REFINITIV

DELTA REPORT

10-Q

LIGAND PHARMACEUTICALS IN

10-Q - MARCH 31, 2024 COMPARED TO 10-Q - SEPTEMBER 30, 2023

The following comparison report has been automatically generated

TOTAL DELTAS	951
CHANGES	152
DELETIONS	408
ADDITIONS	391

REFINITIV

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**

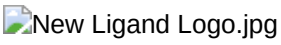
For the quarterly period ended September 30, 2023 March 31, 2024

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	**77-0160744**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
3911 Sorrento Valley Boulevard, 555 Heritage Drive, Suite 110 200 San Diego Jupiter CA Florida	
(Address of principal executive offices)	**92121 33458** *(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,”

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

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller Reporting Company	☐
Emerging Growth Company	☐		

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

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

As of November 6, 2023 May 6, 2024, the registrant had 17,435,958 17,963,653 shares of common stock outstanding.

LIGAND PHARMACEUTICALS INCORPORATED
QUARTERLY REPORT

FORM 10-Q

TABLE OF CONTENTS

GLOSSARY OF TERMS AND ABBREVIATIONS

Abbreviation	Definition
2022 2023 Annual Report	Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023, filed with the SEC on February 28, 2023 February 29, 2024
2023 Notes	$750.0 million aggregate principal amount of convertible senior unsecured notes due 2023
APAC	Avista Public Acquisition Corp. II (prior to its domestication in Delaware and change of name to OmniAb, Inc.)
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
Company	Ligand Pharmaceuticals Incorporated, including subsidiaries
CVR	Contingent value right
CyDex	CyDex Pharmaceuticals, Inc.
Distribution	The separation of OmniAb Business through a spin-off of OmniAb to Ligand's shareholders of record as of October 26, 2022 on a pro rata basis
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
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
New OmniAb	OmniAb, Inc. (formerly known as Avista Public Acquisition Corp. II and after it domestication in Delaware)
OmniAb	OmniAb Operations, Inc. (formerly known as OmniAb, Inc. and prior to being spun off by the Company)
OmniAb Business	Ligand's antibody discovery business (prior to being spun off by the Company)
PDUFA	Prescription Drug User Fee Act
Pfenex	Pfenex Inc.
Q3 2022	The Company's fiscal quarter ended September 30, 2022
Q3 Q1 2023	The Company's fiscal quarter ended September 30, 2023 March 31, 2023
Q1 2024	The Company's fiscal quarter ended March 31, 2024
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
Takeda	Takeda Pharmaceutical Company Limited
Travere	Travere Therapeutics, Inc.
Viking	Viking Therapeutics, Inc.
YTD	Year-to-date

Cautionary Note Regarding Forward-Looking Statements:

You should read the following report together with the more detailed information regarding our company, our common stock and our financial statements and notes to those statements appearing elsewhere in this document.

This report contains forward-looking statements that involve a number of risks and uncertainties. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, these forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements.

Forward-looking statements can be identified by the use of forward-looking words such as "believes," "expects," "may," "will," "plan," "intends," "estimates," "would," "continue," "seeks," "pro forma," or "anticipates," or other similar words (including their use in the negative), or by discussions of future matters such as those related to our future results of operations and financial position, royalties and milestones under license agreements, Captisol material sales, product development, and product regulatory filings and approvals, and the timing thereof, Ligand's status as a high-growth company, as well as other statements that are not historical.

The cautionary statements made in this report are intended to be applicable to all related forward-looking statements wherever they may appear in this report. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. Except as required by law, we assume no obligation to update our forward-looking statements, even if new information becomes available in the future. This caution is made under the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, as amended.

PART I - FINANCIAL INFORMATION

ɛm 1. Condensed Consolidated Financial Statements

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

		September 30, 2023	December 31, 2022				
	March 31, 2024					**March 31, 2024**	**December 31, 2023**
ASSETS	**ASSETS**						
Current assets:	Current assets:						
Current assets:							
Current assets:							
Cash and cash equivalents							
Cash and cash equivalents							
Cash and cash equivalents	Cash and cash equivalents	$ 19,275	$ 45,006				
Short-term investments	Short-term investments	171,227	166,864				
Accounts receivable, net	Accounts receivable, net	36,003	30,424				
Inventory	Inventory	25,392	13,294				

Income taxes receivable	Income taxes receivable	—	4,614
Prepaid expenses			
Other current assets	Other current assets	2,097	3,399
Total current assets	Total current assets	253,994	263,601
Deferred income taxes, net	Deferred income taxes, net	8,530	8,530
Intangible assets, net	Intangible assets, net	314,843	342,455
Goodwill	Goodwill	103,770	105,673
Commercial license rights, net		6,602	10,182
Long-term portion of financial royalty assets, net			
Property and equipment, net	Property and equipment, net	16,178	12,482
Operating lease right-of-use assets	Operating lease right-of-use assets	6,235	10,914
Financing lease right-of-use assets		3,566	4,095
Finance lease right-of-use assets			
Equity method investment in Primrose Bio	Equity method investment in Primrose Bio	13,985	—
Equity securities in Primrose Bio		33,097	—
Other investments			
Other assets	Other assets	8,426	4,736
Total assets	Total assets	$ 769,226	$ 762,668
LIABILITIES AND STOCKHOLDERS' EQUITY	**LIABILITIES AND STOCKHOLDERS' EQUITY**		
Current liabilities:	Current liabilities:		
Current liabilities:			
Current liabilities:			
Accounts payable			
Accounts payable			
Accounts payable	Accounts payable	$ 2,475	$ 5,307
Accrued liabilities	Accrued liabilities	10,635	15,681

Income taxes payable	Income taxes payable	1,204	—
Deferred revenue			
Current contingent liabilities			
Current operating lease liabilities	Current operating lease liabilities	497	670
2023 convertible senior notes, net		—	76,695
Other current liabilities		916	457
Current finance lease liabilities			
Total current liabilities	Total current liabilities	15,727	98,810
Long-term deferred revenue			
Long-term contingent liabilities	Long-term contingent liabilities	3,515	3,456
Deferred income taxes, net	Deferred income taxes, net	32,586	30,615
Long-term operating lease liabilities	Long-term operating lease liabilities	5,832	10,336
Other long-term liabilities	Other long-term liabilities	43,670	21,966
Total liabilities	Total liabilities	101,330	165,183
Commitments and contingencies	Commitments and contingencies		Commitments and contingencies
Stockholders' equity:	Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000 shares authorized; zero issued and outstanding at September 30, 2023 and December 31, 2022		—	—
Common stock, $0.001 par value; 60,000 shares authorized; 17,421 and 16,951 shares issued and outstanding at September 30, 2023 and December 31, 2022, respectively		18	17
Preferred stock, $0.001 par value; 5,000 shares authorized; zero issued and outstanding at March 31, 2024 and December 31, 2023			
Preferred stock, $0.001 par value; 5,000 shares authorized; zero issued and outstanding at March 31, 2024 and December 31, 2023			

Preferred stock, $0.001 par value; 5,000 shares authorized; zero issued and outstanding at March 31, 2024 and December 31, 2023			
Common stock, $0.001 par value; 60,000 shares authorized; 17,924 and 17,556 shares issued and outstanding at March 31, 2024 and December 31, 2023, respectively			
Additional paid-in capital	Additional paid-in capital	183,994	147,590
Accumulated other comprehensive loss	Accumulated other comprehensive loss	(944)	(984)
Retained earnings	Retained earnings	484,828	450,862
Total stockholders' equity	Total stockholders' equity	667,896	597,485
Total liabilities and stockholders' equity	Total liabilities and stockholders' equity	$ 769,226	$ 762,668

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 September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Revenues:				

	Three months ended March 31, 2024	Three months ended March 31, 2024	Three months ended March 31, 2024
Revenues and other income:			
Revenues and other income:			

Revenues and other income:					
Revenue from intangible royalty assets					
Revenue from intangible royalty assets					
Revenue from intangible royalty assets					
Income from financial royalty assets					
Income from financial royalty assets					
Income from financial royalty assets					
Royalties					
Royalties					
Royalties	Royalties	$ 23,863	$ 19,255	$ 61,447	$ 50,507
Captisol	Captisol	8,608	35,949	24,450	77,616
Contract revenue		397	4,017	17,316	17,740
Total revenues		32,868	59,221	103,213	145,863
Captisol					
Captisol					
Contract revenue and other income					
Contract revenue and other income					
Contract revenue and other income					
Total revenues and other income					
Total revenues and other income					
Total revenues and other income					
Operating costs and expenses:					
Operating costs and expenses:					
Operating costs and expenses:	**Operating costs and expenses:**				
Cost of Captisol	Cost of Captisol	3,485	14,153	8,871	31,213
Cost of Captisol					
Cost of Captisol					
Amortization of intangibles					
Amortization of intangibles					
Amortization of intangibles	Amortization of intangibles	8,238	8,568	25,316	25,698
Research and development	Research and development	5,532	9,239	19,049	26,885
Research and development					
Research and development					
General and administrative					

General and administrative					
General and administrative	General and administrative	14,656	14,920	36,798	38,931
Total operating costs and expenses	Total operating costs and expenses	31,911	46,880	90,034	122,727
Gain on sale of Pelican		(2,121)	—	(2,121)	—
Total operating costs and expenses					
Total operating costs and expenses					
Operating income from continuing operations	Operating income from continuing operations	3,078	12,341	15,300	23,136
Other income (expense):					
Gain (loss) from short-term investments		(13,184)	(923)	30,340	(15,709)
Operating income from continuing operations					
Operating income from continuing operations					
Non-operating income and expenses:					
Non-operating income and expenses:					
Non-operating income and expenses:					
Gain from short-term investments					
Gain from short-term investments					
Gain from short-term investments					
Interest income					
Interest income					
Interest income	Interest income	2,263	591	6,018	1,023
Interest expense	Interest expense	(1)	(332)	(525)	(1,559)
Other (loss) income, net		(4,300)	677	(4,570)	4,980
Total other income (expense), net		(15,222)	13	31,263	(11,265)
Income (loss) before income taxes from continuing operations		(12,144)	12,354	46,563	11,871
Income tax benefit (expense)		1,871	(2,709)	(10,932)	(2,556)
Net income (loss) from continuing operations		(10,273)	9,645	35,631	9,315
Interest expense					
Interest expense					

Gain on derivative instruments							
Gain on derivative instruments							
Gain on derivative instruments							
Other non-operating income (expense), net							
Other non-operating income (expense), net							
Other non-operating income (expense), net							
Total non-operating income and expenses, net							
Total non-operating income and expenses, net							
Total non-operating income and expenses, net							
Income before income taxes from continuing operations							
Income before income taxes from continuing operations							
Income before income taxes from continuing operations							
Income tax expense							
Income tax expense							
Income tax expense							
Net income from continuing operations							
Net income from continuing operations							
Net income from continuing operations							
Net loss from discontinued operations	Net loss from discontinued operations		—		(9,241)		(1,665)		(25,191)
Net income (loss)		$	(10,273)	$	404	$	33,966	$	(15,876)
Net loss from discontinued operations							
Net loss from discontinued operations							
Net income							
Net income							
Net income							
Basic net income from continuing operations per share							

Basic net income from continuing operations per share							
Basic net income from continuing operations per share	Basic net income from continuing operations per share	$ (0.59)	$ 0.57	$ 2.07	$ 0.55		
Basic net loss from discontinued operations per share	Basic net loss from discontinued operations per share	$ —	$ (0.55)	$ (0.10)	$ (1.49)		
Basic net income (loss) per share		$ (0.59)	$ 0.02	$ 1.97	$ (0.94)		
Basic net loss from discontinued operations per share							
Basic net loss from discontinued operations per share							
Basic net income per share							
Basic net income per share							
Basic net income per share							
Shares used in basic per share calculation							
Shares used in basic per share calculation							
Shares used in basic per share calculation	Shares used in basic per share calculation	17,380	16,888	17,241	16,860		
Diluted net income from continuing operations per share	Diluted net income from continuing operations per share	$ (0.59)	$ 0.56	$ 2.00	$ 0.54		
Diluted net income from continuing operations per share							
Diluted net income from continuing operations per share							
Diluted net loss from discontinued operations per share	Diluted net loss from discontinued operations per share	$ —	$ (0.54)	(0.09)	$ (1.47)		
Diluted net income (loss) per share		$ (0.59)	$ 0.02	1.91	$ (0.93)		
Diluted net loss from discontinued operations per share							
Diluted net loss from discontinued operations per share							
Diluted net income per share							

Diluted net income per share					
Diluted net income per share					
Shares used in diluted per share calculation					
Shares used in diluted per share calculation					
Shares used in diluted per share calculation	Shares used in diluted per share calculation	17,380	17,132	17,784	17,128

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 September 30,		Nine months ended September 30,	
	2023	**2022**	**2023**	**2022**
Net income (loss)	$ (10,273)	$ 404	$ 33,966	$ (15,876)
Unrealized net gain (loss) on available-for-sale securities, net of tax	23	6	40	(143)
Comprehensive income (loss)	$ (10,250)	$ 410	$ 34,006	$ (16,019)

	Three months ended March 31,	
	2024	**2023**
Net income	$ 86,139	$ 41,949
Unrealized net (loss) gain on available-for-sale securities, net of tax	(93)	49
Comprehensive income	$ 86,046	$ 41,998

See accompanying notes to unaudited condensed consolidated financial statements.

