
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

Mark One

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

For the quarterly period ended September 30, 2002 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 0-20720

LIGAND PHARMACEUTICALS INCORPORATED
(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

77-0160744

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

10275 Science Center Drive San Diego, CA
(Address of Principal Executive Offices)

92121-1117

(Zip Code)

Registrant's Telephone Number, Including Area Code: (858) 550-7500

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

As of October 31, 2002, the registrant had 71,480,632 shares of common stock outstanding.

LIGAND PHARMACEUTICALS INCORPORATED
QUARTERLY REPORT

FORM 10-Q

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*No information provided due to inapplicability of item.

PART I. FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

LIGAND PHARMACEUTICALS INCORPORATED
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	September 30, 2002	December 31, 2001
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 23,177	\$ 20,741
Short-term investments	12,099	16,947
Accounts receivable, net	7,001	9,798
Inventories	3,155	3,756
Other current assets	2,835	2,332
Total current assets	48,267	53,574
Restricted investments	1,848	2,370
Property and equipment, net	10,152	9,690
Acquired technology, net	35,596	37,879
Other assets	22,163	13,960
	\$ 118,026	\$ 117,473
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	\$ 9,662	\$ 5,385
Accrued liabilities	6,540	12,245
Current portion of deferred revenue	6,566	8,729
Current portion of equipment financing obligations	2,342	2,867
Convertible note	2,500	2,500
Total current liabilities	27,610	31,726
Long term portion of deferred revenue	3,319	4,164
Long term portion of equipment financing obligations	3,732	3,354
Accrued acquisition obligation	2,700	2,700
Convertible subordinated debentures	—	47,326
Zero coupon convertible senior notes	—	86,078
Total liabilities	37,361	175,348
Commitments and contingencies (Note 6)		
Stockholders' equity (deficit):		
Convertible preferred stock, \$0.001 par value; 5,000,000 shares authorized; none issued	—	—
Common stock, par value \$0.001; 130,000,000 shares authorized, 71,480,632 and 60,164,840 shares issued at September 30, 2002 and December 31, 2001, respectively	71	60
Additional paid-in capital	693,153	529,374
Deferred warrant expense	—	(692)
Accumulated other comprehensive (loss) income	(60)	14
Accumulated deficit	(611,588)	(585,720)
	81,576	(56,964)
Treasury stock, at cost; 73,842 shares	(911)	(911)
Total stockholders' equity (deficit)	80,665	(57,875)
	\$ 118,026	\$ 117,473

See accompanying notes.

LIGAND PHARMACEUTICALS INCORPORATED
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2002	2001	2002	2001
Revenues:				
Product sales	\$ 16,486	\$ 11,406	\$ 40,646	\$ 30,015
Collaborative research and development and other revenues	8,780	7,768	28,671	23,683
Total revenues	25,266	19,174	69,317	53,698
Operating costs and expenses:				
Costs of product sold	5,646	3,645	14,787	9,561
Research and development	15,641	12,882	42,437	38,478
Selling, general and administrative	10,766	7,206	30,702	26,249
Total operating costs and expenses	32,053	23,733	87,926	74,288
Loss from operations	(6,787)	(4,559)	(18,609)	(20,590)
Other income (expense):				
Interest income	177	475	840	1,757
Interest expense	(147)	(3,464)	(5,213)	(10,358)
Debt conversion expense	—	—	(2,015)	—
Other, net	(290)	(196)	(871)	(749)
Total other expense, net	(260)	(3,185)	(7,259)	(9,350)
Net loss	\$ (7,047)	\$ (7,744)	\$ (25,868)	\$ (29,940)
Basic and diluted per share amounts:				
Net loss	\$ (0.10)	\$ (0.13)	\$ (0.38)	\$ (0.50)
Weighted average number of common shares	71,358	59,581	68,347	59,288

See accompanying notes.

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

	Nine months ended September 30,	
	2002	2001
Operating activities		
Net loss	\$ (25,868)	\$ (29,940)
Adjustments to reconcile net loss to net cash used in operating activities:		
Accretion of debt discount and interest	3,138	6,845
Depreciation and amortization of property and equipment	2,429	2,755
Amortization of acquired technology	2,687	2,487
Equity in loss of affiliate	844	830
Debt conversion expense	2,015	—
Other	746	1,051
Changes in operating assets and liabilities:		
Accounts receivable	2,797	(3,610)
Inventories	601	1,180
Other current assets	(503)	807
Accounts payable and accrued liabilities	(1,428)	936
Deferred revenue	(3,008)	224
Net cash used in operating activities	(15,550)	(16,435)
Investing activities		
Purchases of short-term investments	(9,756)	(16,200)
Proceeds from sale of short-term investments	14,604	9,041
Purchases of property and equipment	(2,880)	(1,531)
Payment to extend X-Ceptor purchase right	(5,000)	—
Decrease in other assets	64	238
Net cash used in investing activities	(2,968)	(8,452)
Financing activities		
Principle payments on equipment financing	(2,208)	(3,022)
Proceeds from equipment financing arrangements	2,061	606
Redemption of convertible debentures	(50,000)	—
Decrease (increase) in restricted investments	522	(935)
Net proceeds from issuance of zero coupon convertible senior notes	—	10,000
Net proceeds from issuance of common stock	70,579	26,769
Net cash provided by financing activities	20,954	33,418
Net increase in cash and cash equivalents	2,436	8,531
Cash and cash equivalents at beginning of period	20,741	9,224
Cash and cash equivalents at end of period	\$ 23,177	\$ 17,755
Supplemental disclosure of cash flow information		
Interest paid	\$ 3,967	\$ 4,456
Supplemental schedule of non-cash investing and financing activities		
Conversion of zero coupon convertible senior notes to common stock	\$ 86,135	\$ —
Issuance of common stock for acquired technology	5,000	5,000
Issuance of common stock for debt conversion incentive	2,015	—

See accompanying notes.

LIGAND PHARMACEUTICALS INCORPORATED
Notes to Consolidated Financial Statements

1. Basis of Presentation

The consolidated financial statements of Ligand Pharmaceuticals Incorporated ("Ligand" or the "Company") for the three and nine months ended September 30, 2002 and 2001 are unaudited. These financial statements reflect all adjustments, consisting of only normal recurring adjustments which, in the opinion of management, are necessary to fairly present the consolidated financial position as of September 30, 2002 and the consolidated results of operations for the three and nine months ended September 30, 2002 and 2001. The results of operations for the period ended September 30, 2002 are not necessarily indicative of the results to be expected for the year ending December 31, 2002. For more complete financial information, these financial statements, and the notes thereto, should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2001 included in the Company's Annual Report on Form 10-K and the unaudited consolidated financial statements for the periods ended March 31, 2002 and June 30, 2002 included in the Company's Quarterly Reports on Form 10-Q filed with the SEC.

Principles of Consolidation. The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the financial statements and disclosures made in the accompanying notes to the financial statements. Actual results could differ from those estimates.

New Accounting Pronouncements. In July 2001, the Financial Accounting Standards Board ("FASB") issued SFAS No. 142, Goodwill and Other Intangible Assets, which requires that goodwill and other intangible assets with indefinite lives no longer be amortized, but instead tested for impairment at least annually. In addition, the standard includes provisions for the reclassification of certain existing intangibles as goodwill and reassessment of the useful lives of existing recognized intangibles.

In October 2001, the FASB issued SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets, which establishes one accounting model to be used for long-lived assets to be disposed of by sale and broadens the presentation of discontinued operations to include more disposal transactions. SFAS No. 144 supercedes SFAS No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of, and the accounting and reporting provisions of APB No. 30.

The adoption of SFAS No. 142 and SFAS No. 144 effective January 1, 2002 did not have a material effect on the Company's operations or financial position.

Net Loss Per Share. Net loss per share is computed using the weighted average number of common shares outstanding. Basic and diluted net loss per share amounts are equivalent for the periods presented as the inclusion of common stock equivalents in the number of shares used for the diluted computation would be anti-dilutive.

Inventories. Inventories are stated at the lower of cost or market. Cost is determined using the first-in-first-out method. Inventories consist of the following (in thousands):

	September 30, 2002	December 31, 2001
Raw materials	\$ 145	\$ 143
Work-in-process	1,283	2,729
Finished goods	1,727	884
	<u>\$ 3,155</u>	<u>\$ 3,756</u>

Other Assets. Other assets consist of the following (in thousands):

	September 30, 2002	December 31, 2001
Technology license, net	\$ 8,800	\$ 4,000
Payment to extend X-Ceptor purchase right (Note 7)	5,000	—
Prepaid royalty buyout, net	3,196	3,400
Deferred rent	3,050	3,204
Equity investment in X-Ceptor	1,604	2,448
Other	513	908
	<u>\$ 22,163</u>	<u>\$ 13,960</u>

Accrued Liabilities. Accrued liabilities consist of the following (in thousands):

	September 30, 2002	December 31, 2001
Compensation	\$ 2,999	\$ 2,786
Royalties	1,647	2,736
Interest	34	1,942
Payment to licensor	—	2,500
Other	1,860	2,281
	<u>\$ 6,540</u>	<u>\$ 12,245</u>

Comprehensive Loss. Comprehensive loss represents net loss adjusted for the change during the periods presented in unrealized gains and losses on available-for-sale securities less reclassification adjustments for realized gains or losses included in net loss, as well as foreign currency translation adjustments. The accumulated unrealized gains or losses are reported as accumulated other comprehensive income (loss) as a separate component of stockholders' equity (deficit). Comprehensive loss for the three and nine months ended September 30, 2002 and 2001 is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2002	2001	2002	2001
Comprehensive loss	<u>\$ 7,035</u>	<u>\$ 7,742</u>	<u>\$ 25,941</u>	<u>\$ 29,922</u>

2. Elan Note Conversions

In February 2002, pursuant to an agreement reached in December 2001, the Company converted \$50.0 million in issue price of zero coupon convertible senior notes and \$11.8 million of accrued interest owed to Elan Corporation, plc ("Elan") into 4,406,010 shares of common stock.

