents the FDA from approving the generic NDA or ANDA until the earlier of the expiration of a 30-month period, the expiration of the patents, the entry of a settlement order stating that the patents are invalid or not infringed, a decision in the infringement case that is favorable to the NDA or ANDA applicant, or such shorter or longer period as the court may order. If a patent infringement lawsuit is not initiated within the required 45-day period, the third-party's NDA or ANDA will not be subject to the 30-month stay.

Several third-parties have challenged, and additional third parties may challenge, the patents covering our partner's branded products, including Kyprolis and Evomela, which could result in the invalidation or unenforceability of some or all of the relevant patent claims. We may from time to time become party to litigation or other proceedings as a result of Paragraph IV certifications. For example, as a result of the settlement of one such matter, Teva will be permitted to market a generic version of Evomela® in the United States on June 1, 2026 or earlier under certain circumstances. The terms of the settlement agreement are otherwise confidential. Also, as noted above, Amgen has settled patent litigation related to Kyprolis on confidential terms with several parties, but it has been publicly reported that the U.S. launch date for at least Breckenridge Pharmaceuticals' applicable generic product will be "on a date that is held as confidential in 2027 or sooner, depending on certain occurrences".

In addition, we cannot assure you that all of the potentially relevant prior art information that was or is deemed available to a person of skill in the relevant art prior to the priority date of the claimed invention-relating to our and our partners' patents and patent applications has been found. If such prior art exists, it can invalidate a patent or prevent a patent from issuing from a pending patent application, and we or our partners may be subject to a third party pre-issuance submission of prior art to the United States Patent and Trademark Office. Even if patents do successfully issue and even if such patents cover our or our partner's products or potential products, third parties may initiate litigation or opposition, interference, re-examination, post-grant review, inter partes review, nullification or derivation action in court or before patent offices, or similar proceedings challenging the validity, enforceability or scope of such patents, which may result in the patent claims being narrowed or invalidated, may allow third parties to commercialize our or our partners' products and compete directly with us and our

partners, without payment to us or our partners, or limit the duration of the patent protection of our and our partners' technology and products.

Litigation or other proceedings to enforce or defend intellectual property rights are often very complex in nature, may be very expensive and time-consuming, may divert our management's attention from our core business, and may result in unfavorable results that could adversely impact our ability to prevent third parties from competing with our partner's products. Any adverse outcome of such litigation or other proceedings could result in one or more of our patents being held invalid or unenforceable, which could adversely affect our ability to successfully execute our business strategy and negatively impact our financial condition and results of operations. However, given the unpredictability inherent in litigation, we cannot predict or guarantee the outcome of these matters or any other litigation. Regardless of how these matters are ultimately resolved, these matters may be costly, time-consuming and distracting to our management, which could have a material adverse effect on our business.

In addition, periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and or applications will be due to the U.S. and various foreign patent offices at various points over the lifetime of our and our licensees' patents and/or applications. We have systems in place to remind us to pay these fees, and we rely on our outside patent annuity service to pay these fees when due. Additionally, the U.S. and various foreign patent offices require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with rules applicable to the particular jurisdiction. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If such an event were to occur, it could have a material adverse effect on our business.

Any conflicts with the patent rights of others could significantly reduce the coverage of our patents or limit our ability to obtain meaningful patent protection. For example, our European patent related to Agglomerated forms of Captisol was limited during an opposition proceeding, and the rejection of our European patent application related to High Purity Captisol was upheld on appeal. In addition, any determination that our patent rights are invalid may result in early termination of our agreements with our license partners and could adversely affect our ability to enter into new license agreements. We also rely on unpatented trade secrets and know-how to protect and maintain our competitive position. We require our employees, consultants, licensees and others to sign confidentiality agreements when they begin their relationship with us. These agreements may be breached, and we may not have adequate remedies for any breach. In addition, our competitors may independently discover our trade secrets.