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

	Common Stock		Additional paid in capital	Accumulated other comprehensive income (loss)	Retained earnings	Total stockholders' equity
	Shares	**Amount**				
Balance at December 31, 2022	16,951	$ 17	$ 147,590	$ (984)	$ 450,862	$ 597,485

Issuance of common stock under employee stock compensation plans, net of shares withheld for payroll taxes	183	—	(762)	—	—	(762)
Share-based compensation	—	—	5,931	—	—	5,931
Unrealized net gain on available-for-sale securities, net of tax	—	—	—	49	—	49
Final distribution of OmniAb	—	—	1,665	—		1,665
Net income	—	—	—	—	41,949	41,949
Balance at March 31, 2023	17,134	$ 17	$ 154,424	$ (935)	$ 492,811	$ 646,317
Issuance of common stock under employee stock compensation plans, net of shares withheld for payroll taxes	218	—	9,110	—	—	9,110
Share-based compensation	—	—	7,207	—	—	7,207
Unrealized net loss on available-for-sale securities, net of tax	—	—	—	(32)	—	(32)
Net income	—	—	—	—	2,290	2,290
Balance at June 30, 2023	17,352	$ 17	$ 170,741	$ (967)	$ 495,101	$ 664,892
Issuance of common stock under employee stock compensation plans, net of shares withheld for payroll taxes	69	1	3,284	—	—	3,285
Share-based compensation	—	—	6,884	—	—	6,884
Unrealized net gain on available-for-sale securities, net of tax	—	—	—	23	—	23
Tax return to provision	—	—	3,085	—	—	3,085
Net loss	—	—	—	—	(10,273)	(10,273)
Balance at September 30, 2023	17,421	$ 18	$ 183,994	$ (944)	$ 484,828	$ 667,896

	Common Stock		Additional paid in	Accumulated other		Total stockholders'
	Shares	Amount	capital	comprehensive loss	Retained earnings	equity
Balance at December 31, 2023	17,556	$ 18	$ 198,696	$ (817)	$ 503,016	$ 700,913
Issuance of common stock under employee stock compensation plans, net of shares withheld for payroll taxes	368	—	12,228	—	—	12,228
Share-based compensation	—	—	7,334	—	—	7,334
Unrealized loss on available-for-sale securities, net of tax	—	—	—	(93)	—	(93)
Net income	—	—	—	—	86,139	86,139
Balance at March 31, 2024	17,924	$ 18	$ 218,258	$ (910)	$ 589,155	$ 806,521

	Common Stock		Additional paid in	Accumulated other		Total stockholders'
	Shares	Amount	capital	comprehensive loss	Retained earnings	equity
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 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 of shares withheld for payroll taxes	21	—	604	—	—	604
Share-based compensation	—	—	9,499	—	—	9,499
Unrealized net loss on available-for-sale securities, net of tax	—	—	—	(35)	—	(35)
Net loss	—	—	—	—	(895)	(895)
Balance at June 30, 2022	16,882	$ 17	$ 335,471	$ (1,066)	$ 467,943	$ 802,365
Issuance of common stock under employee stock compensation plans, net of shares withheld for payroll taxes	12	—	724	—	—	724
Share-based compensation	—	—	12,597	—	—	12,597
Unrealized net loss on available-for-sale securities, net of tax	—	—	—	6	—	6
Warrant and bond hedge unwind transactions	—	—	202	—	—	202
Net income	—	—	—	—	404	404
Balance at September 30, 2022	16,894	$ 17	$ 348,994	$ (1,060)	$ 468,347	$ 816,298

	Common Stock		Additional paid in	Accumulated other comprehensive		Total stockholders'
	Shares	Amount	capital	income (loss)	Retained earnings	equity
Balance at December 31, 2022	16,951	$ 17	$ 147,590	$ (984)	$ 450,862	$ 597,485
Issuance of common stock under employee stock compensation plans, net of shares withheld for payroll taxes	183	—	(762)	—	—	(762)
Share-based compensation	—	—	5,931	—	—	5,931
Unrealized net gain on available-for-sale securities, net of tax	—	—	—	49	—	49
Final distribution of OmniAb	—	—	1,665	—	—	1,665

Net income	—	—	—	—	41,949	41,949
Balance at March 31, 2023	17,134 $	17 $	154,424 $	(935) $	492,811 $	646,317

See accompanying notes to unaudited condensed consolidated financial statements.

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

	Nine months ended September 30,	
	2023	2022
Cash flows from operating activities:		
Net income (loss)	$ 33,966	$(15,876)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Net income		
Net income		
Net income		
Adjustments to reconcile net income to net cash provided by operating activities:		
Change in estimated fair value of contingent liabilities		
Change in estimated fair value of contingent liabilities		

	Three months ended March 31,	
	2024	2023
Cash flows from operating activities:		

Change in estimated fair value of contingent liabilities	Change in estimated fair value of contingent liabilities	132	(1,378)
Depreciation and amortization of intangible assets	Depreciation and amortization of intangible assets	27,605	40,399
Amortization of premium on investments, net	Amortization of premium on investments, net	(938)	75
Amortization of debt discount and issuance fees	Amortization of debt discount and issuance fees	159	639
Amortization of commercial license rights		(883)	(163)
CECL adjustment to commercial license rights		3,190	—
Impairment loss of commercial license rights		924	—
Gain on sale of Pelican		(2,121)	—
Gain on debt extinguishment		—	(4,192)
Non-cash income from financial royalty assets			
CECL adjustment to financial royalty assets			
Gain on derivative instruments			
Gain on derivative instruments			
Gain on derivative instruments			
Losses from equity method investment in Primrose Bio			

Losses from equity method investment in Primrose Bio			
Losses from equity method investment in Primrose Bio			
Share-based compensation	Share-based compensation	20,022	31,140
Deferred income taxes	Deferred income taxes	6,761	(25,570)
(Gain) loss from short-term investments		(30,340)	15,709
Gain from short-term investments			
Lease amortization expense	Lease amortization expense	1,231	4,535
Other	Other	215	(45)
Changes in operating assets and liabilities, net of acquisition:	Changes in operating assets and liabilities, net of acquisition:		
Accounts receivable, net		(5,436)	20,550
Accounts receivable			
Accounts receivable			
Accounts receivable			
Inventory	Inventory	(11,577)	10,702
Accounts payable and accrued liabilities	Accounts payable and accrued liabilities	(7,461)	(405)
Income tax receivable and payable	Income tax receivable and payable	5,818	15,111
Deferred revenue	Deferred revenue	226	(5,182)
Other current assets		918	(17)
Other assets and liabilities	Other assets and liabilities	(899)	(1,654)
Net cash provided by operating activities	Net cash provided by operating activities	41,512	84,378

Cash flows from investing activities:	**Cash flows from investing activities:**		
Cash flows from investing activities:			
Cash flows from investing activities:			
Purchase of financial royalty assets			
Purchase of financial royalty assets			
Purchase of financial royalty assets			
Proceeds from financial royalty assets			
Purchase of short-term investments	Purchase of short-term investments	(107,262)	(39,052)
Proceeds from sale of short-term investments	Proceeds from sale of short-term investments	96,318	202,552
Proceeds from maturity of short-term investments	Proceeds from maturity of short-term investments	37,941	24,830
Cash paid for equity method investment - Nucorion		—	(750)
Cash paid for investment in Primrose Bio	Cash paid for investment in Primrose Bio	(15,235)	—
Cash paid for Novan acquisition, net of restricted cash received		(10,405)	—
Cash paid for investment in Primrose Bio			
Cash paid for investment in Primrose Bio			
Purchase of property and equipment	Purchase of property and equipment	(3,104)	(15,792)

Payments to CVR Holders	—	(960)
Proceeds from commercial license rights	349	—
Purchase of property and equipment		
Purchase of property and equipment		
Other	—	80
Net cash (used in) provided by investing activities		
Net cash (used in) provided by investing activities		
Net cash (used in) provided by investing activities	Net cash (used in) provided by investing activities	(1,398)	170,908
Cash flows from financing activities:	**Cash flows from financing activities:**		
Repayment at maturity/repurchase of 2023 Notes		(76,854)	(260,949)
Cash flows from financing activities:			
Cash flows from financing activities:			
Proceeds from convertible bond hedge settlement		—	202
Payments under finance lease obligations			
Payments under finance lease obligations			
Payments under finance lease obligations			
Net proceeds from stock option exercises and ESPP			
Net proceeds from stock option exercises and ESPP			

Net proceeds from stock option exercises and ESPP	Net proceeds from stock option exercises and ESPP	15,922	1,831
Taxes paid related to net share settlement of equity awards	Taxes paid related to net share settlement of equity awards	(4,290)	(6,018)
Payments to CVR Holders		—	(1,545)
Payments for OmniAb transaction costs		—	(4,171)
Other		(40)	(42)
Net cash used in financing activities		(65,262)	(270,692)
Net decrease in cash, cash equivalents and restricted cash		(25,148)	(15,406)
Cash, cash equivalents and restricted cash at beginning of period		45,006	19,522
Cash, cash equivalents and restricted cash at end of period		$ 19,858	$ 4,116
Cash paid for debt issuance costs			
Net cash provided by (used in) financing activities			
Net cash provided by (used in) financing activities			
Net cash provided by (used in) financing activities			
Net increase in cash and cash equivalents			
Cash and cash equivalents at beginning of period			

Cash and cash equivalents at end of period				

Supplemental disclosure of cash flow information:				
Interest paid	$	288	$	1,139
Taxes paid	$	10	$	6,630
Restricted cash in other assets	$	583	$	—
Acquisition:				
Fair value of tangible assets acquired, net of cash and restricted cash received	$	17,101		—
Goodwill		2,229		—
Intangible assets		17,600		—
Liabilities assumed		(26,525)		—
Net cash paid for Novan	$	10,405		—
Supplemental schedule of non-cash activity:				
Accrued Primrose transaction costs	$	1,013	$	—
Accrued fixed asset purchases	$	409	$	3,626
Accrued inventory purchases	$	521	$	7,676
Unrealized gain (loss) on AFS investments, net of tax	$	40	$	(143)

Supplemental disclosure of cash flow information:				
Interest paid	$	59	$	—
Supplemental schedule of non-cash activity:				
Accrued financial royalty asset purchases	$	2,129	$	—
Accrued fixed asset purchases	$	2	$	140
Unrealized gain (loss) on AFS investments, net of tax	$	(93)	$	49

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

Business

On November 1, 2022, we completed the separation (the “Separation”) of our antibody discovery business and certain related assets and liabilities (the “OmniAb Business”) through We are a spin-off of OmniAb to Ligand’s shareholders of record as of October 26, 2022 on a pro rata basis (the “Distribution”) and merger (the “Merger”) of OmniAb with a wholly owned subsidiary of a separate public company, OmniAb, Inc. (formerly known as Avista Public Acquisition Corp. II (“New OmniAb”)), in a Reverse Morris Trust transaction pursuant to the Agreement and Plan of Merger, dated as of March 23, 2022 (the “Merger Agreement”), and the Separation and Distribution Agreement, dated as of March 23, 2022 (the “Separation Agreement”) (the Merger Agreement and Separation Agreement, collectively with the other related transaction documents, the “Transaction Agreements”). Pursuant to the Transaction Agreements, Ligand contributed to OmniAb cash and certain assets and liabilities constituting 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.

After the spin-off of our OmniAb antibody discovery business, Ligand is a revenue-generating biopharmaceutical company focused on developing enabling scientific advancement through supporting the clinical development of high-value medicines. We do this by providing financing, licensing our technologies or acquiring technologies that help pharmaceutical companies discover and develop medicines. both. We operate in one business reportable segment: development and licensing of biopharmaceutical assets.

Basis of Presentation

Our unaudited 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 2022 2023 Annual Report. Interim financial results are not necessarily indicative of the results that may be expected for the full year.

Reclassification

Certain reclassifications have been made to the previously issued audited consolidated financial statements to conform with the current period presentation. Specifically, within the consolidated balance sheet as of December 31, 2023, our commercial license and other economic rights line has been reclassified to long-term portion of financial royalty assets, net, and to other assets, and a portion of other investments has been reclassified from other assets.

In addition, within the unaudited condensed consolidated statement of operations for the three months ended March 31, 2023, royalties have been reclassified to revenue from intangible royalty assets, and a portion of the contract revenue has been reclassified to income from financial royalty assets.

Discontinued Operations

The Company determined that the spin-off of the OmniAb Business in November 2022 met the criteria for classification as a discontinued operation in accordance with ASC Subtopic 205-20, *Discontinued Operations* (“ASC 205-20”). Accordingly, the accompanying condensed consolidated financial statements have been updated to present the results of all discontinued operations reported as a separate component of loss in the condensed consolidated statements of operations and comprehensive loss (see *Note 4, Spin-off of OmniAb*). All disclosures have been adjusted to reflect continuing operations.

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 2022 2023 Annual Report.

Use of Estimates

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

Revenue and Other Income

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. Other operating income is primarily related to milestone income received for financial royalty assets that have been fully amortized or where there is no underlying asset recognized on the consolidated balance sheets.

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 Revenue from Intangible Royalty Assets

We receive royalty revenue from intangible royalty assets 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.

Income from Financial Royalty Assets

Effective January 1, 2024, we introduced a new line item “income from financial royalty assets”, which was included in “contract revenue” in prior periods. Accordingly, the prior year period amounts have been reclassified to align with the current period presentation.

We recognize income from financial royalty assets when there is a reasonable expectation about the timing and amount of cash flows expected to be collected. Income is calculated by multiplying the carrying value of the financial royalty asset by the periodic effective interest rate.

We account for financial royalty assets related to developmental pipeline or recently commercialized products on a non-accrual basis. Developmental pipeline products are non-commercialized, non-approved products that require FDA or other regulatory approval, and thus have uncertain cash flows. Newly commercialized products typically do not have an established reliable sales pattern, and thus have uncertain cash flows.

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 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 and Other Income

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. In general, for R&D services, which has not been significant, we recognize revenue over time and 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.

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.

Other income is primarily related to milestone income received for financial royalty assets that have been fully amortized or where there is no underlying asset recognized on the consolidated balance sheets.

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 March 31, 2024 and 2023, the amount recognized as revenue which has not been significant. that was previously deferred was $0.5 million and $0.1 million, respectively.

Disaggregation of Revenue

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

		Three months ended September 30,		Nine months ended September 30,	
		2023	2022	2023	2022
		Three months ended March 31, 2024			
		Three months ended March 31, 2024			
		Three months ended March 31, 2024			
Royalties					
Royalties					
Royalties	Royalties				
Kyprolis	Kyprolis	$ 10,537	$ 9,123	$ 24,862	$ 20,872

Kyprolis					
Kyprolis					
Evomela					
Evomela					
Evomela	Evomela	2,497	3,123	7,404	8,218
Teriparatide injection	Teriparatide injection	2,800	4,071	9,913	12,484
Teriparatide injection					
Teriparatide injection					
Rylaze	Rylaze	3,678	2,099	9,315	6,065
Rylaze					
Rylaze					
Filspari					
Filspari					
Filspari					
Vaxneuvance					
Vaxneuvance					
Vaxneuvance					
Other	Other	4,351	839	9,953	2,868
		$ 23,863	$ 19,255	$ 61,447	$ 50,507
Other					
Other					
Revenue from intangible royalty assets					
Revenue from intangible royalty assets					
Revenue from intangible royalty assets					
Income from financial royalty assets					
Income from financial royalty assets					
Income from financial royalty assets					
		$			
		$			
		$			
Captisol	Captisol				
Captisol - Core		$ 8,608	$ 3,582	$ 24,450	$ 13,133
Captisol - COVID(1)		—	32,367	—	64,483
		$ 8,608	$ 35,949	$ 24,450	$ 77,616
Captisol					
Contract revenue					
Service revenue		263	90	534	1,047
Captisol					

Milestone		—	2,658	15,300	8,651
Other		134	1,269	1,482	8,042
Contract revenue and other income					
Contract revenue and other income					
Contract revenue and other income					
Milestone and other					
Milestone and other					
Milestone and other					
Other income					
Other income					
Other income					
Contract revenue and other income					
Contract revenue and other income					
Contract revenue and other income					
		$ 397	$ 4,017	$ 17,316	$ 17,740
Total	Total	$ 32,868	$ 59,221	$ 103,213	$ 145,863
Total					
Total					

(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 September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023 (in thousands):

September 30, 2023	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
March 31, 2024				
March 31, 2024				

March 31, 2024		Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
Bond fund					
Bank deposits	Bank deposits	$ 28,972	$ 11	$ (11)	$ 28,972
Bond fund		84,811	—	(808)	84,003
Corporate bonds					
Commercial paper	Commercial paper	18,935	—	(4)	18,931

Corporate bonds		8,077	1	(35)	8,043
U.S. government securities					
Corporate equity securities	Corporate equity securities	5,775	—	(4,903)	872
Municipal bonds	Municipal bonds	1,027	—	(6)	1,021
US government securities		4,702	—	(19)	4,683
Warrants		—	22	—	22
		$ 152,299	$ 34	$ (5,786)	$ 146,547
	$				
Viking common stock	Viking common stock				24,680
Total short-term investments	Total short-term investments				$ 171,227
December 31, 2022					
December 31, 2023					
December 31, 2023					
December 31, 2023					
Bond fund					
Bond fund					
Bond fund					
Bank deposits	Bank deposits	$ 5,012	$ 2	$ (34)	$ 4,980
Bond fund		81,815	—	(1050)	80,765
Corporate bonds					
Commercial paper	Commercial paper	7,211	3	—	7,214
Corporate bonds		6,701	13	(58)	6,656
U.S. government securities					
Municipal bonds					

Corporate equity securities	Corporate equity securities	5,807	262	(4,239)	1,830
U.S. government securities		2,232	—	(70)	2,162
Warrants		—	135	—	135
		$ 108,778	$ 415	$ (5,451)	$ 103,742
	$				
Viking common stock	Viking common stock				63,122
Total short-term investments	Total short-term investments				$ 166,864

During the nine three months ended September 30, 2023 March 31, 2024, we sold 4.5 million 0.7 million shares of Viking common stock and recognized a realized gain of $37.2 million $60.0 million in total. During the three months ended September 30, 2023, there were no sales of Viking common stock.

