

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, 2022

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)

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

Non-Accelerated Filer

Emerging Growth Company

Accelerated Filer

Smaller Reporting 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 August 5, 2022, the registrant had 16,882,751 shares of common stock outstanding.

LIGAND PHARMACEUTICALS INCORPORATED
QUARTERLY REPORT

FORM 10-Q

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GLOSSARY OF TERMS AND ABBREVIATIONS

Abbreviation	Definition
2021 Annual Report	Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 28, 2022
2023 Notes	\$750.0 million aggregate principal amount of convertible senior unsecured notes due 2023
Ab Initio	Ab Initio Biotherapeutics, Inc.
Amgen	Amgen, Inc.
APAC	Avista Public Acquisition Corp. II
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
Company	Ligand Pharmaceuticals Incorporated, including subsidiaries
CVR	Contingent value right
Crystal	Crystal Bioscience, Inc.
CyDex	CyDex Pharmaceuticals, Inc.
EMA	European Medicines Agency
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.
Icagen	Icagen, LLC
Ligand	Ligand Pharmaceuticals Incorporated, including subsidiaries
Merger Agreement	Agreement and Plan of Merger, dated as of March 23, 2022, among APAC, Ligand, OmniAb and Merger Sub
Merger Sub	Orwell Merger Sub, Inc., a wholly owned subsidiary of APAC
Metabasis	Metabasis Therapeutics, Inc.
NDA	New Drug Application
OmniAb	OmniAb, Inc.
OmniAb Business	Ligand's antibody discovery business
Pfenex	Pfenex Inc.
Q2 2021	The Company's fiscal quarter ended June 30, 2021
Q2 2022	The Company's fiscal quarter ended June 30, 2022
SBC	Share-based compensation expense
SEC	Securities and Exchange Commission
Separation Agreement	Separation and Distribution Agreement, dated as of March 23, 2022, among APAC, Ligand and OmniAb
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, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 5,280	\$ 19,522
Short-term investments	142,655	321,586
Accounts receivable, net	62,308	85,453
Inventory	24,773	27,326
Income taxes receivable	964	6,193
Other current assets	7,804	4,671
Total current assets	243,784	464,751
Deferred income taxes, net	35,654	34,482
Intangible assets, net	528,364	551,040
Goodwill	181,206	181,206
Commercial license rights, net	10,267	10,110
Property and equipment, net	30,954	20,511
Operating lease right-of-use assets	24,711	16,542
Financing lease right-of-use assets	15,032	16,207
Other assets	6,316	2,741
Total assets	\$ 1,076,288	\$ 1,297,590
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 19,153	\$ 8,403
Accrued liabilities	14,551	17,579
Income taxes payable	3,782	—
Current contingent liabilities	2,258	2,588
Deferred revenue	10,584	10,996
Current operating lease liabilities	2,501	2,053
Current financing lease liabilities	50	46
2023 convertible senior notes, net	114,974	—
Total current liabilities	167,853	41,665
2023 convertible senior notes, net	—	320,717
Long-term contingent liabilities	6,961	8,483
Deferred income taxes, net	42,669	59,095
Long-term operating lease liabilities	27,088	15,494
Long-term deferred revenue	7,428	9,270
Other long-term liabilities	21,924	21,707
Total liabilities	273,923	476,431
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$ 0.001 par value; 5,000 shares authorized; zero issued and outstanding at June 30, 2022 and December 31, 2021	—	—
Common stock, \$ 0.001 par value; 60,000 shares authorized; 16,882 and 16,767 shares issued and outstanding at June 30, 2022 and December 31, 2021, respectively	17	17
Additional paid-in capital	335,471	372,969
Accumulated other comprehensive loss	(1,066)	(917)
Retained earnings	467,943	449,090
Total stockholders' equity	802,365	821,159
Total liabilities and stockholders' equity	\$ 1,076,288	\$ 1,297,590

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Revenues:				
Royalties	\$ 17,959	\$ 8,616	\$ 31,654	\$ 15,728
Captisol	29,545	62,509	41,667	93,781
Contract revenue	9,915	13,550	29,791	30,316
Total revenues	57,419	84,675	103,112	139,825
Operating costs and expenses:				
Cost of Captisol	12,361	30,593	17,060	38,746
Amortization of intangibles	11,824	11,779	23,637	23,565
Research and development	19,118	15,953	39,425	33,832
General and administrative	14,585	14,711	32,765	27,028
Other operating income	—	(34,100)	—	(33,800)
Total operating costs and expenses	57,888	38,936	112,887	89,371
Income (loss) from operations	(469)	45,739	(9,775)	50,454
Other income (expense):				
Gain (loss) from short-term investments	(1,909)	(6,864)	(14,786)	6,197
Interest income	298	233	432	529
Interest expense	(438)	(4,883)	(1,227)	(10,714)
Other income (expense), net	1,882	(924)	4,580	(7,401)
Total other expense, net	(167)	(12,438)	(11,001)	(11,389)
Income (loss) before income taxes	(636)	33,301	(20,776)	39,065
Income tax benefit (expense)	(259)	(2,576)	4,496	9,766
Net (loss) income	\$ (895)	\$ 30,725	\$ (16,280)	\$ 48,831
Basic net (loss) income per share				
Basic net (loss) income per share	\$ (0.05)	\$ 1.84	\$ (0.97)	\$ 2.95
Shares used in basic per share calculations	16,868	16,659	16,846	16,548
Diluted net (loss) income per share				
Diluted net (loss) income per share	\$ (0.05)	\$ 1.79	\$ (0.97)	\$ 2.84
Shares used in diluted per share calculations	16,868	17,172	16,846	17,210

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Net (loss) income	\$ (895)	\$ 30,725	\$ (16,280)	\$ 48,831
Unrealized net loss on available-for-sale securities, net of tax	(35)	(5)	(149)	(60)
Comprehensive (loss) income	<u>\$ (930)</u>	<u>\$ 30,720</u>	<u>\$ (16,429)</u>	<u>\$ 48,771</u>

See accompanying notes to unaudited condensed consolidated financial statements.

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

	Common Stock			Accumulated other comprehensive loss	Retained earnings	Total stockholders' equity
	Shares	Amount	Additional paid in capital			
Balance at December 31, 2021	16,767	\$ 17	\$ 372,969	\$ (917)	\$ 449,090	\$ 821,159
ASU 2020-06 adoption, net of tax (Note 1)	—	—	(51,130)	—	35,133	(15,997)
Issuance of common stock under employee stock compensation plans, net of shares withheld for payroll taxes	94	—	(5,515)	—	—	(5,515)
Share-based compensation	—	—	9,044	—	—	9,044
Unrealized net loss on available-for-sale securities, net of deferred tax	—	—	—	(114)	—	(114)
Net loss	—	—	—	—	(15,385)	(15,385)
Balance at March 31, 2022	16,861	\$ 17	\$ 325,368	\$ (1,031)	\$ 468,838	\$ 793,192
Issuance of common stock under employee stock compensation plans, net	21	—	604	—	—	604
Share-based compensation	—	—	9,499	—	—	9,499
Unrealized net loss on available-for-sale securities, net of deferred tax	—	—	—	(35)	—	(35)
Net loss	—	—	—	—	(895)	(895)
Balance at June 30, 2022	16,882	\$ 17	\$ 335,471	\$ (1,066)	\$ 467,943	\$ 802,365

	Common Stock			Accumulated other comprehensive loss	Retained earnings	Total stockholders' equity
	Shares	Amount	Additional paid in capital			
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 of shares withheld for payroll taxes	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)
Warrant and bond hedge unwind transactions	—	—	396	—	—	396
Reacquisition of equity due to 2023 debt extinguishment, net of tax	—	—	(11,118)	—	—	(11,118)
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 gain on available-for-sale securities, net of deferred tax	—	—	—	(5)	—	(5)
Reacquisition of equity due to 2023 debt extinguishment, net of tax	—	—	(1,362)	—	—	(1,362)
Net income	—	—	—	—	30,725	30,725
Balance at June 30, 2021	16,676	\$ 17	\$ 346,578	\$ (861)	\$ 440,783	\$ 786,517

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,	
	2022	2021
Cash flows from operating activities:		
Net (loss) income	\$ (16,280)	\$ 48,831
Adjustments to reconcile net (loss) income to net cash provided by operating activities:		
Change in estimated fair value of contingent liabilities	(1,266)	(33,502)
Depreciation and amortization of intangible assets	26,921	25,179
Amortization of premium on investments, net	44	109
Amortization of debt discount and issuance fees	501	9,073
Amortization of commercial license rights	(190)	206
Loss (gain) on debt extinguishment	(3,326)	7,175
Share-based compensation	18,543	18,621
Deferred income taxes	(12,925)	(9,766)
Loss (gain) from short-term investments	14,786	(6,197)
Lease amortization expense	3,054	2,113
Other	(67)	595
Changes in operating assets and liabilities:		
Accounts receivable, net	23,208	(2,659)
Inventory	9,740	(2,326)
Accounts payable and accrued liabilities	(4,357)	(4,340)
Income tax receivable and payable	9,011	(2,477)
Deferred revenue	(2,254)	(14,605)
Other assets and liabilities	(1,254)	(4,899)
Net cash provided by operating activities	63,889	31,131
Cash flows from investing activities:		
Purchase of short-term investments	(38,472)	(96,136)
Proceeds from sale of short-term investments	177,554	150,648
Proceeds from maturity of short-term investments	24,830	34,600
Cash paid for equity method investment	(750)	—
Purchase of property and equipment	(11,463)	(4,794)
Other	33	135
Net cash provided by investing activities	151,732	84,453
Cash flows from financing activities:		
Repurchase of 2023 Notes	(223,303)	(153,381)
Payments under financing lease obligations	(27)	(9,188)
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	1,011	27,584
Taxes paid related to net share settlement of equity awards	(5,922)	(5,901)
Payments to CVR Holders	(1,416)	(1,050)
Payments for OmniAb transaction costs	(206)	—
Net cash used in financing activities	(229,863)	(141,540)
Net decrease in cash, cash equivalents and restricted cash	(14,242)	(25,956)
Cash, cash equivalents and restricted cash at beginning of period	19,522	47,963
Cash, cash equivalents and restricted cash at end of period	\$ 5,280	\$ 22,007
Supplemental disclosure of cash flow information:		
Interest paid	\$ 1,038	\$ 1,737
Taxes paid	\$ 20	\$ 3,552
Restricted cash in other current assets	\$ —	\$ 144
Supplemental schedule of non-cash activity:		
Accrued fixed asset purchases	\$ 3,800	\$ 359
Accrued inventory purchases	\$ 9,161	\$ 12,695
Unrealized loss on AFS investments	\$ (149)	\$ (60)

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 2021 Annual Report. Interim financial results are not necessarily indicative of the results that may be expected for the full year.

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 2021 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.

Reclassifications

Certain amounts in the prior period condensed consolidated financial statements have been reclassified to conform with the current period presentation. Specifically, “long-term deferred revenue” has been added to the condensed consolidated balance sheet, separated from “other long-term liabilities” in our prior period presentation.

Accounting Standards Updates, Recently 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* (“ASU 2020-06”). The guidance simplifies the complexity associated with applying U.S. GAAP for certain financial instruments with characteristics of liabilities and equity. More specifically, the amendments focus on the guidance for convertible instruments and derivative scope exception for contracts in an entity’s own equity. Consequently, a convertible debt instrument, such as the Company’s 2023 Notes, will be accounted for as a single liability measured at its amortized cost, if no other features require bifurcation and recognition as derivatives. The new guidance also requires the if-converted method to be applied for all convertible instruments and requires additional disclosures. ASU 2020-06 is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years.

We adopted this guidance effective January 1, 2022 under the modified retrospective approach and the comparative information has not been restated and continues to be presented according to accounting standards in effect for those periods. The cumulative effect of the change was recognized as an adjustment to the opening balance of retained earnings at the date of adoption and our 2023 Notes are no longer bifurcated into separate liability and equity components. The principal amount of the 2023 Notes is classified as a single liability measured at amortized cost in the condensed consolidated balance sheet for the period ended June 30, 2022. Upon adoption of ASU 2020-06 on January 1, 2022, we recorded an adjustment to the 2023 Notes liability component, deferred tax liabilities, additional paid-in-capital and retained earnings. This adjustment was calculated based on the carrying amount of the 2023 Notes as if it had always been treated as a single liability measured at amortized cost. Furthermore, we recorded an adjustment to the debt issuance costs contra liability and equity (additional paid-in-capital) components under the same premise, as if debt issuance costs had always been treated as a contra liability only. Under this transition method, the cumulative effect of the accounting change increased the carrying amount of the 2023 Notes by \$20.4 million, reduced deferred tax liabilities by \$4.4 million, reduced additional paid-in capital by \$51.1 million and increased retained earnings by \$35.1 million. The net balance of the 2023 Notes at January 1, 2022 was \$341.1 million which included an unamortized discount of \$2.2 million.

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.

We apply the following five-step model in accordance with ASC 606, Revenue from Contracts with Customers, in order to determine the revenue: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

Royalties

We receive royalty revenue on sales by our partners of products covered by patents that we or our partners own under contractual agreements. 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 royalty to be recorded no sooner than 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, which have not been material, are adjusted in the period in which they become known, typically the following quarter.

Captisol Sales

Revenue from Captisol sales is recognized when control of Captisol material is transferred or intellectual property license rights are granted to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products or rights. 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. For Captisol material or intellectual property license rights, we consider our performance obligation satisfied once we have transferred control of the product or granted the intellectual property rights, 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. Sales tax and other taxes we collect concurrent with revenue-producing activities are excluded from revenue. We have elected to recognize the cost of freight and shipping when control over Captisol material has transferred to the customer as an expense in Cost of Captisol. 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.

Contract Revenue

Our contracts with customers often include variable consideration in the form of contingent milestone payments. We include contingent milestone payments in the estimated transaction price when it is probable a significant reversal in the amount of cumulative revenue recognized will not occur. These estimates are based on historical experience, anticipated results and our best judgment at the time. If the contingent milestone payment is based on sales, 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 milestones or receive regulatory approval, we generally recognize any contingent payments that would be due to us upon the development milestone or regulatory approval. Depending on the terms of the arrangement, we may also defer a portion of the consideration received if we have to satisfy a future obligation, which typically occurs with our contracts for R&D services.

For R&D services we recognize revenue over time and we measure our progress using an input method. The input methods we use are 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 it will take us to complete the activities, or the costs we may 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 numerous estimates and use significant 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.

Some customer contracts are sublicenses which require that we make payments to an upstream licensor related to license fees, milestones and royalties which we receive from customers. In such cases, we evaluate the determination of gross revenue as a principal versus net revenue as an agent reporting based on each individual agreement.

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.

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 any contract asset balance. Any fees billed in advance of being earned are recorded as deferred revenue. During the three months ended June 30, 2022 and 2021, the amount recognized as revenue that was previously deferred was \$4.1 million, and \$10.3 million, respectively. During the six months ended June 30, 2022 and 2021, the amount recognized as revenue that was previously deferred was \$6.1 million, and \$16.1 million, respectively.

Disaggregation of Revenue

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

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Royalties				
Kyprolis	\$ 7,127	\$ 5,440	\$ 11,749	\$ 9,727
Evomela	2,394	2,193	5,095	4,526
Teriparatide injection	5,502	264	8,413	264
Rylaze	2,317	—	3,966	—
Other	619	719	2,431	1,211
	<u>\$ 17,959</u>	<u>\$ 8,616</u>	<u>\$ 31,654</u>	<u>\$ 15,728</u>
Captisol				
Captisol - Core	\$ 3,325	\$ 9,682	\$ 9,551	\$ 10,935
Captisol - COVID ⁽¹⁾	26,220	52,827	32,116	82,846
	<u>\$ 29,545</u>	<u>\$ 62,509</u>	<u>\$ 41,667</u>	<u>\$ 93,781</u>
Contract revenue				
Service Revenue	\$ 5,453	\$ 7,360	\$ 10,599	\$ 12,822
License Fees	1,608	1,050	4,694	2,093
Milestone	1,275	3,600	10,364	12,017
Other	1,579	1,540	4,134	3,384
	<u>\$ 9,915</u>	<u>\$ 13,550</u>	<u>\$ 29,791</u>	<u>\$ 30,316</u>
Total	<u>\$ 57,419</u>	<u>\$ 84,675</u>	<u>\$ 103,112</u>	<u>\$ 139,825</u>

(1) Captisol - COVID represents revenue on Captisol supplied for use in formulation with remdesivir, an antiviral treatment for COVID-19.

Short-term Investments

Our short-term investments consist of the following at June 30, 2022 and December 31, 2021 (in thousands):

	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
June 30, 2022				
Bank deposits	\$ 2,504	\$ —	\$ (61)	\$ 2,443
Corporate bonds	4,904	—	(121)	4,783
Corporate equity securities	5,807	307	(3,703)	2,411
Mutual fund	112,535	—	(1,228)	111,307
US government securities	2,246	—	(71)	2,175
Warrants	—	129	—	129
	\$ 127,996	\$ 436	\$ (5,184)	\$ 123,248
Viking common stock				19,407
Total short-term investments				\$ 142,655
December 31, 2021				
Bank deposits	\$ 63,389	\$ 13	\$ (21)	\$ 63,381
Corporate bonds	29,308	17	(38)	29,287
Commercial paper	36,008	2	(12)	35,998
Corporate equity securities	5,807	402	(2,027)	4,182
Mutual fund	152,136	—	(249)	151,887
US government securities	5,577	—	(23)	5,554
Warrants	—	408	—	408
	\$ 292,225	\$ 842	\$ (2,370)	\$ 290,697
Viking common stock				30,889
Total short-term investments				\$ 321,586

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, 2022.

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

	June 30, 2022	
	Amortized Cost	Fair Value
Within one year	\$ 6,423	\$ 6,274
After one year through five years	3,230	3,127
Total	\$ 9,653	\$ 9,401

Our investment policy is capital preservation and we only invest in U.S.-dollar denominated investments. We held a total of \$ positions which were in an unrealized loss position as of June 30, 2022. 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, 2022.

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, 2022, 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 \$(0.1) million and \$(0.2) million of allowance for credit losses, respectively, as of June 30, 2022.

Inventory

Inventory, which consists of 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.

We analyze our inventory levels periodically and write down inventory to net realizable value if it has become obsolete, has a cost basis in excess of its expected net realizable value or is in excess of expected requirements. There were no write-downs related to obsolete inventory recorded for the three and six months ended June 30, 2022 and 2021. As of June 30, 2022 inventory consists of Captisol prepayments of \$18.9 million, and as of December 31, 2021 inventory consists of Captisol prepayments of \$24.6 million.

Goodwill and Other Identifiable Intangible Assets

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

	June 30, 2022	December 31, 2021
Indefinite-lived intangible assets		
Goodwill	\$ 181,206	\$ 181,206
Definite lived intangible assets		
Complete technology	281,578	280,617
Less: accumulated amortization	(86,740)	(78,991)
Trade name	2,642	2,642
Less: accumulated amortization	(1,510)	(1,444)
Customer relationships	40,700	40,700
Less: accumulated amortization	(19,602)	(18,267)
Contractual relationships	362,000	362,000
Less: accumulated amortization	(50,704)	(36,217)
Total goodwill and other identifiable intangible assets, net	<u>\$ 709,570</u>	<u>\$ 732,246</u>

Prior to 2022, we only had one reporting unit and reportable segment. In connection with the announcement in March 2022 of our intention to separate the OmniAb business pursuant to a distribution to Ligand's stockholders of Ligand's shares in OmniAb followed by a merger with APAC, management concluded that we now had two reporting units and reportable segments - the OmniAb business and the Ligand core business. See Note 2, *Segment Information*, for additional information. We performed a fair value analysis utilizing a combination of income approach and market approach to determine the fair value of each segment in order to appropriately allocate the goodwill between the segments as of the announcement date. The following table presents our allocation of goodwill balance by segment (in thousands):

	Fair Value
Goodwill	
Ligand core business	\$ 105,673
OmniAb business	75,533
	<u>\$ 181,206</u>

Commercial License Rights

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

	June 30, 2022			December 31, 2021		
	Gross	Adjustments ⁽¹⁾	Net	Gross	Adjustments ⁽²⁾	Net
Aziyo and CorMatrix	\$ 17,696	\$ (9,425)	\$ 8,271	\$ 17,696	\$ (9,461)	\$ 8,235
Selexis and Dianomi	10,602	(8,606)	1,996	10,602	(8,727)	1,875
Total	\$ 28,298	\$ (18,031)	\$ 10,267	\$ 28,298	\$ (18,188)	\$ 10,110

(1) Amounts represent accumulated amortization to principal of \$ 11.5 million and credit loss adjustments of \$ 6.5 million as of June 30, 2022.

(2) Amounts represent accumulated amortization to principal of \$ 11.7 million and credit loss adjustments of \$ 6.5 million as of December 31, 2021.

Commercial license rights represent a portfolio of future milestone and royalty payment rights acquired from Selexis, S.A. (Selexis) in April 2013 and April 2015, CorMatrix Cardiovascular, Inc. (CorMatrix) in May 2016, which was later acquired by Aziyo in 2017, and Dianomi Therapeutics, Inc. in January 2019. Commercial license rights acquired are accounted for as financial assets in accordance with ASC 310, *Receivables*, as further discussed in *Note 1, Basis of Presentation and Summary of Significant Accounting Policies* of the Notes to Consolidated Financial Statements in our 2021 Annual Report.

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 three and six months ended June 30, 2022, we further considered the current and expected future economic and market conditions surrounding the novel coronavirus (COVID-19) pandemic and concluded no further adjustment was needed on the allowance for credit losses as of June 30, 2022.

Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	June 30, 2022	December 31, 2021
Compensation	\$ 4,669	\$ 6,532
Professional fees	1,828	2,046
Amounts owed to former licensees	2,674	630
Royalties owed to third parties	—	149
Return reserve	—	2,420
Acquisition related liabilities	—	1,000
Subcontractor	1,756	1,759
Supplier	1,995	848
Accrued interest	—	291
Other	1,629	1,904
Total accrued liabilities	\$ 14,551	\$ 17,579

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. 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):

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
SBC - Research and development expenses	\$ 4,501	\$ 4,556	\$ 8,415	\$ 8,495
SBC - General and administrative expenses	4,998	5,660	10,128	10,126
	\$ 9,499	\$ 10,216	\$ 18,543	\$ 18,621

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,	
	2022	2021	2022	2021
Risk-free interest rate	3.0%	0.9%	3.0%	0.5%
Dividend yield	—	—	—	—
Expected volatility	50%	54%	50%	62%
Expected term (years)	4.8	5.5	4.8	5.0

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 (Loss) Income Per Share

Basic net (loss) income per share is calculated by dividing net (loss) income 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 maximum conversion price. 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,	
	2022	2021	2022	2021
Weighted average shares outstanding:	16,868	16,659	16,846	16,548
Dilutive potential common shares:				
Restricted stock	—	69	—	90
Stock options	—	444	—	572
Shares used to compute diluted income per share	16,868	17,172	16,846	17,210
Potentially dilutive shares excluded from calculation due to anti-dilutive effect	6,794	5,087	6,400	4,684

For the three months ended June 30, 2022, due to the net loss for the period, all of the 0.2 million weighted average equity awards and 0.9 million of potentially dilutive shares in connection with the adoption of ASU 2020-06 were anti-dilutive. For the six months ended June 30, 2022, due to the net loss for the period, all of the 0.3 million weighted average equity awards and 1.8 million of potentially dilutive shares in connection with the adoption of ASU 2020-06 were anti-dilutive. Under the new standard, we are required to reflect the dilutive effect of the 2023 Notes by application of the if-converted method.

2. Segment Information

ASC 280, *Segment reporting*, establishes annual and interim reporting standards for an enterprise's operating segments and related disclosures about its products, services, geographic areas and major customers. An operating segment is defined as a component of an enterprise that engages in business activities from which it may earn revenue and incur expenses, and for which discrete financial information is regularly evaluated by the chief operating decision maker in deciding how to allocate resources and assess performance.

We are a biopharmaceutical company focused on developing or acquiring technologies that help pharmaceutical companies discover and develop medicines. Our operating segments are identified in the same manner as they are reported internally and used by our chief operating decision maker for the purpose of evaluating performance and allocating resources. Historically, we have disclosed one reportable segment. On March 23, 2022, we entered into the Merger Agreement, pursuant to which APAC will combine with OmniAb, and acquire the OmniAb Business, in a Reverse Morris Trust transaction. Immediately prior to the Merger and pursuant to the Separation Agreement, we will, among other things, transfer the OmniAb Business, including but not limited to the equity interests of Ab Initio Biotherapeutics, Inc., Crystal Bioscience, Inc., Icagen, LLC, Taurus Biosciences, LLC and xCella Biosciences, Inc. to OmniAb (the "Reorganization") and, in connection therewith, will distribute (the "Distribution") to Ligand stockholders 100% of the common stock of OmniAb. Immediately following the Distribution, Merger Sub will merge with and into OmniAb (the "Merger"), with OmniAb continuing as the surviving company in the Merger and as a wholly owned subsidiary of APAC.

In connection with the execution of the Merger Agreement, we have made organizational changes to better align our organizational structure with our strategy and operations, and management has reorganized the reportable segments to better reflect how the business is evaluated by the chief operating decision maker. Beginning in the first quarter of 2022, we operate the following two reportable segments: (1) OmniAb business and (2) Ligand core business. The OmniAb business segment is focused on enabling the discovery of therapeutic candidates for our partners by pairing antibody repertoires generated from our proprietary transgenic animals with our OmniAb business platform screening tools. The Ligand core business segment is a biopharmaceutical business focused on developing or acquiring technologies that help pharmaceutical companies deliver and develop medicines.

Our chief operating decision maker relies on internal management reporting processes that provide revenue and operating income by reportable segment for making financial decisions and allocating resources. Segment operating income (loss) represents income (loss) before income taxes, interest income, interest expense, other income (expense), net, unallocated share-based compensation, and unallocated corporate overhead. Our management does not evaluate, manage or measure performance of segments using asset information; accordingly, asset information by segment is not prepared or disclosed.

The following table provides a reconciliation of revenue and operating income by reportable segment to consolidated results and was derived from each segment's internal financial information as used for corporate management purposes (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
OmniAb business revenue				
Royalties	\$ 139	\$ —	\$ 402	\$ —
Contract	7,153	5,821	16,068	14,380
Total OmniAb business revenue	7,292	5,821	16,470	14,380
Ligand core business revenue				
Royalties	17,820	8,616	31,252	\$ 15,728
Captisol - Core	3,325	9,682	9,551	10,935
Captisol - COVID	26,220	52,827	32,116	82,846
Contract	2,762	7,729	13,723	15,936
Total Ligand core business revenue	50,127	78,854	86,642	125,445
Total revenue	\$ 57,419	\$ 84,675	\$ 103,112	\$ 139,825
Segment operating income (loss)				
OmniAb business	\$ (8,998)	\$ (7,806)	\$ (15,187)	\$ (12,410)
Ligand core business	17,039	61,834	27,030	80,280
Total segment operating income	8,041	54,028	11,843	67,870
Unallocated corporate items				
Shared-based compensation	5,136	5,748	10,793	10,618
Other corporate expenses	3,374	2,541	10,825	6,798
Total unallocated corporate items	8,510	8,289	21,618	17,416
Income (loss) from operations	\$ (469)	\$ 45,739	\$ (9,775)	\$ 50,454

3. 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, 2022				December 31, 2021			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Short-term investments, excluding Viking ⁽¹⁾	\$ 4,586	\$ 118,533	\$ 129	\$ 123,248	\$ 9,735	\$ 280,553	\$ 409	\$ 290,697
Investment in Viking common stock	19,407	—	—	19,407	30,889	—	—	30,889
Total assets	\$ 23,993	\$ 118,533	\$ 129	\$ 142,655	\$ 40,624	\$ 280,553	\$ 409	\$ 321,586
Liabilities:								
CyDex contingent liabilities	\$ —	\$ —	\$ 317	\$ 317	\$ —	\$ —	\$ 349	\$ 349
Metabasis contingent liabilities ⁽²⁾	—	2,400	—	2,400	—	3,358	—	3,358
Icagen contingent liabilities ⁽³⁾	—	—	5,542	5,542	—	—	7,364	7,364
xCella contingent liabilities ⁽⁴⁾	—	—	960	960	—	—	—	—
Amounts owed to former licensor	72	—	—	72	86	—	—	86
Total liabilities	\$ 72	\$ 2,400	\$ 6,819	\$ 9,291	\$ 86	\$ 3,358	\$ 7,713	\$ 11,157

1. 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.

2. 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- β 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. During the three and six months ended June 30, 2022, we adjusted the balance of the Metabasis CVR liability \$(0.4) million and \$(1.0) million to mark to market, respectively.
3. 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, 2022, we paid \$1.5 million contingent liability based on revenue milestones to former Icagen shareholders, respectively. During the three and six months ended June 30, 2022, we adjusted the balance of the Icagen CVR liability \$0.2 million and \$(0.3) million to mark to market, respectively.
4. 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 three and six months ended June 30, 2022, management recorded \$0.5 million and \$1.0 million of earnout liability to be allocated to the cost of the acquired assets due to contingencies being met as part of the acquisition agreement, respectively.

A reconciliation of the level 3 financial instruments as of June 30, 2022 is as follows (in thousands):

Fair value of level 3 financial instruments as of December 31, 2021	\$	7,713
Payments to CVR holders and other contingent payments		(1,545)
Fair value adjustments to contingent liabilities		(309)
Contingent liabilities from xCella asset acquisition		960
Fair value of level 3 financial instruments as of June 30, 2022	<u>\$</u>	<u>6,819</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.

In connection with the organizational changes to the Company's reportable segments, we re-allocated goodwill between the two identified reporting units (OmniAb business and Ligand core business). We performed a goodwill impairment analysis immediately before and after the allocation of goodwill and concluded no impairment. At June 30, 2022, there were no indicators of impairment at either of the reporting units.

At June 30, 2022, there were no indicators of impairment of our indefinite-lived intangible assets, or long-lived assets.

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. The maximum conversion rate of the 2023 Notes is 5.2317 per \$1,000 principal amount of the 2023 Notes which represents a maximum conversion price of approximately \$191.14.

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 \$48.48. 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, is amortized to interest expense using the effective interest method over the five year expected life of the 2023 Notes, and the effective interest rate as of June 30, 2022 is 0.5%. During the three months ended June 30, 2022 we recognized a total of \$0.4 million in interest expense which includes \$0.2 million in contractual interest expense and \$0.2 million in amortized issuance costs. During the six months ended June 30, 2022 we recognized a total of \$1.2 million in interest expense which includes \$0.7 million in contractual interest expense and \$0.5 million in amortized issuance costs.

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 2021, we repurchased \$152.0 million in principal of the 2023 Notes for \$156.0 million in cash, including accrued interest of \$0.3 million. After the repurchases, approximately \$343.3 million in principal amount of the 2023 Notes were outstanding as of December 31, 2021.

During the three months ended June 30, 2022, we repurchased \$62.0 million in principal amount of the 2023 Notes for \$60.0 million in cash, including accrued interest of \$0.01 million. We accounted for the repurchase as a debt extinguishment, which resulted in a gain of \$0.8 million reflected in other income (expense), net, in our condensed consolidated statement of operations for the three months ended June 30, 2022, and a \$0.3 million reduction in debt discount.

During the six months ended June 30, 2022, we repurchased \$227.8 million in principal amount of the 2023 Notes for \$223.7 million in cash, including accrued interest of \$0.4 million. We accounted for the repurchase as a debt extinguishment, which resulted in a gain of \$0.3 million reflected in other income (expense), net, in our condensed consolidated statement of operations for the six months ended June 30, 2022, and a \$1.2 million reduction in debt discount.

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, in connection with the repurchases of approximately \$20.3 million in principal of the 2023 Notes for approximately \$19.1 million in cash, including accrued interest of \$0.1 million, during the quarter ended December 31, 2020, we entered into amendments with Barclays Bank PLC, Deutsche Bank AG, London Branch, 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.

During the year ended December 31, 2021, in connection with the repurchases of \$52.0 million in principal of the 2023 Notes for \$156.0 million in cash, including accrued interest of \$0.3 million, 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 \$18.4 million as part of the Warrant Early Unwind Agreements reducing the number of shares covered by the warrants from 3,018,327 to 2,559,254. We received \$18.9 million as part of the Bond Hedge Early Unwind Agreements reducing the number of options under the convertible bond hedges to 598,021. These unwind transactions resulted in a \$0.5 million net increase in additional paid-in-capital in our condensed consolidated balance sheet as of December 31, 2021.

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

	June 30, 2022	December 31, 2021 ⁽¹⁾
Principal amount of the 2023 Notes outstanding	\$ 115,499	\$ 343,301
Unamortized discount (including unamortized debt issuance cost)	(525)	(22,584)
Total long-term portion of notes payable	<u>\$ 114,974</u>	<u>\$ 320,717</u>
Fair value of the 2023 Notes outstanding (Level 2)	\$ 110,590	\$ 341,801

(1) - Balances as of December 31, 2021 reported before the adoption of ASU 2020-06.

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, 2022 and 2021 was (40.7)% and 7.7%, and 21.6% 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, 2022 was due primarily to the tax deductions related to foreign derived intangible income tax credit as well as the research and development tax credits, which were partially offset by Section 162(m) limitation and non-deductible ISO related stock compensation expense during the period. The variance from the U.S. federal 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 Q2 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 benefits from share-based compensation resulting from increased stock option exercise activity, stock award vesting and appreciation of our stock price during the period.

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 2021 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, 2021	2,199,598	\$ 106.00	264,143	\$ 138.21
Granted	734,218	\$ 91.58	186,526	\$ 87.32
Options exercised/RsUs vested	(25,798)	\$ 20.53	(133,173)	\$ 120.66
Forfeited	(30,417)	\$ 67.60	(1,378)	\$ 137.16
Balance as of June 30, 2022	2,877,601	\$ 103.50	316,118	\$ 115.58

As of June 30, 2022, outstanding options to purchase 1.6 million shares were exercisable with a weighted average exercise price per share of \$102.10.

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, 2022, 38,007 shares were available for future purchases under the ESPP.

Share Repurchases

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. We did not have any share repurchases during the three and six months ended June 30, 2022. Authorization to repurchase \$48.8 million of our common stock remained available as of June 30, 2022.

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 October 31, 2019, we received three civil complaints filed in the U.S. 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.

CyDex and Baxter Healthcare Corp. ("Baxter") are parties to a license agreement relating to Ligand's Captisol 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 that its royalty payments end as of May 4, 2022, the expiration date of one of the patents licensed under the agreement. 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 December 2, 2021, Baxter filed an Amended Notice of Arbitration Demand also seeking a declaration limiting the “royalty term” of the license agreement to “the later of i) the expiration of the licensed patent; or ii) when there are no longer any CyDex patents listed in the Orange Book for Nexterone.” Baxter has subsequently clarified this position, and asserts that royalties ceased being due when CyDex’s U.S. Patent No. 6,869,939 expired on May 4, 2022. On December 16, 2021, CyDex filed an Answer to Baxter’s Amended Demand. The parties conducted a three-day arbitration hearing between May 24 and May 26, 2022, and subsequently submitted two sets of post-hearing briefs. The arbitrator’s decision is expected before the end of 2022.

From time to time, we may also become subject to other legal proceedings or claims arising in the ordinary course of our business. We currently believe that none of the claims or actions pending against us is likely to have, individually or in the aggregate, a material adverse effect on our business, financial condition or results of operations. Given the unpredictability inherent in litigation, however, we cannot predict the outcome of these matters.

8. Leases

We lease certain office facilities and equipment primarily under various operating leases. Our leases have remaining contractual terms up to ten years, some of which include options to extend the leases for up to five years. Our lease agreements do not contain any material residual value guarantees, material restrictive covenants, or material termination options. Our operating lease costs are primarily related to facility leases for administration offices and research and development facilities, and our finance leases are immaterial.

Lease assets and lease liabilities are recognized at the commencement of an arrangement where it is determined at inception that a lease exists. Lease assets represent the right to use an underlying asset for the lease term, and lease liabilities represent the obligation to make lease payments arising from the lease. These assets and liabilities are initially recognized based on the present value of lease payments over the lease term calculated using our incremental borrowing rate generally applicable to the location of the lease asset, unless the implicit rate is readily determinable. Lease assets also include any upfront lease payments made and adjusted for lease incentives and other items as prescribed by ASC Topic 842, *Leases*. Lease terms include options to extend or terminate the lease when it is reasonably certain that those options will be exercised.

In addition to base rent, certain of our operating leases require variable payments, such as insurance and common area maintenance. These variable lease costs, other than those dependent upon an index or rate, are expensed when the obligation for those payments is incurred. Leases with an initial term of 12 months or less are not recorded on the balance sheet, and the expense for these short-term leases and for operating leases is recognized on a straight-line basis over the lease term.

The depreciable life of lease assets and leasehold improvements is limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise.

Operating and Finance Lease Assets and Liabilities (in thousands):

Assets	June 30, 2022	December 31, 2021
Operating lease assets	\$ 24,711	\$ 16,542
Finance lease assets	15,032	16,207
Total lease assets	<u>\$ 39,743</u>	<u>\$ 32,749</u>
Liabilities		
Current operating lease liabilities	\$ 2,501	\$ 2,053
Current finance lease liabilities	50	46
	<u>2,551</u>	<u>2,099</u>
Long-term operating lease liabilities	27,088	15,494
Long-term finance lease liabilities	27	58
Total lease liabilities	<u>\$ 29,666</u>	<u>\$ 17,651</u>

Maturity of Operating and Finance Lease Liabilities as of June 30, 2022 (in thousands):

Maturity Dates	Operating Leases
Remaining six months ending December 31, 2022	\$ 2,459
2023	4,634
2024	3,873
2025	3,811
2026	4,024
2027	4,128
Thereafter	14,760
Total lease payments	37,689
Less estimated tenant improvement allowance:	(1,358)
Less imputed interest	(6,742)
Present value of lease liabilities	\$ 29,589

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, product development, and the potential separation of the OmniAb Business. 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 140 pharmaceutical and biotechnology companies. Over 400 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 1,600 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 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.

Update on the OmniAb Separation Process

In November 2021, we announced plans to explore multiple paths for OmniAb to become a standalone public company. On March 23, 2022, we entered into the Merger Agreement, pursuant to which APAC will combine with OmniAb, and acquire the OmniAb Business, in a Reverse Morris Trust transaction. Immediately prior to the Merger and pursuant to the Separation Agreement, we will, among other things, transfer the OmniAb Business, including but not limited to the equity interests of Ab Initio Biotherapeutics, Inc., Crystal Bioscience, Inc., Icagen, LLC, Taurus Biosciences, LLC and xCella Biosciences, Inc. to OmniAb (the “Reorganization”) and, in connection therewith, will distribute (the “Distribution”) to Ligand stockholders 100% of the common stock of OmniAb. Immediately following the Distribution, Merger Sub will merge with and into OmniAb (the “Merger”), with OmniAb continuing as the surviving company in the Merger and as a wholly owned subsidiary of APAC.

Upon the closing of the transaction, Avista Capital Partners (“Avista”), APAC’s sponsor has agreed to invest up to \$115 million in the combined company, and Ligand will contribute \$15 million (less certain transaction and other expenses). The combined company will have an initial pre-money equity valuation of \$850 million. Ligand intends to distribute 100% of its equity in OmniAb to Ligand shareholders immediately prior to the business combination with APAC. The transaction is expected to be tax-free to Ligand and its shareholders for U.S. federal income tax purposes. The transaction is expected to close in the fourth quarter of 2022.

In April 2022, OmniAb filed with the SEC a registration statement on Form 10 (the “Form 10”) registering shares of OmniAb common stock and APAC filed with the SEC a registration statement on Form S-4 (the “Form S-4”) registering shares of APAC common stock, warrants and certain equity awards. The Form S-4 filed by APAC includes a proxy statement/prospectus in connection with the APAC shareholder vote required for the proposed transaction. The Form 10 filed by OmniAb includes portions of the Form S-4 filed by APAC which will serve as an information statement/prospectus in connection with the spin-off of OmniAb. Ligand’s shareholders and other interested persons are advised to read the preliminary and definitive registration statements, and documents incorporated by reference therein, as these materials contain important information about APAC, OmniAb and the proposed business combination. The proxy statement/prospectus contained in the Form S-4 will be mailed to APAC shareholders as of a record date to be established for voting on the proposed business combination. In June 2022, OmniAb filed with the SEC a request to withdraw the Form 10 because APAC was in the process of responding to comments made by the staff of the Division of Corporation Finance (the “Staff”) with respect to the Form S-4. In the absence of this withdrawal request, pursuant to Section 12(g)(1) of the Securities Exchange Act of 1934, as amended, the Form 10 would have automatically become effective on June 27, 2022. Subsequently, the Staff issued additional comments on APAC’s Form S-4, and APAC filed amendments to the Form S-4 on June 13, 2022 and July 26, 2022 in response to the Staff’s comments. OmniAb intends to file a replacement registration statement on Form 10 with the SEC in connection with a future pre-effective amendment to the Form S-4 by APAC.

The registration statements, proxy statement/prospectus/information statement and other documents are also available at www.sec.gov, or by request to Avista Public Acquisition Corp. II, 65 East 55th Street, 18th Floor, New York, NY 10022.

Portfolio Program Updates

OmniAb® Platform and Partner Updates

As of June 30, 2022, over 60 partners have access to OmniAb-derived antibodies and more than 270 programs are being actively pursued or commercialized by our partners. As of June 30, 2022, the platform has generated 25 clinical- or commercial- stage OmniAb-derived antibodies. As of the date of the filing of this Quarterly Report on Form 10-Q, there are two approved drugs in China that were derived from our OmniAb platform, and one under review by both the FDA and the EMA with action expected in the coming weeks. In addition, a partner very recently entered the clinic with the first antibody drug conjugate (ADC) that was discovered using our platform.

CStone and Pfizer announced China’s NMPA approval of sugemalimab in patients with unresectable stage III non-small cell lung cancer (NSCLC) whose disease has not progressed following concurrent or sequential platinum-based chemoradiotherapy. Sugemalimab, an OmniAb derived monoclonal antibody, became the first anti-PD-1/PD-L1 monoclonal antibody approved for stage III NSCLC following concurrent or sequential chemoradiotherapy. It’s also the only anti-PD-L1

monoclonal antibody approved for both stage III and stage IV NSCLC. In May, CStone announced the pre-planned, final progression-free survival (PFS) analysis results from the registrational GEMSTONE-301 study of sugemalimab as consolidation therapy in patients with unresectable stage III NSCLC. The data showed that sugemalimab maintained a statistically significant and clinically meaningful improvement in PFS. Furthermore, on August 7, 2022, EQRx, which holds the development and commercialization rights to sugemalimab outside Greater China, announced that the updated, PFS analysis of the Phase 3 GEMSTONE-301 trial showed that sugemalimab continued to demonstrate improvement in PFS compared with placebo. This updated final data was presented in a late-breaking oral presentation at the International Association for the Study of Lung Cancer 2022 World Conference on Lung Cancer, taking place between August 6-9, 2022.

Janssen announced the Committee for Medicinal Products for Human Use of the European Medicines Agency has recommended conditional marketing authorization for TECVAYLI® (teclistamab) as monotherapy for adult patients with relapsed and refractory multiple myeloma who have received at least three prior therapies. Teclistamab is an OmniAb-derived T-cell redirecting bispecific antibody. It targets both B-cell maturation antigen (BCMA), a marker found on multiple myeloma cells, and CD3, on T-cells. Teclistamab is currently under review by the FDA for potential approval in the U.S.

Immunovant announced recruitment of patients has begun in the pivotal Phase 3 clinical trial of OmniAb-derived batoclimab in myasthenia gravis. Immunovant also announced that it has achieved alignment with the U.S. FDA on plans to initiate two placebo-controlled Phase 3 trials to evaluate batoclimab in thyroid eye disease in the second half of 2022.