In March 2002, Elan agreed to convert the remaining \$20.0 million in issue price zero coupon convertible senior notes and \$4.7 million of accrued interest into 1,766,916 shares of Ligand common stock. In connection with the conversion, Ligand provided Elan with a \$2.0 million conversion incentive through the issuance of 102,151 shares of common stock. As part of the agreement to convert, Elan exercised existing warrants to acquire 91,406 shares of Ligand common stock at a price per share of \$10.00.

3. Royalty Sale

In March 2002, Ligand entered into an agreement with Royalty Pharma AG, to sell a portion of the Company's rights to future royalties from certain collaborative partners' net sales of three selective estrogen receptor modulator (SERM) products now in Phase III clinical development. The agreement provides for the initial sale of rights to 0.25% of such product net sales for \$6.0 million and options to acquire up to an additional 1.00% of net sales for \$50.0 million. The \$6.0 million was recognized as revenue in the first quarter of 2002.

In July 2002, the agreement was amended to replace the second option, exercisable in December 2002, to acquire an additional 0.25% of net sales for \$8.0 million, with two new options. The new options, each for an additional 0.125% of net sales, are exercisable for \$3.5 million and \$3.8 million on September 30, 2002 and December 31, 2002, respectively.

Royalty Pharma AG exercised the first option to acquire an additional 0.125% of such product net sales for \$3.0 million in April 2002 and the new second option to acquire 0.125% of net sales for \$3.5 million in September 2002. The Company recognizes revenue for options under the agreement when the option is exercised.

4. Avinza™ Approval and Product Launch

FDA Approval

In March 2002, the FDA approved Avinza™, a product licensed from Elan for the relief of chronic, moderate to severe pain. The approval of Avinza™ triggered a \$5.0 million milestone payment to Elan that was settled through the issuance of 302,554 shares of common stock. The total amount paid to Elan in 2002 and owed to Elan as of September 30, 2002 for Avinza™ purchases and royalties is \$4.9 million.

Under the existing Avinza™ license agreement, the Company is committed to spend not less than \$7.0 million through May 2003 to undertake additional clinical activities related to the commercialization of Avinza™. In the event the Company does not spend this amount, any shortfall would be paid to Elan. As of September 30, 2002, approximately 65% of this commitment had been incurred. This commitment will no longer be in effect following the closing of the proposed amendment to the Avinza™ license agreement. See Note 9.

Product Launch

In the second quarter of 2002, the Company shipped \$11.5 million of Avinza™ to wholesaler customers. The product was sold under certain promotional launch programs that provided customers with discounts off wholesale price and 90-day payment terms instead of the Company's normal 30-day terms. The promotions were implemented to ensure the availability of a sufficient retail supply of Avinza™ in those territories where Ligand sales representatives are initially promoting the product. Of the amount shipped, \$4.1 million was recognized as revenue during the second quarter based on the Company's policy of deferring recognition of revenue associated with promotional product terms for a new product launch requiring broad retail pharmacy distribution. The revenue deferred and the related cost of product sold was netted and recorded as deferred revenue in the Company's balance sheet. The amount of deferred revenue recognized in subsequent periods is determined based on an estimate, using available market information, of the level of product at wholesalers that will sell through to pharmacies.

Through September 30, 2002, \$13.5 million of Avinza™ has been shipped to wholesaler customers. Of the amount shipped, net revenue of \$6.1 million was recognized in the third quarter. As of September 30, 2002, \$1.8 million of Avinza™ net revenue has not met the Company's criteria for recognition and is therefore recorded as deferred revenue.

5. Redemption of Convertible Subordinated Debentures

In June 2002, the Company redeemed \$50.0 million in face value of convertible subordinated debentures due January 2003. The remaining \$1.8 million of accretion to face value at the time of redemption was charged to interest expense.

6. Commitments and Contingencies

Property Lease

The Company leases its corporate headquarters from a limited liability company (the "LLC") in which Ligand holds a 1% ownership interest. The lease agreement provides for increases in annual rent of 4% and terminates in 2014. Ligand also has an option to either purchase the LLC or the leased premises from the LLC at a purchase price equal to the outstanding debt on the property plus a calculated return on the investment made by the LLC's other shareholder.

In accordance with existing accounting standards, the lease is treated as an operating lease for financial reporting purposes. The FASB, however, has issued an exposure draft of a proposed interpretation of Accounting Research Bulletin No. 51, Consolidated Financial Statements, that would modify existing accounting principles and under certain conditions, result in consolidation of such entities. If Ligand were required to consolidate the LLC, the Company's consolidated balance sheet as of September 30, 2002 would reflect additional property and equipment of \$13.4 million and additional debt of \$12.8 million. The impact of such treatment on the Company's operating results would not be significant.

Convertible Note

The \$2.5 million convertible note was issued in connection with the Company's collaborative arrangement with SmithKline Beecham Corporation. The note was repaid in October 2002.

Litigation

The Company is subject to various lawsuits and claims with respect to matters arising out of the normal course of business. Due to the uncertainty of the ultimate outcome of these matters, the impact on future financial results is not subject to reasonable estimates.

7. Option to Acquire X-Ceptor Therapeutics, Inc.

Under a 1999 investment agreement with X-Ceptor Therapeutics, Inc. ("X-Ceptor"), Ligand maintained the right to acquire all of the outstanding stock of X-Ceptor not held by Ligand at June 30, 2002, or to extend the purchase right for 12 months by providing additional funding of \$5.0 million. In April 2002, Ligand informed X-Ceptor that it was extending its purchase right. The \$5.0 million paid to X-Ceptor in July 2002 will be carried as an asset until the Company decides to either exercise its purchase right or allow the option to expire unexercised. That decision must be made prior to June 30, 2003. If the purchase right is exercised, the \$5.0 million option will be treated as a component of the purchase price; otherwise it will be charged to earnings in the period the decision not to exercise is made.

8. Stockholders' Equity

In April 2002, the Company raised net proceeds of approximately \$65.9 million in a private placement of 4,252,500 shares of its common stock.

9. Subsequent Events

License and Supply Agreement with Elan. In November 2002, the Company announced it had amended the terms of its Avinza™ license and supply agreement with Elan. Under the terms of the amendment, Ligand will pay Elan \$100.0 million in return for a reduction in Elan's product supply price and royalty rate on sales of Avinza™ by Ligand, rights to sublicense and obtain a co-promotion partner in its territories, and rights to qualify, and purchase Avinza™ from, a second manufacturing source. Elan's new royalty and supply price of Avinza™ will be approximately 10% of the product's net sales, compared to approximately 30-35% in the prior agreement. In addition, Elan will forego its option to co-promote Avinza™ in the United States and Canada. Closing of the transaction is subject to Ligand completing a financing.

Repurchase of Elan Shares. In November 2002, the Company also announced it will purchase, then retire, approximately 2.2 million Ligand shares owned by an affiliate of Elan for \$9 a share. In addition, Elan has agreed to a 6-month lock-up period on 11.8 million of its remaining 12.2 million Ligand shares. Ligand has agreed to changes to Elan's registration rights to facilitate an orderly distribution of its shares after the lock-up period.

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 at "Risks and Uncertainties". This outlook represents our current judgment on the future direction of our business. Such risks and uncertainties could cause actual results to differ materially from any future performance suggested. We undertake no obligation to release publicly the results of 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 the Private Securities Litigation Reform Act of 1995.

Our trademarks, trade names and service marks referenced herein include Ligand[®], Avinza[™], ONTAK[®], Panretin[®] and Targretin[®]. Each other trademark, trade name or service mark appearing in this quarterly report belongs to its owner.

Overview

We discover, develop and market drugs that address patients' critical unmet medical needs in the areas of cancer, men's and women's health, or hormone-related health issues, skin diseases, osteoporosis, and metabolic, cardiovascular and inflammatory diseases. Our drug discovery and development programs are based on our proprietary gene transcription technology, primarily related to Intracellular Receptors, also known as IRs, a type of sensor or switch inside cells that turns genes on and off, and Signal Transducers and Activators of Transcription, also known as STATs, which are another type of gene switch.

We currently market five products in the United States: Avinza[™], for the relief of chronic, moderate to severe pain; ONTAK[®], for the treatment of patients with persistent or recurrent cutaneous T-cell lymphoma (or CTCL); Targretin[®] capsules and Targretin[®] gel, for the treatment of CTCL in patients who are refractory to at least one prior systemic therapy; and Panretin[®] gel, for the treatment of Kaposi's sarcoma in AIDS patients. In March 2002, the Food and Drug Administration (or FDA) approved Avinza[™], a product we license from our strategic partner Elan Corporation, plc. Avinza[™] was launched in the U.S. in June 2002. In Europe, we were granted a marketing authorization for Panretin[®] gel in October 2000 and for Targretin[®] capsules in March 2001 and have a marketing authorization application (or MAA) under review for ONZAR (ONTAK[®] in the U.S.). Targretin[®] capsules and Panretin[®] gel were launched in Europe in the fourth quarter of 2001. During the second quarter, we withdrew our Targretin[®] gel MAA in Europe due to a request for additional clinical trials in CTCL which we judged uneconomic given the size of the CTCL market and the existing approval for Targretin[®] capsules in Europe.

We are currently involved in the research phase of research and development collaborations with Eli Lilly and Company and TAP Pharmaceutical Products Inc. (or TAP). Collaborations in the development phase are being pursued by Abbott Laboratories, Allergan, Inc., GlaxoSmithkline, Organon, Pfizer and Wyeth. We receive funding during the research phase of the arrangements and milestone and royalty payments as products are developed and marketed by our corporate partners. In addition, in connection with some of these collaborations, we received non-refundable up-front payments. As of September 30, 2002, we had deferred revenue of \$5.3 million resulting from up-front payments earned under these collaboration agreements. Such amount is being amortized as revenue over the service periods of the agreements which range from December 1997 to December 2013.