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 nine months ended September 30, 2023 March 31, 2024.

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

		September 30, 2023			
		Amortized Cost	**Fair Value**		
	March 31, 2024				**March 31, 2024**
	Amortized Cost			**Amortized Cost**	**Fair Value**
Within one year	Within one year	$ 71,095	$ 71,070		
After one year through five years	After one year through five years	6,966	6,927		
Total	Total	$ 78,061	$ 77,997		

Our investment policy is capital preservation and we only invest in U.S.-dollar denominated investments. We held a total of 48 109 investments which were in an unrealized loss position with a total of $0.1 million unrealized losses as of September 30, 2023 March 31, 2024. 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 nine months ended September 30, 2023 March 31, 2024.

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 nine months ended September 30, 2023, March 31, 2024 and 2023, we considered the current and expected future economic and market conditions and concluded an increase a decrease of $0.1 million $0.3 million and an increase of $0.1 million of in the allowance for credit losses, respectively.

Inventory

Inventory, which consists of finished goods, is stated at the lower of cost or net realizable value. We determine cost using 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 recorded against inventory for the three and nine months ended September 30, 2023 March 31, 2024 and 2022. 2023. In addition to finished goods, as of September 30, 2023 March 31, 2024 and December 31, 2023, inventory consists of Captisol included prepayments of $4.7 million $4.2 million and $4.6 million, and as of December 31, 2022 inventory consists of Captisol prepayments of $5.9 million. respectively, to our supplier for Captisol.

Goodwill and Other Identifiable Intangible Assets

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

		September 30, 2023	December 31, 2022		
March 31, 2024				March 31, 2024	December 31, 2023
Indefinite-lived intangible assets	Indefinite-lived intangible assets				
Goodwill	Goodwill	$ 103,770	$ 105,673		
Goodwill	Goodwill				
Definite lived intangible assets	Definite lived intangible assets				

Complete technology			
Complete technology			
Complete technology	Complete technology	49,810	55,211
Less: accumulated amortization	Less: accumulated amortization	(20,176)	(22,560)
Trade name	Trade name	2,642	2,642
Less: accumulated amortization	Less: accumulated amortization	(1,677)	(1,577)
Customer relationships	Customer relationships	29,600	29,600
Less: accumulated amortization	Less: accumulated amortization	(18,788)	(17,670)
Contractual relationships	Contractual relationships	360,000	362,000
Less: accumulated amortization	Less: accumulated amortization	(86,568)	(65,191)
Total goodwill and other identifiable intangible assets, net	Total goodwill and other identifiable intangible assets, net	$ 418,613	$ 448,128

Financial Royalty Assets, net (formerly known as Commercial License Rights Rights)

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

	September 30, 2023			December 31, 2022		
	Gross	Adjustments(1)	Net	Gross	Adjustments(2)	Net
Elutia and CorMatrix	$ 17,696	$ (11,881)	$ 5,815	$ 17,696	$ (9,538)	$ 8,158
Selexis and Dianomi	10,602	(9,815)	787	10,602	(8,578)	2,024
Total	$ 28,298	$ (21,696)	$ 6,602	$ 28,298	$ (18,116)	$ 10,182

(1) Amounts represent accumulated amortization to principal of $11.1 million, credit loss adjustments of $9.7 million and impairment of $0.9 million Financial royalty assets (formerly known as of September 30, 2023.
(2) Amounts represent accumulated amortization to principal of $11.6 million and credit loss adjustments of $6.5 million as of December 31, 2022.

Commercial license rights "Commercial License Rights") represent a portfolio of future milestone and royalty payment rights acquired that are passive in nature (i.e., we do not own the intellectual property or have the right to commercialize the underlying products).

Although a financial royalty asset does not have the contractual terms typical of a loan (such as contractual principal and interest), we account for financial royalty assets under ASC 310, *Receivables*. Our financial royalty assets are classified similar to loans receivable

and are measured at amortized cost using the prospective effective interest method described in ASC 835-30 *Imputation of Interest*.

The effective interest rate is calculated by forecasting the expected cash flows to be received over the life of the asset relative to the initial invested amount. The effective interest rate is recalculated in each reporting period as the difference between expected cash flows and actual cash flows are realized and as there are changes to expected future cash flows.

The gross carrying value of a financial royalty asset is made up of the opening balance, or net purchase price for a new financial royalty asset, which is increased by accrued interest income (except for assets under the non-accrual method) and decreased by cash receipts in the period to arrive at the ending balance.

We evaluate financial royalty assets for recoverability on an individual basis by comparing the effective interest rate at each reporting date to that of the prior period. If the effective interest rate is lower for the current period than the prior period, and if the gross cash flows have declined (expected and collected), we record provision expense for the change in expected cash flows. The provision is measured as the difference between the financial royalty asset's amortized cost basis and the net present value of the expected future cash flows, calculated using the prior period's effective interest rate.

In addition to the above allowance, we recognize an allowance for current expected credit losses under ASC 326, *Financial Instruments – Credit Losses* on our financial royalty assets. The credit rating, which is primarily based on publicly available data and updated quarterly, is the primary credit quality indicator used to determine the credit loss provision.

The carrying value of financial royalty assets is presented net of the cumulative allowance for changes in expected future cash flows and expected credit losses. The initial amount and subsequent revisions in allowances for changes in expected future cash flows and expected credit losses are recorded as part of general and administrative expenses on the consolidated statements of operations.

When we are reasonably certain that a part of a financial royalty asset's net carrying value (or all of it) is not recoverable, we recognize a permanent impairment which is recorded as part of general and administrative expenses on the consolidated statements of operations. To the extent there was an allowance previously recorded for this asset, the amount of such impairment is written off against the allowance at the time that such a determination is made. Any future recoveries from Selexis, S.A. (Selexis) such impairment are recognized when cash is collected.

The current portion of financial royalty assets represents an estimation for current quarter royalty receipts which are collected during the subsequent quarter. This portion is presented in April 2013 other current assets on our consolidated balance sheets, net of the allowance for expected credit losses.

For additional information, see *Note 5, Financial Royalty Assets, net (formerly known as Commercial License Rights).*

Equity Method Investment

Investments that we do not consolidate but in which we have significant influence over the operating and April 2015, CorMatrix Cardiovascular, Inc. (CorMatrix) in May 2016, which was later acquired by Aziyo (Aziyo changed its corporate name to Elutia Inc. ("Elutia") in September 2023) in 2017, financial policies of the investee are classified as equity method investments and Dianomi Therapeutics, Inc. in January 2019. Commercial license rights acquired are accounted for using the equity method of accounting.

In applying the equity method of accounting, investments are initially recorded at cost and are subsequently adjusted based on our proportionate share of net income or loss of the investee, net of any distributions received from the investee.

Other Investments

Other investments represent our investments to equity securities of third parties in which we do not have control or significant influence. All our equity securities investments do not have a readily determinable or estimable fair values and are measured using the measurement alternative, which is cost less impairment, if any, and adjustments resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer.

Other investments consist of the following (in thousands):

	March 31, 2024	December 31, 2023
Equity securities in Primrose Bio	$ 32,500	$ 32,726

Neuritek warrants	3,000	3,000
Palvella Series C preferred stock	1,000	1,000
Total other investments	$ 36,500	$ 36,726

Other Assets

Other assets include economic rights related to 2023 expansion of our strategic partnership with Palvella to accelerate Phase 3 development of QTORIN rapamycin for the treatment of Microcystic Lymphatic Malformations (“Microcystic LMs”). According to the terms of the second amendment to the development funding and royalties agreement, Palvella received an upfront payment of $5 million from Ligand. In return for the upfront payment, among other contractual changes, the tiered royalty payable by Palvella to Ligand was increased to between 8.0% and 9.8% based on annual aggregate worldwide net sales of QTORIN rapamycin. We are not obligated to provide additional funding to Palvella for development or commercialization of QTORIN.

We determined the economic rights related to Palvella should be characterized as financial assets a funded research and development arrangement, thus we account for them in accordance with ASC 310, 730-20, *Receivables, Research and Development Arrangement,* and reduce our asset as further discussed the funds are expended by Palvella. As of March 31, 2024, of the $5 million upfront funding related to the second amendment with Palvella, none of the funding to Palvella was expended. Our CEO and director, Todd Davis, is a director of Palvella. Mr. Davis recused himself from all of the board's consideration of the agreement between us and Palvella, including any financial analysis, the terms of the amendment and the vote to approve the purchase agreement and the related transactions.

Other current assets primarily include Employee Retention Credit in the amount of $2.3 million in addition to the $2.6 million current portion of Elutia financial royalty assets which is disclosed in *Note 1, 5, Financial Royalty Assets, net (formerly known as Commercial License Rights)Basis of Presentation and Summary of Significant Accounting Policies* of the Notes to Consolidated Financial Statements in our 2022 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 nine months ended September 30, 2023, we further considered the current and expected future economic and market conditions and recorded a $3.2 million credit loss adjustment to Elutia commercial license rights based on the assessment of current company performance and nonpayment by Elutia in recent quarters. Management is in process of modifying the payment terms with Elutia and has placed the loan on the non-accrual method during the three months ended September 30, 2023, instead of the effective interest method until we are able to reliably estimate future cash flows. During the three months ended September 30, 2023 we did not recognized revenue related to the Elutia commercial license right. During the nine months ended September 30, 2023 we recognized $0.8 million of revenue related to the Elutia commercial license right.

In addition, we recorded a $0.9 million impairment loss for Selexis commercial license rights during the three and nine months ended September 30, 2023 as a result of recently reduced programs.

Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	September 30, 2023	December 31, 2022
Compensation	$ 2,890	$ 6,201
Subcontractor	1,966	1,756

March 31, 2024	March 31, 2024	December 31, 2023
Compensation	$ 2,890	$ 6,201
Subcontractor	1,966	1,756

Professional fees	Professional fees	3,229	662
Customer deposit	Customer deposit	621	621
Supplier	Supplier	303	634
Royalties owed to third parties	Royalties owed to third parties	—	12
Amounts owed to former licensees	Amounts owed to former licensees	45	3,989
Acquisition related liabilities			
Acquisition related liabilities			
Acquisition related liabilities			
Other	Other	1,581	1,806
Total accrued liabilities	Total accrued liabilities	$ 10,635	$ 15,681

Other Long-Term Liabilities

Other long-term liabilities consist of the following (in thousands):

	March 31, 2024	December 31, 2023
Unrecognized tax benefits	$ 14,047	$ 14,039
Novan contract liability	13,700	13,700
Other long-term liabilities	33	19
	$ 27,780	$ 27,758

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 September 30,		Nine months ended September 30,	
	2023	2022[a]	2023	2022[a]
	Three months ended			
	Three months ended			
	Three months ended			
	March 31,			
	March 31,			

		March 31,			
		2024			
		2024			
		2024			
SBC - Research and development expenses					
SBC - Research and development expenses					
SBC - Research and development expenses	SBC - Research and development expenses	$ 1,639	$ 3,277	$ 5,362	$ 7,920
SBC - General and administrative expenses	SBC - General and administrative expenses	5,245	5,830	14,660	15,297
		$ 6,884	$ 9,107	$ 20,022	$ 23,217
SBC - General and administrative expenses					
SBC - General and administrative expenses					
		$			
		$			
		$			

(a) Prior period amounts have been retrospectively adjusted to reflect the effects of the Separation.

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 September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
	Three months ended			
	Three months ended			
	Three months ended			
	March 31,			
	March 31,			
	March 31,			
	2024			
	2024			
	2024			
Risk-free interest rate				

Risk-free interest rate					
Risk-free interest rate	Risk-free interest rate	4.3%	2.8%	4.1%	2.9%
Dividend yield	Dividend yield	—	—	—	—
Dividend yield					
Dividend yield					
Expected volatility					
Expected volatility					
Expected volatility	Expected volatility	44.7%	50.0%	51.5%	50.0%
Expected term (years)	Expected term (years)	5.2	4.9	5.3	4.8
Expected term (years)					
Expected term (years)					

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

Net Income (Loss) Per Share

Basic net income (loss) per share is calculated by dividing net (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. Although we paid off the 2023 Notes in May 2023, it would have a dilutive impact when the average market price of our common stock exceeds the maximum conversion price during the nine three months ended September 30, 2023 March 31, 2023. It was our intent and policy to settle conversions through combination settlement, which involved 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 6, Debt* and *Note 8, 9, Stockholders' Equity*.

In accordance with ASC 260, *Earnings per Share*, if a company had a discontinuing operation, the company uses income from continuing operations, adjusted for preferred dividends and similar adjustments, as its control number to determine whether potential common shares are dilutive. The following table presents the calculation of weighted average shares used to calculate basic and diluted earnings per share (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Three months ended				
Three months ended				
Three months ended				

		March 31,			
		March 31,			
		March 31,			
		2024			
		2024			
		2024			
Weighted average shares outstanding:					
Weighted average shares outstanding:					
Weighted average shares outstanding:	Weighted average shares outstanding:	17,380	16,888	17,241	16,860
Dilutive potential common shares:	Dilutive potential common shares:				
Dilutive potential common shares:					
Dilutive potential common shares:					
Restricted stock					
Restricted stock					
Restricted stock	Restricted stock	—	65	82	54
Stock options	Stock options	—	179	302	214
Stock options					
Stock options					
2023 convertible senior notes					
2023 convertible senior notes					
2023 convertible senior notes	2023 convertible senior notes	—	—	159	—
Shares used to compute diluted income per share	Shares used to compute diluted income per share	17,380	17,132	17,784	17,128
Shares used to compute diluted income per share					
Shares used to compute diluted income per share					
Potentially dilutive shares excluded from calculation due to anti-dilutive effect	Potentially dilutive shares excluded from calculation due to anti-dilutive effect	4,762	6,706	4,663	6,503
Potentially dilutive shares excluded from calculation due to anti-dilutive effect					
Potentially dilutive shares excluded from calculation due to anti-dilutive effect					

For Accounting Standards Not Yet Adopted

In November 2023, the three months ended September 30, 2023, due FASB issued ASU 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*. The update, among other things, requires disclosure of certain significant segment expenses. We will adopt the updated accounting guidance in our Annual Report on Form 10-K for the year ending December 31, 2024. We do not expect the adoption of the new accounting guidance will have a material impact to our consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. The update requires a public business entity to disclose, on an annual basis, a tabular rate reconciliation using both percentages and currency amounts, broken out into specified categories with certain reconciling items further broken out by nature and jurisdiction to the extent those items exceed a specified threshold. In addition, all entities are required to disclose income taxes paid, net loss for of refunds received disaggregated by federal, state/local, and foreign and by jurisdiction if the period, all amount is at least 5% of total income tax payments, net of refunds received. Adoption of the 0.3 million weighted average equity awards were anti-dilutive. ASU allows for either the prospective or retrospective application of the amendment and is effective for annual periods beginning after December 15, 2024, with early adoption permitted. The Company has not yet completed its assessment of the impact of ASU 2023-09 on our consolidated financial statements.