Merck KGaA announced the initiation of a Phase 2 trial for M6223, an OmniAb-derived monoclonal antibody targeting TIGIT, in urothelial cancer. The study will evaluate BAVENCIO® (avelumab), a human anti-programmed death ligand-1 (PD-L1) antibody, as monotherapy versus the combination with M6223 or other molecules in the first-line maintenance setting in patients with advanced urothelial carcinoma whose disease did not progress with first-line platinum-containing chemotherapy.

In Q2 2022, OmniAb entered into new platform licensing agreements with LifeArc, BioSynapse, Kaigene, and Recerise.

Ligand Core Business Portfolio Updates

Travere announced that the FDA accepted and granted priority review of its NDA under Subpart H for accelerated approval of sparsentan for the treatment of IgA nephropathy. The FDA assigned a Prescription Drug User Fee Act (PDUFA) target action date of November 17, 2022. Travere provided a regulatory update prior to their second quarter earnings call where they announced plans to submit a Conditional Marketing Authorization application with its partner Vifor Pharma for the treatment of IgA nephropathy in Europe with a review decision expected in the second half of 2023. Travere now plans to pursue traditional approval of sparsentan for focal segmental glomerulosclerosis (FSGS) in 2023 pending completion of the Phase 3 DUPLEX study.

Merck announced the FDA approval of VAXNEUVANCE™ for infants and children 6 weeks through 17 years of age. Subsequently, the CDC's ACIP voted unanimously to provisionally recommend use of VAXNEUVANCE as an option for pneumococcal vaccination in infants and children. VAXNEUVANCE is a 15-valent pneumococcal vaccine utilizing Ligand's CRM197 vaccine carrier protein produced using the Pelican Expression Technology platform. Additionally, Merck announced positive results from a Phase 1/2 study evaluating V116, their investigational 21-valent pneumococcal conjugate vaccine utilizing Ligand's CRM197 vaccine carrier protein. Merck started a broad Phase 3 program for V116 in July 2022.

Jazz Pharmaceuticals presented positive data from a Phase 2/3 trial evaluating the intramuscular (IM) administration of Rylaze® in adult and pediatric patients with acute lymphoblastic leukemia (ALL) and lymphoblastic lymphoma (LBL) who have developed hypersensitivity to an E. coli-derived asparaginase at the 2022 ASCO Annual Meeting. The results confirmed patients achieved clinically meaningful nadir serum asparaginase activity throughout the course of Rylaze treatment with an IM regimen administered on Monday/Wednesday/Friday.

Novan announced positive results from the B-SIMPLE4 pivotal Phase 3 study of SB206 in patients with molluscum contagiosum. At the end of 12 weeks, 32.4% of patients in the SB206 group achieved complete clearance of lesions, as compared with 19.7% of patients in the vehicle group.

Sermonix Pharmaceuticals presented updated data at the 2022 ASCO Annual Meeting from the ELAINE-2 open-label, Phase 2 clinical trial of lasofoxifene in combination with abemaciclib in women with locally advanced or metastatic ER+/HER2 breast cancer and an ESR1 mutation after progression on prior therapies. The combination produced encouraging results, with a median PFS of 13.9 months, along with acceptable tolerability.

Verona Pharma announced it completed patient enrollment with more than 800 subjects randomized in the ENHANCE-1 trial of ensifentrine in chronic obstructive pulmonary disease, concluding enrollment in the Phase 3 ENHANCE program. Top-line data are expected from ENHANCE-2 in the third quarter of 2022 and from ENHANCE-1 around year-end 2022.

Aldeyra Therapeutics announced achievement of the primary endpoint in the Phase 3 TRANQUILITY-2 trial of reproxalap for the treatment of dry eye disease. Reproxalap was statistically superior for both primary endpoints of Schirmer Test ($p=0.0001$) and ≥ 10 mm Schirmer Test responder proportions ($p<0.0001$). Aldeyra subsequently announced achievement of the primary endpoints in a crossover trial showing reproxalap was statistical superior to vehicle for each of the two prespecified primary endpoints, ocular redness in a dry eye chamber ($p=0.0004$) and Schirmer test ($p=0.0005$). A Type B Pre-NDA meeting is expected to be held with the FDA in the third quarter of 2022, followed by a potential NDA submission.

Results of Operations

Revenue

(Dollars in thousands)	Q2 2022	Q2 2021	Change	% Change		YTD 2022	YTD 2021	Change	% Change
Royalties	\$ 17,959	\$ 8,616	\$ 9,343	108 %		\$ 31,654	\$ 15,728	\$ 15,926	101 %
Captisol - Core	3,325	9,682	(6,357)	(66) %		9,551	10,935	(1,384)	(13) %
Captisol - COVID	26,220	52,827	(26,607)	(50) %		32,116	82,846	(50,730)	(61) %
Contract revenue	9,915	13,550	(3,635)	(27) %		29,791	30,316	(525)	(2) %
Total revenue	\$ 57,419	\$ 84,675	\$ (27,256)	(32) %		\$ 103,112	\$ 139,825	\$ (36,713)	(26) %

Q2 2022 vs. Q2 2021

Total revenue decreased by \$27.3 million, or (32)%, to \$57.4 million in Q2 2022 compared to \$84.7 million in Q2 2021 primarily due to the \$26.6 million decrease in sales of COVID-related Captisol that is used in formulation with remdesivir. Royalties increased in Q2 2022 by \$9.3 million, or 108%, compared to the same period in 2021, with the increase primarily due to Kyprolis and sales of products using the Pelican platform. Core Captisol sales decreased by \$6.4 million, or (66)%, to \$3.3 million in Q2 2022 primarily due to the timing of customer orders. Captisol sales related to COVID-19 were \$26.2 million in Q2 2022, compared with \$52.8 million for the same period in 2021. The difference in sales is due to reduced demand for the pandemic-related treatment. Contract revenue decreased \$3.6 million, or (27)%, to \$9.9 million in Q2 2022 primarily due to the achievement of two significant milestones tied to the Pelican platform in Q2 2021.

Revenues attributable to the Ligand core business segment and OmniAb business segment were \$50.1 million and \$7.3 million, and \$78.9 million and \$5.8 million, respectively, for Q2 2022 and Q1 2021.

YTD 2022 vs. YTD 2021

Total revenue decreased by \$36.7 million, or (26)%, to \$103.1 million in YTD 2022 compared to \$139.8 million compared to YTD 2021 primarily due to the \$50.7 million decrease in sales of COVID-related Captisol that is used in formulation with remdesivir. Royalties increased in YTD 2022 by \$15.9 million compared to YTD 2021, with the increase primarily due to Kyprolis and sales of products using the Pelican platform. Core Captisol sales decreased by \$1.4 million, or (13)%, to \$9.6 million in YTD 2022 compared to YTD 2021 primarily due to the difference in sales is due to timing of customer orders. Captisol sales related to COVID-19 were \$32.1 million for the six months ended June 30, 2022, compared with \$82.8 million for the same period in 2021. The lower sales are due to reduced demand for the pandemic-related treatment. Contract revenue decreased slightly in YTD 2022 compared to YTD 2021.

Revenues attributable to the Ligand core business segment and OmniAb business segment were \$86.6 million and \$16.5 million, and \$125.4 million and \$14.4 million, respectively, for YTD 2022 and YTD 2021.

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%. Teriparatide injection has a tiered royalty between 25% and 40% on sales that have been adjusted for certain deductible items as defined in the respective license agreement. The Rylaze royalty rate is tiered between 3% and 5%. 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):

(in millions)	Q2 2022 Estimated Partner Product Sales	Effective Royalty Rate	Q2 2022 Royalty Revenue	Q2 2021 Estimated Partner Product Sales	Effective Royalty Rate	Q2 2021 Royalty Revenue
Kypropolis	\$ 328.1	2.2 %	\$ 7.1	\$ 266.5	2.0 %	\$ 5.4
Evomela	12.0	20.0 %	2.4	11.0	20.0 %	2.2
Teriparatide injection ⁽¹⁾	16.5	33.3 %	5.5	1.1	25.0 %	0.3
Rylaze	77.2	3.0 %	2.3	—	— %	—
Other	69.7	0.9 %	0.6	40.2	1.8 %	0.7
Total	\$ 503.5		\$ 18.0	\$ 318.8		\$ 8.6

(in millions)	YTD 2022 Estimated Partner Product Sales	Effective Royalty Rate	YTD 2022 Royalty Revenue	YTD 2021 Estimated Partner Product Sales	Effective Royalty Rate	YTD 2021 Royalty Revenue
Kypropolis	\$ 624.5	1.9 %	\$ 11.7	\$ 527.1	1.8 %	\$ 9.7
Evomela	25.5	20.0 %	5.1	22.2	20.0 %	4.5
Teriparatide injection ⁽¹⁾	25.6	32.8 %	8.4	2.6	10.3 %	0.3
Rylaze	132.2	3.0 %	4.0	—	— %	—
Other	140.5	1.7 %	2.4	65.8	1.8 %	1.2
Total	\$ 948.3		\$ 31.7	\$ 617.7		\$ 15.7

(1) - Teriparatide injection sales have been adjusted for certain deductible items as defined in the respective license agreement.

Operating Costs and Expenses

(Dollars in thousands)	Q2 2022	% of Revenue	Q2 2021	% of Revenue	YTD 2022	% of Revenue	YTD 2021	% of Revenue
Cost of Captisol	\$ 12,361		\$ 30,593		\$ 17,060		\$ 38,746	
Amortization of intangibles	11,824		11,779		23,637		23,565	
Research and development	19,118		15,953		39,425		33,832	
General and administrative	14,585		14,711		32,765		27,028	
Other operating income	—		(34,100)		—		(33,800)	
Total operating costs and expenses	\$ 57,888	101%	\$ 38,936	46%	\$ 112,887	109%	\$ 89,371	64%

Q2 2022 vs. Q2 2021

Total operating costs and expenses increased by \$19.0 million, or 49%, to \$57.9 million in Q2 2022 compared to \$38.9 million in Q2 2021 primarily attributable to the a non-cash valuation adjustment of \$(34.1) million recorded in Q2 2021 to reduce the Pfenex CVR liability due to an expected lower probability of achieving the required milestone under the Pfenex CVR Agreement.

Cost of Captisol decreased by \$18.2 million, (60%), to \$12.4 million in Q2 2022 compared to \$30.6 million in Q2 2021, with the decrease primarily due to lower total sales of Captisol. All of the cost of Captisol is attributable to the Ligand core business segment.

Amortization of intangibles remained steady in Q2 2022 compared to the same period in 2021 as there have been no significant changes to the gross balance of intangible assets over these periods. Amortization of intangibles were \$8.3 million and \$3.5 million for the Ligand core business segment and OmniAb business segment during Q2 2022, respectively, and \$8.6 million and \$3.2 million during Q2 2021, respectively.

At any one time, we are working on multiple R&D programs. As such, we generally do not track our R&D expenses on a specific program basis. Research and development expenses were \$19.1 million for Q2 2022, compared with \$16.0 million for the same period of 2021, with the increase primarily due to continued investment in the OmniAb business which including facilities and headcount-related expenditures. Excluding \$0.8 million in unallocated corporate items, R&D expenses were \$7.5 million and \$10.8 million for the Ligand core business segment and OmniAb business segment during Q2 2022, respectively. Excluding \$0.9 million in unallocated corporate items, R&D expenses were \$6.4 million and \$8.6 million, for the Ligand core business segment and OmniAb business segment during Q2 2021, respectively.

General and administrative expenses decreased slightly in Q2 2022 compared to Q2 2021. Excluding \$7.8 million in unallocated corporate items, general and administrative expenses were \$4.9 million and \$1.9 million for the Ligand core business segment and OmniAb business segment during Q2 2022, respectively. Excluding \$7.4 million in unallocated corporate items, general and administrative expenses were \$5.6 million and \$1.8 million for the Ligand core business segment and OmniAb business segment during Q2 2021, respectively.

There was no other operating income for Q2 2022, compared with \$34.1 million for Q2 2021, which represented a non-cash valuation adjustment to reduce the Pfenex CVR liability due to an expected lower probability of achieving the required milestone under the Pfenex CVR Agreement.

YTD 2022 vs. YTD 2021

Total operating costs and expenses increased by \$23.5 million, or 26%, to \$112.9 million in YTD 2022 compared to \$89.4 million in YTD 2021 primarily attributable to the a non-cash valuation adjustment of \$(33.8) million recorded in YTD 2021 to reduce the Pfenex CVR liability due to an expected lower probability of achieving the required milestone under the Pfenex CVR Agreement.

Cost of Captisol decreased by \$21.7 million, (56%), to \$17.1 million in YTD 2022 compared to \$38.7 million in YTD 2021, with the decrease primarily due to lower total sales of Captisol. All of the cost of Captisol is attributable to the Ligand core business segment.

Amortization of intangibles remained steady in YTD 2022 compared to YTD 2021 as there have been no significant changes to the gross balance of intangible assets over these periods. Amortization of intangibles were \$17.1 million and \$6.5 million for the Ligand core business segment and OmniAb business segment in YTD 2022, respectively, and \$17.4 million and \$6.2 million in YTD 2021, respectively.

At any one time, we are working on multiple R&D programs. As such, we generally do not track our R&D expenses on a specific program basis. Research and development expenses were \$39.4 million in YTD 2022, compared with \$33.8 million in YTD 2021, with the increase primarily due to continued investment in the OmniAb business which includes facilities and headcount-related expenditures. Excluding \$1.7 million in unallocated corporate items, R&D expenses were \$15.7 million and \$22.0 million for the Ligand core business segment and OmniAb business segment in YTD 2022, respectively. Excluding \$1.7 million in unallocated corporate items, R&D expenses were \$14.4 million and \$17.7 million, for the Ligand core business segment and OmniAb business segment in YTD 2021, respectively.

General and administrative expenses increased by \$5.7 million, or 21%, to \$32.8 million in YTD 2022 compared to \$27.0 million in YTD 2021, with the increase primarily due to \$4.8 million in transaction costs incurred during the first quarter of 2022 in connection with the planned spin-off of OmniAb. Excluding \$20.0 million in unallocated corporate items, general and administrative expenses were \$9.7 million and \$3.1 million for the Ligand core business segment and OmniAb business segment in YTD 2022, respectively. Excluding \$15.4 million in unallocated corporate items, general and administrative expenses were \$8.7 million and \$2.9 million for the Ligand core business segment and OmniAb business segment in YTD 2021, respectively.

There was no other operating income in YTD 2022, compared with \$33.8 million in YTD 2021, which represented a non-cash valuation adjustment to reduce the Pfenex CVR liability due to an expected lower probability of achieving the required milestone under the Pfenex CVR Agreement.

Other Income (Expense)

(Dollars in thousands)	Q2 2022	Q2 2021	Change	YTD 2022	YTD 2021	Change
Gain (loss) from short-term investments	\$ (1,909)	\$ (6,864)	\$ 4,955	\$ (14,786)	\$ 6,197	\$ (20,983)
Interest income	298	233	65	432	529	(97)
Interest expense	(438)	(4,883)	4,445	(1,227)	(10,714)	9,487
Other income (expense), net	1,882	(924)	2,806	4,580	(7,401)	11,981
Total other income (expense), net	\$ (167)	\$ (12,438)	\$ 12,271	\$ (11,001)	\$ (11,389)	\$ 388

Q2 2022 vs. Q2 2021

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 other equity security investments, contributing an unrealized loss of \$1.5 million in Q2 2022 as compared to an unrealized loss of \$6.8 million in Q2 2021.

Interest income consists primarily of interest earned on our short-term investments. The increase over the prior year was due to the increase in interest rate, partially offset by 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 in both Q2 2022 and Q2 2021. The decrease was primarily due to the adoption of ASU 2020-06 which significantly reduced the debt discount balance subject to amortization. See *Note 1, Basis of Presentation and Summary of Significant Accounting Policies* for detail on ASU 2020-06 adoption. In addition, we carried a lower average debt outstanding balance in Q2 2022 as compared to Q2 2021. During Q2 2022, we repurchased \$62.0 million in principal amount of the 2023 Notes. See *Note 4, Convertible Senior Notes*.

Other income (expense), net, in Q2 2022 increased by \$2.8 million as compared to Q2 2021, primarily due to the \$1.8 million gain on extinguishment of debt during Q2 2022 compared to a \$2.3 million loss on extinguishment of debt offset by the \$1.1 million gain for the fair value adjustment of Metabasis, Icagen and CyDex CVRs during Q2 2021. See *Note 3, Fair Value Measurements* and *Note 4, Convertible Senior Notes*.

YTD 2022 vs. YTD 2021

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 other equity security investments, contributing an unrealized loss of \$13.5 million in YTD 2022 as compared to an unrealized gain of \$10.1 million in YTD 2021.

Interest income consists primarily of interest earned on our short-term investments. The decrease over the prior year 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 in both YTD 2022 and YTD 2021. The decrease was primarily due to the adoption of ASU 2020-06 which significantly reduced the debt discount balance subject to amortization. See *Note 1, Basis of Presentation and Summary of Significant Accounting Policies* for detail on ASU 2020-06 adoption. In addition, we carried a lower average debt outstanding balance during YTD 2022 as compared YTD 2021. During YTD 2022, we repurchased \$227.8 million in principal amount of the 2023 Notes. See *Note 4, Convertible Senior Notes*.

Other income (expense), net, in YTD 2022 increased by \$12.0 million as compared to YTD 2021, primarily due to a \$3.3 million gain on extinguishment of debt and \$1.3 million gain for the fair value adjustment of Metabasis, Icagen and CyDex CVRs during YTD 2022 compared to a \$7.2 million loss on extinguishment of debt and \$0.3 million loss for the fair value adjustment of Metabasis, Icagen and CyDex CVRs during YTD 2021. See *Note 3, Fair Value Measurements* and *Note 4, Convertible Senior Notes*.

Income Tax Benefit (Expense)

(Dollars in thousands)	Q2 2022	Q2 2021	Change	YTD 2022	YTD 2021	Change
Income (loss) before income taxes	\$ (636)	\$ 33,301	\$ (33,937)	\$ (20,776)	\$ 39,065	\$ (59,841)
Income tax benefit	(259)	(2,576)	2,317	4,496	9,766	(5,270)
Income (loss) from operations	\$ (895)	\$ 30,725	\$ (31,620)	\$ (16,280)	\$ 48,831	\$ (65,111)
Effective tax rate	(40.7) %	7.7 %		21.6 %	(25.0) %	

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, 2022 and 2021 was (40.7)% and 7.7%, and 21.6% 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, 2022 was due primarily to the tax deductions related to foreign derived intangible income tax credit as well as the research and development tax credits, which were partially offset by Section 162(m) limitation and non-deductible ISO related stock compensation expense during the period. 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 Q2 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 benefits from share-based compensation resulting from increased stock option exercise activity, stock award vesting and appreciation of our stock price during the period.

Liquidity and Capital Resources

As of June 30, 2022, our cash, cash equivalents, and short-term investments totaled \$147.9 million, which decreased by \$193.2 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. During the six months ended June 30, 2022, we repurchased \$227.8 million in principal amount of the 2023 Notes for \$223.7 million in cash, including accrued interest of \$0.4 million. After the repurchases, \$115.5 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 plans 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, 2022. 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, 2022, we had \$9.2 million in fair value of contingent consideration liabilities associated with prior acquisitions to be settled in future periods.

Cash Flow Summary

(Dollars in thousands)

	Q2 2022	Q2 2021
Net cash provided by (used in):		
Operating activities	\$ 63,889	\$ 31,131
Investing activities	\$ 151,732	\$ 84,453
Financing activities	\$ (229,863)	\$ (141,540)

During the three months ended June 30, 2022, we repurchased \$62.0 million in principal amount of the 2023 Notes for \$60.0 million in cash, including accrued interest of \$0.01 million. During the six months ended June 30, 2022, we repurchased \$227.8 million in principal of the 2023 Notes for \$223.7 million in cash, including accrued interest of \$0.4 million.

Critical Accounting Policies and Estimates

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 2021 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 convertible debt.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

There were no substantial changes to our market risks in the six months ended June 30, 2022, when compared to the disclosures in Item 7A of our 2021 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, 2022 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, 2022 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 2021 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

Other than as set forth below, we do not believe that there have been any material changes to the risk factors disclosed in Part I, Item 1A of our 2021 Annual Report. The risk factors described in our 2021 Annual Report and below are not the only risks we face. Factors we currently do not know, factors that we currently consider immaterial or factors that are not specific to us, such as general economic conditions, may also materially adversely affect our business or our consolidated operating results, financial condition or cash flows.

The Merger is subject to the satisfaction of certain conditions, which may not be satisfied on a timely basis, if at all.

The consummation of the Merger is subject to customary closing conditions for transactions involving special purpose acquisition companies, including, among others:

- the expiration or termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended;
- receipt of required consents and approvals from certain governmental authorities;

- no agreement between Ligand or APAC and any governmental authority pursuant to which Ligand or APAC has agreed not to consummate the Merger shall have been effected;
- no governmental authority of competent jurisdiction shall have enacted, issued or granted any law (whether temporary, preliminary or permanent), in each case that is in effect and which has the effect of restraining, enjoining or prohibiting the consummation of the transaction;
- APAC shall have at least \$5,000,001 of net tangible assets as of the Closing;
- the APAC common stock issuable pursuant to the Merger shall have been approved for listing on Nasdaq, subject to official notice of issuance;
- Ligand, OmniAb, APAC and Merger Sub shall each have performed and complied in all material respects with the obligations, covenants and agreements required by the Merger Agreement to be performed or complied with by it at or prior to filing, or a later date as agreed to by the parties;
- customary bring down conditions related to the accuracy of the parties' respective representations, warranties and pre-closing covenants in the Merger Agreement;
- the consummation of the Distribution, Reorganization and other transactions contemplated by the Separation Agreement shall have occurred;
- each of APAC's and OmniAb's registration statements to be filed with the United States Securities and Exchange Commission shall have become effective;
- APAC's shareholder approval; and
- the receipt by Ligand and APAC of certain tax opinions.

Additionally, APAC's obligation to consummate the Business Combination is also subject to there having been no "Material Adverse Effect" on OmniAb since the date of the Merger Agreement.

Additionally, the obligations of OmniAb to consummate or cause to be consummated the Merger is subject to the satisfaction of the following additional conditions, any one (1) or more of which may be waived in writing by the OmniAb, among other things:

- the completion of the transactions contemplated by the Merger Agreement; and
- the resignation of all directors and all executive officers of APAC.