We have been unprofitable since our inception. We expect to incur additional operating losses until sales of our products generate sufficient revenues to cover our expenses. We expect that our operating results will fluctuate from period to period as a result of differences in the timing of expenses incurred, revenues earned from product sales, collaborative arrangements and other sources. Some of these fluctuations may be significant.

Recent Developments

License and Supply Agreement with Elan. In November 2002, we announced the amendment of the terms of our Avinza™ (morphine sulfate extended-release capsules) license and supply agreement with Elan Corporation, plc. Under the terms of the amendment, we will pay Elan \$100.0 million in return for a reduction in Elan's royalty rate on sales of Avinza™ by us, rights to sublicense and obtain a co-promotion partner in its territories, and rights to qualify, and purchase Avinza™ from, a second manufacturing source. Elan's new royalty and supply price of Avinza™ will be approximately 10% of the product's net sales, compared to approximately 30-35% in the prior agreement. In addition, Elan will forego its option to co-promote Avinza™ in the United States and Canada. Closing of the transaction is subject to our completing a financing.

Repurchase of Elan Shares. In November 2002, we also announced we will purchase, then retire, approximately 2.2 million shares of common stock owned by an affiliate of Elan for \$9 a share. In addition, Elan has agreed to a 6-month lock-up period on 11.8 million of its remaining 12.2 million shares. We have agreed to changes to Elan's registration rights to facilitate an orderly distribution of its shares after the lock-up period.

Results of Operations

Total revenues for the third quarter of 2002 increased to \$25.3 million compared to \$19.2 million for the third quarter of 2001, an increase of 32%. Net loss for the third quarter of 2002 of \$7.0 million or \$0.10 per share, compares to \$7.7 million or \$0.13 per share for the third quarter of 2001. Loss from operations for the third quarter of 2002 of \$6.8 million compares to \$4.6 million for the 2001 period.

For the nine months ended September 30, 2002, total revenues were \$69.3 million, compared to \$53.7 million for 2001, an increase of 29%. Net loss for the same period in 2002 was \$25.9 million or \$0.38 per share compared to a net loss of \$29.9 million or \$0.50 per share for the 2001 period. Loss from operations for the nine months ended September 30, 2002 of \$18.6 million compares to \$20.6 million for 2001.

Product Sales

Product sales for the third quarter of 2002 were \$16.5 million compared to \$11.4 million for the third quarter of 2001, an increase of 45%. Product sales for the nine months ended September 30, 2002 increased to \$40.6 million compared to \$30.0 million for the prior year period, an increase of 35%. Quarterly product sales are influenced by a number of factors including demand for our products, wholesaler inventory practices, and our product promotion practices.

Product revenue for the third quarter of 2002 and nine months ended September 30, 2002 includes sales of \$6.1 million and \$10.2 million respectively for Avinza™ which was launched in the U.S. in June 2002. In connection with the launch, we shipped \$11.5 million of Avinza™ to wholesaler customers. This product was sold under certain promotional launch programs, not uncommon with new product launches, that provided customers with discounts off wholesale price and 90-day payment terms instead of the Company's normal 30-day terms. The promotions were implemented to ensure the availability of a sufficient retail supply of Avinza™ in those territories where Ligand sales representatives are initially promoting the product. Our policy is to defer recognition of revenue associated with promotional terms for a new product launch requiring broad retail pharmacy distribution. We deferred \$6.1 million of net revenue in the second quarter pursuant to this policy. The amount of deferred revenue recognized in subsequent periods is determined based on an estimate, using available market information, of the level of product that will sell through from wholesalers to pharmacies. Through September 30, 2002, \$13.5 million of Avinza™ has been shipped to wholesaler customers. As of September 30, 2002, \$1.8 million of Avinza™ net revenue has not met the Company's criteria for recognition and is therefore recorded as deferred revenue.

Excluding Avinza™, sales of our in-line products for the third quarter of 2002 were \$10.4 million compared to \$11.4 million in 2001. Sales of ONTAK® decreased from \$6.5 million in the third quarter of 2001 to \$5.7 million in the third quarter of 2002 while sales of Targretin® gel and Panretin® gel decreased from \$1.7 million in 2001 to \$1.2 million in 2002. Sales of Targretin® capsules increased from \$3.2 million in the third quarter of 2001 to \$3.5 million in the third quarter of 2002. The decrease in sales of ONTAK® and the flat sales for Targretin® capsules are a result of lower than estimated product demand growth due primarily to delays in completion and data publication of key ongoing, expanded-use clinical trials in B-cell non-Hodgkins Lymphoma (NHL) and chronic lymphocytic leukemia (CLL) and to delays in new, expanded use physician initiated trials in a number of key indications for ONTAK® and Targretin® capsules.

Sales of our in-line product were \$30.4 million for the nine months ended September 30, 2002 compared to \$30.0 million for the nine months ended September 30, 2001. Sales of ONTAK® increased to \$19.2 million in 2002 from \$16.3 million in 2001 offset by decreases in sales of Targretin® capsules to \$8.5 million in 2002 from \$8.9 million in 2001 and Targretin® gel and Panretin® gel to \$2.6 million in 2002 from \$4.7 million in 2001. In addition to the effect on sales of lower than estimated demand growth discussed above, the year-to-date results were impacted by decisions made by several of our major wholesaler customers not to purchase or to purchase lower quantities of our products in order to reduce inventory carrying levels in the second quarter. Second quarter sales were also reduced by \$1.5 million for higher than estimated returns of expired product related to the lower than expected demand growth and inconsistent inventory rotation by certain distributors. We expect wholesaler buying patterns to normalize and underlying demand trends to accelerate in the fourth quarter of 2002.

We continue to expect that off-label use and sales of ONTAK® and Targretin® capsules will increase when and as data is obtained from ongoing expanded-use clinical trials and the initiation of new expanded-use trials. The level and timing of any such off-label use, however, is influenced by a number of factors including the accrual of patients and overall progress of clinical trials which are managed by third parties. See "Risks and Uncertainties" for further discussion of risks associated with product development.

Our products include small-volume specialty pharmaceutical products that address the needs of cancer patients in relatively small niche markets with substantial geographical fluctuations in demand. To ensure patient access to our drugs, we maintain broad distribution capabilities with inventories held at approximately 125 locations throughout the United States. Furthermore, the purchasing and stocking patterns of our wholesaler customers are influenced by a number of factors that vary with each product including but not limited to overall level of demand, periodic promotions, required minimum shipping quantities and wholesaler competitive initiatives. As a result, the level of product in the distribution channel may average from two to six months' worth of projected inventory usage. If any or all of our major distributors decide to substantially reduce the inventory they carry in a given period, our sales for that period could be substantially lower than historical levels.

Collaborative Research and Development and Other Revenues

Collaborative research and development and other revenues for the quarter ended September 30, 2002 were \$8.8 million compared to \$7.8 million for the quarter ended September 30, 2001. For the nine months ended September 30, 2002, collaborative research and development and other revenues were \$28.7 million compared to \$23.7 million in the prior year period. A comparison of collaborative research and development and other revenues is as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2002	2001	2002	2001
Collaborative research and development	\$ 4,999	\$ 7,691	\$ 15,735	\$ 19,768
Royalty sale	3,500	—	12,500	—
Distribution agreements	77	77	232	3,709
Other	204	—	204	206
	<u>\$ 8,780</u>	<u>\$ 7,768</u>	<u>\$ 28,671</u>	<u>\$ 23,683</u>

Collaborative research and development revenue includes reimbursement for ongoing research activities, earned development milestones and SAB No. 101 recognition of prior years' up-front fees. Revenue from distribution agreements includes recognition of up-front fees collected upon contract signing and deferred over the life of the distribution arrangement and milestones achieved under such agreements.

The decrease in collaborative research and development revenue for the three and nine months ended September 30, 2002 compared to the corresponding prior periods is due to the loss of funding from collaborative research arrangements with Bristol-Myers Squibb, which was terminated in June 2001, and Organon, the research phase of which concluded in February 2002. This decrease is partially offset by collaborative research funding earned under our agreement with TAP which was entered into in June 2001. Additionally, for the nine months ended September 30, 2002 we earned milestone revenues of \$1.3 million, net of royalties owed, compared to \$1.6 million in the prior year, under our collaborative agreements with Eli Lilly and Company and Wyeth.

Royalty sale represents revenue earned from the sale to Royalty Pharma AG of rights and options to future royalties from certain collaborative partners' net sales of three selective estrogen receptor modulator (SERM) products. These products are now in Phase III clinical development. The royalty purchase agreement provides for the initial sale of rights to 0.25% of such product net sales and grants Royalty Pharma options to acquire up to an additional 1.00% of net sales for \$50.0 million. We earned \$6.0 million in the first quarter upon the initial sale of rights and \$3.5 million and \$3.0 million in the third and second quarters, respectively, when Royalty Pharma AG exercised the first two options to acquire a total additional 0.25% of such product net sales.

Revenue from distribution agreements decreased to \$0.2 million for the nine months ended September 30, 2002 from \$3.7 million for 2001. The 2001 amount includes milestones earned under our distribution agreement with Elan for the European submission of a Marketing Authorization Approval (MAA) for Targretin[®] gel and the European grant of an MAA for Targretin[®] capsules.

Gross Margin

Gross margin on product sales was 65.8% for the third quarter of 2002 compared to 68.0% for the third quarter of 2001. Gross margin on product sales for the nine months ended September 30, 2002 was 63.6% compared to 68.1% for the prior year period. The margin for the third quarter of 2002 was negatively impacted by sales of Avinza[™], which has higher product costs than certain of our other products and lower sales of our in-line products over which we spread certain fixed costs (amortization of acquired technology). Margins for the nine months ended September 20, 2002 were further negatively impacted by higher than estimated returns of expired products recorded in the second quarter of 2002 and the last annual increase in the contractual royalty rate on ONTAK[®].