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

2. Sale of Pelican Business and Investment in Primrose Bio

On September 18, 2023, we entered into a merger agreement, pursuant to which our subsidiary, Pelican Technology Holdings, Inc. (“Pelican”) became a wholly owned subsidiary of Primrose Bio. Primrose Bio is a private company focused on synthetic biology. Pelican has developed technology related to PET (protein expression technology) and PelicCRM197 (vaccine material), and has property and equipment, as well as leased property in San Diego, CA. As part of the transaction, we received 2,146,957 common shares, 4,278,293 preferred shares and 474,746 restricted shares of Primrose Bio. Simultaneous with the merger, we entered into a Purchase purchase and Sale Agreement sale agreement with Primrose Bio and contributed $15.0 million in exchange for 50.0% of potential development milestones and certain commercial milestones from two contracts previously entered into by Primordial Genetics. In addition, starting January 1, 2025, we will receive 25% of sales revenue of PeliCRM197 above $3.0 million and 35% of all PeliCRM197 licensing revenue in perpetuity.

We retained contractual relationships utilizing the Pelican Expression Technology, including the commercial royalty rights to Jazz’s RYLAZE, Rylaze, Merck’s VAXNEUVANCE Vaxneuvance and V116 vaccines, Alvogen’s Teriparatide, Serum Institute of India’s vaccine programs, including Pneumosil and MenFive vaccines, among others.

We determined that the sale of Pelican meets the definition of a deconsolidation of a business. Net assets sold together with allocated goodwill and cash consideration paid were as follows (in thousands):

Property and equipment, net	$	8,250
Intangible assets		19,895
Other assets		717
Operating lease right-of-use assets		8,693
Financing Finance lease right-of-use assets		20
Accrued liabilities		(630)
Deferred revenue		(495)
Long-term operating lease liabilities		(8,445)
Other liabilities		(74)
Net assets sold		27,931
Allocated goodwill		4,132
Cash consideration paid		15,000
	$	**47,063**

Fair value of the consideration received includes the following (in thousands):

Equity method investment	$	13,706
Equity securities		32,278
Derivative assets		3,200
	$	**49,184**

Goodwill allocated to the selling business based on the relative fair value of the Pelican business and Ligand that was written off was $4.1 million, resulting in a $2.1 million gain on sale of Pelican recorded to income (loss) from operations for the three and nine months year ended September 30, 2023 December 31, 2023.

Transaction costs of $1.2 million were allocated to the equity method investment and equity securities based on the relative fair value.

As described above, we will receive 25% of sales revenue of PeliCRM197 above $3.0 million and 35% of all PeliCRM197 licensing revenue in perpetuity. The considerations were recognized as contingent consideration T onsideration under the loss recovery model and they will be measured based on the gain contingency model under ASC 450, *Contingencies*, and thus, will be recognized as the underlying contingencies are resolved.

In addition, we will receive 50.0% of potential development milestones and certain commercial milestones from two contracts previously entered into by Primordial Genetics. The considerations were recognized as derivative assets with a fair value of $3.2 million, at the disposition date, which was included under other long-term asset in our condensed consolidated balance sheet. They are recognized as derivative assets under ASC 815, *Derivatives and Hedging*, as they have two underlyings

(development (development and commercial milestones) and (i) the commercial milestones are dependent on the development milestones and (ii) the commercial milestone underlying is not determined to be predominate. The derivative assets are recorded at fair value as of September 18, 2023, and will be marketed to fair value at each reporting period going forward. During the three months ended March 31, 2024, a gain of $0.2 million was recorded to market the derivative assets to fair value. Any change in fair

value is recorded to other non-operating income (expense) in our consolidated statement of operations. For additional information, see *Note 6, Fair Value Measurement*.

Investment in Primrose Bio

We received 2,146,957 common shares, 4,278,293 preferred shares and 474,746 restricted shares of Primrose Bio in consideration for the sale of Pelican. We apply the equity method to investments in common stock and to other investments in entities that have risk and reward characteristics that are substantially similar to an investment in the investee's common stock. Since the preferred stock and restricted share investment in Primrose Bio has a substantive liquidation preference, it is not substantially similar to the common stock investment and is therefore recorded as an equity security under ASC 321, *Investments - Equity Securities*.

We account for our common stock investment in Primrose Bio under the equity method as we have the ability to exercise significant influence over its operating and financial results. In applying the equity method, we record the investment at fair value. Ligand's Our proportionate share of net loss of Primrose Bio is recorded in our condensed consolidated statements of operations for the three and nine months ended September 30, 2023. operations. Our equity method investments are reviewed for indicators of impairment at each reporting period and are written down to fair value if there is evidence of a loss in value that is other-than-temporary. Our share of the net losses loss of Primrose Bio since the divestiture date for the quarter three months ended September 30, 2023 March 31, 2024 was $0.07 million; $2.4 million, which reduced Ligand's equity method investment accordingly. Any income of loss from our equity method investments are recorded to other non-operating income (expense) in our consolidated statement of operations.

We determined that the Series A preferred stock investment in Primrose Bio did not have a readily determinable fair value and therefore elected the measurement alternative in ASC 321 to subsequently record the investment at cost, less any impairments, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer. When fair value becomes determinable, from observable price changes in orderly transactions, our investment will be marked to fair value. There have been no observable price changes or impairments identified since September 18, 2023 for the three months ended March 31, 2024.

During the fourth quarter of 2023, our President and Chief Operating Officer, Matt Korenberg, became a board member of Primrose Bio.

3. Acquisition

Novan

On September 27, 2023, we closed the transaction to acquire certain assets of Novan, Inc. ("Novan") pursuant to the agreement we entered into with Novan on July 17, 2023 for $15.0 million in cash (which agreement contemplated Novan filing for bankruptcy relief) and provide up to $15.0 million in debtor-in-possession ("DIP") financing inclusive of a $3.0 million bridge loan funded on the same day. Novan filed for Chapter 11 reorganization on July 17, 2023. On September 27, 2023, the bankruptcy court approved our $12.2 million bid to purchase from Novan its lead product candidate berdazimer gel, 10.3%, all other assets related to the NITRICIL technology platform and the rights to one commercial stage asset. The remaining commercial assets of Novan will be sold to other parties. The approved $12.2 million bid was credited to the $15.0 million DIP financing, with the balance of $2.8 million and accrued interest repaid to us.

The acquisition was accounted for as business combination. We recorded $3.3 million $3.1 million of acquisition-related costs for legal, due diligence and other costs in connection with the acquisition within operating expenses in our condensed consolidated statement of operations for the nine months year ended September 30, 2023 December 31, 2023.

During the three months ended March 31, 2024, we finalized purchase accounting for Novan acquisition. The following table sets forth an allocation of the preliminary purchase price to the identifiable tangible and intangible assets acquired and liabilities assumed, with the excess recorded to goodwill (in thousands):

Restricted Cash cash	$	583
Property and equipment, net		13,054
Right-of-use Operating lease right-of-use asset		3,683
Other assets		364 137
Deferred tax asset		1,013
Intangible assets acquired		17,600 10,700
Goodwill		2,229 3,709
Deferred revenue		(2,342) (4,508)
Lease Operating lease liabilities		(3,683)
Other liabilities		(20,500) (13,700)
Cash paid for Novan, including restricted cash received		10,988
DIP loan fees and interest		1,162
Total consideration	$	12,150

None of the goodwill is deductible for tax purposes. Acquired intangible assets of $17.6 $10.7 million related to core technology. The fair value of the core technology was based on the discounted cash flow method that estimated the present value of the potential royalties, milestones, and collaboration revenue streams derived from the licensing of the related technologies. These projected cash flows were discounted to present value using a discount rate of 29%. The fair value of the core technology is being amortized on a straight-line basis over the estimated useful life of 15 years.

Acquired other liabilities of $20.5 $13.7 million related to a royalty and milestone payments purchase agreement, entered by Novan in 2019 and assumed as part of the acquisition, which previously provided Novan $25.0 million of funding used primarily in the clinical development of berdazimer gel, 10.3%. Pursuant to the purchase agreement, Novan will pay ongoing quarterly payments, calculated based on an applicable percentage per product of any upfront fees, milestone payments, royalty payments or equivalent payments received by Novan pursuant to any out-license agreement, net of any upfront fees, milestone payments, royalty payments or equivalent payments paid by Novan to third parties pursuant to any agreements under which Novan has in-licensed intellectual property with respect to such products. If Novan decides to commercialize any product on its own following regulatory approval, as opposed to commercializing through an out-license agreement or other third-party arrangement, Novan will be obligated to pay a low single digits royalty on net sales of such products. This contract liability was fair valued based on the discounted cash flow method that estimated the present value of the potential royalties, milestones, and collaboration revenue streams derived from the related programs mentioned above, by applying a discount rate of 9.6% (our estimated rate of borrowing) 14.0% (revenue risk-adjusted discount rate).

The estimated fair values of assets acquired, liabilities assumed and purchased intangibles are provisional. Specifically, the provisional amounts include estimated projections on the completion of the clinical development process and projected revenue related to commercializing products based on the underlying technology. The accounting for these amounts falls within the measurement period and, therefore, we may adjust these provisional amounts to reflect new information obtained about facts and circumstances that existed as of the acquisition date.

4. Spin-off of OmniAb

On March 23, 2022, we entered into the Separation Agreement to separate our OmniAb Business and the Merger Agreement, pursuant to which APAC would combine with OmniAb, and acquire Ligand's OmniAb Business, in a Reverse Morris Trust transaction (collectively, the “Transactions”). In connection with the execution of the Merger Agreement, we made organizational changes to better align our organizational structure with our strategy and operations, and management 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 operated the following two reportable segments: (1) OmniAb Business and (2) Ligand core business. The OmniAb Business segment was 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.

After the closing date of the Transactions on November 1, 2022, the historical financial results of OmniAb have been reflected in our consolidated financial statements as discontinued operations under GAAP for all periods presented through the date of the Distribution. Pursuant to the Transaction Agreements, Ligand contributed to OmniAb cash and certain specific assets and liabilities constituting the OmniAb Business. Pursuant to the Distribution, Ligand distributed on a pro rata basis to its shareholders as of October 26, 2022 shares of the common stock of OmniAb representing 100% of Ligand's interest in OmniAb. Immediately following the Distribution, Merger Sub merged with and into OmniAb, with OmniAb continuing as the surviving company in the Merger merger and as a wholly owned subsidiary of New OmniAb. The entire transaction was completed on November 1, 2022, and following the Merger, merger, New OmniAb is an independent, publicly traded company whose common stock trades on NASDAQ Nasdaq under the symbol "OABI." After the Distribution, we do not beneficially own any shares of common stock in OmniAb and no longer consolidate OmniAb into our financial results for periods ending after November 1, 2022.

Discontinued operations

In connection with the Merger, merger, the Company determined its antibody discovery business qualified for discontinued operations accounting treatment in accordance with ASC 205-20. We recognized a $1.7 million tax provision adjustment related to deferred taxes, during the nine months year ended September 30, 2023 December 31, 2023, that was attributable to the discontinued operations.

5. *Financial Royalty Assets, net (formerly known as Commercial License Rights)*

Financial royalty assets consist of the following (in thousands):

	March 31, 2024			December 31, 2023		
	Gross carrying value(2)	Allowance (1)	Net carrying value (2)	Gross carrying value	Allowance (1)	Net carrying value
Elutia (CorMatrix)	$ 12,680	$ (4,458)	$ 8,222	$ 13,304	$ (7,490)	$ 5,814
Selexis	736	(64)	672	940	(179)	761
Ovid (Soticlestat)	30,310	(303)	30,007	30,310	(303)	30,007
Tolerance Therapeutics (TZIELD)	25,810	(101)	25,709	25,810	(101)	25,709
Ensifentrine inventors	3,827	(127)	3,700	—	—	—
Total financial royalty assets, net	$ 73,363	$ (5,053)	$ 68,310	$ 70,364	$ (8,073)	$ 62,291

(1) The amounts of allowance include cumulated allowance for changes in expected cash flows and cumulated allowance for current expected credit losses.

(2) The amounts include $2.6 million current portion of Elutia financial royalty assets which represents an estimation for current quarter royalty receipts that are collected during the subsequent quarter. This portion is presented in other current assets on our condensed consolidated balance sheet as of March 31, 2024.

Financial royalty assets 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 (Aziyo changed its corporate name to Elutia Inc. ("Elutia") in September 2023) in 2017, Ovid Therapeutics Inc. ("Ovid") in October 2023, Tolerance Therapeutics, Inc. ("Tolerance Therapeutics") in November 2023, and from certain ensifentrine inventors in March 2024.

There was no revenue or expenses attributable impairment loss for the three months ended March 31, 2024 and 2023.

Elutia Agreement

In 2016, Ligand entered into a purchase agreement to acquire certain financial royalty assets from CorMatrix. In 2017, CorMatrix sold its marketed products to Elutia where Elutia assumed the Ligand royalty obligation. In 2017, we amended the terms of the royalty agreement with Elutia where we received $10 million to buydown the royalty rates on the products CorMatrix sold to Elutia (the "CorMatrix Asset Sale"). Per the amended agreement with Elutia, we will receive a 5% royalty, with certain annual minimum payments, on the products Elutia acquired in the CorMatrix Asset Sale and up to $10 million of milestones tied to cumulative net sales of these products. The royalty agreement will terminate on May 31, 2027.

During 2023, due to Elutia's nonpayment of the minimum payments over several quarters, we placed the Elutia asset on the non-accrual method. During the three months ended March 31, 2024, the Company executed an amendment to our agreement with Elutia which allowed us to reliably estimate future cash flows. As such, the Elutia asset was switched from the non-accrual method to the discontinued operations effective interest method during the three months ended September 30, 2023 March 31, 2024. The following table summarizes revenue As of March 31, 2024, we further considered the current and expenses expected future economic and market conditions, current company performance and recent payments received from Elutia, and recorded a $3.0 million reduction to Elutia allowance of the discontinued expected credit loss. This credit loss adjustment was recorded as a gain in general and administrative expense in our consolidated statement of operations for the three and nine months ended September 30, 2022 (in thousands): March 31, 2024.