We may also need to initiate litigation, which could be time-consuming and expensive, to enforce our proprietary rights or to determine the scope and validity of others' rights. If this occurs, a court may find our patents or those of our licensors invalid or may find that we have infringed on a competitor's rights. In addition, if any of our competitors have filed patent applications in the United States which claim technology we also have invented, the United States Patent and Trademark Office may require us to participate in expensive interference proceedings to determine who has the right to a patent for the technology.

The occurrence of any of the foregoing problems could be time-consuming and expensive and could adversely affect our financial position, liquidity and results of operations.

***The occurrence of a catastrophic disaster could disrupt our business, damage our facilities beyond insurance limits or increase our costs and expenses.***

We are vulnerable to damage and business disruptions from natural or man-made disasters, such as earthquakes, tornadoes, severe weather conditions, power loss, fire, floods and similar events, as well as from accidental loss or destruction. If any disaster were to occur, our ability to operate our business could be seriously impaired. We have property, liability, and business interruption insurance which may not be adequate to cover our losses resulting from disasters or other similar significant business interruptions, and we do not plan to purchase additional insurance to cover such losses due to the cost of obtaining such coverage. Any significant losses that are not recoverable under our insurance policies could seriously impair our business, financial condition and prospects. Our ability to obtain Captisol supply from our third-party manufacturers could be disrupted if the operations of these manufacturers were affected by a natural or man-made disaster or other business interruption. In addition, we rely on our partners to generate most of our revenues through royalties, Captisol sales and development activities and any disruptions to their business as a result of such disasters could negatively impact our revenues.

**Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**

None.

**Item 3. Defaults Upon Senior Securities**

None.

**Item 4. Mine Safety Disclosures**

Not applicable.

**Item 5. Other Information**

None.

**Item 6. Exhibits**

**Exhibit Number**

**Description**

<a href="#">31.1</a>	Certification by Principal Executive Officer, Pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
<a href="#">31.2</a>	Certification by Principal Financial Officer, Pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
<a href="#">32.1</a>	Certifications by Principal Executive Officer and Principal Financial Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*
101	The following financial information from our Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, formatted in iXBRL (inline eXtensible Business Reporting Language): (i) Consolidated Condensed Balance Sheets, (ii) Consolidated Condensed Statements of Operations, (iii) Consolidated Condensed Statement of Comprehensive Income, (iv) Consolidated Condensed Statements of Stockholders' Equity, (v) Consolidated Condensed Statements of Cash Flows, and (vi) the Notes to Consolidated Condensed Financial Statements.*
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, formatted in Inline XBRL and contained in Exhibit 101.

\* Filed herewith.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: August 3, 2021

By: /s/ Matthew Korenberg

Matthew Korenberg  
Executive Vice President, Finance and Chief Financial Officer  
Duly Authorized Officer and Principal Financial Officer

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER  
PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)  
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, John L. Higgins, certify that:

- 1 I have reviewed this Quarterly Report on Form 10-Q of Ligand Pharmaceuticals Incorporated;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
- a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2021

/s/ John L. Higgins

John L. Higgins

Chief Executive Officer

(Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER  
PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)  
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Matthew Korenberg, certify that:

- 1 I have reviewed this Quarterly Report on Form 10-Q of Ligand Pharmaceuticals Incorporated;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
- a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2021

/s/ Matthew Korenberg

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Matthew Korenberg

Executive Vice President, Finance and Chief Financial Officer

(Principal Financial Officer)

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER**

In connection with the Quarterly Report of Ligand Pharmaceuticals Incorporated (the "Company") on Form 10-Q for the quarter ended June 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John L. Higgins, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 3, 2021

/s/ John L. Higgins

**John L. Higgins**  
**Chief Executive Officer**  
**(Principal Executive Officer)**

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing. A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER**

In connection with the Quarterly Report of Ligand Pharmaceuticals Incorporated (the "Company") on Form 10-Q for the quarter ended June 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Matthew Korenberg, Executive Vice President, Finance and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 3, 2021

/s/ Matthew Korenberg

**Matthew Korenberg**  
**Executive Vice President, Finance and Chief Financial**  
**Officer**  
**(Principal Financial Officer)**

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing. A signed original of this written statement required

by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.