Operating Expenses

Research and development expenses were \$15.6 million in the third quarter of 2002 compared to \$12.9 million for the third quarter of 2001. For the nine months ended September 30, 2002, research and development expenses were \$42.4 million compared to \$38.5 million in 2001. The increase in 2002 reflects the development funding of Phase III clinical trials for Targretin[®] capsules in non-small cell lung cancer. This increase is partially offset by the timing of expenses incurred on certain ongoing development programs to improve existing products. We expect development expenses to further increase as additional patients are accrued under the non-small cell lung cancer clinical trials.

Selling, general and administrative expenses were \$10.8 million for the third quarter of 2002 compared to \$7.2 million for the third quarter of 2001. Selling, general and administrative expenses for the nine months ended September 30, 2002 were \$30.7 million compared to \$26.2 million for the nine months ended September 30, 2001. The increase is due to higher advertising and promotion expenses in connection with the launch of Avinza™ and costs associated with approximately 25 additional sales representatives hired in the second quarter to target general pain centers not served by our existing oncology and dermatology sales forces. The impact of the Avinza™ launch is partially offset by lower Targretin® related expenses in 2002 compared to 2001 when significant advertising and promotion expenses were incurred in connection with the commencement of post-approval trials and post-launch promotions for Targretin® capsules. We expect selling and marketing expenses for the remainder of 2002 to continue to increase due to Avinza™ promotions and a greater emphasis on physician attended, product information and advisory meetings and physician investigational new drug (PIND) studies in support of ONTAK® and Targretin® capsules.

Other Expenses

Other expense, net was \$0.3 million for the third quarter of 2002 compared to \$3.2 million for the third quarter of 2001. The decrease in the net expense is due to lower interest expense resulting from the conversion of all outstanding zero coupon convertible senior notes owed to Elan in the fourth quarter of 2001 and the first quarter of 2002 and the early redemption of \$50.0 million in face value of convertible subordinated debentures in June 2002.

Other expense, net was \$7.3 million for the nine months ended September 30, 2002 compared to \$9.4 million for the nine months ended September 30, 2001. The decrease in the net expense reflects lower interest expense resulting from the conversion of all outstanding zero coupon convertible senior notes and the early redemption of \$50.0 million in face value of convertible subordinated debentures. This decrease is partially offset by debt conversion expense of \$2.0 million for an incentive provided to Elan in connection with the March 2002 conversion of zero coupon convertible senior notes into common stock, and \$1.8 million of accelerated accretion to face value in connection with the early redemption of the convertible subordinated debentures.

Liquidity and Capital Resources

We have financed our operations through private and public offerings of our equity securities, collaborative research and development and other revenues, issuance of convertible notes, product sales, capital and operating lease transactions, equipment financing arrangements and investment income.

At September 30, 2002, working capital was \$20.7 million compared to working capital of \$21.8 million at December 31, 2001. Cash, cash equivalents, short-term investments, and restricted investments totaled \$37.1 million at September 30, 2002 compared to \$40.1 million at December 31, 2001. We primarily invest our cash in United States government and investment grade corporate debt securities.

Operating activities used cash of \$15.6 million for the nine months ended September 30, 2002 compared to \$16.4 million for the nine months ended September 30, 2001. Operating cash flow in 2002 compared to the prior year period benefited from increased product sales and \$12.5 million of cash received in connection with the sale to Royalty Pharma AG of rights and options to future royalties from certain collaborative partners' net sales of three selective estrogen receptor modulator (SERM) products. The increase in revenue in 2002 was offset by higher operating expenses and changes in working capital. Changes in operating assets and liabilities in the 2002 period used net cash of \$1.5 million.

Investing activities used cash of \$3.0 million for the nine months ended September 30, 2002 compared to \$8.5 million for the nine months ended September 30, 2001. The use of cash in 2002 reflects a \$5.0 million payment to X-Cepto Therapeutics, Inc. (X-Cepto), the net sale of short-term investments of \$4.8 million, and capital expenditures of \$2.9 million primarily for lab and computer equipment. Under a 1999 investment agreement with X-Cepto, we maintained the right to acquire all of the outstanding stock of X-Cepto not held by Ligand at June 30, 2002, or to extend the purchase right for 12 months by providing additional funding of \$5.0 million. In April 2002, we elected to extend the purchase right and payment was subsequently made in July 2002. Cash used for investing activities in 2001 includes net purchases of short-term investments of \$7.2 million and capital expenditures of \$1.5 million.

Financing activities provided cash of \$21.0 million for the nine months ended September 30, 2002 compared to \$33.4 million for the nine months ended September 30, 2001. Cash received in 2002 includes net proceeds of \$65.9 million through a private placement of 4,252,500 shares of our common stock, \$3.2 million from the exercise of employee stock options and \$0.9 million from the exercise of a warrant held by Elan in connection with the conversion of zero coupon convertible senior notes. This was partially offset by the \$50.0 million early redemption of convertible subordinated debentures. Cash received in 2001 includes \$22.4 million from a private placement of our common stock and \$10.0 million in connection with the issuance of zero coupon convertible senior notes to Elan, partially offset by net repayments of \$2.4 million on equipment financing arrangements and \$0.9 million of cash restricted pursuant to certain third party service provider arrangements.

At September 30, 2002, we had outstanding a \$2.5 million convertible note to SmithKline Beecham Corporation due in October 2002. The note was repaid in October 2002.

Certain of our property and equipment is pledged as collateral under various equipment financing arrangements. As of September 30, 2002, \$6.1 million was outstanding under such arrangements with \$2.3 million classified as current. Our equipment financing arrangements have terms of three to five years with interest ranging from 5.25% to 10.66%.

We lease our office and research facilities under operating lease arrangements with varying terms through July 2015. Our corporate headquarters is leased from a limited liability company (the LLC) in which we hold a 1% ownership interest. The lease agreement provides for increases in annual rent of 4% and terminates in 2014. We also have the right, but not the obligation, to purchase either the LLC or the leased premises from the LLC at a purchase price equal to the outstanding debt on the property plus a calculated return on the investment made by the LLC's other shareholder.

In accordance with existing accounting standards, the lease is treated as an operating lease for financial reporting purposes. The FASB, however, has issued an exposure draft of a proposed interpretation of Accounting Research Bulletin No. 51, *Consolidated Financial Statements*, that would modify existing accounting principles and under certain conditions, result in consolidation of such entities. If we were required to consolidate the LLC, our consolidated balance sheet as of September 30, 2002 would reflect additional property and equipment of \$13.4 million and additional debt of \$12.8 million.

Under the existing Avinza™ license agreement, we are committed to spend not less than \$7.0 million through May 2003 to undertake additional clinical activities related to the commercialization of Avinza™. In the event we do not spend this amount, any shortfall would be paid to Elan. As of September 30, 2002, approximately 65% of this commitment had been incurred. This commitment will no longer be in effect following the closing of the proposed amendment to the Avinza™ license agreement.

We believe our available cash, cash equivalents, short-term investments and existing sources of funding will be sufficient to satisfy our anticipated operating and capital requirements through at least the next 12 months. Our future operating and capital requirements will depend on many factors, including: the effectiveness of our commercial activities; the scope and results of preclinical testing and clinical trials; the pace of scientific progress in our research and development programs; the magnitude of these programs; the time and costs involved in obtaining regulatory approvals; the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims; competing technological and market developments; the efforts of our collaborators; the ability to establish additional collaborations or changes in existing collaborations; and the cost of production.

New Accounting Pronouncements

In July 2001, the FASB issued SFAS No. 142, "Goodwill and Other Intangible Assets" which requires that goodwill and other intangible assets with indefinite lives no longer be amortized, but instead tested for impairment at least annually. In addition, the standard includes provisions for the reclassification of certain existing intangibles as goodwill and reassessment of the useful lives of existing recognized intangibles.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" which establishes one accounting model to be used for long-lived assets to be disposed of by sale and broadens the presentation of discontinued operations to include more disposal transactions. SFAS No. 144 supercedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" and the accounting and reporting provisions of APB Opinion No. 30.

The adoption of SFAS No. 142 and SFAS No. 144 effective January 1, 2002 did not have a material effect on our operations or financial position.

Risks and Uncertainties

The following is a summary description of some of the many risks we face in our business. You should carefully review these risks in evaluating our business, including the businesses of our subsidiaries. You should also consider the other information described in this report.

Risks Related to Our Business

Our product development and commercialization involves a number of uncertainties, and we may never generate sufficient revenues from the sale of products to become profitable.

We were founded in 1987. We have incurred significant losses since our inception. At September 30, 2002, our accumulated deficit was approximately \$612 million. To date, we have received the majority of our revenues from our collaborative arrangements and only began receiving revenues from the sale of pharmaceutical products in 1999. To become profitable, we must successfully develop, clinically test, market and sell our products. Even if we achieve profitability, we cannot predict the level of that profitability or whether we will be able to sustain profitability. We expect that our operating results will fluctuate from period to period as a result of differences in when we incur expenses and receive revenues from product sales, collaborative arrangements and other sources. Some of these fluctuations may be significant.

Most of our products in development will require extensive additional development, including preclinical testing and human studies, as well as regulatory approvals, before we can market them. We cannot predict if or when any of the products we are developing or those being co-developed with our partners will be approved for marketing. There are many reasons that we or our collaborative partners may fail in our efforts to develop our other potential products, including the possibility that:

- preclinical testing or human studies may show that our potential products are ineffective or cause harmful side effects,
- the products may fail to receive necessary regulatory approvals from the FDA or foreign authorities in a timely manner, or at all,
- the products, if approved, may not be produced in commercial quantities or at reasonable costs,
- the products, once approved, may not achieve commercial acceptance,
- regulatory or governmental authorities may apply restrictions to our products, which could adversely affect their commercial success, or
- the proprietary rights of other parties may prevent us or our partners from marketing the products.

We are building marketing and sales capabilities in the United States and Europe which is an expensive and time-consuming process and may increase our operating losses.