	Three months ended September 30, 2022	*Nine months ended September 30, 2022*
Revenues:		
Royalties	*$ 582*	*$ 984*
Contract revenue	*6,285*	*22,353*
Total revenues	*6,867*	*23,337*
Operating costs and expenses:		
Amortization of intangibles	*3,250*	*9,757*
Research and development	*12,797*	*34,576*
General and administrative	*2,525*	*11,279*
Total operating costs and expenses	*18,572*	*55,612*
Loss from operations	*(11,705)*	*(32,275)*
Other income (expense):		
Other income (expense), net	*208*	*485*
Total other income (expense), net	*208*	*485*
Loss before income tax	*(11,497)*	*(31,790)*
Income tax (expense) benefit	*2,256*	*6,599*
Net loss	*$ (9,241)*	*$ (25,191)*

Soticlestat Agreement

The following table summarizes the significant non-cash items, capital expenditures In October 2023, we made an investment of $30 million to acquire a 13% portion of the discontinued operations, royalties and financing activities that milestones owed to Ovid Therapeutics related to the potential approval and commercialization of soticlestat. As soticlestat is in Phase 3 clinical trials, management has placed the investment on the non-accrual method until we are included able to reliably estimate future cash flows.

TZIELD Agreement

In November 2023, we acquired Tolerance Therapeutics for $20 million in cash. Tolerance Therapeutics is a holding company, owned by the inventors of TZIELD (teplizumab), and is owed a royalty of less than 1% on worldwide net sales. TZIELD is marketed by Sanofi in 2023. Due to the early stages of TZIELD's commercialization, management has placed the investment on the non-accrual method until we are able to reliably estimate future cash flows.

Ensifentrine Inventors Agreements

In March 2024, we acquired future milestone and royalty rights related to ensifentrine from certain ensifentrine inventors for a total of $3.8 million. Such future milestones and royalties will be due from Verona Pharma plc (Nasdaq: VRNA) who anticipates a PDUFA action date of June 26, 2024 for review of ensifentrine for the maintenance treatment of patients with chronic obstructive pulmonary disease (“COPD”). If approved, ensifentrine is planned for a commercial launch by Verona in the consolidated statements U.S. market in the

second half of 2024. As FDA approval is not yet obtained, management has placed the investment on the non-accrual method until we are able to reliably estimate future cash flows for the nine months ended September 30, 2022 (in thousands):

	Nine months ended September 30, 2022
Operating activities:	
Change in fair value of contingent consideration	$ (486)
Depreciation and amortization	12,070
Stock-based compensation expense	7,923
Investing activities:	
Purchase of property, plant and equipment	(12,415)
Payments to CVR Holders	(960)
Financing activities:	
Payments to CVR Holders	$ (1,545)
Supplemental cash flow disclosures:	
Purchases of property, plant and equipment included in accounts payable and accrued expenses	$ 3,458

flows.

5. 6. 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):

		September 30, 2023				December 31, 2022			
		Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
		March 31, 2024				March 31, 2024			
		Level 1				Level 1	Level 2	Level 3	Total
Assets:	Assets:								
Short-term investments, excluding Viking(1)	Short-term investments, excluding Viking(1)	$ 5,555	$140,970	$ 22	$146,547	$ 3,992	$99,615	$135	$103,742
Short-term investments, excluding Viking(1)									
Short-term investments, excluding Viking(1)									

		December 31, 2023			
		Level 1	Level 2	Level 3	Total
Assets:	Assets:				
Short-term investments, excluding Viking(1)	Short-term investments, excluding Viking(1)	$ 3,992	$99,615	$135	$103,742
Short-term investments, excluding Viking(1)					
Short-term investments, excluding Viking(1)					

Investment in Viking common stock	Investment in Viking common stock	24,680	—	—	24,680	63,122	—	—	63,122
Derivative assets(3)		—	—	3,281	3,281	—	—	—	—
Derivative assets(2)									
Total assets	Total assets	$ 30,235	$140,970	$3,303	$174,508	$67,114	$99,615	$135	$166,864
Liabilities:	Liabilities:								
CyDex contingent liabilities		$ —	$ —	$ 164	$ 164	$ —	$ —	$ 84	$ 84
Metabasis contingent liabilities(2)		—	3,431	—	3,431	—	3,429	—	3,429
Amounts owed to former licensor		—	—	—	—	44	—	—	44
Contingent liabilities - CyDex									
Contingent liabilities - CyDex									
Contingent liabilities - CyDex									
Contingent liabilities - Metabasis(3)									
Total liabilities	Total liabilities	$ —	$ 3,431	$ 164	$ 3,595	$ 44	$ 3,429	$ 84	$ 3,557

1. (1) Excluding our investment in Viking, corporate equity securities, and US government securities, 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 bond 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 had investment in warrants resulting from Seelos Therapeutics Inc. milestone payments that were settled in shares during the first quarter of 2019 and are were at level 3 of the fair value hierarchy, based on Black-Scholes value estimated by management on the last day of the period. This investment in warrants expired in January 2024.

2. (2) In connection with the Purchase and Sale Agreement with Primrose Bio, we will receive 50.0% of potential development milestones and certain commercial milestones from two contracts previously entered into by Primordial Genetics. The considerations were recognized as derivative assets included under other long-term asset in our condensed consolidated balance sheet. They are recognized as derivative assets under ASC 815, Derivatives and Hedging, as they have two underlyings (development and commercial milestones) and (i) the commercial milestones are dependent on the development milestones and (ii) the commercial milestone underlying is not determined to be predominate. The fair value of the derivative assets was determined using a discounted cash flow approach using a discount rate inline with the stages of the underlying contracts.

(3) 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 $375.0 million $375 million of development, regulatory and commercial milestones and tiered royalties on potential future sales including a $10.0 million $10 million payment upon initiation of a Phase 3 clinical trial. During the three and nine months ended September 30, 2023 March 31, 2024, we adjusted the balance of the Metabasis CVR liability by decreasing $0.1 million and increasing $0.002 million to mark to market, respectively.

3. In connection with the Purchase and Sale Agreement with Primrose Bio, we will receive 50.0% of potential development milestones and certain commercial milestones from two contracts previously entered into by Primordial Genetics. The considerations were recognized as derivative assets included under other long-term asset in our condensed consolidated balance sheet. They are recognized as derivative assets under ASC 815, *Derivatives and Hedging,* as they have two underlyings (development and commercial milestones) and (i) the commercial milestones are dependent on the development milestones and (ii) the commercial milestone underlying is not determined to be predominate. The fair value of the derivative assets was determined using a discounted cash flow approach using a discount rate inline with the stages of the underlying contracts.market.

A reconciliation of the level 3 liabilities financial instruments as of September 30, 2023 March 31, 2024 is as follows (in thousands):

Assets		
Fair value of level 3 financial instruments as of December 31, 2022 December 31, 2023	$	84 3,531
Fair value adjustments to derivative assets		196
Fair value of level 3 financial instruments as of March 31, 2024	$	3,727
Liabilities		
Fair value of level 3 financial instruments as of December 31, 2023	$	320
Payments to CVR holders and other contingent payments		(50) (150)
Fair value adjustments to contingent liabilities		130 48
Fair value of level 3 financial instruments as of September 30, 2023 March 31, 2024	$	164 218

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.

Other than a reduction in goodwill resulting from the sale of Pelican business disclosed in *Note 2, Sale of Pelican Business and Investment in Primrose Bio,* and a $0.9 million impairment loss for Selexis commercial license rights based on fair value of the program disclosed in *Note 1, Basis of Presentation and Summary of Significant Accounting Policies*, there There was no impairment of our goodwill, indefinite-lived assets, or long-lived assets recorded during the three and nine months ended September 30, 2023 March 31, 2024 and September 30, 2022 March 31, 2023.

Fair Value of Financial Instruments

Our cash and cash equivalents, accounts receivable, other current assets, financial royalty assets, accounts payable, accrued liabilities, deferred revenue, current operating lease liabilities, current finance lease liabilities and Novan other long-term liabilities are financial instruments and are recorded at cost in the consolidated balance sheets. The estimated fair value of these financial instruments approximates their carrying value due to their short-term nature.

6. 7. Debt

0.75% Convertible Senior Notes due 2023 Revolving Credit Facility

In May 2018, On October 12, 2023, we issued $750.0 entered into a $75.0 million revolving credit facility (the “Revolving Credit Facility”) with Citibank, N.A. as the Administrative Agent (as defined in the Credit Agreement). We, our material domestic subsidiaries, as Guarantors (as defined in the Credit Agreement), and the Lenders (as defined in the Credit Agreement) entered into a credit agreement (the “Credit Agreement”) with the Administrative Agent, under which the Lenders, the Swingline Lender and the L/C Issuer (each as

defined in the Credit Agreement) agreed to make loans and other financial accommodations to us in an aggregate principal amount of 2023 Notes, bearing cash up to $75.0 million. Borrowings under the Revolving Credit Facility accrue interest at a rate of equal to either Term Secured Overnight Financing Rate ("Term SOFR") or a specified base rate plus an applicable margin linked to our leverage ratio, ranging from 1.75% to 2.50% per annum for Term SOFR loans and 0.75% to 1.50% per year, annum for base rate loans. The Revolving Credit Facility is subject to a commitment fee payable semi-annually. The net proceeds on the unused Revolving Credit Facility commitments ranging from 0.30% to 0.45%, depending on our leverage ratio. During the offering, after deducting the initial purchasers' discount and offering expenses, were approximately $733.1 million.

In connection with the issuance term of the 2023 Notes, Revolving Credit Facility, we incurred $16.9 million of issuance costs, which primarily consisted of underwriting, legal may borrow, repay and other professional fees, and is being amortized re-borrow amounts available under the Revolving Credit Facility, subject to interest expense using the effective interest method over the five year expected life voluntary reductions of the 2023 Notes. swing line, letter of credit and revolving credit commitments.

Borrowings under the Credit Agreement are secured by certain of our collateral and that of the Guarantors. In specified circumstances, additional guarantors are required to be added. The effective interest rate Credit Agreement contains customary affirmative and negative covenants, including certain financial maintenance covenants, and events of default applicable to us. In the event of violation of the representations, warranties and covenants made in the Credit Agreement, we may not be able to utilize the Revolving Credit Facility or repayment of amounts owed thereunder could be accelerated.

As of March 31, 2024, we had $74.4 million in available borrowing under the Revolving Credit Facility, after utilizing $0.6 million for the nine months ended September 30, 2023 is 0.5%. During the nine months ended September 30, 2023 we recognized a total letter of $0.6 million in interest expense which includes $0.4 million in contractual interest expense and $0.2 million in amortized issuance costs.

On May 15, 2023, the 2023 Notes credit. The maturity date we paid the remaining $76.9 million principal amount and $0.3 million accrued interest in cash.

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 were required to make in excess of the principal amount upon conversion Revolving Credit Facility is October 12, 2026.

As of the 2023 Notes. The convertible bond hedges have an exercise price March 31, 2024, there were no events of $206.65 per share and were exercisable when and if the 2023 Notes were converted. We paid $140.3 million for these convertible bond hedges. If upon conversion default or violation of the 2023 Notes, the price of any covenants under our common stock had been above the exercise price of the convertible bond hedges, the counterparties would have delivered 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 did 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 $152.0 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.

In August 2022, in connection with the repurchases of $227.8 million in principal of the 2023 Notes for $223.7 million in cash, including accrued interest of $0.4 million made during the six months ended June 30, 2022, we entered into 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. financing obligations.

7. 8. 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 continuing operations for the three and nine months ended September 30, 2023 March 31, 2024 and 2022 2023 was 15.4% and 21.9%, and 23.5% 24.1% and 21.5%, respectively. The variance from the U.S. federal statutory tax rate of 21% for the three and nine months ended September 30, 2023 March 31, 2024 was primarily due to Internal Revenue Code Section 162(m) limitation on deduction for officer compensation, non-deductible incentive stock option (ISO) related stock compensation expense, which were partially offset by foreign derived intangible income tax benefit during the period. The variance from the U.S. federal statutory tax rate of 21% for the three and nine months ended September 30, 2022 March 31, 2023 was primarily due to the tax deductions Internal Revenue Code Section 162(m) limitation on deduction for officer compensation, non-deductible ISO related to stock compensation expense, which were partially offset by foreign derived intangible income tax benefit as well as during the research and development tax credits, which were partially offset by Section 162(m) limitation period. during the period.

8. 9. 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, 10, Stockholders' Equity*, of the Notes to Consolidated Financial Statements in our 2022 2023 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, 2022	2,991,473	$ 61.31	348,453	$ 75.60

	Stock Options		Stock Options	Restricted Stock Awards	
	Shares		Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Grant Date Fair Value
Balance as of December 31, 2023						
Granted	Granted	518,332	$ 73.21	203,752	$ 83.39	

Options exercised/RSUs vested	Options exercised/RSUs vested	(362,926)	$ 44.03	(169,854)	$ 75.26
Forfeited	Forfeited	(338,742)	$ 65.09	(15,980)	$ 63.69
Balance as of September 30, 2023		2,808,137	$ 65.29	366,371	$ 80.61
Balance as of March 31, 2024					

As of September 30, 2023 March 31, 2024, outstanding options to purchase 1.8 million 1.6 million shares were exercisable with a weighted average exercise price per share of $64.22. $67.37.

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 September 30, 2023 March 31, 2024, 32,363 30,801 shares were available for future purchases under the ESPP.

At-the Market Equity Offering Program

On September 30, 2022, we filed a registration statement on Form S-3 (the "Shelf Registration Statement"), which became automatically effective upon filing, covering the offering of common stock, preferred stock, debt securities, warrants and units.

On September 30, 2022, we also entered into an At-The-Market Equity Offering Sales Agreement (the "Sales Agreement") with Stifel, Nicolaus & Company, Incorporated (the "Agent"), under which we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $100.0 million in "at the market" offerings through the Agent (the "ATM Offering"). The Shelf Registration Statement included a prospectus covering the offering, issuance and sale of up to

$100.0 $100.0 million of our common stock from time to time through the ATM Offering. The shares to be sold under the Sales Agreement may be issued and sold pursuant to the Shelf Registration Statement. To date, As of March 31, 2024, we have not issued any shares of common stock in the ATM Offering.

Share Repurchases

Our Board of Directors (the "Board") has approved a stock repurchase program authorizing, but not requiring, the repurchase of up to $50.0 million of our common stock from time to time through April 2026. We expect to acquire shares, if at all, primarily through open-market transactions in accordance with all applicable requirements of Rule 10b-18 under the Securities Exchange Act of 1934, as amended. amended (the "Exchange Act"). The timing and amount of repurchase transactions will be determined by management based on our evaluation of market conditions, share price, legal requirements and other factors. Authorization to repurchase $50.0 million of our common stock remained available as of September 30, 2023 March 31, 2024.

9. 10. 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 3 complaints. We reject all claims raised in the complaints and intend to vigorously defend these matters.

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 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.

Operating Leases

During the nine months ended September 30, 2023, we entered into an amendment to the lease agreement for our headquarters office located in San Diego, California, which resulted in a $1.1 million increase in both operating lease assets and operating lease liabilities at lease commencement.