There can be no assurance that such closing conditions will be satisfied or waived, or that the Merger will be consummated. Further, we cannot assure you that the approval of APAC's stockholders will be obtained. We, OmniAb and APAC may be subject to shareholder lawsuits, or other actions filed in connection with or in opposition to the Merger, which could prevent or delay the consummation of the Merger.

If the Distribution, together with certain related transactions, fails to qualify as a reorganization under Sections 355 and 368(a)(1)(D) of the Internal Revenue Code of 1986, as amended (the "Code"), or the Merger fails to qualify as a reorganization under Section 368(a) of the Code, Ligand and its stockholders could incur significant tax liabilities, and APAC and OmniAb could be required to indemnify Ligand for taxes that could be material pursuant to indemnification obligations under the tax matters agreement to be entered into in connection with the closing of the Merger (the "Tax Matters Agreement").

Ligand expects to receive a tax opinion from Latham & Watkins LLP, tax counsel to Ligand, which shall provide that the Distribution will qualify as a reorganization under Sections 355 and 368(a)(1)(D) of the Code and that the Merger will not cause Section 355(e) of the Code to apply to the Distribution. In addition, the obligations of Ligand and OmniAb to complete the Merger are conditioned upon, among other things, Ligand's receipt of such tax opinion. The obligation of APAC to complete the Merger is conditioned upon, among other things, receipt of an opinion of Weil, Gotshal & Manges LLP, tax counsel to APAC, that the Merger will be treated as a reorganization under Section 368(a) of the Code. The opinions will be based on, among other things, certain facts, assumptions, representations and undertakings from Ligand, OmniAb and APAC, including those regarding the past and future conduct of the companies' respective businesses and other matters. If any of these facts, assumptions, representations, or undertakings are incorrect or not satisfied, Ligand may not be able to rely on the opinions, and Ligand and its stockholders could be subject to significant U.S. federal income tax liabilities. In addition, the opinions will not be binding on the IRS or the courts. Notwithstanding the opinions, the IRS could determine on audit that the

Distribution or Merger does not qualify as a reorganization if it determines that any of the facts, assumptions, representations or undertakings on which the opinions are based are not correct or have been violated or that the Distribution or Merger should be taxable for other reasons, including as a result of a significant change in stock or asset ownership after the Distribution.

If the Distribution, together with certain related transactions, is ultimately determined not to qualify as a reorganization, the Distribution could be treated as a taxable disposition of shares of OmniAb stock by Ligand and as a taxable dividend or capital gain to Ligand's stockholders for U.S. federal income tax purposes. If the Merger is ultimately determined not to qualify as a reorganization, the Merger could be treated as a taxable disposition of OmniAb stock by Ligand stockholders. In either such case, Ligand and its stockholders that are subject to U.S. federal income tax could incur significant U.S. federal income tax liabilities.

Under the Tax Matters Agreement that APAC and OmniAb will enter into with Ligand, APAC and OmniAb will generally be required to indemnify Ligand against taxes incurred by Ligand that arise as a result of certain actions or omissions by APAC or OmniAb that prevent the Distribution, together with certain related transactions, from qualifying as a reorganization under Sections 355 and 368(a)(1)(D) of the Code. Further, even if APAC and OmniAb are not responsible for tax liabilities of Ligand under the Tax Matters Agreement, OmniAb nonetheless could be liable under applicable U.S. federal tax law for such liabilities if Ligand were to fail to pay them. If APAC or OmniAb is required to pay any liabilities under the circumstances set forth in the Tax Matters Agreement or pursuant to applicable tax law, the amounts may be significant.

The anticipated benefits of the Separation and Merger may not be achieved.

We may not be able to achieve the full strategic and financial benefits expected to result from the Separation and Merger, including the potential that the Separation and Merger Combination will:

- allow each business to pursue its own operational and strategic priorities and more quickly respond to trends, developments and opportunities in its respective markets;
- create two separate and distinct management teams focused on each business's unique strategic priorities, target markets and corporate development opportunities;
- give each business opportunity and flexibility by pursuing its own investment, capital allocation and growth strategies consistent with its long-term objectives;
- allow investors to separately value each business based on the unique merits, performance and future prospects of each business, providing investors with two distinct investment opportunities;
- enhance the ability of each business to attract and retain qualified management and to better align incentive-based compensation with the performance of each separate business; and
- give each of OmniAb and Ligand its own equity currency for use in connection with acquisitions.

We may not achieve the anticipated benefits of the Separation and Merger for a variety of reasons. Further, such benefits, if ultimately achieved, may be delayed. In addition, the Separation and Merger could materially and adversely affect our business, financial condition and results of operations.

The Separation and Distribution may expose Ligand and OmniAb to potential liabilities arising out of state and federal fraudulent conveyance laws and legal dividend requirements.

The Separation and Distribution are subject to review under various state and federal fraudulent conveyance laws. Fraudulent conveyance laws generally provide that an entity engages in a constructive fraudulent conveyance when (i) the entity transfers assets and does not receive fair consideration or reasonably equivalent value in return; and (ii) the entity: (a) is insolvent at the time of the transfer or is rendered insolvent by the transfer; (b) has unreasonably small capital with which to carry on its business; or (c) intends to incur or believes it will incur debts beyond its ability to repay its debts as they mature. An unpaid creditor or an entity acting on behalf of a creditor (including without limitation a trustee or debtor-in-possession in a bankruptcy by OmniAb or Ligand or any of our respective subsidiaries) may bring an action alleging that the Separation or Distribution or any of the related transactions constituted a constructive fraudulent conveyance. If a court accepts these allegations, it could impose a number of remedies, including without limitation, voiding OmniAb's claims against Ligand, requiring the future OmniAb stockholders to return to Ligand some or all of the shares of OmniAb common stock issued in the Distribution, or providing Ligand with a claim for money damages against OmniAb in an amount equal to the difference between the consideration received by Ligand and OmniAb fair market value at the time of the Distribution.

The measure of insolvency for purposes of the fraudulent conveyance laws will vary depending on which jurisdiction's law is applied. Generally, an entity would be considered insolvent if (i) the present fair saleable value of its assets is less than the amount of its liabilities (including contingent liabilities); (ii) the present fair saleable value of its assets is less than its probable liabilities on its debts as such debts become absolute and matured; (iii) it cannot pay its debts and other liabilities (including contingent liabilities and other commitments) as they mature; or (iv) it has unreasonably small capital for the business in which it is engaged. We cannot assure you what standard a court would apply to determine insolvency or that a court would determine that OmniAb or Ligand or any of our subsidiaries were solvent at the time of or after giving effect to the Distribution.

The Distribution of OmniAb common stock is also subject to review under state corporate distribution statutes. Under the DGCL, a corporation may only pay dividends to its stockholders either (i) out of its surplus (net assets minus capital) or (ii) if there is no such surplus, out of its net profits for the fiscal year in which the dividend is declared or the preceding fiscal year. Although Ligand intends to make the Distribution of OmniAb common stock entirely from surplus, we cannot assure you that a court will not later determine that some or all of the Distribution to Ligand stockholders was unlawful.

The announcement of the proposed Separation and Merger could disrupt OmniAb's relationships with its customers, suppliers, business partners and others, as well as its operating results and business generally.

Risks relating to the impact of the announcement of the Separation and Merger on OmniAb's business include the following:

- its employees may experience uncertainty about their future roles, which might adversely affect OmniAb's ability to retain and hire key personnel and other employees;
- customers, suppliers, business partners and other parties with which OmniAb maintains business relationships may experience uncertainty about its future and seek alternative relationships with third parties, seek to alter their business relationships with OmniAb or fail to extend an existing relationship with OmniAb; and
- OmniAb has expended and will continue to expend significant costs, fees and expenses for professional services and transaction costs in connection with the proposed Separation and Merger.

If any of the aforementioned risks were to materialize, they could lead to significant costs which may impact the combined company's results of operations and cash available to fund its business.

We will incur transaction costs in connection with the Separation and Merger.

OmniAb has both incurred and expects to incur significant, non-recurring costs in connection with consummating the Separation and Merger and operating as a public company following the consummation of the Separation and Merger. OmniAb may also incur additional costs to retain key employees. Although certain transaction expenses incurred in connection with the Merger Agreement, including all legal, accounting, consulting, investment banking and other fees, expenses and costs, will be paid by APAC following the closing of the Merger, OmniAb expects some increased operational costs as well. We will also bear all of OmniAb's expenses if the Merger is not consummated.

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 of Exhibit	Incorporated by Reference				Filed Herewith
		Form	File Number	Date of Filing	Exhibit Number	
2.1*	Agreement and Plan of Merger, dated as of March, 23, 2022, by and among Avista Public Acquisition Corp. II, Ligand Pharmaceuticals Incorporated, OmniAb, Inc. and Orwell Merger Sub Inc.	8-K	001-33093	March 24, 2022	2.1	
2.2*	Separation and Distribution Agreement, dated as of March 23, 2022, by and among Avista Public Acquisition Corp. II, Ligand Pharmaceuticals Incorporated and OmniAb, Inc.	8-K	001-33093	March 24, 2022	2.2	
2.3	Sponsor Insider Agreement, dated March 23, 2022, by and among OmniAb, Inc., Avista Public Acquisition Corp. II and the other parties signatory thereto	8-K	001-33093	March 24, 2022	2.3	
2.4	Amended and Restated Forward Purchase Agreement, dated March 23, 2022, by and among Avista Public Acquisition Corp. II, Avista Acquisition LP II and OmniAb, Inc.	8-K	001-33093	March 24, 2022	2.4	
3.1	Amended and Restated Certificate of Incorporation of the Company	S-4	333-58823	July 9, 1998	3.1	
3.2	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated June 14, 2000	10-K	0-20720	March 29, 2001	3.5	
3.3	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated June 30, 2004	10-Q	0-20720	August 5, 2004	3.6	
3.4	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated November 17, 2010	8-K	001-33093	November 19, 2010	3.1	
3.5	Certificate of Amendment of the Amended and Restated Certification of Incorporation of the Company, dated June 19, 2018	S-8	333-233130	August 8, 2019	3.6	
3.6	Fourth Amended and Restated Bylaws of the Company	8-K	001-33093	October 30, 2020	3.1	
4.1	Specimen stock certificate for shares of the common stock of the Company	10-K	001-33093	March 1, 2018	4.1	
4.2	Indenture, dated as of May 22, 2018, between the Company and Wilmington Trust, National Association, as trustee, including the form of 0.75% Convertible Senior Notes due 2023	8-K	001-33093	May 22, 2018	4.1	
10.1[#]	2002 Stock Incentive Plan (As Amended and Restated Effective June 10, 2022)	DEF14A	001-33093	April 22, 2022	Appendix A	
10.2[#]	2022 Employment Inducement Plan					X
10.3[#]	Form of Stock Option Agreement under the Company's 2022 Employment Inducement Plan					X
10.4[#]	Form of Restricted Stock Unit Award Agreement under the Company's 2022 Employment Inducement Plan					X
10.5[#]	Form of Performance-Based Restricted Stock Unit Award Agreement under the Company's 2022 Employment Inducement Plan					X
31.1	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.					X
31.2	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.					X

<u>32.1**</u>	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.	X
101	The following financial information from our Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, 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.	X
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, formatted in Inline XBRL and contained in Exhibit 101.	X

Indicates management contract or compensatory plan.

* Schedules and exhibits omitted pursuant to Item 601(b)(2) of Regulation S-K. Ligand Pharmaceuticals Incorporated agrees to furnish supplementally a copy of any omitted schedule to the Securities and Exchange Commission upon request.

** These certifications are deemed not filed for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall they be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

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 9, 2022

By: /s/ Matthew Korenberg
 Matthew Korenberg
 Executive Vice President, Finance and Chief Financial Officer
 Duly Authorized Officer and Principal Financial Officer

LIGAND PHARMACEUTICALS INCORPORATED
2022 EMPLOYMENT INDUCEMENT PLAN

Article 1

GENERAL PROVISIONS

I. PURPOSE OF THE PLAN

This 2022 Employment Inducement Plan is intended to promote the interests of Ligand Pharmaceuticals Incorporated, a Delaware corporation, by providing Eligible Individuals in the Corporation's and its Subsidiaries' service with the opportunity to acquire a proprietary interest in the Corporation as an incentive for them to commence and remain in such service. Only Eligible Individuals may receive Awards under the Plan.

Capitalized terms shall have the meanings assigned to such terms in the attached Appendix.

II. STRUCTURE OF THE PLAN

A. The Plan shall be divided into three separate equity incentives programs:

1. the Discretionary Option Grant Program under which Eligible Individuals may, at the discretion of the Plan Administrator, be granted options to purchase shares of Common Stock,
2. the Stock Issuance Program under which Eligible Individuals may, at the discretion of the Plan Administrator, be issued shares of Common Stock, and
3. the Other Stock Award Program under which Eligible Individuals may, at the discretion of the Plan Administrator, be granted restricted stock units, stock appreciation rights and dividend equivalents.

B. The provisions of Article One and Article Six shall apply to all equity programs under the Plan and shall govern the interests of all persons under the Plan.

III. ADMINISTRATION OF THE PLAN

A. The Committee shall be the Plan Administrator and shall have sole and exclusive authority to administer the Plan (except as otherwise permitted herein). Each member of the Committee shall be both an Independent Director and a "nonemployee director" (as defined in the regulations promulgated under Section 16 of the Exchange Act). Notwithstanding anything to the contrary provided herein, Awards shall be approved by (i) the Committee, which shall be comprised solely of Independent Directors, or (ii) a majority of the Corporation's Independent Directors.

B. The Plan Administrator shall, within the scope of its administrative functions under the Plan, have full power and authority (subject to the provisions of the Plan) to:

- i. adopt rules and regulations from time to time intended to ensure that an individual is an Eligible Individual prior to the granting of any Award to such individual under the Plan (including without limitation a requirement, if any, that each such individual certify to the Corporation prior to the receipt of an Award under the Plan that he or she has not been previously employed by the Corporation, Parent, Subsidiary or any of their affiliates, or if previously employed, has had a bona fide period of non-employment, and that the grant of Awards under the Plan is an inducement material to his or her agreement to enter into employment with the Corporation, Parent, Subsidiary or any of their affiliates);

- ii. establish such rules and regulations as it may deem appropriate for proper administration of the Plan and to make such determinations under; and
- iii. issue such interpretations of, the provisions of those programs and any outstanding Awards thereunder as it may deem necessary or advisable.

Decisions of the Plan Administrator within the scope of its administrative functions under the Plan shall be final and binding on all parties who have an interest in the equity incentive programs under its jurisdiction or any Award thereunder.

C. Service on the Committee shall constitute service as a Board member, and members of such committee shall accordingly be entitled to full indemnification and reimbursement as Board members for their service on such committee. No member of the Committee shall be liable for any act or omission made in good faith with respect to the Plan or any Awards under the Plan.

D. Following the issuance of any Award under the Plan, the Corporation shall, in accordance with the listing requirement under the applicable securities exchange, (i) promptly issue a press release disclosing the material terms of the grant, including the recipient(s) of the grant and the number of shares involved and (ii) notify the applicable securities exchange of such grant no later than the earlier to occur of (A) five (5) calendar days after entering into the agreement to issue the Award or (B) the date of the public announcement of the Award.

IV. ELIGIBILITY

C. Only Eligible Individuals are eligible to participate in the Discretionary Option Grant, Stock Issuance and Other Stock Award Programs.

D. The Plan Administrator shall, within the scope of its administrative jurisdiction under the Plan, have full authority to determine, (i) with respect to the option grants under the Discretionary Option Grant Program, which Eligible Individuals are to receive such grants, the time or times when those grants are to be made, the number of shares to be covered by each such grant, the time or times when each option is to become exercisable, the vesting schedule (if any) applicable to the option shares, the maximum term for which the option is to remain outstanding and such other terms and conditions of such option as the Plan Administrator determines are appropriate, (ii) with respect to stock issuances under the Stock Issuance Program, which Eligible Individuals are to receive such issuances, the time or times when the issuances are to be made, the number of shares to be issued to each Participant, the vesting schedule (if any) applicable to the issued shares, the purchase price, if any, and consideration for such shares and such other terms and conditions of such issued shares as the Plan Administrator determines are appropriate, and (iii) with respect to other Awards under the Other Stock Awards Program, which Eligible Individuals are to receive such Awards, the type of Award, the time or times when the issuances are to be made, the number of shares subject to such Award to be issued to each Participant, the vesting schedule (if any) applicable to the Awards, the consideration for such Awards and such other terms and conditions of such Awards as the Plan Administrator determines are appropriate.

V. STOCK SUBJECT TO THE PLAN

E. Subject to adjustment pursuant to this Section V, the number of shares of Common Stock which may be issued or transferred pursuant to Awards under the Plan is 300,000 shares.

F. To the extent all or a portion of an Award is forfeited, expires or such Award or portion thereof is settled for cash (in whole or in part), the shares of Common Stock subject to such Award or portion thereof, shall, to the extent of such forfeiture, expiration or cash settlement, again be available for future grants of Awards under the Plan. In addition, the following shares of Common Stock shall be added to the shares of Common Stock authorized for grant under Section V.A and will be available for future grants of Awards: (i) shares of Common Stock tendered by an Optionee or withheld by the Corporation in payment of the exercise price of an option; and (ii) shares of Common Stock tendered by the Participant or withheld by the Corporation to satisfy any tax withholding obligation with respect to an

Award. Notwithstanding the provisions of this Section V.B, no shares shall again be available for future grants of Awards under the Plan pursuant to this Section V.B to the extent that such return of shares would cause the Plan to constitute a "formula plan" or constitute a "material revision" of the Plan subject to shareholder approval under the then-applicable rules of the Nasdaq Stock Market (or any other applicable exchange or quotation system).

G. Any shares of Common Stock forfeited by the Participant or repurchased by the Corporation under Article Three, Section I.C. at a price not greater than the price originally paid by the Participant so that such shares are returned to the Corporation will again be available for Awards under the Plan. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards shall not be counted against the shares available for issuance under the Plan.

H. If any change is made to the Common Stock by reason of any stock split, stock or cash dividend (other than normal cash dividends), recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration, equitable adjustments shall be made by the Plan Administrator to (i) the maximum number and/or class of securities issuable under the Plan, (ii) the number and/or class of securities and the exercise or purchase price per share in effect under each outstanding Award under the Plan, and (iii) the terms and conditions of any outstanding Awards (including, without limitation, any applicable performance targets or criteria with respect thereto). Such adjustments to the outstanding Awards are to be effected in a manner which shall preclude the enlargement or dilution of rights and benefits under such Awards. The adjustments determined by the Plan Administrator shall be final, binding and conclusive.

I. Subject to Article Two, Section II, Article Three, Section II and Article Four, Section V, in the event of any transaction or event described in Section V.D or any unusual or nonrecurring transactions or events affecting the Corporation, any affiliate of the Corporation, or the financial statements of the Corporation or any affiliate, or of changes in applicable laws, regulations or accounting principles, including, without limitation, a Change in Control or a Hostile Take-Over, the Plan Administrator, in its sole and absolute discretion, and on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event and either automatically or upon the Optionee's or Participant's request, is hereby authorized to take any one or more of the following actions whenever the Plan Administrator determines that such action is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any Award under the Plan, to facilitate such transactions or events or to give effect to such changes in laws, regulations or principles:

1. To provide for either (A) termination of any such Award in exchange for an amount of cash, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Optionee's or Participant's rights (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction or event described in this Section V.E the Plan Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Optionee's or Participant's rights, then such Award may be terminated by the Corporation without payment) or (B) the replacement of such Award with other rights or property selected by the Plan Administrator in its sole discretion;

2. To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar Awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices;

3. To make adjustments in the number and type of shares of Common Stock (or other securities or property) subject to outstanding Awards, and in the number and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards;

4. To provide that such Award shall be exercisable or payable or fully vested with respect to all shares covered thereby, notwithstanding anything to the contrary in the Plan or the applicable award agreement; and

5. To provide that the Award cannot vest, be exercised or become payable after such event.

A. In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Corporation assets to stockholders, or any other change affecting the shares of Common Stock or the share price of the Common Stock, for reasons of administrative convenience, the Corporation in its sole discretion may refuse to permit the exercise of any Award during a period of thirty (30) days prior to the consummation of any such transaction.

Article 2

DISCRETIONARY OPTION GRANT PROGRAM

I. OPTION TERMS

Each option shall be a Non-Statutory Option evidenced by one or more documents in the form approved by the Plan Administrator; *provided, however*, that each such document shall comply with the terms specified below.

A. EXERCISE PRICE.

1. The exercise price per share shall be fixed by the Plan Administrator but shall not be less than one hundred percent (100%) of the Fair Market Value per share of Common Stock on the option grant date.

2. The exercise price shall become immediately due upon exercise of the option and shall, subject to the provisions of the documents evidencing the option, be payable in one or more of the forms specified below:

i. cash or check made payable to the Corporation,

ii. shares of Common Stock held by the Optionee or otherwise issuable upon exercise of the option and valued at Fair Market Value on the Exercise Date,

iii. to the extent the option is exercised for vested shares, through a special sale and remittance procedure pursuant to which the Optionee shall concurrently provide irrevocable instructions to (a) a Corporation-designated brokerage firm to effect the immediate sale of the purchased shares and remit to the Corporation, out of the sale proceeds available on the settlement date, sufficient funds to cover the aggregate exercise price payable for the purchased shares plus all applicable income and employment taxes required to be withheld by the Corporation by reason of such exercise and (b) the Corporation to deliver the certificates for the purchased shares directly to such brokerage firm in order to complete the sale, or

iv. with the consent of the Plan Administrator, a promissory note bearing interest at no less than such rate as shall then preclude the imputation of interest under the Code.

v. Except to the extent such sale and remittance procedure is utilized, payment of the exercise price for the purchased shares must be made on the Exercise Date. Notwithstanding any other provision of the Plan to the contrary, no Optionee who is a member of the Board or an "executive officer" of the Corporation within the meaning of Section 13(k) of the Exchange Act shall be permitted to pay the exercise price of an option, or continue any extension of credit with respect to the exercise of an option, with a loan from the Corporation or a loan arranged by the Corporation in violation of Section 13(k) of the Exchange Act.