Developing the sales force to market and sell products is a difficult, expensive and time-consuming process. We have developed a US sales force of about 85 people, some of whom are contracted from a third party. We also rely on third-party distributors to distribute our products. The distributors are responsible for providing many marketing support services, including customer service, order entry, shipping and billing and customer reimbursement assistance. In Europe, we will rely initially on other companies to distribute and market our products. We have entered into agreements for the marketing and distribution of our products in territories such as the United Kingdom, Germany, France, Spain, Portugal, Greece, Italy and Central and South America and have established a subsidiary, Ligand Pharmaceuticals International, Inc., with a branch in London, England, to coordinate our European marketing and operations. We may not be able to continue to expand our sales and marketing capabilities sufficiently to successfully commercialize our products in the territories where they receive marketing approval. To the extent we enter into co-promotion or licensing arrangements, any revenues we receive will depend on the marketing efforts of others, which may or may not be successful.

Our small number of products means our results are vulnerable to setbacks with respect to any one product.

We currently have only five products approved for marketing and a handful of other products/indications that have made significant progress through development. Because these numbers are small, especially the number of marketed products, any significant setback with respect to any one of them could significantly impair our operating results and/or reduce the market prices for our securities. Setbacks could include problems with shipping, manufacturing, product safety, marketing, government licenses and approvals, intellectual property rights and physician or patient acceptance of the product.

Sales of our specialty pharmaceutical products may significantly fluctuate each period based on the nature of our products, our promotional activities and wholesaler purchasing and stocking patterns.

Our products include small-volume specialty pharmaceutical products that address the needs of cancer patients in relatively small niche markets with substantial geographical fluctuations in demand. To ensure patient access to our drugs, we maintain broad distribution capabilities with inventories held at approximately 125 locations throughout the United States. Furthermore, the purchasing and stocking patterns of our wholesaler customers are influenced by a number of factors that vary with each product, including but not limited to overall level of demand, periodic promotions, required minimum shipping quantities and wholesaler competitive initiatives. As a result, the level of product in the distribution channel may average from two to six months' worth of projected inventory usage. If any or all of our major distributors decide to substantially reduce the inventory they carry in a given period, our sales for that period could be substantially lower than historical levels.

Our drug development programs will require substantial additional future funding which could hurt our operational and financial condition.

Our drug development programs require substantial additional capital to successfully complete them, arising from costs to:

- conduct research, preclinical testing and human studies,
- establish pilot scale and commercial scale manufacturing processes and facilities, and
- establish and develop quality control, regulatory, marketing, sales and administrative capabilities to support these programs.

Our future operating and capital needs will depend on many factors, including:

- the pace of scientific progress in our research and development programs and the magnitude of these programs,
- the scope and results of preclinical testing and human studies,
- the time and costs involved in obtaining regulatory approvals,
- the time and costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims,
- competing technological and market developments,
- our ability to establish additional collaborations,
- changes in our existing collaborations,
- the cost of manufacturing scale-up, and
- the effectiveness of our commercialization activities.

We currently estimate our research and development expenditures over the next 3 years to range between \$200 million and \$275 million. However, we base our outlook regarding the need for funds on many uncertain variables. Such uncertainties include regulatory approvals, the timing of events outside our direct control such as product launches by partners and the success of such product launches, negotiations with potential strategic partners and other factors. Any of these uncertain events can significantly change our cash requirements as they determine such one-time events as the receipt of major milestones and other payments.

While we expect to fund our research and development activities from cash generated from internal operations to the extent possible, if we are unable to do so we may need to complete additional equity or debt financings or seek other external means of financing. If additional funds are required to support our operations and we are unable to obtain them on terms favorable to us, we may be required to cease or reduce further development or commercialization of our products, to sell some or all of our technology or assets or to merge with another entity.

Some of our key technologies have not been used to produce marketed products and may not be capable of producing such products.

To date, we have dedicated most of our resources to the research and development of potential drugs based upon our expertise in our IR and STAT technologies. Even though there are marketed drugs that act through IRs, some aspects of our IR technologies have not been used to produce marketed products. In addition, we are not aware of any drugs that have been developed and successfully commercialized that interact directly with STATs. Much remains to be learned about the location and function of IRs and STATs. If we are unable to apply our IR and STAT technologies to the development of our potential products, we will not be successful in developing new products.

We may require additional money to run our business and may be required to raise this money on terms which are not favorable or which reduce our stock price.

We have incurred losses since our inception and may not generate positive cash flow to fund our operations for one or more years. As a result, we may need to complete additional equity or debt financings to fund our operations. Our inability to obtain additional financing could adversely affect our business. Financings may not be available at all or on favorable terms. In addition, these financings, if completed, still may not meet our capital needs and could result in substantial dilution to our stockholders. For instance, in February and March 2002 we issued to Elan 6.3 million shares upon the conversion of zero coupon convertible senior notes held by Elan, and in January 2001 and April 2002 we issued 2 million shares and 4.3 million shares of our common stock, respectively, in private placements. These transactions have resulted in the issuance of significant numbers of new shares.

If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate one or more of our drug development programs. Alternatively, we may be forced to attempt to continue development by entering into arrangements with collaborative partners or others that require us to relinquish some or all of our rights to technologies or drug candidates that we would not otherwise relinquish.

Our products face significant regulatory hurdles prior to marketing which could delay or prevent sales. Even after approval, government regulation of our business is extensive.

Before we obtain the approvals necessary to sell any of our potential products, we must show through preclinical studies and human testing that each product is safe and effective. We and our partners have a number of products moving toward or currently in clinical trials, the most significant of which are our Phase III trials for Targretin capsules in non-small cell lung cancer and three Phase III trials by our partners involving bazedoxifene and lasofoxifene and Phase II trials by our partner for ERA 923. Our failure to show any product's safety and effectiveness would delay or prevent regulatory approval of the product and could adversely affect our business. The clinical trials process is complex and uncertain. The results of preclinical studies and initial clinical trials may not necessarily predict the results from later large-scale clinical trials. In addition, clinical trials may not demonstrate a product's safety and effectiveness to the satisfaction of the regulatory authorities. A number of companies have suffered significant setbacks in advanced clinical trials or in seeking regulatory approvals, despite promising results in earlier trials. The FDA may also require additional clinical trials after regulatory approvals are received, which could be expensive and time-consuming, and failure to successfully conduct those trials could jeopardize continued commercialization.

The rate at which we complete our clinical trials depends on many factors, including our ability to obtain adequate supplies of the products to be tested and patient enrollment. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites and the eligibility criteria for the trial. For example, each of our Phase III Targretin clinical trials will involve approximately 600 patients and may require significant time and investment to complete enrollments. Delays in patient enrollment may result in increased costs and longer development times. In addition, our collaborative partners have rights to control product development and clinical programs for products developed under the collaborations. As a result, these collaborators may conduct these programs more slowly or in a different manner than we had expected. Even if clinical trials are completed, we or our collaborative partners still may not apply for FDA approval in a timely manner or the FDA still may not grant approval.

In addition, the manufacturing and marketing of approved products is subject to extensive government regulation, including by the FDA, DEA and state and other territorial authorities. The FDA administers processes to assure that marketed products are safe, effective, consistently of uniform, high quality and marketed only for approved indications. For example, while our products are prescribed legally by some physicians for unapproved uses, we may not market our products for such uses. Failure to comply with applicable regulatory requirements can result in sanctions up to the suspension of regulatory approval as well as civil and criminal sanctions.

We face substantial competition which may limit our revenues.

Some of the drugs that we are developing and marketing will compete with existing treatments. In addition, several companies are developing new drugs that target the same diseases that we are targeting and are taking IR-related and STAT-related approaches to drug development. The principal products competing with our products targeted at the cutaneous t-cell lymphoma market are Supergen/Abbott's Nipent and interferon, which is marketed by a number of companies, including Schering-Plough's Intron A. Products that will compete with Avinza include Purdue Pharma L.P.'s OxyContin and MS Contin, Janssen Pharmaceutica Products, L.P.'s Duragesic, Roxane Laboratories, Inc.'s Oramorph SR and Purepac Pharmaceutical Co.'s Kadian, each of which is currently marketed. Many of our existing or potential competitors, particularly large drug companies, have greater financial, technical and human resources than us and may be better equipped to develop, manufacture and market products. Many of these companies also have extensive experience in preclinical testing and human clinical trials, obtaining FDA and other regulatory approvals and manufacturing and marketing pharmaceutical products. In addition, academic institutions, governmental agencies and other public and private research organizations are developing products that may compete with the products we are developing. These institutions are becoming more aware of the commercial value of their findings and are seeking patent protection and licensing arrangements to collect payments for the use of their technologies. These institutions also may market competitive products on their own or through joint ventures and will compete with us in recruiting highly qualified scientific personnel.

Third-party reimbursement and health care reform policies may reduce our future sales.

Sales of prescription drugs depend significantly on the availability of reimbursement to the consumer from third party payers, such as government and private insurance plans. These third party payers frequently require drug companies to provide predetermined discounts from list prices, and they are increasingly challenging the prices charged for medical products and services. Our current and potential products may not be considered cost-effective, and reimbursement to the consumer may not be available or sufficient to allow us to sell our products on a competitive basis. For example, we have current and recurring discussions with insurers regarding reimbursement rates for our drugs, including Avinza which was recently approved for marketing. We may not be able to negotiate favorable reimbursement rates for our products or may have to pay significant discounts to obtain favorable rates. Only one of our products, ONTAK, is currently eligible to be reimbursed by Medicare. Proposed changes by Medicare to the hospital outpatient payment reimbursement system may adversely affect reimbursement rates for ONTAK.

In addition, the efforts of governments and third-party payers to contain or reduce the cost of health care will continue to affect the business and financial condition of drug companies such as us. A number of legislative and regulatory proposals to change the health care system have been discussed in recent years, including price caps and controls for pharmaceuticals. These proposals could reduce and/or cap the prices for our products or reduce government reimbursement rates for products such as ONTAK. In addition, an increasing emphasis on managed care in the United States has and will continue to increase pressure on drug pricing. We cannot predict whether legislative or regulatory proposals will be adopted or what effect those proposals or managed care efforts may have on our business. The announcement and/or adoption of such proposals or efforts could adversely affect our profit margins and business.