10. 11. Subsequent Events

Revolving Credit Facility

On October 12, 2023 May 7, 2024, we entered into announced a $75.0 million revolving credit facility (the "Revolving Credit Facility") with Citibank, N.A. as the Administrative Agent. We, our material domestic subsidiaries, as Guarantors (as defined in the Credit Agreement), and the Lenders (as defined in the Credit Agreement) entered into a credit $75 million royalty financing agreement (the "Credit "Agenus Agreement") with Agenus Inc. ("Agenus"). Under the Administrative Agent, under terms of the Agenus Agreement, we will receive (i) 18.75% of the licensed royalties and 31.875% of the future licensed milestones paid to Agenus on six-partnered oncology programs, including BMS-986442 (Bristol Myers Squibb), AGEN2373 (Gilead Sciences), INCAGN2385 and INCAGN2390 (Incyte), MK-4830 (Merck), and UGN-301 (UroGen Pharma), and (ii) a synthetic 2.625% royalty on future global net sales of Agenus' novel immuno-oncology botensilimab in combination with balstilimab ("BOT/BAL") program, collectively subject to certain events which will adjust the Lenders, royalty and milestone percentages paid to us. In addition, we have the Swingline Lender and the L/C Issuer (each as defined option to commit an additional $25 million in the Credit Agreement) same assets on a pro rata basis. We have also agreed to make loans and other financial accommodations allow Agenus to us in raise up to an additional $125 million bringing the total syndicated purchase price up to an aggregate amount of up $200 million.

As part of the Agenus Agreement, Agenus will grant us security over certain assets related to $75.0 million. At our option, borrowings under the Revolving Credit Facility accrue interest at a rate equal programs included in the Agenus Agreement, subject to either Term SOFR Rate or a specified base rate plus an applicable margin linked to our leverage ratio, ranging from 1.75% to 2.50% per annum for Term SOFR Rate loans and 0.75% to 1.50% per annum for base rate loans. The Revolving Credit Facility certain customary exceptions. Closing of the transaction is subject to customary conditions, including execution of customary ancillary documents for a commitment fee payable on transaction of this type. The transaction is expected to close in May 2024.

In connection with entry into the unused Revolving Credit Facility commitments ranging from 0.30% Agenus Agreement, Agenus issued us a warrant ("Warrant") to 0.45%, depending on our leverage ratio. During the term purchase 867,052 shares of its common stock, at an exercise price equal to $17.30. The exercise price of the Revolving Credit Facility, we may borrow, repay Warrant and re-borrow amounts available under the Revolving Credit Facility, number of shares issuable upon exercise of the Warrant are subject to voluntary reductions of adjustments for stock splits, combinations, stock dividends or similar events. The Warrant is exercisable until May 6, 2029.

Agenus' BOT/BAL program received Fast Track Designation from the swing line, letter of credit and revolving credit commitments.

Borrowings under the Credit Agreement are secured by certain of our collateral and that of the Guarantors. In specified circumstances, additional guarantors are required to be added. The Credit Agreement contains customary affirmative and negative covenants, including certain financial maintenance covenants, and events of default applicable to us. In the event of violation of the representations, warranties and covenants made U.S. FDA in the Credit Agreement, we may not be able to utilize the Revolving Credit Facility or repayment of amounts owed thereunder could be accelerated.

As of the date of this filing, no amounts have been borrowed under the Revolving Credit Facility. The maturity date of the Revolving Credit Facility is October 12, 2026.

Ovid Therapeutics

On October 18, 2023, we entered into an agreement April 2023 for patients with Ovid Therapeutics Inc. (“Ovid”) to acquire a 13% interest in all royalties and milestones owed to Ovid related to the potential approval and commercialization of soticlestat. We have paid Ovid $30.0 million, less certain reimbursable expenses, to acquire these royalty and milestone interests.

Tolerance

On October 31, 2023, we acquired Tolerance Therapeutics, Inc. (“Tolerance Therapeutics”) for $20.0 million in cash. Tolerance Therapeutics is a holding company, owned by the inventors of TZIELD (teplizumab-mzwv), metastatic, refractory colorectal cancer that is owed a royalty not microsatellite instability high or deficient mismatch repair, who do not have liver metastases, and who failed first and second line standard of less than 1% on worldwide net sales on TZIELD. care treatments. The capital will support Agenus’ upcoming Phase 3 BOT/BAL colorectal cancer trial and other key commercialization activities.

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 future results of operations and financial position, Captisol-related revenues and Kyprolis and other product royalty revenues and milestones under license agreements, product development, and product regulatory filings and approvals, and the timing thereof. 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 (the Exchange Act) “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 enabling scientific advancement through supporting the clinical development of therapeutic candidates. high-value medicines. We do this by providing financing, licensing our technologies or both. Our business model generates seeks to generate value for stockholders by creating a diversified portfolio of biotech and pharmaceutical biopharmaceutical 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 and diversified manner. Our business model is based focuses on funding programs in mid- to late-stage drug development in return for economic rights, purchasing royalty rights in development stage or commercial biopharmaceutical products and licensing our technology to help partners discover and develop medicines. We partner with other pharmaceutical companies to leverage what they do best (late-stage development, regulatory management and commercialization) in order to generate our revenue. Our Captisol® Captisol platform technology is a chemically modified cyclodextrin with a structure designed to optimize the solubility and stability of drugs. We have established multiple alliances, licenses and other business relationships with the world’s leading pharmaceutical biopharmaceutical companies including Amgen, Merck, Pfizer, Jazz, Takeda, Gilead Sciences and Baxter International.

Our revenue consists of three primary elements: is generated primarily from royalties from commercialized products, on sales of products commercialized by our partners, Captisol material sales, and contract revenue from for license fees, regulatory and sales based milestone and other service payments. We Other operating income is primarily related to milestone income received for financial royalty assets that have been fully amortized or where there is no underlying asset recognized on the consolidated balance sheets. Also, we selectively pursue acquisitions and drug development funding opportunities that address high unmet clinical needs to bring in new assets, pipelines, and technologies to aid in generating additional potential new incremental revenue streams.

OmniAb Separation and Spin-Off

On March 23, 2022, we entered into the Merger Agreement, by and among our company, APAC (which later became New OmniAb), OmniAb and Merger Sub, pursuant to which New OmniAb combined with OmniAb, our then-antibody discovery business, in a Reverse Morris Trust transaction. Pursuant to the Separation Agreement, we transferred the OmniAb Business, including certain of our related subsidiaries, to OmniAb and, in connection therewith, distributed (the Distribution) to Ligand stockholders 100% of the common stock of OmniAb. Immediately following the Distribution on November 1, 2022, in accordance with and subject to the terms and conditions of the Merger Agreement, Merger Sub merged with and into OmniAb (the Merger), with OmniAb continuing as the surviving company in the Merger and as a wholly-owned subsidiary of New OmniAb. After the Distribution, we do not beneficially own any shares of common stock in OmniAb and no longer consolidate OmniAb into our financial results for periods ending after October 31, 2022. As a result, OmniAb's historical financial results were reflected in our consolidated financial statements as discontinued operations.

Sale of Pelican Business

On September 18, 2023, we entered into a merger agreement pursuant to which our subsidiary, Pelican Technology Holdings, Inc. (“Pelican”) became a wholly owned subsidiary of Primrose Bio, Inc. (“Primrose Bio”, formerly known as Primordial Genetics, Inc.). As part of the transaction, we retained the existing commercial royalties related to the Pelican Expression Technology and own 49.9% of Primrose Bio. Simultaneous with the merger, we entered into a Purchase and Sale Agreement with Primrose Bio and acquired 50% of certain future development and commercial milestones from two contracts previously entered into by Primordial Genetics for $15.0 million. In addition, starting January 1, 2025, we will receive 25% of proceeds above $3.0 million derived from sales of PeliCRM197 and 35% of proceeds from PeliCRM197 licensing revenue in perpetuity.

Business Updates

As aforementioned, on September 18, 2023 On May 7, 2024, we spun-out announced a $100 million royalty financing agreement with Agenus, Inc. Under the terms of the agreement, in exchange for an initial $75 million payment, we will receive 18.75% of the royalties and merged our Pelican subsidiary 31.875% of the future milestones on six Agenus-partnered oncology programs including BMS-986442 (Bristol Myers Squibb), AGEN2373 (Gilead Sciences), INCAGN2385 and INCAGN2390 (Incyte), MK-4830 (Merck), and UGN-301 (UroGen Pharma). We will also receive a 2.625% royalty on future global net sales of Agenus’ novel immuno-oncology botensilimab in combination with Primordial Genetics to form Primrose Bio. We retained existing license agreements and royalty rights balstilimab (“BOT/BAL”) program. Agenus’ BOT/BAL program received Fast Track Designation from the Pelican Expression Technology, including economic U.S. FDA in April 2023 for patients with metastatic, refractory colorectal cancer that is not MSI-H/dMMR, who do not have liver metastases, and who failed first and second line standard of care treatments. The capital will support Agenus’ upcoming Phase 3 BOT/BAL

colorectal cancer trial and other key commercialization activities. We have an option to invest an additional $25 million to increase its economics on a pro rata basis for the additional investment.

On April 3, 2024, we announced the creation of Pelthos Therapeutics under the leadership of Scott Plesha as Chief Executive Officer. Pelthos is focused on the commercialization of innovative, safe, and efficacious therapeutic products for patients suffering from conditions with limited treatment options. ZELSUVMI™ (berdazimer topical gel, 10.3%), its first product, is the first and only FDA-approved prescription medicine for the treatment of the highly transmissible molluscum contagiosum (molluscum) viral skin infection in adults and pediatric patients one year of age and older. It can be applied by patients, parents, or caregivers at home, outside of a physician's office, or other medical setting. ZELSUVMI received a Novel Drug designation from the U.S. FDA in January 2024 to treat molluscum viral skin infection. ZELSUVMI was developed using Pelthos' proprietary nitric oxide-based NITRICIL™ technology platform. Commercial availability of ZELSUVMI in the United States is expected by late 2024. The rights to Jazz’s Rylaze, Merck’s Vaxneuvance ZELSUVMI and V116 vaccines, Alvogen’s Teriparatide, Serum Institute of India’s Pneumosil and MenFive vaccines, among

others. Additionally, we maintain a 49.9% equity interest in Primrose Bio and economic rights to future programs including two contracts previously entered into by Primordial Genetics and an economic interest in future revenue generated from PeliCRM197. The Primrose Bio technologies create a novel way of enhancing biological productivity to enable the next generation of therapeutics. These technologies are designed to create and express some of the largest sets of genetic diversity available in the industry, to enable customers to discover new biological molecules and cells with levels of productivity that were previously unachievable, economically prohibitive, or otherwise inaccessible.

On September 27, 2023, we acquired certain assets of Novan Inc. for $12.2 million. As part of the transaction, we acquired the NDA-stage berdazimer gel 10.3% program, all the assets related to the NITRICIL delivery technology platform and the rights to the Sitavig program. Berdazimer gel 10.3% remains on track for a PDUFA goal date of January 5, 2024, as the first potential at-home treatment for molluscum contagiosum. The were acquired from Novan, team is preparing to commercialize berdazimer gel 10.3% Inc. in the second half of 2024. We are incubating the business to prepare for a spin-out or strategic partnering. September 2023.

On October 18, 2023, we invested $30 million to acquire 13% of Ovid Therapeutics' interest in the royalties and milestones owed to Ovid Therapeutics Inc. on soticlestat, a program Takeda Pharmaceutical Company is developing in two pivotal Phase 3 trials in Lennox-Gastaut and Dravet syndromes, respectively, both rare disease conditions. Under the terms of the 2021 agreement between Ovid and Takeda, Ovid is eligible to receive regulatory and commercial milestone payments of up to $660 million, as well as tiered royalties on global net sales of soticlestat at percentages ranging from the low double-digits up to 20%. If soticlestat is approved. Our 13% purchase entitles us to receive up to $86 million in regulatory and commercial milestones, and tiered royalties up to 2.6%.

On October 31, 2023, we acquired Tolerance Therapeutics, a private company which owns a less than 1% royalty on worldwide net sales of TZIELD (teplizumab-mzwv). We invested $20 million to acquire Tolerance Therapeutics and expect it to be immediately accretive to our royalty revenue. TZIELD is the first disease-modifying therapy in type 1 diabetes ("T1D"). It is a CD3-directed antibody indicated to delay the onset of Stage 3 T1D in adults and in children ages 8 years and older with Stage 2 T1D. TZIELD was granted Breakthrough Therapy Designation in 2019 and was approved by the U.S. Food and Drug Administration in November 2022. TZIELD is marketed by Sanofi S.A. following its acquisition of Provention Bio, Inc., in 2023 for $2.9 billion. Sanofi recently announced new data from TZIELD's PROTECT Phase 3 trial which showed TZIELD's potential to slow the progression of Stage 3 T1D in newly diagnosed children and adolescents. TZIELD met the study's primary endpoint, significantly slowing the decline of C-peptide levels, compared to placebo.

Portfolio Updates

On November 7, 2023 April 24, 2024, Travere Therapeutics (Nasdaq: TVTX) announced that 430 new patient start forms (PSFs) were received and CSL Vifor (ASX: CSL), Travere's commercial partner in Europe, gained European Commission conditional marketing authorization (CMA) for FILSPARI (sparsentan) for the treatment of adults with primary IgA nephropathy (IgAN). All member states of the EU, including Iceland, Liechtenstein, and Norway are included in the third quarter and a total of 990 PSFs have been received since CMA. The European Commission's decision follows the accelerated approval of FILSPARI was obtained Committee for Medicinal Products for Human Use (CHMP)'s positive opinion in the first quarter of 2023. Additionally, Travere previously announced topline two-year confirmatory secondary endpoint February 2024, based on results from the pivotal Phase 3 PROTECT Study study of FILSPARI versus irbesartan in IgA nephropathy ("IgAN"). FILSPARI demonstrated long-term kidney function preservation and achieved a clinically meaningful difference in estimated glomerular filtration rate (eGFR) total and chronic slope versus irbesartan, narrowly missing IgAN. The PROTECT study met its primary endpoint at the pre-specified interim analysis with statistical significance in eGFR total slope while achieving statistical significance in eGFR chronic slope significance.

On May 6, 2024, Travere Therapeutics announced the FDA granted Priority Review for purposes of regulatory review in the EU. All topline efficacy endpoints favored FILSPARI and patients treated with FILSPARI over two years exhibited one of the slowest annual rates of kidney function decline seen in a clinical trial of IgAN patients. Travere will engage with regulators and expects its sNDA to submit a supplemental New Drug Application ("sNDA") in the first half of 2024 for convert FILSPARI® (sparsentan) from accelerated approval to full approval in the U.S.