A. EXERCISE AND TERM OF OPTIONS. Each option shall be exercisable at such time or times, during such period and for such number of shares as shall be determined by the Plan Administrator

and set forth in the documents evidencing the option. However, no option shall have a term in excess of ten (10) years measured from the option grant date.

B. EFFECT OF TERMINATION OF SERVICE.

1. The following provisions shall govern the exercise of any options held by the Optionee at the time of cessation of Service or death:

i. Any option outstanding at the time of the Optionee's cessation of Service for any reason shall remain exercisable for such period of time thereafter as shall be determined by the Plan Administrator and set forth in the documents evidencing the option, but no such option shall be exercisable after the expiration of the option term.

ii. Any option held by the Optionee at the time of death and exercisable in whole or in part at that time may be subsequently exercised by the personal representative of the Optionee's estate or by the person or persons to whom the option is transferred pursuant to the Optionee's will or the laws of inheritance or by the Optionee's designated beneficiary or beneficiaries of that option.

iii. During the applicable post-Service exercise period, the option may not be exercised in the aggregate for more than the number of vested shares for which the option is exercisable on the date of the Optionee's cessation of Service. Upon the expiration of the applicable exercise period or (if earlier) upon the expiration of the option term, the option shall terminate and cease to be outstanding for any vested shares for which the option has not been exercised. However, the option shall, immediately upon the Optionee's cessation of Service, terminate and cease to be outstanding to the extent the option is not otherwise at that time exercisable for vested shares.

2. The Plan Administrator shall have complete discretion, exercisable either at the time an option is granted or at any time while the option remains outstanding, to:

i. extend the period of time for which the option is to remain exercisable following the Optionee's cessation of Service from the limited exercise period otherwise in effect for that option to such greater period of time as the Plan Administrator shall deem appropriate, but in no event beyond the expiration of the option term, and/or

ii. permit the option to be exercised, during the applicable post-Service exercise period, not only with respect to the number of vested shares of Common Stock for which such option is exercisable at the time of the Optionee's cessation of Service but also with respect to one or more additional installments in which the Optionee would have vested had the Optionee continued in Service.

B. STOCKHOLDER RIGHTS. The holder of an option shall have no stockholder rights with respect to the shares subject to the option until such person shall have exercised the option, paid the exercise price and become a holder of record of the purchased shares.

C. REPURCHASE RIGHTS. The Plan Administrator shall have the discretion to grant options which are exercisable for unvested shares of Common Stock. Should the Optionee cease Service while holding such unvested shares, the Corporation shall have the right to repurchase any or all of those unvested shares. The terms upon which such repurchase right shall be exercisable (including the period and procedure for exercise and the appropriate vesting schedule for the purchased shares) shall be established by the Plan Administrator and set forth in the document evidencing such repurchase right.

D. LIMITED TRANSFERABILITY OF OPTIONS. During the lifetime of the Optionee, a Non-Statutory Option shall be exercisable only by the Optionee and shall not be assignable or transferable other than by will or the laws of inheritance following the Optionee's death. However, a Non-Statutory Option may be assigned in whole or in part during the Optionee's lifetime to one or more members of the Optionee's family or to a trust established exclusively for one or more such family members or to Optionee's former spouse, to the extent such assignment is in connection with the Optionee's estate plan or pursuant to a domestic relations order. The assigned portion may only be exercised by the person or

persons who acquire a proprietary interest in the option pursuant to the assignment. The terms applicable to the assigned portion shall be the same as those in effect for the option immediately prior to such assignment and shall be set forth in such documents issued to the assignee as the Plan Administrator may deem appropriate. Notwithstanding the foregoing, the Optionee may also designate one or more persons as the beneficiary or beneficiaries of his or her outstanding options under this Article Two, and those options shall, in accordance with such designation, automatically be transferred to such beneficiary or beneficiaries upon the Optionee's death while holding those options. Such beneficiary or beneficiaries shall take the transferred options subject to all the terms and conditions of the applicable agreement evidencing each such transferred option, including (without limitation) the limited time period during which the option may be exercised following the Optionee's death.

I. CHANGE IN CONTROL/HOSTILE TAKE-OVER

E. In the event of a Change in Control, each outstanding option under the Discretionary Option Grant Program shall automatically accelerate so that each such option shall, immediately prior to the effective date of that Change in Control, become exercisable for all the shares of Common Stock at the time subject to such option and may be exercised for any or all of those shares as fully vested shares of Common Stock. However, an outstanding option shall NOT become exercisable on such an accelerated basis if and to the extent: (i) such option is to be assumed by the successor corporation (or parent thereof) or is otherwise to continue in full force and effect pursuant to the terms of the Change in Control transaction or (ii) such option is to be replaced with a cash incentive program of the successor corporation which preserves the spread existing at the time of the Change in Control on any shares for which the option is not otherwise at that time exercisable and provides for subsequent payout of that spread in accordance with the same exercise/vesting schedule applicable to those option shares or (iii) the acceleration of such option is subject to other limitations imposed by the Plan Administrator at the time of the option grant.

F. All outstanding repurchase rights under the Discretionary Option Grant Program shall automatically terminate, and the shares of Common Stock subject to those terminated rights shall immediately vest in full, in the event of a Change in Control, except to the extent: (i) those repurchase rights are to be assigned to the successor corporation (or parent thereof) or are otherwise to continue in full force and effect pursuant to the terms of the Change in Control transaction or (ii) such accelerated vesting is precluded by other limitations imposed by the Plan Administrator at the time the repurchase right is issued.

G. Immediately following the consummation of the Change in Control, all outstanding options under the Discretionary Option Grant Program shall terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or parent thereof) or otherwise continued in full force and effect pursuant to the terms of the Change in Control transaction.

H. Each option which is assumed in connection with a Change in Control or otherwise continued in effect shall be appropriately adjusted, immediately after such Change in Control, to apply to the number and class of securities which would have been issuable to the Optionee in consummation of such Change in Control had the option been exercised immediately prior to such Change in Control. Appropriate adjustments shall also be made to the exercise price payable per share under each outstanding option, *provided* the aggregate exercise price payable for such securities shall remain the same (subject only to reduction by reason of rounding). To the extent the actual holders of the Corporation's outstanding Common Stock receive cash consideration for their Common Stock in consummation of the Change in Control, the successor corporation may, in connection with the assumption of the outstanding options under the Discretionary Option Grant Program, substitute one or more shares of its own common stock with a fair market value equivalent to the cash consideration paid per share of Common Stock in such Change in Control transaction.

I. The Plan Administrator shall have the discretionary authority to structure one or more outstanding options under the Discretionary Option Grant Program so that those options shall, immediately prior to the effective date of a Change in Control, become exercisable for all the shares of Common Stock at the time subject to those options and may be exercised for any or all of those shares as fully vested shares of Common Stock, whether or not those options are to be assumed in the Change in

Control transaction or otherwise continued in effect. In addition, the Plan Administrator shall have the discretionary authority to structure one or more of the Corporation's repurchase rights under the Discretionary Option Grant Program so that those rights shall immediately terminate upon the consummation of the Change in Control transaction, and the shares subject to those terminated rights shall thereupon vest in full.

J. The Plan Administrator shall have full power and authority to structure one or more outstanding options under the Discretionary Option Grant Program so that those options shall become exercisable for all the shares of Common Stock at the time subject to those options in the event the Optionee's Service is subsequently terminated by reason of an Involuntary Termination within a designated period (not to exceed eighteen (18) months) following the effective date of any Change in Control transaction in which those options do not otherwise accelerate. In addition, the Plan Administrator may structure one or more of the Corporation's repurchase rights so that those rights shall immediately terminate with respect to any shares held by the Optionee at the time of such Involuntary Termination, and the shares subject to those terminated repurchase rights shall accordingly vest in full at that time.

K. The Plan Administrator shall have the discretionary authority to structure one or more outstanding options under the Discretionary Option Grant Program so that those options shall, immediately prior to the effective date of a Hostile Take-Over, become exercisable for all the shares of Common Stock at the time subject to those options and may be exercised for any or all of those shares as fully vested shares of Common Stock. In addition, the Plan Administrator shall have the discretionary authority to structure one or more of the Corporation's repurchase rights under the Discretionary Option Grant Program so that those rights shall terminate automatically upon the consummation of such Hostile Take-Over, and the shares subject to those terminated rights shall thereupon vest in full. Alternatively, the Plan Administrator may condition the automatic acceleration of one or more outstanding options under the Discretionary Option Grant Program and the termination of one or more of the Corporation's outstanding repurchase rights under such program upon the subsequent termination of the Optionee's Service by reason of an Involuntary Termination within a designated period (not to exceed eighteen (18) months) following the effective date of such Hostile Take-Over.

L. The outstanding options shall in no way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

Article 3

STOCK ISSUANCE PROGRAM

I. STOCK ISSUANCE TERMS

Shares of Common Stock may be issued under the Stock Issuance Program through direct and immediate issuances without any intervening option grants. Each such stock issuance shall be evidenced by a Stock Issuance Agreement which complies with the terms specified below. Shares of Common Stock may also be issued under the Stock Issuance Program pursuant to share right awards which entitle the recipients to receive those shares upon the attainment of designated performance goals or the satisfaction of specified Service requirements.

A. PURCHASE PRICE.

1. The purchase price per share, if any, shall be fixed by the Plan Administrator.

2. Shares of Common Stock may be issued under the Stock Issuance Program for any form of consideration as the Plan Administrator may deem appropriate in each individual instance, including, without limitation:

i. cash or check made payable to the Corporation, or

ii. future services to be rendered to the Corporation (or any Parent or Subsidiary).

A. **RESTRICTIONS.** Shares of Common Stock issued under this Stock Issuance Program shall be subject to such restrictions on transferability and other restrictions as the Plan Administrator may impose (including, without limitation, limitations on the right to vote such shares or the right to receive dividends on such shares). These restrictions may lapse separately or in combination at such times, pursuant to such circumstances, in such installments, or otherwise, as the Plan Administrator determines at the time of the grant of the shares or thereafter. Notwithstanding the foregoing, with respect to shares of Common Stock issued under this Stock Issuance Program subject to vesting, dividends which are paid prior to vesting shall only be paid out to the Participant to the extent that the vesting conditions are subsequently satisfied and the share vests.

B. **FORFEITURE.** Except as otherwise determined by the Plan Administrator at the time of the grant of the shares or thereafter, upon termination of employment during the applicable restriction period, shares of Common Stock issued under this Stock Issuance Program that are at that time subject to restrictions shall be forfeited; *provided, however*, that, the Plan Administrator may (a) provide in any award agreement that restrictions or forfeiture conditions relating to such shares will be waived in whole or in part in the event of terminations resulting from specified causes, and (b) in other cases waive in whole or in part restrictions or forfeiture conditions relating to such shares.

II. CHANGE IN CONTROL/HOSTILE TAKE-OVER

C. All of the Corporation's outstanding forfeiture restrictions or repurchase rights on any shares of Common Stock issued under the Stock Issuance Program shall terminate automatically, and all the shares of Common Stock subject to those terminated rights shall immediately vest in full, in the event of any Change in Control, except to the extent (i) those forfeiture restrictions or repurchase rights are to be assigned to the successor corporation (or parent thereof) or are otherwise to continue in full force and effect pursuant to the terms of the Change in Control transaction or (ii) such accelerated vesting is precluded by other limitations imposed in the Stock Issuance Agreement.

D. The Plan Administrator shall have the discretionary authority to structure one or more of the Corporation's forfeiture restrictions or repurchase rights under the Stock Issuance Program so that those rights shall automatically terminate in whole or in part, and the shares of Common Stock subject to those terminated rights shall immediately vest, in the event the Participant's Service should subsequently terminate by reason of an Involuntary Termination within a designated period (not to exceed eighteen (18) months) following the effective date of any Change in Control transaction in which those forfeiture restrictions or repurchase rights are assigned to the successor corporation (or parent thereof) or are otherwise continued in effect.

E. The Plan Administrator shall also have the discretionary authority to structure one or more of the Corporation's forfeiture restrictions or repurchase rights under the Stock Issuance Program so that those rights shall automatically terminate in whole or in part, and the shares of Common Stock subject to those terminated rights shall immediately vest, either upon the occurrence of a Hostile Take-Over or upon the subsequent termination of the Participant's Service by reason of an Involuntary Termination within a designated period (not to exceed eighteen (18) months) following the effective date of that Hostile Take-Over.

I. SHARE ESCROW/LEGENDS

Unvested shares may, in the Plan Administrator's discretion, be held in escrow by the Corporation until the Participant's interest in such shares vests or may be issued directly to the Participant with restrictive legends on the certificates evidencing those unvested shares.

Article 4**OTHER STOCK AWARDS PROGRAM****I. STOCK APPRECIATION RIGHTS**

A. A stock appreciation right may be granted to any Eligible Individual selected by the Plan Administrator. A stock appreciation right shall be subject to such terms and conditions not inconsistent with the Plan as the Plan Administrator shall impose and shall be evidenced by a stock appreciation right agreement.

B. A stock appreciation right shall entitle the Participant (or other person entitled to exercise the stock appreciation right pursuant to the Plan) to exercise all or a specified portion of the stock appreciation right (to the extent then exercisable pursuant to its terms) and to receive from the Corporation an amount equal to the product of (i) the excess of (A) the Fair Market Value of the Common Stock on the date the stock appreciation right is exercised over (B) the Fair Market Value of the Common Stock on the date the stock appreciation right was granted and (ii) the number of shares of Common Stock with respect to which the stock appreciation right is exercised, subject to any limitations the Plan Administrator may impose. The exercise or base price per share of a stock appreciation right shall be fixed by the Plan Administrator but shall not be less than one hundred percent (100%) of the Fair Market Value per share of Common Stock on the date the stock appreciation right was granted.

C. Subject to Section I.B above, payment of the amounts determined under Sections I.B. above shall be in cash, in Common Stock (based on its Fair Market Value as of the date the stock appreciation right is exercised) or a combination of both, as determined by the Plan Administrator. To the extent any payment is effected in Common Stock, it shall be made subject to satisfaction of all provisions of Article Two above pertaining to options.

D. Each stock appreciation right shall be exercisable at such time or times, during such period and for such number of shares as shall be determined by the Plan Administrator and set forth in the documents evidencing the stock appreciation right. However, no stock appreciation right shall have a term in excess of ten (10) years measured from the date the stock appreciation right was granted.

II. DIVIDEND EQUIVALENTS

Any Eligible Individual selected by the Plan Administrator may be granted dividend equivalents based on the dividends declared on the shares of Common Stock that are subject to any Award, to be credited as of dividend payment dates, during the period between the date the Award is granted and the date the Award is exercised, vests or expires, as determined by the Plan Administrator. Such dividend equivalents shall be converted to cash or additional shares of Common Stock by such formula and at such time and subject to such limitations as may be determined by the Plan Administrator. Notwithstanding anything to the contrary, dividends or dividend equivalents with respect to an Award that is subject to vesting that are based on dividends paid prior to the vesting of such Award shall only be paid out to the extent that the vesting conditions are subsequently satisfied and the Award vests. In addition, notwithstanding anything to the contrary, no dividend equivalents shall be payable with respect to options or stock appreciation rights.

III. RESTRICTED STOCK UNITS

The Plan Administrator is authorized to make Awards of restricted stock units (a right to shares of Common Stock deliverable in the future) to any Eligible Individual selected by the Plan Administrator in such amounts and subject to such terms and conditions as determined by the Plan Administrator. At the time of grant, the Plan Administrator shall specify the date or dates on which the restricted stock units shall become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate. At the time of grant, the Plan Administrator shall specify the maturity date applicable to each grant of restricted stock units which shall be no earlier than the vesting date or dates of the Award and may be determined at the election of the grantee. On the maturity date, the Corporation shall, subject to

Article Six, Section V, transfer to the Participant one unrestricted, fully transferable share of Common Stock for each restricted stock unit scheduled to be paid out on such date and not previously forfeited.

IV. OTHER TERMS

E. Except as otherwise provided herein, the term of any award of stock appreciation rights, dividend equivalents or restricted stock units shall be set by the Plan Administrator in its discretion.

F. Except as otherwise provided herein, the Plan Administrator may establish the exercise or purchase price, if any, of any award of stock appreciation rights, dividend equivalents or restricted stock units.

G. An award of stock appreciation rights, dividend equivalents or restricted stock units shall only be exercisable or payable prior to the Participant's termination of Service; *provided, however*, that the Plan Administrator in its sole and absolute discretion may provide that an award of stock appreciation rights, dividend equivalents or restricted stock units may be exercised or paid subsequent to a termination of Service, as applicable, or following a Change in Control of the Corporation, or because of the Participant's retirement, death or disability, or otherwise.

H. Payments with respect to any Awards granted under this Article Four shall be made in cash, in Common Stock or a combination of both, as determined by the Plan Administrator.

I. All Awards under this Article Four shall be subject to such additional terms and conditions as determined by the Plan Administrator and shall be evidenced by an award agreement.

III. CHANGE IN CONTROL/HOSTILE TAKE-OVER

J. In the event of a Change in Control, each outstanding Award under the Other Stock Award Program shall automatically accelerate so that each such Award shall, immediately prior to the effective date of that Change in Control, become vested and exercisable and/or payable with respect to all the shares of Common Stock at the time subject to such Award and may be exercised or paid for any or all of those shares as fully vested shares of Common Stock. However, an outstanding Award shall NOT become vested and exercisable and/or payable on such an accelerated basis if and to the extent: (i) such Award is to be assumed by the successor corporation (or parent thereof) or is otherwise to continue in full force and effect pursuant to the terms of the Change in Control transaction or (ii) such Award is to be replaced with a cash incentive program of the successor corporation which preserves the spread existing at the time of the Change in Control on any shares for which the Award is not otherwise at that time vested, exercisable or payable and provides for subsequent payout of that spread in accordance with the same exercise/vesting/payment schedule applicable to those Award shares or (iii) the acceleration of such Award is subject to other limitations imposed by the Plan Administrator at the time of the Award grant.

K. Immediately following the consummation of the Change in Control, all outstanding Awards under the Other Stock Award Program shall terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or parent thereof) or otherwise continued in full force and effect pursuant to the terms of the Change in Control transaction.

L. Each Award which is assumed in connection with a Change in Control or otherwise continued in effect shall be appropriately adjusted, immediately after such Change in Control, to apply to the number and class of securities which would have been issuable to the Participant in consummation of such Change in Control had the Award been exercised or paid immediately prior to such Change in Control. Appropriate adjustments shall also be made to the exercise or purchase price payable per share under each outstanding Award, *provided* the aggregate exercise or purchase price payable for such securities shall remain the same. To the extent the actual holders of the Corporation's outstanding Common Stock receive cash consideration for their Common Stock in consummation of the Change in Control, the successor corporation may, in connection with the assumption of the outstanding Awards under the Other Stock Award Program, substitute one or more shares of its own common stock with a fair market value equivalent to the cash consideration paid per share of Common Stock in such Change in Control transaction.

M. The Plan Administrator shall have the discretionary authority to structure one or more outstanding Awards under the Other Stock Award Program so that those Awards shall, immediately prior to the effective date of a Change in Control, become vested and exercisable and/or payable exercisable for all the shares of Common Stock at the time subject to those Awards and may be exercised or paid for any or all of those shares as fully vested shares of Common Stock, whether or not those Awards are to be assumed in the Change in Control transaction or otherwise continued in effect. In addition, the Plan Administrator shall have the discretionary authority to structure one or more of the Corporation’s repurchase rights under the Other Stock Award Program so that those rights shall immediately terminate upon the consummation of the Change in Control transaction, and the shares subject to those terminated rights shall thereupon vest in full.

N. The Plan Administrator shall have full power and authority to structure one or more outstanding Awards under the Other Stock Award Program so that those Awards shall become vested and exercisable and/or payable for all the shares of Common Stock at the time subject to those Awards in the event the Participant’s Service is subsequently terminated by reason of an Involuntary Termination within a designated period (not to exceed eighteen (18) months) following the effective date of any Change in Control transaction in which those Awards do not otherwise accelerate.

O. The Plan Administrator shall have the discretionary authority to structure one or more outstanding Awards under the Other Stock Award Program so that those Awards shall, immediately prior to the effective date of a Hostile Take-Over, become vested and exercisable and/or payable for all the shares of Common Stock at the time subject to those Awards and may be exercised or paid for any or all of those shares as fully vested shares of Common Stock. Alternatively, the Plan Administrator may condition the automatic acceleration of one or more outstanding Awards under the Other Stock Award Program upon the subsequent termination of the Optionee’s Service by reason of an Involuntary Termination within a designated period (not to exceed eighteen (18) months) following the effective date of such Hostile Take-Over.

P. The outstanding Awards shall in no way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

Article 5

[INTENTIONALLY OMITTED]

Article 6

MISCELLANEOUS

I. TAX WITHHOLDING

B. The Corporation’s obligation to deliver shares of Common Stock upon the exercise, vesting or payment of Awards under the Plan shall be subject to the satisfaction of all applicable income and employment tax withholding requirements.

C. The Plan Administrator may, in its discretion, provide any or all holders of Awards under the Plan with the right to use shares of Common Stock in satisfaction of all or part of the Withholding Taxes to which such holders may become subject in connection with the exercise, vesting or payment of their Awards. Such right may be provided to any such holder in either or both of the following formats:

D. Stock Withholding: The election to have the Corporation withhold, from the shares of Common Stock otherwise issuable upon the exercise, vesting or payment of such Award, a portion of those shares with an aggregate Fair Market Value equal to the minimum required percentage of the Withholding Taxes.

Stock Delivery: The election to deliver to the Corporation, at the time the Award is exercised, vests or is paid, one or more shares of Common Stock previously acquired by such holder

(other than in connection with the exercise, vesting or payment triggering the Withholding Taxes) and held for at least six (6) months (or such other period determined by the Plan Administrator) with an aggregate Fair Market Value equal to the percentage of the Withholding Taxes (not to exceed one hundred percent (100%)) designated by the holder.