We rely heavily on collaborative relationships and termination of any of these programs could reduce the financial resources available to us, including research funding and milestone payments.

Our strategy for developing and commercializing many of our potential products, including products aimed at larger markets, includes entering into collaborations with corporate partners, licensors, licensees and others. These collaborations provide us with funding and research and development resources for potential products for the treatment or control of metabolic diseases, hematopoiesis, women's health disorders, inflammation, cardiovascular disease, cancer and skin disease, and osteoporosis. These agreements also give our collaborative partners significant discretion when deciding whether or not to pursue any development program. Our collaborations may not continue or be successful.

In addition, our collaborators may develop drugs, either alone or with others, that compete with the types of drugs they currently are developing with us. This would result in less support and increased competition for our programs. If products are approved for marketing under our collaborative programs, any revenues we receive will depend on the manufacturing, marketing and sales efforts of our collaborators, who generally retain commercialization rights under the collaborative agreements. Our current collaborators also generally have the right to terminate their collaborations under specified circumstances. If any of our collaborative partners breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully, our product development under these agreements will be delayed or terminated.

We may have disputes in the future with our collaborators, including disputes concerning which of us owns the rights to any technology developed. For instance, we were involved in litigation with Pfizer, which we settled in April 1996, concerning our right to milestones and royalties based on the development and commercialization of droloxifene. These and other possible disagreements between us and our collaborators could delay our ability and the ability of our collaborators to achieve milestones or our receipt of other payments. In addition, any disagreements could delay, interrupt or terminate the collaborative research, development and commercialization of certain potential products, or could result in litigation or arbitration. The occurrence of any of these problems could be time-consuming and expensive and could adversely affect our business.

Challenges to or failure to secure patents and other proprietary rights may significantly hurt our business.

Our success will depend on our ability and the ability of our licensors to obtain and maintain patents and proprietary rights for our potential products and to avoid infringing the proprietary rights of others, both in the United States and in foreign countries. Patents may not be issued from any of these applications currently on file, or, if issued, may not provide sufficient protection. In addition, disputes with licensors under our license agreements may arise which could result in additional financial liability or loss of important technology and potential products and related revenue, if any.

Our patent position, like that of many pharmaceutical companies, is uncertain and involves complex legal and technical questions for which important legal principles are unresolved. We may not develop or obtain rights to products or processes that are patentable. Even if we do obtain patents, they may not adequately protect the technology we own or have licensed. In addition, others may challenge, seek to invalidate, infringe or circumvent any patents we own or license, and rights we receive under those patents may not provide competitive advantages to us. Further, the manufacture, use or sale of our products may infringe the patent rights of others.

Several drug companies and research and academic institutions have developed technologies, filed patent applications or received patents for technologies that may be related to our business. Others have filed patent applications and received patents that conflict with patents or patent applications we have licensed for our use, either by claiming the same methods or compounds or by claiming methods or compounds that could dominate those licensed to us. In addition, we may not be aware of all patents or patent applications that may impact our ability to make, use or sell any of our potential products. For example, US patent applications may be kept confidential while pending in the Patent and Trademark Office and patent applications filed in foreign countries are often first published six months or more after filing. Any conflicts resulting from the patent rights of others could significantly reduce the coverage of our patents and limit our ability to obtain meaningful patent protection. While we routinely receive communications or have conversations with the owners of other patents, none of these third parties have directly threatened an action or claim against us. If other companies obtain patents with conflicting claims, we may be required to obtain licenses to those patents or to develop or obtain alternative technology. We may not be able to obtain any such licenses on acceptable terms, or at all. Any failure to obtain such licenses could delay or prevent us from pursuing the development or commercialization of our potential products.

We have had and will continue to have discussions with our current and potential collaborators regarding the scope and validity of our patents and other proprietary rights. If a collaborator or other party successfully establishes that our patent rights are invalid, we may not be able to continue our existing collaborations beyond their expiration. Any determination that our patent rights are invalid also could encourage our collaborators to terminate their agreements where contractually permitted. Such a determination could also adversely affect our ability to enter into new collaborations.

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

We have learned that Hoffmann-La Roche Inc. has received a US patent and has made patent filings in foreign countries that relate to our Panretin capsules and gel products. We filed a patent application with an earlier filing date than Hoffmann-La Roche's patent, which we believe is broader than, but overlaps in part with, Hoffmann-La Roche's patent. We believe we were the first to invent the relevant technology and therefore are entitled to a patent on the application we filed. The Patent and Trademark Office has initiated a proceeding to determine whether we or Hoffmann-La Roche are entitled to a patent. We may not receive a favorable outcome in the proceeding. In addition, the proceeding may delay the Patent and Trademark Office's decision regarding our earlier application. If we do not prevail, the Hoffmann-La Roche patent might block our use of Panretin capsules and gel in specified cancers.

We have also learned that Novartis AG has filed an opposition to our European patent that covers the principal active ingredient of our ONTAK drug. We are currently investigating the scope and merits of this opposition. If the opposition is successful, we could lose our ONTAK patent protection in Europe which could substantially reduce our future ONTAK sales in that region. We could also incur substantial costs in asserting our rights in this opposition proceeding, as well as in other interference proceedings in the United States.

We also rely on unpatented trade secrets and know-how to protect and maintain our competitive position. We require our employees, consultants, collaborators and others to sign confidentiality agreements when they begin their relationship with us. These agreements may be breached, and we may not have adequate remedies for any breach. In addition, our competitors may independently discover our trade secrets.

Reliance on third-party manufacturers to supply our products risks supply interruption or contamination and difficulty controlling costs.

We currently have no manufacturing facilities, and we rely on others for clinical or commercial production of our marketed and potential products. In addition, certain raw materials necessary for the commercial manufacturing of our products are custom and must be obtained from a specific sole source. Elan manufactures Avinza for us, Cambrex manufactures ONTAK for us and RP Scherer and Raylo manufacture Targretin capsules for us.

To be successful, we will need to ensure continuity of the manufacture of our products, either directly or through others, in commercial quantities, in compliance with regulatory requirements and at acceptable cost. Any extended and unplanned manufacturing shutdowns could be expensive and could result in inventory and product shortages. While we believe that we would be able to develop our own facilities or contract with others for manufacturing services with respect to all of our products, if we are unable to do so our revenues could be adversely affected. In addition, if we are unable to supply products in development, our ability to conduct preclinical testing and human clinical trials will be adversely affected. This in turn could also delay our submission of products for regulatory approval and our initiation of new development programs. In addition, although other companies have manufactured drugs acting through IRs and STATs on a commercial scale, we may not be able to do so at costs or in quantities to make marketable products.

The manufacturing process also may be susceptible to contamination, which could cause the affected manufacturing facility to close until the contamination is identified and fixed. In addition, problems with equipment failure or operator error also could cause delays in filling our customers' orders.

Our business exposes us to product liability risks or our products may need to be recalled, and we may not have sufficient insurance to cover any claims.

Our business exposes us to potential product liability risks. Our products also may need to be recalled to address regulatory issues. A successful product liability claim or series of claims brought against us could result in payment of significant amounts of money and divert management's attention from running the business. Some of the compounds we are investigating may be harmful to humans. For example, retinoids as a class are known to contain compounds which can cause birth defects. We may not be able to maintain our insurance on acceptable terms, or our insurance may not provide adequate protection in the case of a product liability claim. To the extent that product liability insurance, if available, does not cover potential claims, we will be required to self-insure the risks associated with such claims. We believe that we carry reasonably adequate insurance for product liability claims.

We use hazardous materials which requires us to incur substantial costs to comply with environmental regulations.

In connection with our research and development activities, we handle hazardous materials, chemicals and various radioactive compounds. To properly dispose of these hazardous materials in compliance with environmental regulations, we are required to contract with third parties at substantial cost to us. Our annual cost of compliance with these regulations is approximately \$600,000. We cannot completely eliminate the risk of accidental contamination or injury from the handling and disposing of hazardous materials, whether by us or by our third-party contractors. In the event of any accident, we could be held liable for any damages that result, which could be significant. We believe that we carry reasonably adequate insurance for toxic tort claims.

Our stock price may be adversely affected by volatility in the markets.

The market prices and trading volumes for our securities, and the securities of emerging companies like us, have historically been highly volatile and have experienced significant fluctuations unrelated to operating performance. For example, since January 1, 2001, the daily last reported sale price of our common stock on the Nasdaq National Market has been as high as \$19.99 and as low as \$5.90. Future announcements concerning us or our competitors as well as other companies in our industry and other public companies may impact the market price of our common stock. These announcements might include:

- the results of research or development testing of ours or our competitors' products,
- technological innovations related to diseases we are studying,
- new commercial products introduced by our competitors,
- government regulation of our industry,
- receipt of regulatory approvals by our competitors,
- our failure to receive regulatory approvals for products under development,
- developments concerning proprietary rights,
- litigation or public concern about the safety of our products,
- or intent to sell or actual sale of our stock held by our corporate partners.

Future sales of our securities may depress the price of our securities.

Sales of substantial amounts of our securities in the public market could seriously harm prevailing market prices for our securities. These sales might make it difficult or impossible for us to sell additional securities when we need to raise capital.

You may not receive a return on your securities other than through the sale of your securities.

We have not paid any cash dividends on our common stock to date. We intend to retain any earnings to support the expansion of our business, and we do not anticipate paying cash dividends on any of our securities in the foreseeable future. Accordingly, other than through a sale of your securities, you will not receive a return on your investment, and you should not rely on an investment in our securities if you require dividend income.

Our shareholder rights plan and charter documents may hinder or prevent change of control transactions.

Our shareholder rights plan and provisions contained in our certificate of incorporation and bylaws may discourage transactions involving an actual or potential change in our ownership. In addition, our board of directors may issue shares of preferred stock without any further action by you. Such issuances may have the effect of delaying or preventing a change in our ownership. If changes in our ownership are discouraged, delayed or prevented, it would be more difficult for our current board of directors to be removed and replaced, even if you or our other stockholders believe that such actions are in the best interests of us and our stockholders.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

At September 30, 2002, our investment portfolio included fixed-income securities of \$10.6 million. These securities are subject to interest rate risk and will decline in value if interest rates increase. This risk is mitigated, however, due to the conservative nature of our investments and relatively short effective maturities of the debt instruments in our investment portfolio. Accordingly, an immediate 10% change in interest rates would have no material impact on our financial condition, results of operations or cash flows. Declines in interest rates over time will, however, reduce our interest income.