On October 26, 2023, Merck (NYSE: MRK) announced third quarter 2023 Vaxneuvance sales of $214 million. Merck previously reported Vaxneuvance sales of $168 million and $106 million in the second and first quarter of 2023, respectively. Additionally, Merck previously announced its Phase 3 clinical trial of V116, an investigational 21-valent pneumococcal conjugate vaccine, met key immunogenicity and safety endpoints in two Phase 3 trials. If approved, V116 would be the first pneumococcal conjugate vaccine specifically designed for adults. Results from the STRIDE-3 trial demonstrated statistically significant immune responses compared to PCV20 (pneumococcal 20-valent conjugate vaccine) in vaccine-naïve adults for serotypes common to both vaccines. Positive immune

responses were also observed for serotypes unique to V116. Additionally, results from STRIDE-6 demonstrated that V116 was immunogenic for all 21 pneumococcal serotypes in the vaccine among adults who previously received a pneumococcal vaccine at least one year prior to the study. In both studies, V116 had a safety profile comparable to the comparator in the studies.

Jazz Pharmaceuticals (Nasdaq: JAZZ) announced that the European Commission has granted marketing authorization for Enrylaze® for use as a component of a multi-agent chemotherapeutic regimen for the treatment of acute lymphoblastic leukemia and lymphoblastic lymphoma in adult and pediatric patients (1 month and older) who developed hypersensitivity or silent inactivation to E. coli-derived asparaginase. Enrylaze, approved as Rylaze IgAN in the US and Canada, is a new Erwinia-derived asparaginase developed using the Pfenex Expression Technology U.S. with a PDUFA target action date of September 5, 2024.

On April 24, 2024, Viking announced that in the first quarter this year they completed the 52-week biopsies for the Phase 2b VOYAGE study of VK2809 in biopsy-confirmed NASH and fibrosis. As we have previously mentioned, the study successfully achieved its primary endpoint after 12 weeks of treatment and affirmed VK2809's potent effect on liver fat, along with its favorable tolerability and safety profile consistent profile. Viking plans to report data on histologic changes assessed after 52 weeks of treatment later in the second quarter of 2024.

On April 15, 2024, Marinus Pharmaceuticals provided an update on the Phase 3 RAISE trial evaluating the safety and efficacy of IV ganaxolone in patients with that refractory status epilepticus. The trial did not meet pre-defined stopping criteria at the interim analysis; Marinus has completed RAISE enrollment at approximately 100 patients with topline results expected in the summer of other asparaginase preparations. Enrylaze may 2024. Future development of IV ganaxolone in refractory status epilepticus will be given by either intravenous infusion or intramuscular injection and is dosed on either alternate days (every 48 hours) or via a Monday/Wednesday/Friday dosing schedule. The use assessed following review of the Pfenex Expression Technology to manufacture Enrylaze delivers a scalable supply, able to meet global demand, and a ready-to-use solution that avoids the need for reconstitution in the clinic.

Verona Pharma plc (Nasdaq: VRNA) announced that the FDA has accepted for review its NDA seeking approval of ensifentrine for the maintenance treatment of patients with COPD. The FDA has assigned a PDUFA date of June 26, 2024, and is not currently planning to hold an advisory committee meeting to discuss the application.

Anebulo Pharmaceuticals Inc. (Nasdaq: ANEB) announced positive feedback from the FDA following a Type B meeting in July. The FDA indicated that a single well-controlled study of ANEB-001 in Acute Cannabinoid Intoxication patients presenting final RAISE results. Marinus remains blinded to the emergency department combined with a larger THC challenge study in volunteers could potentially provide substantial evidence to support a NDA. RAISE trial data.

Results of Operations

Revenue and Other Income

(Dollars in thousands)	Q3 2023	Q3 2022[a]	Change	% Change	YTD 2023	YTD 2022[a]	Change	% Change
Royalties	$ 23,863	$ 19,255	$ 4,608	24 %	$ 61,447	$ 50,507	$ 10,940	22 %
Captisol - Core	8,608	3,582	5,026	140 %	24,450	13,133	11,317	86 %
Captisol - COVID	—	32,367	(32,367)	(100)%	—	64,483	(64,483)	(100)%
Contract revenue	397	4,017	(3,620)	(90)%	17,316	17,740	(424)	(2)%
Total revenue	$ 32,868	$ 59,221	$ (26,353)	(44)%	$ 103,213	$ 145,863	$ (42,650)	(29)%

(Dollars in thousands)	Q1 2024	Q1 2023	Change	% Change
Revenue from intangible royalty assets	$ 18,357	$ 17,154	$ 1,203	7 %
Income from financial royalty assets	738	493	245	50 %
Royalties	19,095	17,647	1,448	8 %
Captisol	9,212	10,622	(1,410)	(13)%

Contract revenue and other income	2,671	15,710	(13,039)	(83)%
Total revenue and other income	$ 30,978	$ 43,979	$ (13,001)	(30)%

(a) Prior period amounts have been retrospectively adjusted to reflect the effects of the Separation.

Q3 2023 vs. Q3 2022

Total revenue and other income decreased by $26.4 million $13.0 million, or 44% 30%, to $32.9 million $31.0 million in Q3 2023 Q1 2024 compared to $59.2 million $44.0 million in Q3 2022. Q1 2023. Revenue from intangible royalty assets increased by $1.2 million, or 7%, to $18.4 million in Q1 2024 compared to $17.2 million in Q1 2023. Income from financial royalty assets increased by $0.2 million, or 50%, to $0.7 million in Q1 2024 compared to $0.5 million in Q1 2023. Captisol sales related to COVID-19 in Q3 2022 were $32.4 million. We did not have any COVID-19 related Captisol sales in Q3 2023. Royalty revenue increased decreased by $4.6 million $1.4 million, or 24% 13%, to $23.9 million $9.2 million in Q3 2023 compared to $19.3 million in Q3 2022 primarily due to the increase of Kyprolis sales and sales of drugs using the Pelican platform. Core Captisol sales increased by $5.0 million, or 140%, to $8.6 million in Q3 2023 Q1 2024 primarily due to the timing of customer orders. Contract revenue and other income decreased by $3.6 million $13.0 million, or 90% 83%, to $0.4 million $2.7 million in Q3 2023 Q1 2024 compared to $4.0 million $15.7 million in Q3 2022 primarily due to the decreased service revenue and timing of CRM197 sales from the Pelican business.

YTD 2023 vs. YTD 2022

Total revenue decreased by $42.7 million, or 29%, to $103.2 million in YTD 2023 compared to $145.9 million in YTD 2022 primarily due to no Captisol sales related to COVID-19 in YTD 2023, compared to $64.5 million for the same period in 2022. Royalty revenue increased by $10.9 million, or 22%, to $61.4 million in YTD 2023 compared to $50.5 million in YTD Q1 2023 primarily due to the increase milestone tied to FDA approval of Kyprolis and sales of drugs using the Pelican platform. Core Captisol sales increased by $11.3 million, or 86%, to $24.5 million Travere's FILSPARI in YTD 2023 primarily due to the timing of customer orders. Q1 2023.

Royalty revenue

Revenue from intangible royalty assets 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%. 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 and Vaxneuvance royalty rate is rates are in the low single digits. Contract revenue includes service revenue, license fees and development, regulatory and sales based milestone payments. Filspari has a fixed royalty rate of 9%.

The following table represents revenue from intangible royalty revenue assets by program (in millions):

(in millions)	(in millions)	Q3 2023 Estimated Partner Product Sales	Effective Royalty Rate	Q3 2023 Royalty Revenue	Q3 2022 Estimated Partner Product Sales[a]	Effective Royalty Rate[a]	Q3 2022 Royalty Revenue[a]	(in millions)	Q1 2024 Estimated Partner Product Sales	Effective Royalty Rate	Q1 2024 Royalty Revenue	Q1 2023 Estimated Partner Product Sales	Effective Royalty Rate	Q1 2023 Royalty Revenue
Kyprolis	Kyprolis	**$ 375.9**	**2.8 %**	**$ 10.5**	$ 328.1	2.8 %	$ 9.1							
Evomela	Evomela	**12.5**	**20.0 %**	**2.5**	15.5	20.0 %	3.1							
Teriparatide injection[b]		**11.0**	**25.5 %**	**2.8**	12.8	32.0 %	4.1							
Teriparatide injection[a]														
Rylaze	Rylaze	**104.9**	**3.5 %**	**3.7**	73.5	2.9 %	2.1							
Filspari Vaxneuvance														
Other	Other	**301.4**	**1.5 %**	**4.4**	50.7	1.8 %	0.9							
Total	Total	**$ 805.7**		**$ 23.9**	$ 480.6		$ 19.3							

(in millions)	YTD 2023 Estimated Partner Product Sales	Effective Royalty Rate	YTD 2023 Royalty Revenue	YTD 2022 Estimated Partner Product Sales[a]	Effective Royalty Rate[a]	YTD 2022 Royalty Revenue[a]
Kyprolis	$ 1,123.3	2.2 %	$ 24.9	$ 956.7	2.2 %	$ 20.9
Evomela	37.0	20.0 %	7.4	41.0	20.0 %	8.2
Teriparatide injection[1]	34.2	28.9 %	9.9	37.6	33.2 %	12.5
Rylaze	292.5	3.2 %	9.3	200.7	3.0 %	6.1
Other	711.4	1.4 %	9.9	177.4	1.6 %	2.8
Total	$ 2,198.4		$ 61.4	$ 1,413.4		$ 50.5

(a) Prior period amounts have been retrospectively adjusted to reflect the effects of the Separation.

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

Contract revenue includes service revenue, license fees and development, regulatory and sales based milestone payments.

Operating Costs and Expenses

(Dollars in thousands)	Q3 2023	% of Revenue	Q3 2022[a]	% of Revenue	YTD 2023	% of Revenue	YTD 2022[a]	% of Revenue
Cost of Captisol	$ 3,485		$ 14,153		$ 8,871		$ 31,213	
Amortization of intangibles	8,238		8,568		25,316		25,698	
Research and development	5,532		9,239		19,049		26,885	
General and administrative	14,656		14,920		36,798		38,931	
Total operating costs and expenses	$ 31,911	97%	$ 46,880	79%	$ 90,034	87%	$ 122,727	84%

(a) Prior period amounts have been retrospectively adjusted to reflect the effects of the Separation.

(Dollars in thousands)	*Q1 2024*	*% of Revenue*	*Q1 2023*	*% of Revenue*
Cost of Captisol	*$ 2,882*		*$ 3,717*	
Amortization of intangibles	*8,186*		*8,539*	
Research and development	*5,971*		*6,663*	
General and administrative	*10,951*		*10,855*	
Total operating costs and expenses	*$ 27,990*	*90%*	*$ 29,774*	*68%*

Q3 2023 vs. Q3 2022

Total operating costs and expenses decreased by $15.0 million $1.8 million, or 32% 6%, to $31.9 million $28.0 million in Q3 2023 Q1 2024 compared to $46.9 million $29.8 million in Q3 2022. Q1 2023.

Cost of Captisol decreased by $10.7 million $0.8 million, or 75% 22%, to $3.5 million $2.9 million in Q3 2023 Q1 2024 compared to $14.2 million $3.7 million in Q3 2022, Q1 2023, with the decrease primarily due to the lower Captisol sales this quarter.

Amortization of intangibles decreased by $0.3 million $0.4 million, or 4%, to $8.2 million in Q3 2023 Q1 2024 compared to $8.6 million $8.5 million in Q3 2022 Q1 2023 with the decrease primarily due to the cessation of amortization of certain Pelican intangibles resulting from the sale of the Pelican business.

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 expense was $5.5 million $6.0 million for Q3 2023, Q1 2024, compared with $9.2 million $6.7 million for the same period of 2022, 2023, with the decrease primarily due to lower share-based compensation, employee-related expenses and depreciation expense related to sale of the Pelican assets. business in September 2023.

General and administrative expense was $14.7 $11.0 million for Q3 2023, Q1 2024, compared to $14.9 $10.9 million for the same period in 2022.

YTD 2023 vs. YTD 2022 2023.

Total operating costs Non-operating Income and expenses decreased by $32.7 million, or 27%, to $90.0 million in YTD 2023 compared to $122.7 million in YTD 2022. Expenses

Cost of Captisol decreased by $22.3 million, or 72%, to $8.9 million in YTD 2023 compared to $31.2 million in YTD 2022, with the decrease primarily due to the lower Captisol sales in YTD 2023.

Amortization of intangibles decreased by $0.4 million, or 1%, to $25.3 million in YTD 2023 compared to $25.7 million in YTD 2022 with the decrease primarily due to the cessation of amortization of certain Pelican intangibles resulting from the sale of the Pelican business.

(Dollars in thousands)	Q1 2024	Q1 2023	Change
Gain from short-term investments	**$ 110,772**	$ 39,533	$ 71,239
Interest income	**2,020**	1,435	585
Interest expense	**(141)**	(240)	99
Gain on derivative instruments	**196**	—	196
Other non-operating income (expense), net	**(2,388)**	603	(2,991)
Total non-operating income and expenses, net	**$ 110,459**	$ 41,331	$ 69,128

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 expense was $19.0 million for YTD 2023, compared with $26.9 million for the same period of 2022, with the decrease primarily due to lower share-based compensation, employee-related expenses and lab supply expenses.

General and administrative expense was $36.8 million for YTD 2023, compared to $38.9 million for the same period in 2022, which remained steady period over period.

Gain on Sale of Pelican

The gain on sale of Pelican in amount of $2.1 million for the three and nine months ended September 30, 2023 represents the excess of the fair value of 1) our investment in Primrose Bio and other economic rights; and 2) the carrying amount of Pelican business assets and liabilities together with allocated goodwill as of September 18, 2023, the date of sale; and $15 million cash consideration paid.

Other Income (Expense)

(Dollars in thousands)	Q3 2023	Q3 2022[a]	Change	YTD 2023	YTD 2022[a]	Change
Gain (loss) from short-term investments	**$ (13,184)**	$ (923)	$ (12,261)	**$ 30,340**	$ (15,709)	$ 46,049
Interest income	**2,263**	591	1,672	**6,018**	1,023	4,995
Interest expense	**(1)**	(332)	331	**(525)**	(1,559)	1,034
Other income (expense), net	**(4,300)**	677	(4,977)	**(4,570)**	4,980	(9,550)
Total other income (expense), net	**$ (15,222)**	$ 13	$ (15,235)	**$ 31,263**	$ (11,265)	$ 42,528

(a) Prior period amounts have been retrospectively adjusted to reflect the effects of the Separation.

Q3 2023 vs. Q3 2022

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, which contributed an unrealized loss gain of $13.2 million $50.8 million in Q3 2023 Q1 2024 as compared to an unrealized loss gain of $0.9 million $19.0 million in Q3 2022. Q1 2023. In addition, we recognized a total realized gain of $60.0 million from the sales of 0.7 million shares of Viking common stock in Q1 2024. In Q1 2023, we sold 3.2 million shares of Viking common stock and recognized a realized gain of $20.5 million in total.

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 rates. average investment balances in Q1 2024 compared to Q1 2023.

Interest expense consists primarily of the 0.75% coupon cash interest expense and the non-cash accretion of discount (including the amortization of debt issuance cost) on our 2023 Notes. In May 2023, the 2023 Notes matured, and we paid the remaining $76.9 million principal amount and $0.3 million accrued interest in cash. The cash, which contributed to the decrease in interest expense was in Q1 2024 as compared to Q1 2023.