E. Notwithstanding any other provision of the Plan, the number of shares of Common Stock which may be withheld or delivered by the Participant in order to satisfy the Withholding Taxes with respect to the exercise, vesting or payment of an Award shall be limited to the number of shares of Common Stock which have a Fair Market Value on the date of withholding or delivery equal to the aggregate amount of such Withholding Taxes based on the minimum statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income or such higher rate as may be approved by the Plan Administrator (which rates shall in no event exceed the maximum individual statutory tax rate in the applicable jurisdiction at the time of such withholding (or such other rate as may be required to avoid the liability classification of the applicable award under generally accepted accounting principles in the United States of America)); *provided, however*, unless otherwise approved by the Plan Administrator, to the extent such shares of Common Stock were acquired by the Participant from the Corporation as compensation, the shares of Common Stock must have been held for the minimum period required by applicable accounting rules to avoid a charge to the Corporation's earnings for financial reporting purposes; *provided, further*, that the number of shares of Common Stock withheld or delivered shall be rounded up to the nearest whole share sufficient to cover the Withholding Taxes to the extent rounding up to the nearest whole share does not result in the liability classification of the applicable Award under generally accepted accounting principles in the United States of America.

II. EFFECTIVE DATE AND TERM OF THE PLAN

A. This Plan became effective on the date it was adopted by the Board.

B. The Plan shall remain in effect until the earliest to occur of (i) the termination of the Plan by the Board or the Committee, or (ii) the termination of all outstanding options in connection with a Change in Control. In the event of the termination of the Plan, then all option grants and unvested stock issuances outstanding at that time shall continue to have force and effect in accordance with the provisions of the documents evidencing such grants or issuances.

III. AMENDMENT OF THE PLAN

The Board or the Committee shall have complete and exclusive power and authority to amend or modify the Plan in any or all respects. However, no such amendment or modification shall adversely affect the rights and obligations with respect to Awards at the time outstanding under the Plan unless the Optionee or the Participant consents to such amendment or modification. In addition, certain amendments may require stockholder approval pursuant to applicable laws or regulations. Except as permitted by Article One, Section V, Article Two, Section II or Article Four, Section V in connection with a transaction specified in Article One, Section V.D or V.E (including, without limitation, any Change in Control, Hostile Take-Over, stock dividend, stock split, extraordinary cash dividend, recapitalization, combination of shares or exchange of shares), the terms of outstanding Awards may not be amended to reduce the exercise price of outstanding options or stock appreciation rights or cancel, exchange, substitute, buyout or surrender outstanding options or stock appreciation rights in exchange for cash, other Awards or options or stock appreciation rights with an exercise price that is less than the exercise price of the original options or stock appreciation rights without stockholder approval.

IV. STOCKHOLDER APPROVAL NOT REQUIRED

It is expressly intended that the approval of the Corporation's stockholders not be required as a condition of the effectiveness of the Plan, and the Plan's provisions shall be interpreted in a manner consistent with such intent for all purposes. Specifically, Nasdaq Stock Market Rule 5635(c) generally requires stockholder approval for stock option plans or other equity compensation arrangements adopted by companies whose securities are listed on the Nasdaq Stock Market pursuant to which stock awards or stock may be acquired by officers, directors, employees or consultants of such companies.
Nasdaq Stock

Market Rule 5635(c)(4) provides an exemption in certain circumstances for “employment inducement” awards (within the meaning of Nasdaq Stock Market Rule 5635(c)(4)). Notwithstanding anything to the contrary herein, if the Corporation’s securities are traded on the Nasdaq Stock Market, then Awards under the Plan may only be made to Employees who have not previously been an Employee or director of the Corporation or an affiliate, or following a bona fide period of non-employment by the Corporation or an affiliate, in each case as an inducement material to the Employee’s entering into employment with the Corporation or an affiliate. Awards under the Plan will be approved by the Plan Administrator. Accordingly, pursuant to Nasdaq Stock Market Rule 5635(c)(4), the issuance of Awards and the Common Stock issuable upon exercise or vesting of such Awards pursuant to the Plan are not subject to the approval of the Corporation’s stockholders.

V. USE OF PROCEEDS

Any cash proceeds received by the Corporation from the sale of shares of Common Stock under the Plan shall be used for general corporate purposes.

VI. REGULATORY APPROVALS

A. The implementation of the Plan, the granting of any Award under the Plan and the issuance of any shares of Common Stock under the Plan shall be subject to the Corporation’s procurement of all approvals and permits required by regulatory authorities having jurisdiction over the Plan, the Awards granted under it and the shares of Common Stock issued pursuant to it.

B. No shares of Common Stock or other assets shall be issued or delivered under the Plan unless and until there shall have been compliance with all applicable requirements of applicable securities laws, including the filing and effectiveness of the Form S-8 registration statement for the shares of Common Stock issuable under the Plan, and all applicable listing requirements of any stock exchange (or the Nasdaq Global Market, if applicable) on which Common Stock is then listed for trading.

C. All stock certificates delivered pursuant to the Plan are subject to any stop-transfer orders and other restrictions as the Plan Administrator deems necessary or advisable to comply with federal, state, or foreign jurisdiction, securities or other laws, rules and regulations and the rules of any national securities exchange or automated quotation system on which the Common Stock is listed, quoted, or traded. The Plan Administrator may place legends on any stock certificate to reference restrictions applicable to the Common Stock. In addition to the terms and conditions provided herein, the Board may require that an Optionee or Participant make such reasonable covenants, agreements, and representations as the Board, in its discretion, deems advisable in order to comply with any such laws, regulations, or requirements. The Plan Administrator shall have the right to require any Optionee or Participant to comply with any timing or other restrictions with respect to the settlement or exercise of any Award, including a window-period limitation, as may be imposed in the discretion of the Plan Administrator.

D. Notwithstanding any other provision of the Plan, unless otherwise determined by the Plan Administrator or required by any applicable law, rule or regulation, the Corporation shall not deliver to any Optionee or Participant certificates evidencing shares of Common Stock issued in connection with any award and instead such shares of Common Stock shall be recorded in the books of the Corporation (or, as applicable, its transfer agent or stock plan administrator).

E. In the event that the Corporation establishes, for itself or using the services of a third party, an automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, then the paperless documentation, granting or exercise of Awards by an Optionee or a Participant may be permitted through the use of such an automated system.

VII. NO EMPLOYMENT/SERVICE RIGHTS

Nothing in the Plan shall confer upon the Optionee or the Participant any right to continue in Service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Corporation (or any Parent or Subsidiary employing or retaining such person) or of the Optionee or

the Participant, which rights are hereby expressly reserved by each, to terminate such person's Service at any time for any reason, with or without cause.

VIII. COMPLIANCE WITH SECTION 409A OF THE CODE

To the extent that the Plan Administrator determines that any Award granted under the Plan is subject to Section 409A of the Code, the agreement evidencing such Award shall incorporate the terms and conditions required by Section 409A of the Code. To the extent applicable, the Plan and Award agreements shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the adoption of the Plan. Notwithstanding any provision of the Plan to the contrary, in the event that following the adoption of the Plan the Plan Administrator determines that any Award may be subject to Section 409A of the Code and related Department of Treasury guidance (including such Department of Treasury guidance as may be issued after the adoption of the Plan), the Plan Administrator may adopt such amendments to the Plan and the applicable Award agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Plan Administrator determines are necessary or appropriate to (a) exempt the Award from Section 409A of the Code and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (b) comply with the requirements of Section 409A of the Code and related Department of Treasury guidance.

IX. FORFEITURE AND CLAW-BACK PROVISIONS

C. Pursuant to its general authority to determine the terms and conditions applicable to Awards under the Plan, the Plan Administrator shall have the right to provide, in the terms of Awards made under the Plan, or to require a participant to agree by separate written or electronic instrument, that: (1) any proceeds, gains or other economic benefit actually or constructively received by the participant upon any receipt or exercise of the Award, or upon the receipt or resale of any shares underlying the Award, must be paid to the Corporation, and (2) the Award shall terminate and any unexercised portion of the Award (whether or not vested) shall be forfeited, if (i) a termination of Service occurs prior to a specified date, or within a specified time period following receipt or exercise of the Award, (ii) the participant at any time, or during a specified time period, engages in any activity in competition with the Corporation, or which is inimical, contrary or harmful to the interests of the Corporation, as further defined by the Plan Administrator or (iii) the participant incurs a termination of Service for Misconduct; and

D. All Awards (including any proceeds, gains or other economic benefit actually or constructively received by a participant upon any receipt or exercise of any Award or upon the receipt or resale of any shares underlying the Award) shall be subject to the applicable provisions of any claw-back policy implemented by the Corporation, whether implemented prior to or after the grant of such Award, including without limitation, any claw-back policy adopted to comply with the requirements of applicable law, including without limitation, the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, to the extent set forth in such claw-back policy and/or in the applicable Award agreement.

APPENDIX

The following definitions shall be in effect under the Plan:

- A. AWARD shall mean an option, stock issuance award, stock appreciation right award, restricted stock unit award or dividend equivalent award granted pursuant to the Plan.
- B. BOARD shall mean the Corporation's Board of Directors.
- C. CHANGE IN CONTROL shall mean a change in ownership or control of the Corporation effected through any of the following transactions:
- (i) a merger, consolidation or other reorganization approved by the Corporation's stockholders, unless securities representing more than fifty percent (50%) of the total combined voting power of the voting securities of the successor corporation are immediately thereafter beneficially owned, directly or indirectly and in substantially the same proportion, by the persons who beneficially owned the Corporation's outstanding voting securities immediately prior to such transaction, or
 - (ii) the sale, transfer or other disposition of all or substantially all of the Corporation's assets in complete liquidation or dissolution of the Corporation, or
 - (iii) the acquisition, directly or indirectly by any person or related group of persons (other than the Corporation or a person that directly or indirectly controls, is controlled by, or is under common control with, the Corporation), of beneficial ownership (within the meaning of Rule 13d-3 of the 1934 Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities pursuant to a tender or exchange offer made directly to the Corporation's stockholders.
- A. CODE shall mean the Internal Revenue Code of 1986, as amended.
- B. COMMITTEE shall mean the Corporation's Human Capital Management and Compensation Committee, which shall consist solely of two or more Independent Directors appointed and holding office at the pleasure of the Board, each of whom is intended to qualify as a "non-employee" director as defined by Rule 16b-3 of the Exchange Act and an "independent director" under the rules of any securities exchange or automated quotation system on which the Common Stock are listed, quoted or traded, in each case, to the extent required under such provision.
- C. COMMON STOCK shall mean the Corporation's common stock.
- D. CORPORATION shall mean Ligand Pharmaceuticals Incorporated, a Delaware corporation, and any corporate successor to all or substantially all of the assets or voting stock of Ligand Pharmaceuticals Incorporated which shall by appropriate action adopt the Plan.
- E. DISCRETIONARY OPTION GRANT PROGRAM shall mean the discretionary option grant program in effect under Article Two of the Plan.
- F. EFFECTIVE DATE shall mean the date the Plan is approved by the Board.
- G. ELIGIBLE INDIVIDUAL shall mean any prospective Employee who has not previously been an Employee or director of the Corporation, Parent, Subsidiary or any of their affiliates, or who is commencing employment with the Corporation, Parent, Subsidiary or any of their affiliates, as applicable, following a bona fide period of non-employment by the Corporation, Parent, Subsidiary or any of their affiliates, if he or she is granted an Award in connection with his or her commencement of employment with the Corporation, Parent, Subsidiary or any of their affiliates, as applicable, and such grant is an inducement material to his or her entering into employment with the Corporation, Parent, Subsidiary or any of their affiliates, as applicable, (within the meaning of Nasdaq Stock Market Rule IM-5636-1 or any successor rule, if the Corporation's securities are traded on the Nasdaq Stock Market, and/or the

applicable requirements of any other established stock exchange on which the Corporation's securities are traded, as applicable, as such rules and requirements may be amended from time to time). The Plan Administrator may in its discretion adopt procedures from time to time to ensure that a prospective Employee is eligible to participate in the Plan prior to the granting of any Awards to such individual under the Plan (including without limitation a requirement that each such prospective Employee certify to the Corporation prior to the receipt of an Award under the Plan that he or she has not been previously employed by the Corporation, Parent, Subsidiary or any of their affiliates, or if previously employed, has had a bona fide period of non-employment, and that the grant of Awards under the Plan is an inducement material to his or her agreement to enter into employment with the Corporation, Parent, Subsidiary or any of their affiliates, as applicable).

H. EMPLOYEE shall mean an individual who is in the employ of the Corporation (or any Parent or Subsidiary), subject to the control and direction of the employer entity as to both the work to be performed and the manner and method of performance.

I. EXERCISE DATE shall mean the date on which the Corporation shall have received written notice of the option exercise.

J. FAIR MARKET VALUE per share of Common Stock on any relevant date shall be determined in accordance with the following provisions:

(i) If the Common Stock is at the time traded on the Nasdaq Global Market, then the Fair Market Value shall be the closing selling price per share of Common Stock on the date in question, as such price is reported by the National Association of Securities Dealers on the Nasdaq Global Market and published in The Wall Street Journal. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

(ii) If the Common Stock is at the time listed for trading on any stock exchange, then the Fair Market Value shall be the closing selling price per share of Common Stock on the date in question on the stock exchange determined by the Plan Administrator to be the primary market for the Common Stock, as such price is officially quoted in the composite tape of transactions on such exchange and published in The Wall Street Journal. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

K. HOSTILE TAKE-OVER shall mean a change in ownership or control of the Corporation effected through either of the following transactions:

(iv) a change in the composition of the Board over a period of thirty-six (36) consecutive months or less such that a majority of the Board members ceases, by reason of one or more contested elections for Board membership, to be comprised of individuals who either (A) have been Board members continuously since the beginning of such period or (B) have been elected or nominated for election as Board members during such period by at least a majority of the Board members described in clause (A) who were still in office at the time the Board approved such election or nomination, or

(v) a Hostile Tender-Offer.

L. HOSTILE TENDER-OFFER shall mean the acquisition, directly or indirectly, by any person or related group of persons (other than the Corporation or a person that directly or indirectly controls, is controlled by, or is under common control with, the Corporation) of beneficial ownership (within the meaning of Rule 13d-3 of the 1934 Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities pursuant to a tender or exchange offer made directly to the Corporation's stockholders which the Board does not recommend such stockholders to accept.

M. INDEPENDENT DIRECTOR shall mean a director of the Corporation who is not an Employee of the Corporation or an affiliate and who qualifies as "independent" within the meaning of

NASDAQ Stock Market Rule 5605(a)(2), or any successor rule, if the Corporation's securities are traded on the NASDAQ Stock Market, and/or the applicable requirements of any other established stock exchange on which the Corporation's securities are traded, as applicable, as such rules and requirements may be amended from time to time.

N. INVOLUNTARY TERMINATION shall mean the termination of the Service of any individual which occurs by reason of:

(iii) such individual's involuntary dismissal or discharge by the Corporation for reasons other than Misconduct, or

(iv) such individual's voluntary resignation following (A) a change in his or her position with the Corporation which materially reduces his or her duties and responsibilities or the level of management to which he or she reports, (B) a reduction in his or her level of compensation (including base salary, fringe benefits and target bonus under any corporate-performance based bonus or incentive programs) by more than fifteen percent (15%) or (C) a relocation of such individual's place of employment by more than fifty (50) miles, *provided* and only if such change, reduction or relocation is effected by the Corporation without the individual's consent.

O. MISCONDUCT shall mean the commission of any act of fraud, embezzlement or dishonesty by the Optionee or Participant, any unauthorized use or disclosure by such person of confidential information or trade secrets of the Corporation (or any Parent or Subsidiary), or any other intentional misconduct by such person adversely affecting the business or affairs of the Corporation (or any Parent or Subsidiary) in a material manner. The foregoing definition shall not in any way preclude or restrict the right of the Corporation (or any Parent or Subsidiary) to discharge or dismiss any Optionee, Participant or other person in the Service of the Corporation (or any Parent or Subsidiary) for any other acts or omissions, but such other acts or omissions shall not be deemed, for purposes of the Plan, to constitute grounds for termination for Misconduct.

P. 1934 ACT shall mean the Securities Exchange Act of 1934, as amended.

Q. NON-STATUTORY OPTION shall mean an option not intended to satisfy the requirements of Code Section 422.

R. OPTIONEE shall mean any person to whom an option is granted under the Discretionary Option Grant Program.

S. OTHER STOCK AWARD PROGRAM shall mean the discretionary stock award grant program in effect under Article Four of the Plan.

T. PARENT shall mean any corporation (other than the Corporation) in an unbroken chain of corporations ending with the Corporation, *provided* each corporation in the unbroken chain (other than the Corporation) owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

U. PARTICIPANT shall mean any Eligible Individual who is issued an Award under the Plan other than an option.

V. PERMANENT DISABILITY OR PERMANENTLY DISABLED shall mean the inability of the Optionee or the Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment expected to result in death or to be of continuous duration of twelve (12) months or more.

W. PLAN shall mean the Corporation's 2022 Employment Inducement Plan, as set forth in this document.

X. PLAN ADMINISTRATOR shall mean the particular entity that conducts the general administration of the Plan as provided in Article One, Section III hereof.

Y. SERVICE shall mean the performance of services for the Corporation (or any Parent or Subsidiary) by a person in the capacity of an Employee, a non-employee member of the board of directors or a consultant or independent advisor, except to the extent otherwise specifically provided in the documents evidencing the option grant or stock issuance.

Z. STOCK ISSUANCE AGREEMENT shall mean the agreement entered into by the Corporation and the Participant at the time of issuance of shares of Common Stock under the Stock Issuance Program.

AA. STOCK ISSUANCE PROGRAM shall mean the stock issuance program in effect under Article Three of the Plan.

AB. SUBSIDIARY shall mean any corporation (other than the Corporation) in an unbroken chain of corporations beginning with the Corporation, *provided* each corporation (other than the last corporation) in the unbroken chain owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

AC. WITHHOLDING TAXES shall mean the applicable income and employment withholding taxes to which the holder of Non-Statutory Options or unvested shares of Common Stock may become subject in connection with the exercise of those options or the vesting of those shares.

**LIGAND PHARMACEUTICALS INCORPORATED
2022 EMPLOYMENT INDUCEMENT PLAN**

NOTICE OF GRANT OF STOCK OPTION

Ligand Pharmaceuticals Incorporated, a Delaware corporation (the “Corporation”), pursuant to its 2022 Employment Inducement Plan (the “Plan”), hereby grants to the holder listed below (“Optionee”) a stock option to purchase the number of shares (“Shares”) of Common Stock of the Corporation set forth below (the “Option”). This Option is subject to all of the terms and conditions as set forth in this Notice of Grant of Stock Option Grant (the “Grant Notice”) and the Stock Option Agreement (the “Stock Option Agreement”) attached hereto as Exhibit A, and the Plan, each of which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Stock Option Agreement.

Optionee: _____

Grant Number: _____

Grant Date: _____

Vesting Commencement Date: _____

Exercise Price: \$ _____

Number of Option Shares: _____

Expiration Date: _____

Type of Option: Non-Statutory Option

Exercise Schedule: The Option will vest as follows, subject to Optionee’s continued Service through each such vesting date:

Shares	Vest Type	Full Vest

Optionee understands and agrees that the Option is granted subject to and in accordance with the terms of the Plan. By electronically accepting this Option, Optionee further agrees to be bound by the terms of the Plan and the terms of the Option as set forth in the Stock Option Agreement attached hereto as Exhibit A. Optionee hereby acknowledges that he or she has been provided with a copy or electronic access to the Plan and the prospectus for the Plan. A printed copy of the Plan and/or prospectus is available upon request made to the Secretary of the Corporation at the Corporation’s principal offices.

Employment at Will. Nothing in this Grant Notice, in the attached Stock Option Agreement or in the Plan shall confer upon Optionee any right to continue in Service for any period of specific duration or

interfere with or otherwise restrict in any way the rights of the Corporation (or any Parent or Subsidiary employing or retaining Optionee) or of Optionee, which rights are hereby expressly reserved by each, to terminate Optionee’s Service at any time for any reason, with or without cause.

Definitions. All capitalized terms in this Grant Notice shall have the meaning assigned to them in this Grant Notice or in the attached Stock Option Agreement.

By accepting Optionee’s signature below, Optionee agrees to be bound by the terms and conditions of this Grant Notice, the Stock Option Agreement and the Plan. Optionee has reviewed this Grant Notice, the Stock Option Agreement and the Plan in their entirety, has had an opportunity to obtain the advice of counsel prior to executing the Grant Notice and fully understands all provisions of this Grant Notice, the Stock Option Agreement and the Plan. Optionee hereby agrees to accept as binding, conclusive and final all decision and interpretations of the Plan Administrator upon any questions arising under this Grant Notice, the Stock Option Agreement and the Plan.

LIGAND PHARMACEUTICALS INCORPORATED

By:
Print Name:
Title:

OPTIONEE

By:
Print Name:

||
|

EXHIBIT A
LIGAND PHARMACEUTICALS INCORPORATED
STOCK OPTION AGREEMENT

RECITALS

A. The Board has adopted the Plan as an incentive for Eligible Individuals (as defined in the Plan) to commence and remain in service to the Corporation (or a Parent or Subsidiary).

B. In consideration of Optionee's agreement to commence employment with and remain in the employ of the Corporation (or a Parent or Subsidiary), and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice, the Corporation has granted to Optionee an Option to purchase the Shares set forth in the Grant Notice.

C. Optionee is to render valuable services to the Corporation (or a Parent or Subsidiary), and this Agreement is executed pursuant to, and is intended to carry out the purposes of, the Plan in connection with the Corporation's grant of an Option to Optionee.

D. All capitalized terms in this Agreement shall have the meaning assigned to them in the attached Appendix.

NOW, THEREFORE, it is hereby agreed as follows:

1. **GRANT OF OPTION.** The Corporation hereby grants to Optionee, as of the Grant Date, an Option to purchase up to the number of Option Shares specified in the Grant Notice. The Option Shares shall be purchasable from time to time during the Option term specified in Paragraph 2 at the Exercise Price.

(a) The Option is intended to constitute an "employment inducement grant" under NASDAQ Listing Rule 5635(c)(4), and consequently is intended to be exempt from the NASDAQ rules regarding stockholder approval of stock option and stock purchase plans. This Agreement and the terms and conditions of the Option shall be interpreted in accordance and consistent with such exemption.