We do not have a significant level of transactions denominated in currencies other than U.S. dollars and as a result we have limited foreign currency exchange rate risk. The effect of an immediate 10% change in foreign exchange rates would have no material impact on our financial condition, results of operations or cash flows.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of disclosure controls and procedures. An evaluation was performed under the supervision and with the participation of the Company's management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), of the effectiveness of the design and operation of the Company's disclosure controls and procedures within 90 days before the filing date of this quarterly report. Based on their evaluation as of a date within 90 days of the filing date of this Quarterly Report on Form 10-Q, the Company's principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-14(c) and 15d-14(c) under the Securities Exchange Act of 1934 (the "Exchange Act") are effective to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms.

(b) Changes in internal controls. There have been no significant changes in the Company's internal controls or in other factors that could significantly affect internal controls subsequent to their evaluation. There were no significant deficiencies or material weaknesses, and therefore there were no corrective actions taken.

PART II. OTHER INFORMATION

ITEM 6. (A) EXHIBITS

Exhibit 3.1 (1)	Amended and Restated Certificate of Incorporation of the Company (Filed as Exhibit 3.2).
Exhibit 3.2 (1)	Bylaws of the Company, as amended (Filed as Exhibit 3.3).
Exhibit 3.3 (2)	Amended Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of the Company.
Exhibit 3.5 (5)	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company dated June 14, 2000.
Exhibit 4.1 (6)	Specimen stock certificate for shares of Common Stock of the Company.
Exhibit 4.2 (3)	Preferred Shares Rights Agreement, dated as of September 13, 1996, by and between the Company and Wells Fargo Bank, N.A. (Filed as Exhibit 10.1)
Exhibit 4.3 (4)	Amendment to Preferred Shares Rights Agreement, dated as of November 9, 1998, between the Company and ChaseMellon Shareholder Services, L.L.C., as Rights Agent (Filed as Exhibit 99.1).
Exhibit 4.4 (7)	Second Amendment to the Preferred Shares Rights Agreement, dated as of December 23, 1998, between the Company and ChaseMellon Shareholder Services, L.L.C., as Rights Agent (Filed as Exhibit 1).
Exhibit 4.7	Fourth Amendment to the Preferred Shares Rights Agreement and Certification of Compliance with Section 27 Thereof, dated as of October 3, 2002, between the Company and Mellon Investor Services LLC, as Rights Agent.
Exhibit 10.247	Amendment Number 1 to Purchase Agreement, dated July 29, 2002, between the Company and Pharmaceutical Royalties International (Cayman) Ltd.
Exhibit 99.1	Certification by Principal Executive Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley act of 2002.
Exhibit 99.2	Certification by Principal Financial Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley act of 2002.

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- (1) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Registration Statement on Form S-4 (No. 333-58823) filed on July 9, 1998.
 - (2) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 1999.
 - (3) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Registration Statement on Form S-3 (No. 333-12603) filed on September 25, 1996, as amended.
 - (4) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with, the Registration Statement on Form 8-A/A Amendment No. 1 (No. 0-20720) filed on November 10, 1998.
 - (5) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the period ended December 31, 2000.
 - (6) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Registration Statement on Form S-1 (No. 33-47257) filed on April 16, 1992 as amended.
 - (7) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Registration Statement on Form 8-A/A Amendment No. 2 (No. 0-20720) filed on December 24, 1998.

ITEM 6. (B) REPORTS ON FORM 8-K

The following reports on Form 8-K were filed during the quarter ended September 30, 2002:

<u>Date of Filing</u>	<u>Description</u>	
July 10, 2002	Item 5 and 7, Other Events	— Ligand Updates AVINZA™ Launch Progress, Revises Second Quarter Revenue Guidance, and Reiterates Full-Year Revenue Guidance with Different Product Sales Mix

LIGAND PHARMACEUTICALS INCORPORATED

September 30, 2002

SIGNATURE

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.

Ligand Pharmaceuticals Incorporated

Date: November 13, 2002

By: /S/ PAUL V. MAIER
Paul V. Maier
Senior Vice President, Chief Financial Officer

CHIEF EXECUTIVE OFFICER CERTIFICATION

I, David E. Robinson, Chairman, President and Chief Executive Officer, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Ligand Pharmaceuticals Incorporated;

2. Based on my knowledge, this quarterly 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 quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly 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 quarterly report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a) designed such disclosure controls and procedures 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 quarterly report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the "Evaluation Date"); and

c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: November 13, 2002

/S/DAVID E. ROBINSON

David E. Robinson

Chairman, President and Chief Executive Officer

CHIEF FINANCIAL OFFICER CERTIFICATION

I, Paul V. Maier, Senior Vice President, Chief Financial Officer, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Ligand Pharmaceuticals Incorporated;

2. Based on my knowledge, this quarterly 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 quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly 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 quarterly report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a) designed such disclosure controls and procedures 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 quarterly report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the "Evaluation Date"); and

c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: November 13, 2002

/S/PAUL V. MAIER

Paul V. Maier

Senior Vice President, Chief Financial Officer

EXHIBIT 4.7

FOURTH AMENDMENT TO PREFERRED SHARES RIGHTS AGREEMENT AND CERTIFICATION OF COMPLIANCE WITH SECTION 27 THEREOF

THIS FOURTH AMENDMENT (the "Amendment"), dated as of October 3, 2002, is made by and between Ligand Pharmaceuticals Incorporated, a Delaware corporation (the "Company"), and Mellon Investor Services LLC (as successor to ChaseMellon Shareholder Services, L.L.C.), as Rights Agent (the "Rights Agent").

RECITALS

A. The Company and the Rights Agent are parties to a Preferred Shares Rights Agreement dated as of September 13, 1996, as amended (the "Rights Agreement").

B. Pursuant to Section 27 of the Rights Agreement, the Board of Directors of the Company has determined that the amendments to the Rights Agreement set forth herein are necessary and desirable, and the Company and the Rights Agent desire to evidence such amendment in writing.

Accordingly, the parties agree as follows:

1. AMENDMENT TO SECTION 1(A). Section 1(a) of the Rights Agreement is hereby amended and restated to read in its entirety as follows:

"Acquiring Person" shall mean any Person who or which, together with all Affiliates and Associates of such Person, shall be the Beneficial Owner of 10% or more of the Common Shares then outstanding, but shall not include the Company, any Subsidiary of the Company, any employee benefit plan of the Company or of any Subsidiary of the Company, or any entity holding Common Shares for or pursuant to the terms of any such plan. Notwithstanding the foregoing, no Person shall be deemed to be an Acquiring Person either (i) as the result of an acquisition of Common Shares by the Company which, by reducing the number of shares outstanding, increases the proportionate number of shares beneficially owned by such Person to 10% or more of the Common Shares of the Company then outstanding; PROVIDED, HOWEVER, that if a Person shall become the Beneficial Owner of 10% or more of the Common Shares of the Company then outstanding by reason of share purchases by the Company and shall, after such share purchases by the Company, become the Beneficial Owner of any additional Common Shares of the Company, then such Person shall be deemed to be an Acquiring Person. Notwithstanding the foregoing, if the Board of Directors of the Company determines in good faith that a Person who would otherwise be an "Acquiring Person", as defined pursuant to this paragraph (a), has become such inadvertently, and such Person divests as promptly as practicable a sufficient number of Common Shares so that such Person would no longer be an "Acquiring Person", as defined pursuant to this paragraph (a), then such Person shall not be deemed to be an "Acquiring Person" for any purposes of this Agreement. Notwithstanding anything in this Agreement to the contrary, neither Elan

Corporation, plc, a public limited company organized under the laws of Ireland ("Elan"), nor Elan International Services, Ltd., a Bermuda corporation ("EIS"), nor any Affiliates of Elan or EIS shall be deemed to be an Acquiring Person by virtue of (i) their beneficial ownership on or before November 9, 2005 of an aggregate of up to twenty-five percent (25%) of the outstanding capital stock of the Company on a fully diluted basis, or (ii) their beneficial ownership after November 9, 2005 of a percentage of the then outstanding Common Shares equal to the percentage of the then outstanding Common Shares of the Company beneficially owned by Elan, EIS and their Affiliates on November 9, 2005, to the extent their beneficial ownership exceeds 10% on such date. In determining whether Elan, EIS or any of their respective Affiliates shall be deemed to be an Acquiring Person, shares of Common Stock that are beneficially owned by such Person and acquired pursuant to the Securities Purchase Agreement, entered into as of November 6, 1998, between the Company, Elan and EIS, as it may be amended or supplemented from time to time (the "Securities Purchase Agreement"), the Development, License and Supply Agreement, entered into as of November 9, 1998, between the Company and Elan, as it may be amended or supplemented

from time to time (the "License Agreement") or upon conversion of the Company's Zero Coupon Convertible Senior Notes due 2008 (the "Notes"), or which are beneficially owned by such Person as a result of the ownership by such Person of the Notes, shall not be counted unless such Person shall beneficially own additional shares of Common Stock that are acquired by such Person other than pursuant to the Stock Purchase Agreement, entered into as of September 30, 1998, between the Company and EIS, as it may be amended or supplemented from time to time (the "Stock Purchase Agreement"), the Securities Purchase Agreement, the License Agreement or the Notes.