Other non-operating income (expense), net, in Q1 2024 decreased by $3.0 million as compared to Q1 2023, primarily due to the zero debt outstanding balance equity method loss related to Primrose Bio in Q3 2023 as compared to Q3 2022. See *Note 6, Debt.*

Other income (expense), net, Q1 2024 and mark-to-market gains on CVRs in Q3 2023 decreased by $5.0 million as compared to Q3 2022, primarily due to the Elutia commercial license right current expected credit loss (CECL) adjustment of $3.2 million and a Selexis commercial license right impairment loss of $0.9 million in Q3 2023 compared to a $0.9 million gain on extinguishment of debt during Q3 2022. See *Note 6, Debt.*

YTD 2023 vs. YTD 2022

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, which contributed an unrealized loss of $6.9 million in YTD 2023 as compared to an unrealized loss of $15.4 million in YTD 2022. In addition, during YTD 2023 we sold 4.5 million shares of Viking contributing to realized gains of $37.2 million, compared to no Viking shares sold in YTD 2022.

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 rates. Q1 2023.

Interest expense consists primarily of the 0.75% coupon cash interest expense and the non-cash accretion of discount (including the amortization of debt issuance cost) on our 2023 Notes in both YTD 2023 and YTD 2022. The decrease in interest expense was primarily due to the lower average debt outstanding balance in YTD 2023 as compared to YTD 2022. See *Note 6, Debt.*

Other income (expense), net, in YTD 2023 decreased by $9.6 million as compared to YTD 2022, primarily due to the Elutia commercial license right CECL adjustment of $3.2 million and a Selexis commercial license right impairment loss of $0.9 million in YTD 2023 compared to a $4.2 million gain on extinguishment of debt during YTD 2022. See *Note 6, Debt.*

Income Tax Benefit (Expense) Expense

(Dollars in thousands)	Q3 2023	Q3 2022[a]	Change	YTD 2023	YTD 2022[a]	Change
Income (loss) before income taxes	**$ (12,144)**	$ 12,354	$ (24,498)	**$ 46,563**	$ 11,871	$ 34,692
Income tax benefit	**1,871**	(2,709)	4,580	**(10,932)**	(2,556)	(8,376)
Income (loss) from operations	**$ (10,273)**	$ 9,645	$ (19,918)	**$ 35,631**	$ 9,315	$ 26,316
Effective tax rate	**15.4 %**	21.9 %		**23.5 %**	21.5 %	

(Dollars in thousands)	Q1 2024	Q1 2023	Change

Income before income taxes	**$ 113,447**	$ 55,536	$ 57,911
Income tax expense	**(27,308)**	(11,922)	(15,386)
Income from operations	**$ 86,139**	$ 43,614	$ 42,525
Effective tax rate	**24.1 %**	21.5 %	

(a) Prior period amounts have been retrospectively adjusted to reflect the effects of the Separation.

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 nine months ended September 30, 2023 March 31, 2024 and 2022 2023 was 15.4% and 21.9%, and 23.5% 24.1% and 21.5%, respectively. The variance from the U.S. federal statutory tax rate of 21% for the three and nine months ended September 30, 2023 March 31, 2024 was primarily due to the Internal Revenue Code Section 162(m) limitation on deduction for officer compensation, non-deductible incentive stock option (ISO) related stock compensation expense, which were partially offset by foreign derived intangible income tax benefit during the period. The variance from the U.S. federal tax rate of 21% for the three and nine months ended September 30, 2022 March 31, 2023 was primarily due to the tax deductions Internal Revenue Code Section 162(m) limitation on deduction for officer compensation, non-deductible ISO related to stock compensation expense, which were partially offset by foreign derived intangible income tax benefit as well as during the research and development tax credits, which were partially offset by Section 162(m) limitation period. during the period.

Net Loss from Discontinued Operations

Net loss from discontinued operations for Q3 Q1 2024 and Q1 2023 and Q3 2022 was zero and $9.2 million, respectively. Net loss from discontinued operations for YTD 2023 and YTD 2022 was $1.7 million and $25.2 million, respectively. See additional information in "*Item 1. Condensed Consolidated Financial Statements —Notes to Condensed Consolidated Financial Statements—Note (4), Spin-off of OmniAb*."

Liquidity and Capital Resources

As of September 30, 2023 March 31, 2024, our cash, cash equivalents, and short-term investments totaled $190.5 million $310.6 million, which decreased increased by $21.4 $140.3 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, bond 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 2.2 million 1.0 million shares of common stock in Viking.

On September 30, 2022, we entered into an At-The-Market Equity Offering Sales Agreement (the Sales Agreement) "Sales Agreement") with Stifel, Nicolaus & Company, Incorporated (the Agent) "Agent), under which we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $100.0 million in "at the market" offerings through the Agent. Sales of the shares of common stock, if any, will be made at prevailing market prices at the time of sale, or as otherwise agreed with the Agent. The Agent will receive a commission from the Company of up to 3.0% of the gross proceeds of any shares of common stock sold under the Sales Agreement. The shares will Shares of our common stock may be issued and sold pursuant to our shelf the Sales Agreement under

the registration statement on Form S-3 (File No. 333-267678) we filed on September 30, 2022. As of March 31, 2024, including we have not sold any shares of common stock under the Sales Agreement prospectus contained therein, which automatically became effective upon filing with the SEC on September 30, 2022. Agreement.

Our Board of Directors has approved a stock repurchase program authorizing, but not requiring, the repurchase of up to $50.0 million of our common stock from time to time through April 2026. We expect to acquire shares, if at all, primarily through open-market transactions in accordance with all applicable requirements of Rule 10b-18 of the Exchange Act. The timing and amount of repurchase transactions will be determined by management based on our evaluation of market conditions, share price, legal requirements and other factors. Authorization to repurchase $50.0 million of our common stock remained available as of September 30, 2023 March 31, 2024.

On October 12, 2023, we entered into a $75.0 million revolving credit facility (the Revolving "Revolving Credit Facility) Facility") with Citibank, N.A. as the Administrative Agent. We, our material domestic subsidiaries, as Guarantors (as defined in the Credit Agreement), and the Lenders (as defined in the Credit Agreement) entered into a credit agreement (the Credit Agreement) "Credit Agreement") with the Administrative Agent, under which the Lenders, the Swingline Lender and the L/C Issuer (each as defined in the Credit Agreement) agreed to make loans and other financial accommodations to us in an aggregate amount of up to $75.0 million. At our option, borrowings Borrowings under the Revolving Credit Facility accrue interest at a rate equal to either Term SOFR Rate or a specified base rate plus an applicable margin linked to our leverage ratio, ranging from 1.75% to 2.50% per annum for Term SOFR Rate loans and 0.75% to 1.50% per annum for base rate loans. The Revolving Credit Facility is subject to a commitment fee payable on the unused Revolving Credit Facility commitments ranging from 0.300% 0.30% to 0.450% 0.45%, depending on our leverage ratio. During the term of the Revolving Credit Facility, we may borrow, repay and re-borrow amounts available under the Revolving Credit Facility, subject to voluntary reductions of the swing line, letter of credit and revolving credit commitments.

Borrowings under the Credit Agreement are secured by certain of our collateral and that of the Guarantors. In specified circumstances, additional guarantors are required to be added. The Credit Agreement contains customary affirmative and negative covenants, including certain financial maintenance covenants, and events of default applicable to us. In the event of violation of the representations, warranties and covenants made in the Credit Agreement, we may not be able to utilize the Revolving Credit Facility or repayment of amounts owed thereunder could be accelerated.

As of the date of this report, no amounts have been borrowed March 31, 2024, we had $74.4 million in available borrowing under the Revolving Credit Facility. Facility, after utilizing $0.6 million for letter of credit. The maturity date of the Revolving Credit Facility is October 12, 2026.

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 September 30, 2023 March 31, 2024, we had $3.6 million $3.0 million in fair value of contingent consideration liabilities associated with prior acquisitions to be settled in future periods.

Cash Flow Summary

(Dollars in thousands)	(Dollars in thousands)	YTD 2023	YTD 2022
(Dollars in thousands)			
(Dollars in thousands)			
Net cash provided by (used in):			
Net cash provided by (used in):			
Net cash provided by (used in):	Net cash provided by (used in):		
Operating activities	Operating activities	$ 41,512	$ 84,378
Operating activities			
Operating activities			

Investing activities					
Investing activities					
Investing activities	Investing activities	$	(1,398)	$	170,908
Financing activities	Financing activities	$	(65,262)	$	(270,692)
Financing activities					
Financing activities					

During the nine three months ended September 30, 2023 March 31, 2024, we generated cash from operations primarily due to net income. During the nine three months ended September 30, 2023 March 31, 2024, we used cash in investing activities for Novan acquisition purchases of short-term investments and investment in Primrose Bio, financial royalty assets, partially offset by cash from sale and maturity of short-term investments, including Viking shares. During the nine three months ended September 30, 2023 March 31, 2024, we repaid the remaining $76.9 million principal amount upon maturity of the 2023 Notes generated cash from financing activities primarily due to net proceeds from stock options exercises and $0.3 million accrued interest in cash. ESPP.

During the nine three months ended September 30, 2022 March 31, 2023, we repurchased $266.4 million in principal generated cash from operations primarily due to net income. We generated cash from investing activities primarily from sale and maturity of the 2023 Notes for $261.4 million in cash, short-term investments including accrued interest of $0.5 million. Viking shares.

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 2022 2023 Annual Report.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

There were no material changes to our market risks in the nine three months ended September 30, 2023 March 31, 2024, when compared to the disclosures in Item 7A of our 2022 2023 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. Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures as of September 30, 2023 March 31, 2024 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 September 30, 2023 March 31, 2024 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 2022 2023 Annual Report, refer to *Note 9, 10, 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

We do not believe that there have been any material changes to the risk factors disclosed in Part I, Item 1A of our 2022 2023 Annual Report. The risk factors described in our 2022 2023 Annual Report 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 terms of our Credit Agreement may limit our flexibility in operating our business and adversely affect our financial health and competitive position, and all of our obligations under our Credit Agreement are secured by certain of our collateral and the collateral of certain of our subsidiaries, as Guarantors. If we default on these obligations, our lenders could foreclose on such assets.

In October 2023, we entered into a $75.0 million Revolving Credit Facility with Citibank, N.A. as the Administrative Agent. We, our material domestic subsidiaries, as Guarantors, and the Lenders entered into the Credit Agreement with the Administrative Agent, under which the Lenders, the Swingline Lender and the L/C Issuer agreed to make loans and other financial accommodations to us in an aggregate amount of up to $75.0 million. Borrowings under the Credit Agreement are secured by certain of our collateral and that of the Guarantors. In specified circumstances, additional guarantors are required to be added. As a result, if we default on any of our obligations under the Credit Agreement, the Lenders could foreclose on their security interest and liquidate some or all of the collateral, which would harm our business, financial condition and results of operations and could require us to reduce or cease operations.

As of the date of this report, no amounts have been borrowed under the Revolving Credit Facility. In order to service any indebtedness we may incur in the future, we would need to generate cash from our operating activities or other financings. Our ability to generate cash is subject, in part, to our ability to successfully execute our business strategy, as well as general economic, financial, competitive, regulatory and other factors beyond our control. Our business may not be able to generate sufficient cash flow from operations, and future borrowings or other financings may not be available to us in an amount sufficient to enable us to service our indebtedness and fund our other liquidity needs. To the extent we are required to use cash from operations or the proceeds of any future financing to service our indebtedness instead of funding working capital or other general corporate purposes, we will be less able to plan for, or react to, changes in our business, industry and in the economy generally. This could place us at a competitive disadvantage compared to our competitors that have less indebtedness.

The Credit Agreement contains customary affirmative and negative covenants that limit our ability to engage in certain transactions that may be in our long-term best interest. The affirmative covenants include, among others, covenants requiring us to maintain a leverage ratio of no greater than 2.50 to 1.00 (increasing to 3.00 to 1.00 with respect to the fiscal quarter in which a material permitted acquisition is consummated and the immediately subsequent three fiscal quarters thereafter) and maintain minimum consolidated EBITDA (as defined in the Credit Agreement) for any trailing four-quarter period of not less than $45 million. The negative covenants include, among others, limitations on our ability to incur indebtedness and certain liens, make certain investments, become liable under contingent obligations in certain circumstances, make certain restricted payments, make certain dispositions within guidelines and limits, engage in certain affiliate transactions, alter our fundamental business and make certain fundamental changes.

While we believe we are currently in compliance with the covenants contained in the Credit Agreement, we may breach these covenants in the future. Our ability to comply with these covenants may be affected by events and factors beyond our control. In the event that we breach one or more covenants, the Lenders may choose to declare an event of default and require that we immediately repay all amounts outstanding under the agreement, terminate any commitment to extend further credit and foreclose on the collateral. The occurrence of any of these events could have a material adverse effect on our business, financial condition and results of operations.

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

None.

Item 3. Defaults Upon Senior Securities

None.

em 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Rule 10b5-1 Trading Arrangements

From time to time, our officers (as defined in Rule 16a–1(f) of the Exchange Act) and directors may enter into Rule 10b5-1 or non-Rule 10b5-1 trading arrangements (as each such term is defined in Item 408 of Regulation S-K). During the three months ended September 30, 2023 March 31, 2024, none of our officers or directors adopted, modified or terminated any such trading arrangements.

Item 6. Exhibits

			Incorporated by Reference				
			Incorporated by Reference				
Exhibit Number	Exhibit Number	Description of Exhibit	Form	File Number	Date of Filing	Exhibit Number	Filed Herewith
	10.1	Credit Agreement, dated as of October 12, 2023, among Ligand Pharmaceuticals Incorporated, certain of its subsidiaries, as Guarantors (as defined therein), the Lenders (as defined therein), and Citibank, N.A., as Administrative Agent, Swingline Lender and L/C Issuer.	8-K	001-33093	10/18/2023	10.1	

Exhibit Number	Exhibit Number	Description of Exhibit	Form	File Number	Date of Filing	Exhibit Number	Filed Herewith
3.1							
31.1							
31.1							
31.1	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	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	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	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
32.1*	32.1*	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	32.1*	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	101	The following financial information from our Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, 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	101	The following financial information from our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, 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	104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, formatted in Inline XBRL and contained in Exhibit 101.	X	104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, formatted in Inline XBRL and contained in Exhibit 101.	X

* 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 Exchange Act.

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: November 9, 2023 May 8, 2024

By: /s/ Octavio Espinoza

Octavio Espinoza

Chief Financial Officer

Duly Authorized Officer and Principal Financial Officer

Exhibit 31.1

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, Todd C. Davis, 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: November 9, 2023 May 8, 2024

/s/ Todd C. Davis

Todd C. Davis
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

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, Octavio Espinoza, 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: November 9, 2023 May 8, 2024

/s/ Octavio Espinoza

Octavio Espinoza
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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 September 30, 2023 March 31, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Todd C. Davis, 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 o operations of the Company.

Date: November 9, 2023 May 8, 2024

/s/ Todd C. Davis

Todd C. Davis
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 September 30, 2023 March 31, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Octavio Espinoza, 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 o operations of the Company.

Date: November 9, 2023 May 8, 2024

/s/ Octavio Espinoza

Octavio Espinoza
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.

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