2. **OPTION TERM.** This Option shall have a maximum term of ten (10) years measured from the Grant Date and shall accordingly expire at the close of business on the Expiration Date, unless sooner terminated in accordance with Paragraph 5 or 6.

3. **LIMITED TRANSFERABILITY.**

(b) This Option shall be neither transferable nor assignable by Optionee other than by will or the laws of inheritance following Optionee's death and may be exercised, during Optionee's lifetime, only by Optionee. However, Optionee may designate one or more persons as the beneficiary or beneficiaries of this Option, and this Option shall, in accordance with such designation, automatically be transferred to such beneficiary or beneficiaries upon the Optionee's death while holding this Option. Such beneficiary or beneficiaries shall take the transferred Option subject to all the terms and conditions of this Agreement, including (without limitation) the limited time period during which this Option may, pursuant to Paragraph 5, be exercised following Optionee's death.

(c) This Option may be assigned in whole or in part during Optionee's lifetime to one or more members of Optionee's family or to a trust established for the exclusive benefit of one or more such family members or to Optionee's former spouse, to the extent such assignment is in connection with the Optionee's estate plan or pursuant to a domestic relations order. The assigned portion shall be exercisable only by the person or persons who acquire a proprietary interest in the Option pursuant to such assignment. The terms applicable to the assigned portion shall be the same as those in effect for this Option immediately prior to such assignment.

4. **DATES OF EXERCISE.** This Option shall become exercisable for the Option Shares in one or more installments as specified in the Grant Notice. As the Option becomes exercisable for such installments, those installments shall accumulate, and the Option shall remain exercisable for the accumulated installments until the Expiration Date or sooner termination of the Option term under Paragraph 5 or 6.

5. CESSATION OF SERVICE. The Option term specified in Paragraph 2 shall terminate (and this Option shall cease to be outstanding) prior to the Expiration Date should any of the following provisions become applicable:

(a) Should Optionee cease to remain in Service for any reason (other than death or Permanent Disability) while this Option is outstanding, then Optionee (or any person or persons to whom this Option is transferred pursuant to a permitted transfer under Paragraph 3) shall have a period of three (3) months (commencing with the date of such cessation of Service) during which to exercise this Option, but in no event shall this Option be exercisable at any time after the Expiration Date.

(b) Should Optionee die while this Option is outstanding, then the personal representative of Optionee's estate or the person or persons to whom the Option is transferred pursuant to Optionee's will or the laws of inheritance following Optionee's death or to whom the Option is transferred during Optionee's lifetime pursuant to a permitted transfer under Paragraph 3 shall have the right to exercise this Option. However, if Optionee dies while holding this Option and has an effective beneficiary designation in effect for this Option at the time of his or her death, then the designated beneficiary or beneficiaries shall have the exclusive right to exercise this Option following Optionee's death. Any such right to exercise this Option shall lapse, and this Option shall cease to be outstanding, upon the earlier of (i) the expiration of the twelve (12)-month period measured from the date of Optionee's death or (ii) the Expiration Date.

(c) Should Optionee cease Service by reason of Permanent Disability while this Option is outstanding, then Optionee (or any person or persons to whom this Option is transferred pursuant to a permitted transfer under Paragraph 3) shall have a period of twelve (12) months (commencing with the date of such cessation of Service) during which to exercise this Option. In no event shall this Option be exercisable at any time after the Expiration Date.

(d) During the limited period of post-Service exercisability, this Option may not be exercised in the aggregate for more than the number of Option Shares for which the Option is exercisable at the time of Optionee's cessation of Service. Upon the expiration of such limited exercise period or (if earlier) upon the Expiration Date, this Option shall terminate and cease to be outstanding for any exercisable Option Shares for which the Option has not been exercised. However, this Option shall, immediately upon Optionee's cessation of Service for any reason, terminate and cease to be outstanding with respect to any Option Shares for which this Option is not otherwise at that time exercisable.

6. SPECIAL ACCELERATION OF OPTION.

(d) This Option, to the extent outstanding at the time of a Change in Control but not otherwise fully exercisable, shall automatically accelerate so that this Option shall, immediately prior to the effective date of such Change in Control, become exercisable for all of the Option Shares at the time subject to this Option and may be exercised for any or all of those Option Shares as fully vested shares of Common Stock. However, this Option shall not become exercisable on such an accelerated basis, if and to the extent: (i) this Option is to be assumed by the successor corporation (or parent thereof) or is otherwise to be continued in full force and effect pursuant to the terms of the Change in Control transaction or (ii) this Option is to be replaced with a cash incentive program of the successor corporation which preserves the spread existing at the time of the Change in Control on any Option Shares for which this Option is not otherwise at that time exercisable (the excess of the Fair Market Value of those Option Shares over the aggregate Exercise Price payable for such shares) and provides for subsequent payout of that spread in accordance with the same Option exercise/vesting schedule for those Option Shares set forth in the Grant Notice.

(e) Immediately following the Change in Control, this Option shall terminate and cease to be outstanding, except to the extent assumed by the successor corporation (or parent thereof) or otherwise continued in effect pursuant to the terms of the Change in Control transaction.

(f) If this Option is assumed in connection with a Change in Control or otherwise continued in effect, then this Option shall be appropriately adjusted, immediately after such Change in Control, to apply to the number and class of securities which would have been issuable to Optionee in consummation of such Change in Control had the Option been exercised immediately prior to such Change in Control, and appropriate adjustments shall also be made to the Exercise Price, provided the aggregate Exercise Price shall remain the same. To the extent the actual holders of the Corporation's outstanding Common Stock receive cash consideration for their Common Stock in consummation of the Change in Control, the successor corporation may, in connection with the assumption of this Option, substitute one or more shares of its own common stock with a fair market value equivalent to the cash consideration paid per share of Common Stock in such Change in Control.

(g) This Agreement shall not in any way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

7. ADJUSTMENT IN OPTION SHARES. The Option shall be subject to adjustment as provided in Article One, Section V of the Plan.

1. STOCKHOLDER RIGHTS. The holder of this Option shall not have any stockholder rights with respect to the Option Shares until such person shall have exercised the Option, paid the Exercise Price and become a holder of record of the purchased shares.

8. MANNER OF EXERCISING OPTION.

(h) In order to exercise this Option with respect to all or any part of the Option Shares for which this Option is at the time exercisable, Optionee (or any other person or persons exercising the Option) must take the following actions:

(i) Execute and deliver to the Corporation a Notice of Exercise for the Option Shares for which the Option is exercised.

(ii) Pay the aggregate Exercise Price for the purchased shares in one or more of the following forms:

(A) cash or check made payable to the Corporation (includes cash paid from Optionee's brokerage pursuant to a presale of shares in a so-called "cashless" exercise);

(B) subject to the consent of the Plan Administrator, shares of Common Stock held by Optionee (or any other person or persons exercising the Option) for the requisite period necessary to avoid a charge to the Corporation's earnings for financial reporting purposes and valued at Fair Market Value on the Exercise Date;

(C) shares of Common Stock issuable upon the exercise of the Option having a Fair Market Value on the Exercise Date equal to the aggregate exercise price of the Option Shares with respect to which the Option or portion thereof is being exercised; or

(D) through a special sale and remittance procedure pursuant to which Optionee (or any other person or persons exercising the Option) shall concurrently provide irrevocable instructions (i) to a brokerage firm to effect the immediate sale of the purchased shares and remit to the Corporation, out of the sale proceeds available on the settlement date, sufficient funds to cover the aggregate Exercise Price payable for the purchased shares plus all applicable income and employment taxes required to be withheld by the Corporation by reason of such exercise and (ii) to the Corporation to deliver the certificates for the purchased shares directly to such brokerage firm in order to complete the sale.

Except to the extent the sale and remittance procedure is utilized in connection with the Option exercise, payment of the Exercise Price must accompany the Notice of Exercise delivered to the Corporation in connection with the Option exercise.

(iii) Furnish to the Corporation appropriate documentation that the person or persons exercising the Option (if other than Optionee) have the right to exercise this Option.

(iv) Make appropriate arrangements with the Corporation (or Parent or Subsidiary employing or retaining Optionee) for the satisfaction of all applicable income and employment tax withholding requirements applicable to the Option exercise, which amounts may be paid in on or more of the forms of consideration permitted under clause (ii) above, subject to Article Six, Section I of the Plan and any required consent of the Plan Administrator under clause (ii) above. To the extent any employment tax withholding will be satisfied by Optionee pursuant to clause (B) or (C) under clause (ii) above, the shares to be surrendered to the Corporation or withheld from the shares of Common Stock otherwise issuable upon the exercise shall be limited to those shares with a Fair Market Value not exceeding the amount necessary to satisfy the tax withholding obligation of the Corporation with respect to the exercise of the Option based on the minimum applicable statutory withholding rates.

(i) As soon as practical after the Exercise Date, the Corporation shall issue to or on behalf of Optionee (or any other person or persons exercising this Option) a certificate for the purchased Option Shares, with the appropriate legends affixed thereto.

(j) In no event may this Option be exercised for any fractional shares.

9. COMPLIANCE WITH LAWS AND REGULATIONS.

(a) The exercise of this Option and the issuance of the Option Shares upon such exercise shall be subject to compliance by the Corporation and Optionee with all applicable requirements of law relating thereto and with all applicable regulations of any stock exchange (including The Nasdaq Stock Market, if applicable) on which the Common Stock may be listed for trading at the time of such exercise and issuance.

(b) The inability of the Corporation to obtain approval from any regulatory body having authority deemed by the Corporation to be necessary to the lawful issuance and sale of any Common Stock pursuant to this Option shall relieve the Corporation of any liability with respect to the non-issuance or sale of the Common Stock as to which such approval shall not have been obtained. The Corporation, however, shall use its best efforts to obtain all such approvals.

10. SUCCESSORS AND ASSIGNS. Except to the extent otherwise provided in Paragraphs 3 and 6, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the Corporation and its successors and assigns and Optionee, Optionee's assigns, the legal representatives, heirs and legatees of Optionee's estate and any beneficiaries of this Option designated by Optionee.

11. NOTICES. Any notice required to be given or delivered to the Corporation under the terms of this Agreement shall be in writing and addressed to the Corporation at its principal corporate offices. Any notice required to be given or delivered to Optionee shall be in writing and addressed to Optionee at the most recent address for Optionee on the Corporation's payroll records. All notices shall be deemed effective upon personal delivery or upon deposit in the U.S. mail, postage prepaid and properly addressed to the party to be notified.

1. CONSTRUCTION. This Agreement and the Option evidenced hereby are made and granted pursuant to the Plan and are in all respects limited by and subject to the terms of the Plan. All decisions of the Plan Administrator with respect to any question or issue arising under the Plan, the Option, the Grant Notice or this Agreement shall be conclusive and binding on all persons having an interest in this Option.

2. GOVERNING LAW. The interpretation, performance and enforcement of this Agreement shall be governed by the laws of the State of California without resort to that State's conflict-of-laws rules.

APPENDIX

The following definitions shall be in effect under the Agreement:

- A. AGREEMENT shall mean this Stock Option Agreement.
- B. BOARD shall mean the Corporation's Board of Directors.
- C. CHANGE IN CONTROL shall mean a change in ownership or control of the Corporation effected through any of the following transactions:
 - (i) a merger, consolidation or other reorganization approved by the Corporation's stockholders, unless securities representing more than fifty percent (50%) of the total combined voting power of the voting securities of the successor corporation are immediately thereafter beneficially owned, directly or indirectly and in substantially the same proportion, by the persons who beneficially owned the Corporation's outstanding voting securities immediately prior to such transaction, or
 - (ii) the sale, transfer or other disposition of all or substantially all of the Corporation's assets in complete liquidation or dissolution of the Corporation, or
 - (iii) the acquisition, directly or indirectly by any person or related group of persons (other than the Corporation or a person that directly or indirectly controls, is controlled by, or is under common control with, the Corporation), of beneficial ownership (within the meaning of Rule 13d-3 of the 1934 Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities pursuant to a tender or exchange offer made directly to the Corporation's stockholders.
- E. COMMON STOCK shall mean shares of the Corporation's common stock.
- F. CODE shall mean the Internal Revenue Code of 1986, as amended.
- G. CORPORATION shall mean Ligand Pharmaceuticals Incorporated, a Delaware corporation, and any successor corporation to all or substantially all of the assets or voting stock of Ligand Pharmaceuticals Incorporated which shall by appropriate action adopt the Plan.
- H. EMPLOYEE shall mean an individual who is in the employ of the Corporation (or any Parent or Subsidiary), subject to the control and direction of the employer entity as to both the work to be performed and the manner and method of performance.
- I. EXERCISE DATE shall mean the date on which the Option shall have been exercised in accordance with Paragraph 9 of the Agreement.
- J. EXERCISE PRICE shall mean the exercise price per Option Share as specified in the Grant Notice.
- K. EXPIRATION DATE shall mean the date on which the Option expires as specified in the Grant Notice.
- L. FAIR MARKET VALUE per share of Common Stock on any relevant date shall be determined in accordance with the following provisions:
 - (i) If the Common Stock is at the time traded on The Nasdaq Stock Market, then the Fair Market Value shall be deemed equal to the closing selling price per share of Common Stock on the date in question, as the price is reported by the National Association of Securities Dealers on The Nasdaq Stock Market and published in The Wall Street Journal. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists, or
 - (ii) If the Common Stock is at the time listed on any stock exchange, then the Fair Market Value shall be deemed equal to the closing selling price per share of Common Stock on the date in question on the stock exchange determined by the Plan Administrator to be the primary market for the Common Stock, as such price is officially quoted in the composite tape of transactions on such exchange and published in The Wall Street Journal. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.
- M. GRANT DATE shall mean the date of grant of the Option as specified in the Grant Notice.

N. GRANT NOTICE shall mean the Notice of Grant of Stock Option accompanying the Agreement, pursuant to which Optionee has been informed of the basic terms of the Option evidenced hereby.

O. NON-STATUTORY OPTION shall mean an option not intended to satisfy the requirements of Code Section 422.

P. NOTICE OF EXERCISE shall mean the notice of exercise in the form approved by the Plan Administrator from time to time.

Q. OPTION SHARES shall mean the number of shares of Common Stock subject to the Option as specified in the Grant Notice.

R. OPTIONEE shall mean the person to whom the Option is granted as specified in the Grant Notice.

S. PARENT shall mean any corporation (other than the Corporation) in an unbroken chain of corporations ending with the Corporation, provided each corporation in the unbroken chain (other than the Corporation) owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

T. PERMANENT DISABILITY shall mean the inability of Optionee to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which is expected to result in death or has lasted or can be expected to last for a continuous period of twelve (12) months or more.

U. PLAN shall mean the Corporation's 2022 Employment Inducement Plan, as may amended from time to time.

V. PLAN ADMINISTRATOR shall have the meaning set forth in the Plan.

W. SERVICE shall mean the Optionee's performance of services for the Corporation (or any Parent or Subsidiary) in the capacity of an Employee, a non-employee member of the board of directors or a consultant or independent advisor. Except to the extent otherwise required by law, no Service credit shall be given for vesting purposes hereunder for any period the Optionee is on a leave of absence.

X. SUBSIDIARY shall mean any corporation (other than the Corporation) in an unbroken chain of corporations beginning with the Corporation, provided each corporation (other than the last corporation) in the unbroken chain owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

LIGAND PHARMACEUTICALS INCORPORATED
2022 EMPLOYMENT INDUCEMENT PLAN
RESTRICTED STOCK UNIT GRANT NOTICE AND
RESTRICTED STOCK UNIT AGREEMENT

Ligand Pharmaceuticals Incorporated, a Delaware corporation (the “Corporation”), pursuant to its 2022 Employment Inducement Plan (the “Plan”), hereby grants to the holder listed below (“Participant”), an award of restricted stock units (“Restricted Stock Units” or “RSUs”) with respect to the number of shares of the Corporation’s common stock (the “Shares”). This award for Restricted Stock Units (this “RSU Award”) is subject to all of the terms and conditions as set forth herein and in the Restricted Stock Unit Award Agreement attached hereto as Exhibit A (the “Restricted Stock Unit Agreement”) and the Plan, each of which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Restricted Stock Unit Agreement.

Participant:	
Grant Date:	
Grant Number:	
Vesting Commencement Date:	
Total Number of RSUs Subject to Award:	
Distribution Schedule:	The RSUs shall be distributable as they vest pursuant to the Vesting Schedule.

Vesting Schedule:	Shares	Vest Date
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By his or her acceptance of this Restricted Stock Unit Grant, Participant agrees to be bound by the terms and conditions of the Plan, the Restricted Stock Unit Agreement and this Grant Notice. Participant has reviewed the Restricted Stock Unit Agreement, the Plan and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of this Grant Notice, the Restricted Stock Unit Agreement and the Plan. Participant has been provided with a copy or electronic access to a copy of the prospectus for the Plan. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Plan Administrator upon any questions arising under the Plan, this Grant Notice or the Restricted Stock Unit Agreement.

EXHIBIT A
TO RESTRICTED STOCK UNIT AWARD GRANT NOTICE
LIGAND PHARMACEUTICALS, INCORPORATED
RESTRICTED STOCK UNIT AWARD AGREEMENT

Pursuant to the Restricted Stock Unit Award Grant Notice (the “Grant Notice”) to which this Restricted Stock Unit Award Agreement (this “Agreement”) is attached, Ligand Pharmaceuticals Incorporated, a Delaware corporation (the “Corporation”), has granted to Participant the right to receive the number of RSUs under the Corporation’s 2022 Employment Inducement Plan (the “Plan”) indicated in the Grant Notice, with respect to the number of shares of the Corporation’s common stock (the “Stock”). The RSU Award and this Agreement are subject to the Plan, the terms and conditions of which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE I.

AWARD OF RESTRICTED STOCK UNITS

1.1 Award of Restricted Stock Units; Employment Inducement Award.

(a) Award. In consideration of Participant’s agreement to commence employment with and remain in the employ of the Corporation (or a Parent or Subsidiary), and for other good and valuable consideration, the Corporation hereby grants to Participant the right to receive the number of RSUs set forth in the Grant Notice, subject to all of the terms and conditions set forth in this Agreement, the Grant Notice and the Plan (the “RSU Award”). Each RSU represents the right to receive one Share. Prior to actual issuance of any Shares, the RSUs and the RSU Award represent an unsecured obligation of the Corporation, payable only from the general assets of the Corporation.

(i) The RSUs are intended to constitute an “employment inducement” award NASDAQ Listing Rule 5635(c)(4), and consequently are intended to be exempt from the NASDAQ rules regarding shareholder approval of stock option and stock purchase plans or other equity compensation arrangements. This Agreement and the terms and conditions of the RSUs shall be interpreted in accordance and consistent with such exemption.

(b) Vesting. The RSUs subject to the RSU Award shall vest in accordance with the Vesting Schedule set forth in the Grant Notice. Unless and until the RSUs have vested in accordance with the vesting schedule set forth in the Grant Notice, Participant will have no right to any distribution with respect to such RSUs. In the event of Participant’s cessation of Service for any reason, including as a result of Participant’s death or Permanent Disability, prior to the vesting of all of the RSUs, any unvested RSUs will terminate automatically without any further action by the Corporation and be forfeited without further notice and at no cost to the Corporation.

(c) Distribution of Stock.

(ii) Stock shall be distributed to Participant (or in the event of Participant’s death, to his or her estate) with respect to such Participant’s vested RSUs granted to Participant pursuant to this Restricted Stock Unit Agreement, subject to the terms and provisions of the Plan and this Restricted Stock Unit Agreement, within ten (10) days following each vesting date as the RSU vests pursuant to the Vesting Schedule set forth in the Grant Notice.

(iii) All distributions shall be made by the Corporation in the form of whole shares of Stock. In no event will fractional shares be issued upon settlement of the RSU Award. No fractional Shares shall be issued and any such fractional Shares shall be cancelled automatically and without any further action by Participant or the Corporation.

(iv) Notwithstanding the foregoing, shares of Stock shall be issuable pursuant to an RSU at such times and upon such events as are specified in this Agreement only to the extent issuance under such terms will not cause the RSUs or the shares of Stock issuable pursuant to the RSUs to be includible in the gross income of Participant under Section 409A of the Code prior to such times or the occurrence of such events, as permitted by the Code and the regulations and other guidance thereunder.

(a) Generally. Stock issued under the RSU Award shall be issued to Participant or Participant's beneficiaries, as the case may be, at the sole discretion of the Plan Administrator, in either (i) uncertificated form, with the Shares recorded in the name of Participant in the books and records of the Corporation's transfer agent with appropriate notations regarding the restrictions on transfer imposed pursuant to this Agreement; or (ii) certificate form.

1.2 Taxation Representations; Tax Withholding. Notwithstanding any other provision of this Agreement (including, without limitation, Section 1.1(b) hereof):

(d) Taxation Representations. Participant has reviewed with his or her own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Corporation or any of its agents. Participant understands that Participant (and not the Corporation) shall be responsible for his or her own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

(e) Tax Withholding Obligation. The Corporation shall not be obligated to deliver any certificate representing Shares issuable with respect to the RSUs to Participant or his or her legal representative unless and until Participant or his or her legal representative shall have paid or otherwise satisfied in full the amount of all federal, state, local and foreign taxes applicable with respect to the taxable income of Participant resulting from the vesting of the RSUs, the distribution of the Shares issuable with respect thereto, or any other taxable event related to the RSUs (the "Tax Withholding Obligation"), *provided* that no payment shall be delayed under this Section 1.2(b) if such delay will result in a violation of Section 409A of the Code. To the maximum extent permitted by applicable law, the Corporation and its Subsidiaries have the authority to deduct or withhold, or require Participant to remit to the Corporation or the applicable Subsidiary, an amount sufficient to satisfy the Tax Withholding Obligation.

(f) Withholding of Shares. With respect to any Tax Withholding Obligation arising in connection with the RSUs, the Corporation shall automatically withhold a net number of vested Shares otherwise issuable pursuant to the RSUs having a then current Fair Market Value not exceeding the amount necessary to satisfy the Tax Withholding Obligation of the Corporation and its Subsidiaries based on the minimum applicable statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income (or such higher rate as may be determined by the Plan Administrator, which higher rate shall in no event exceed the maximum individual statutory tax rate in the applicable jurisdiction at the time of such withholding (or such other rate as may be required to avoid the liability classification of the applicable award under generally accepted accounting principles in the United States of America)), *provided* that such Shares shall be rounded up to the nearest whole Share sufficient to cover the Tax Withholding Obligation to the extent rounding up to the nearest whole share does not result in the liability classification of the applicable Award under generally accepted accounting principles in the United States of America.

(d) Broker Sale. In the event any Tax Withholding Obligation arising in connection with the RSUs will be satisfied under Section 1.2(c), then the Corporation may, upon approval of the Plan Administrator, elect to instruct any brokerage firm determined acceptable to the Corporation for such purpose to sell on Participant's behalf a whole number of shares from those Shares then issuable to Participant pursuant to the RSUs as the Corporation determines to be appropriate to generate cash proceeds sufficient to satisfy the Tax Withholding Obligation and to remit the proceeds of such sale to the Corporation or the Subsidiary with respect to which the Tax Withholding Obligation arises. Participant's acceptance of this Award constitutes Participant's instruction and authorization to the Corporation and such brokerage firm to complete the transactions described in this Section 1.2(d), including the transactions described in the previous sentence, as applicable.

(e) Participant Liable for Taxes. Participant is ultimately liable and responsible for all taxes owed in connection with the RSUs, regardless of any action the Corporation or any Subsidiary takes with respect to any Tax Withholding Obligations that arise in connection with the RSUs. Neither the Corporation nor any Subsidiary makes any representation or undertaking regarding the treatment of any Tax Withholding Obligation in connection with the awarding, vesting or payment of the RSUs or the subsequent sale of Shares. The Corporation and the Subsidiaries do not commit and are under no obligation to structure the RSUs to reduce or eliminate Participant's tax liability.

1.3 Conditions to Issuance of Certificates. The Corporation shall not be required to issue or deliver any certificate or certificates for any Shares prior to the fulfillment of all of the following conditions: (a) the admission of the Shares to listing on all stock exchanges on which such Shares are then listed; (b) the completion of any registration or other qualification of the Shares under any state or federal law or under rulings or regulations of the U.S. Securities and Exchange Commission or other governmental regulatory body, which the Plan Administrator shall, in its sole and absolute discretion, deem necessary and advisable; (c) the obtaining of any approval or other clearance from any state or federal governmental agency that the Plan Administrator shall, in its absolute discretion, determine to be necessary or advisable; and (d) the lapse of any such reasonable period of time following the date the RSUs vest as the Plan Administrator may from time to time establish for reasons of administrative convenience.

ARTICLE II.

OTHER PROVISIONS

1.4 RSU Award and Interests Not Transferable. This RSU Award and the rights and privileges conferred hereby, including the RSUs awarded hereunder, shall not be liable for the debts, contracts or engagements of Participant or his successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect.

1.5 Rights as Shareholder. Neither the Participant nor any person claiming under or through the Participant shall have any of the rights or privileges of a shareholder of the Corporation in respect of any Shares issuable hereunder unless and until certificates representing such Shares (which may be in uncertificated form) will have been issued and recorded on the books and records of the Corporation or its transfer agents or registrars, and delivered to the Participant (including through electronic delivery to a brokerage account). After such issuance, recordation and delivery, the Participant shall have all the rights of a shareholder of the Corporation, including with respect to the right to vote the Shares and the right to receive any cash or share dividends or other distributions paid to or made with respect to the Shares; *provided, however*, that at the discretion of the Corporation, and prior to the delivery of Shares, Participant may be required to execute a shareholders agreement in such form as shall be determined by the Corporation.

1.6 No Right to Continued Service. Nothing in the Plan or in this Agreement shall be interpreted to interfere with or limit in any way the right of the Corporation or any Parent or Subsidiary to terminate Participant's employment at any time, nor confer upon Participant the right to continue in the employ of the Corporation or any Parent or Subsidiary.

1.7 Governing Law. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

1.8 Conformity to Securities Laws. Participant acknowledges that the Plan is intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be

administered, and the Shares are to be issued, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

1.9 Notices. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by electronic mail (with return receipt requested and received) or fax or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified, if to the Corporation, at its principal offices, and if to Participant, at Participant's address, electronic mail address or fax number in the Corporation's employee records or as subsequently modified by written notice.

1.10 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

1.11 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (a) such provision shall be excluded from this Agreement, (b) the balance of the Agreement shall be interpreted as if such provision were so excluded and (c) the balance of the Agreement shall be enforceable in accordance with its terms.

1.12 Entire Agreement; Enforcement of Rights. This Agreement and the Plan set forth the entire agreement and understanding of the parties relating to the subject matter herein and merge all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement.

1.13 Successors and Assigns. The rights and benefits of this Agreement shall inure to the benefit of, and be enforceable by the Corporation's successors and assigns. The Corporation may assign its rights under this Agreement to any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Corporation without the prior written consent of Participant. The rights and obligations of Participant under this Agreement may only be assigned with the prior written consent of the Corporation.

1.14 Section 409A. This RSU Award is not intended to constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the date hereof, "Section 409A"), and, accordingly, the Shares issuable pursuant to the RSUs hereunder shall be distributed to Participant no later than the later of: (i) the fifteenth (15th) day of the third month following Participant's first taxable year in which such RSUs are no longer subject to a substantial risk of forfeiture, and (ii) the fifteenth (15th) day of the third month following first taxable year of the Corporation in which such RSUs are no longer subject to substantial risk of forfeiture, as determined in accordance with Section 409A and any Treasury Regulations and other guidance issued thereunder. For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulation Section 1.409A-2(b)(2)(iii)), each payment that Participant may be eligible to receive under this Agreement shall be treated as a separate and distinct payment.

1.15 Broker-Assisted Sales. In the event of any broker-assisted sale of Shares in connection with the payment of any Tax Withholding Obligation as provided in Section 1.2(c): (a) any Shares to be sold through a broker-assisted sale will be sold on the day the Tax Withholding Obligation arises or as soon thereafter as practicable; (b) such Shares may be sold as part of a block trade with other participants in the Plan in which all participants receive an average price; (c) Participant will be responsible for all broker's fees and other costs of sale, and Participant agrees to indemnify and hold the Corporation harmless from any losses, costs, damages, or expenses relating to any such sale; (d) to the extent the proceeds of such sale exceed the applicable Tax Withholding Obligation, the Corporation agrees to pay such excess in cash to Participant as soon as reasonably practicable; (e) Participant acknowledges that the Corporation or its designee is under no obligation to arrange for such sale at any particular price, and that the proceeds of any such sale may not be sufficient to satisfy the applicable Tax Withholding Obligation;

and (f) in the event the proceeds of such sale are insufficient to satisfy the applicable Tax Withholding Obligation, Participant agrees to pay immediately upon demand to the Corporation or its Subsidiary with respect to which the Tax Withholding Obligation arises an amount in cash sufficient to satisfy any remaining portion of the Corporation's or the applicable Subsidiary's Tax Withholding Obligation.

1.16 Paperless Administration. By accepting this RSU Award, Participant hereby agrees to receive documentation related to the RSU Award by electronic delivery, such as a system using an internet website or interactive voice response, maintained by the Corporation or a third party designated by the Corporation.

LIGAND PHARMACEUTICALS INCORPORATED
2022 EMPLOYMENT INDUCEMENT PLAN
RESTRICTED STOCK UNIT GRANT NOTICE AND
RESTRICTED STOCK UNIT AGREEMENT

Ligand Pharmaceuticals Incorporated, a Delaware corporation (the “*Corporation*”), pursuant to its 2022 Employment Inducement Plan (the “*Plan*”), hereby grants to the holder listed below (“*Participant*”), an award of restricted stock units (“*Restricted Stock Units*” or “*RSUs*”) with respect to the number of shares of the Corporation’s common stock (the “*Shares*”). This award for Restricted Stock Units (this “*RSU Award*”) is subject to all of the terms and conditions as set forth herein and in the Restricted Stock Unit Award Agreement attached hereto as Exhibit A (the “*Restricted Stock Unit Agreement*”) and the Plan, each of which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Restricted Stock Unit Agreement.

Participant:	
Grant Date:	
Grant Number:	
Target Number of RSUs Subject to Award (“<i>Target RSUs</i>”):	
Maximum Number of RSUs Subject to Award (“<i>Maximum RSUs</i>”):	
Vesting Schedule:	The RSUs shall vest as set forth in <u>Exhibit B</u> attached hereto.
Distribution Schedule:	The RSUs shall be distributable as they vest pursuant to the Vesting Schedule.

By his or her acceptance of this Restricted Stock Unit Grant, Participant agrees to be bound by the terms and conditions of the Plan, the Restricted Stock Unit Agreement and this Grant Notice. Participant has reviewed the Restricted Stock Unit Agreement, the Plan and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of this Grant Notice, the Restricted Stock Unit Agreement and the Plan. Participant has been provided with a copy or electronic access to a copy of the prospectus for the Plan. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Plan Administrator upon any questions arising under the Plan, this Grant Notice or the Restricted Stock Unit Agreement.

LIGAND PHARMACEUTICALS INC.

PARTICIPANT

By: ___ By: ___

Print Name: ___ Print Name: _____

Title: ___

Address ___

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**EXHIBIT A
TO RESTRICTED STOCK UNIT AWARD GRANT NOTICE**

**LIGAND PHARMACEUTICALS, INCORPORATED
RESTRICTED STOCK UNIT AWARD AGREEMENT**

Pursuant to the Restricted Stock Unit Award Grant Notice (the “*Grant Notice*”) to which this Restricted Stock Unit Award Agreement (this “*Agreement*”) is attached, Ligand Pharmaceuticals Incorporated, a Delaware corporation (the “*Corporation*”), has granted to Participant the right to receive the number of RSUs under the Corporation’s 2022 Employment Inducement Plan (the “*Plan*”) indicated in the Grant Notice, with respect to the number of shares of the Corporation’s common stock (the “*Stock*”). The RSU Award and this Agreement are subject to the Plan, the terms and conditions of which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE I.

AWARD OF RESTRICTED STOCK UNITS

1.1 Award of Restricted Stock Units; Employment Inducement Award.

(a) Award. In consideration of Participant’s agreement to commence employment with and remain in the employ of the Corporation (or a Parent or Subsidiary), and for other good and valuable consideration, the Corporation hereby grants to Participant the right to receive the number of RSUs set forth in the Grant Notice, subject to all of the terms and conditions set forth in this Agreement, the Grant Notice and the Plan (the “*RSU Award*”). Each RSU represents the right to receive one Share. Prior to actual issuance of any Shares, the RSUs and the RSU Award represent an unsecured obligation of the Corporation, payable only from the general assets of the Corporation.

(i) The RSUs are intended to constitute an “employment inducement” award NASDAQ Listing Rule 5635(c)(4), and consequently are intended to be exempt from the NASDAQ rules regarding shareholder approval of stock option and stock purchase plans or other equity compensation arrangements. This Agreement and the terms and conditions of the RSUs shall be interpreted in accordance and consistent with such exemption.

(a) Vesting. The RSUs subject to the RSU Award shall vest in accordance with the Vesting Schedule set forth in the Grant Notice. Unless and until the RSUs have vested in accordance with the vesting schedule set forth in the Grant Notice, Participant will have no right to any distribution with respect to such RSUs. In the event of Participant’s cessation of Service for any reason, including as a result of Participant’s death or Permanent Disability, prior to the vesting of all of the RSUs, any unvested RSUs will terminate automatically without any further action by the Corporation and be forfeited without further notice and at no cost to the Corporation.

(b) Distribution of Stock.

(i) Stock shall be distributed to Participant (or in the event of Participant’s death, to his or her estate) with respect to such Participant’s vested RSUs granted to Participant pursuant to this Restricted Stock Unit Agreement, subject to the terms and provisions of the Plan and this Restricted Stock Unit Agreement, within ten (10) days following each vesting date as the RSU vests pursuant to the Vesting Schedule set forth in the Grant Notice.

(ii) All distributions shall be made by the Corporation in the form of whole shares of Stock. In no event will fractional shares be issued upon settlement of the RSU Award. No fractional Shares shall be issued and any such fractional Shares shall be cancelled automatically and without any further action by Participant or the Corporation.

(iii) Notwithstanding the foregoing, shares of Stock shall be issuable pursuant to an RSU at such times and upon such events as are specified in this Agreement only to the extent issuance under such terms will not cause the RSUs or the shares of Stock issuable pursuant to the RSUs to

be includible in the gross income of Participant under Section 409A of the Code prior to such times or the occurrence of such events, as permitted by the Code and the regulations and other guidance thereunder.

(c) Generally. Stock issued under the RSU Award shall be issued to Participant or Participant's beneficiaries, as the case may be, at the sole discretion of the Plan Administrator, in either (i) uncertificated form, with the Shares recorded in the name of Participant in the books and records of the Corporation's transfer agent with appropriate notations regarding the restrictions on transfer imposed pursuant to this Agreement; or (ii) certificate form.

1.1 Taxation Representations; Tax Withholding. Notwithstanding any other provision of this Agreement (including, without limitation, Section 1.1(b) hereof):

(d) Taxation Representations. Participant has reviewed with his or her own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Corporation or any of its agents. Participant understands that Participant (and not the Corporation) shall be responsible for his or her own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

(e) Tax Withholding Obligation. The Corporation shall not be obligated to deliver any certificate representing Shares issuable with respect to the RSUs to Participant or his or her legal representative unless and until Participant or his or her legal representative shall have paid or otherwise satisfied in full the amount of all federal, state, local and foreign taxes applicable with respect to the taxable income of Participant resulting from the vesting of the RSUs, the distribution of the Shares issuable with respect thereto, or any other taxable event related to the RSUs (the "**Tax Withholding Obligation**"), provided that no payment shall be delayed under this Section 1.2(b) if such delay will result in a violation of Section 409A of the Code. To the maximum extent permitted by applicable law, the Corporation and its Subsidiaries have the authority to deduct or withhold, or require Participant to remit to the Corporation or the applicable Subsidiary, an amount sufficient to satisfy the Tax Withholding Obligation.

(f) Withholding of Shares. With respect to any Tax Withholding Obligation arising in connection with the RSUs, the Corporation shall automatically withhold a net number of vested Shares otherwise issuable pursuant to the RSUs having a then current Fair Market Value not exceeding the amount necessary to satisfy the Tax Withholding Obligation of the Corporation and its Subsidiaries based on the minimum applicable statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income (or such higher rate as may be determined by the Plan Administrator, which higher rate shall in no event exceed the maximum individual statutory tax rate in the applicable jurisdiction at the time of such withholding (or such other rate as may be required to avoid the liability classification of the applicable award under generally accepted accounting principles in the United States of America)), provided that such Shares shall be rounded up to the nearest whole Share sufficient to cover the Tax Withholding Obligation to the extent rounding up to the nearest whole share does not result in the liability classification of the applicable Award under generally accepted accounting principles in the United States of America.

(g) Broker Sale. In the event any Tax Withholding Obligation arising in connection with the RSUs will be satisfied under Section 1.2(c), then the Corporation may, upon approval of the Plan Administrator, elect to instruct any brokerage firm determined acceptable to the Corporation for such purpose to sell on Participant's behalf a whole number of shares from those Shares then issuable to Participant pursuant to the RSUs as the Corporation determines to be appropriate to generate cash proceeds sufficient to satisfy the Tax Withholding Obligation and to remit the proceeds of such sale to the Corporation or the Subsidiary with respect to which the Tax Withholding Obligation arises. Participant's acceptance of this Award constitutes Participant's instruction and authorization to the Corporation and such brokerage firm to complete the transactions described in this Section 1.2(d), including the transactions described in the previous sentence, as applicable.

(e) Participant Liable for Taxes. Participant is ultimately liable and responsible for all taxes owed in connection with the RSUs, regardless of any action the Corporation or any Subsidiary takes with respect to any Tax Withholding Obligations that arise in connection with the RSUs. Neither the Corporation nor any Subsidiary makes any representation or undertaking regarding the treatment of

any Tax Withholding Obligation in connection with the awarding, vesting or payment of the RSUs or the subsequent sale of Shares. The Corporation and the Subsidiaries do not commit and are under no obligation to structure the RSUs to reduce or eliminate Participant's tax liability.

1.1 Conditions to Issuance of Certificates. The Corporation shall not be required to issue or deliver any certificate or certificates for any Shares prior to the fulfillment of all of the following conditions: (a) the admission of the Shares to listing on all stock exchanges on which such Shares are then listed; (b) the completion of any registration or other qualification of the Shares under any state or federal law or under rulings or regulations of the U.S. Securities and Exchange Commission or other governmental regulatory body, which the Plan Administrator shall, in its sole and absolute discretion, deem necessary and advisable; (c) the obtaining of any approval or other clearance from any state or federal governmental agency that the Plan Administrator shall, in its absolute discretion, determine to be necessary or advisable; and (d) the lapse of any such reasonable period of time following the date the RSUs vest as the Plan Administrator may from time to time establish for reasons of administrative convenience.

ARTICLE II.

OTHER PROVISIONS

1.2 RSU Award and Interests Not Transferable. This RSU Award and the rights and privileges conferred hereby, including the RSUs awarded hereunder, shall not be liable for the debts, contracts or engagements of Participant or his successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect.

1.3 Rights as Shareholder. Neither the Participant nor any person claiming under or through the Participant shall have any of the rights or privileges of a shareholder of the Corporation in respect of any Shares issuable hereunder unless and until certificates representing such Shares (which may be in uncertificated form) will have been issued and recorded on the books and records of the Corporation or its transfer agents or registrars, and delivered to the Participant (including through electronic delivery to a brokerage account). After such issuance, recordation and delivery, the Participant shall have all the rights of a shareholder of the Corporation, including with respect to the right to vote the Shares and the right to receive any cash or share dividends or other distributions paid to or made with respect to the Shares; *provided, however*, that at the discretion of the Corporation, and prior to the delivery of Shares, Participant may be required to execute a shareholders agreement in such form as shall be determined by the Corporation.

1.4 No Right to Continued Service. Nothing in the Plan or in this Agreement shall be interpreted to interfere with or limit in any way the right of the Corporation or any Parent or Subsidiary to terminate Participant's employment at any time, nor confer upon Participant the right to continue in the employ of the Corporation or any Parent or Subsidiary.

1.5 Governing Law. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

1.6 Conformity to Securities Laws. Participant acknowledges that the Plan is intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Shares are to be issued, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

1.7 Notices. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by electronic mail (with return receipt requested)

and received) or fax or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified, if to the Corporation, at its principal offices, and if to Participant, at Participant's address, electronic mail address or fax number in the Corporation's employee records or as subsequently modified by written notice.

1.8 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

1.9 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (a) such provision shall be excluded from this Agreement, (b) the balance of the Agreement shall be interpreted as if such provision were so excluded and (c) the balance of the Agreement shall be enforceable in accordance with its terms.

1.10 Entire Agreement; Enforcement of Rights. This Agreement and the Plan set forth the entire agreement and understanding of the parties relating to the subject matter herein and merge all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement.

1.11 Successors and Assigns. The rights and benefits of this Agreement shall inure to the benefit of, and be enforceable by the Corporation's successors and assigns. The Corporation may assign its rights under this Agreement to any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Corporation without the prior written consent of Participant. The rights and obligations of Participant under this Agreement may only be assigned with the prior written consent of the Corporation.

1.12 Section 409A. This RSU Award is not intended to constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the date hereof, "**Section 409A**"), and, accordingly, the Shares issuable pursuant to the RSUs hereunder shall be distributed to Participant no later than the later of: (i) the fifteenth (15th) day of the third month following Participant's first taxable year in which such RSUs are no longer subject to a substantial risk of forfeiture, and (ii) the fifteenth (15th) day of the third month following first taxable year of the Corporation in which such RSUs are no longer subject to substantial risk of forfeiture, as determined in accordance with Section 409A and any Treasury Regulations and other guidance issued thereunder. For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulation Section 1.409A-2(b)(2)(iii)), each payment that Participant may be eligible to receive under this Agreement shall be treated as a separate and distinct payment.

1.13 Broker-Assisted Sales. In the event of any broker-assisted sale of Shares in connection with the payment of any Tax Withholding Obligation as provided in Section 1.2(c): (a) any Shares to be sold through a broker-assisted sale will be sold on the day the Tax Withholding Obligation arises or as soon thereafter as practicable; (b) such Shares may be sold as part of a block trade with other participants in the Plan in which all participants receive an average price; (c) Participant will be responsible for all broker's fees and other costs of sale, and Participant agrees to indemnify and hold the Corporation harmless from any losses, costs, damages, or expenses relating to any such sale; (d) to the extent the proceeds of such sale exceed the applicable Tax Withholding Obligation, the Corporation agrees to pay such excess in cash to Participant as soon as reasonably practicable; (e) Participant acknowledges that the Corporation or its designee is under no obligation to arrange for such sale at any particular price, and that the proceeds of any such sale may not be sufficient to satisfy the applicable Tax Withholding Obligation; and (f) in the event the proceeds of such sale are insufficient to satisfy the applicable Tax Withholding Obligation, Participant agrees to pay immediately upon demand to the Corporation or its Subsidiary with respect to which the Tax Withholding Obligation arises an amount in cash sufficient to satisfy any remaining portion of the Corporation's or the applicable Subsidiary's Tax Withholding Obligation.

1.14 Paperless Administration. By accepting this RSU Award, Participant hereby agrees to receive documentation related to the RSU Award by electronic delivery, such as a system using an

internet website or interactive voice response, maintained by the Corporation or a third party designated by the Corporation.

EXHIBIT B
TO RESTRICTED STOCK UNIT AWARD GRANT NOTICE
PERFORMANCE-BASED VESTING

Capitalized terms used in this Exhibit B and not defined in Section 3 below shall have the meanings given them in the Agreement to which this Exhibit B is attached.

[Vesting to be specified in individual award agreement: *Insert vesting.*]

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**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 9, 2022

/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 9, 2022

/s/ Matthew Korenberg

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, 2022, 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 9, 2022

/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, 2022, 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 9, 2022

/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.