2. AMENDMENT TO DEFINITION OF DISTRIBUTION DATE. The definition of "Distribution Date" in Section 1 of the Rights Agreement is hereby amended and restated to read in its entirety as follows:

"Distribution Date" shall mean the earlier of (i) the Close of Business on the tenth day (or such later date as may be determined by action of the Company's Board of Directors) after the Shares Acquisition Date (or, if the tenth day after the Shares Acquisition Date occurs before the Record Date, the Close of Business on the Record Date) or (ii) the Close of Business on the tenth day (or such later date as may be determined by action of a majority of the Company's Board of Directors) after the date that a tender or exchange offer by any Person (other than the Company, any Subsidiary of the Company, any employee benefit plan of the Company or of any Subsidiary of the Company, or any Person or entity organized, appointed or established by the Company for or pursuant to the terms of any such plan) is first published or sent or given within the meaning of Rule 14d-2(a) of the General Rules and Regulations under the Exchange Act, if, assuming the successful consummation thereof, such Person would be the Beneficial Owner of 10% or more of the shares of Common Stock then outstanding. Notwithstanding anything in this Agreement to the contrary, a Distribution Date shall not be deemed to have occurred by virtue of (i) the

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beneficial ownership by Elan or EIS or any of their Affiliates on or before November 9, 2005, of an aggregate of up to twenty-five percent (25%) of the outstanding capital stock of the Company on a fully diluted basis pursuant to the terms of the Stock Purchase Agreement, the Securities Purchase Agreement and the License Agreement, or (ii) their beneficial ownership after November 9, 2005 of a percentage of the then outstanding Common Shares equal to the percentage of the then outstanding Common Shares of the Company beneficially owned by Elan, EIS and their Affiliates on November 9, 2005, to the extent their beneficial ownership exceeds 10% on such date.

3. AMENDMENT TO EXHIBIT C. Exhibit C to the Rights Agreement is hereby amended and restated to read in full as set forth on Attachment A hereto.

4. EFFECTIVENESS. This Amendment shall be deemed effective as of October 3, 2002, as if executed on such date. Except as amended hereby, the Rights Agreement shall remain in full force and effect and shall be otherwise unaffected hereby.

5. MISCELLANEOUS. This Amendment shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be governed by and construed in accordance with the laws of such State applicable to contracts to be made and performed entirely within such State. This Amendment may be executed in any number of counterparts, each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument. If any term, provision, covenant or restriction of this Amendment is held by a court of competent jurisdiction or other authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Amendment shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

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The undersigned officer of the Company, being an appropriate officer of the Company and authorized to do so by resolution of the Board of Directors of the Company, hereby certifies to the Rights Agent that the foregoing amendments are made in compliance with Section 27 of the Rights Agreement.

LIGAND PHARMACEUTICALS
INCORPORATED, a Delaware corporation

/s/David E. Robinson

David E. Robinson, President and Chief Executive
Officer

Acknowledged and agreed:

MELLON INVESTOR SERVICES LLC, as Rights Agent

/s/James Kirkland

Name: James Kirkland
Title: Assistant Vice President

[SIGNATURE PAGE TO FOURTH AMENDMENT TO
PREFERRED SHARES RIGHTS AGREEMENT]

ATTACHMENT A

EXHIBIT C

LIGAND PHARMACEUTICALS INCORPORATED

SHAREHOLDER RIGHTS PLAN

Summary of Rights

DISTRIBUTION TRANSFER OF RIGHTS; The Board of Directors has declared
RIGHTS CERTIFICATE: a dividend of one Right for each share

of Ligand Pharmaceuticals Incorporated
Common Stock outstanding. Prior to the
Distribution Date referred to below,
the Rights will be evidenced by, and
trade with, the certificates for the
Common Stock. After the Distribution
Date, Ligand Pharmaceuticals
Incorporated (the "Company") will mail
Rights certificates to the Company's
stockholders and the Rights will become
transferable apart from the Common
Stock.

DISTRIBUTION DATE: Rights will separate from the Common
Stock and become exercisable on the
tenth day (or such later date as may be

determined by the Company's Board of Directors) after a person or group (a) acquires beneficial ownership of 10% or more of the Company's Common Stock or (b) announces a tender or exchange offer, the consummation of which would result in ownership by a person or group of 10% or more of the Company's Common Stock.

PREFERRED STOCK PURCHASABLE UPON EXERCISE OF RIGHTS: After the Distribution Date, each Right will entitle the holder to purchase, for \$100.00 a fraction of a share of the Company's Preferred Stock with economic terms similar to that of one share of the Company's Common Stock.

FLIP-IN: If an acquiror (an "Acquiring Person") obtains 10% or more of the Company's Common Stock, then each Right (other than Rights owned by an Acquiring Person or its affiliates) will entitle the holder thereof to purchase, for the exercise price, a number of shares of the Company's Common Stock having a then current market value of twice the exercise price.

FLIP-OVER: If, after the Shares Acquisition Date (defined below), (a) the Company merges into another entity, (b) an

acquiring entity merges into the Company or (c) the Company sells more than 50% of the Company's assets or earning power, then each Right (other than Rights owned by an Acquiring Person or its affiliates) will entitle the holder thereof to purchase, for the exercise price, a number of shares of Common Stock of the person engaging in the transaction having a then current market value of twice the exercise price.

EXCHANGE PROVISION: At any time after an event triggering the flip-in or flip-over rights and prior to the acquisition by the Acquiring Person of 50% or more of the outstanding Common Stock, the Board of Directors of the Company may exchange the Rights (other than Rights owned by the Acquiring Person or its affiliates), in whole or in part, at an exchange ratio of one Common Share per Right (subject to adjustment).

REDEMPTION OF THE RIGHTS: Rights will be redeemable at the Company's option for \$0.01 per Right at any time on or prior to the tenth day (or such later date as may be determined by the Company's Board of Directors) after public announcement that a person has acquired beneficial ownership of 10% or more of the Company's Common Stock (the "Shares Acquisition Date").

EXPIRATION OF THE RIGHTS: The Rights expire on the earliest of (a) September 13, 2006, (b) exchange or redemption of the Rights as described

above, or (c) consummation of a merger or consolidation resulting in expiration of the Rights as described above.

AMENDMENT OF TERMS OF RIGHTS: The terms of the Rights and the Rights Agreement may be amended in any respect without the consent of the Rights holders on or prior to the Distribution Date; thereafter, the terms of the Rights and the Rights Agreement may be amended without the consent of the Rights holders in order to cure any ambiguities or to make changes which do not adversely affect the interests of Rights holders (other than the Acquiring Person).

VOTING RIGHTS: Rights will not have any voting rights.

ANTI-DILUTION PROVISIONS: Rights will have the benefit of certain customary anti-dilution provisions.

TAXES: The Rights distribution should not be taxable for federal income tax purposes. However, following an event which renders the Rights exercisable or upon redemption of the Rights, stockholders may recognize taxable income.

The foregoing is a summary of certain principal terms of the Stockholder Rights Plan only and is qualified in its entirety by reference to the detailed terms of the Rights Agreement dated as of September 13, 1996, as amended, between the Company and the Rights Agent. Further details of the Rights are contained in a letter that will be mailed to all the Company's stockholders.

AMENDMENT NUMBER 1 TO PURCHASE AGREEMENT
BETWEEN
PHARMACEUTICAL ROYALTIES INTERNATIONAL (CAYMAN) LTD. AND
AND
LIGAND PHARMACEUTICALS INCORPORATED

THIS AMENDMENT TO PURCHASE AGREEMENT (the "AMENDMENT") is made and entered into on this 29th day of July, 2002 by and between Pharmaceutical Royalties International (Cayman) Ltd. ("BUYER") and Ligand Pharmaceuticals Incorporated ("SELLER").

WHEREAS, Seller and Buyer are parties to that certain Purchase Agreement dated as of March 6, 2002 (the "PURCHASE AGREEMENT") pursuant to which Seller agreed, subject to the terms thereof, to sell, transfer, assign and deliver to Buyer the right to receive from Seller the Applicable Percentage of the AHP Net Sales and the Applicable Percentage of the Pfizer Net Sales;

WHEREAS, Seller and Buyer wish to amend the Purchase Agreement to revise the grant of options from Seller to Buyer to acquire rights to receive additional percentages of both AHP Net Sales and Pfizer Net Sales;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained in this Amendment and in the Purchase Agreement, and pursuant to Section 8.02(a) of the Purchase Agreement, Seller and Buyer do hereby amend the Purchase Agreement, as follows:

1. Section 2.02(a) is hereby amended by deleting it in its entirety and replacing it with the following:

"2.02 OPTIONS. (a) Seller hereby grants to Buyer the following options, each exercisable at Buyer's sole discretion, to acquire rights to receive additional percentages of both AHP Net Sales and Pfizer Net Sales on the same terms as described above in Section 2.01(a). For clarity, such options may be exercised only for additional percentages of both AHP Net Sales and Pfizer Net Sales. Payment of the Option Exercise Price specified below represents payment for the additional percentages of both the AHP Net Sales and the Pfizer Net Sales.

<TABLE>

<CAPTION>

<S> NOTICE DATE (EACH A "NOTICE DATE")	<C> EXERCISE DATE (EACH AN "EXERCISE DATE")	<C> (EACH, AN "OPTION EXERCISE PRICE")	<C> EXERCISE PRICE	ADDITIONAL PERCENTAGE OF BOTH AHP NET SALES AND PFIZER NET SALES
May 1, 2002	May 15, 2002		\$3,000,000	0.125%
September 20, 2002	September 30, 2002		\$3,500,000	0.125%
December 20, 2002	December 31, 2002		\$3,850,000	0.125%
September 15, 2003	September 30, 2003		\$12,500,000	0.250%
March 16, 2004	March 31, 2004		\$16,000,000	0.250%
May 17, 2004	May 31, 2004		\$10,500,000	0.125%

</TABLE>

2. DEFINITIONS. All capitalized terms used, but not defined herein, shall have the respective meanings ascribed to them in the Purchase Agreement.

3. GOVERNING LAW. This Amendment shall be governed construed in accordance with and governed by the law of the State of New York.

4. ENTIRE AGREEMENT. The Purchase Agreement, as amended hereby, constitutes the full and entire understanding between the parties regarding the subject matter herein. Except as otherwise expressly provided herein, the provisions

hereof shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

5. FULL FORCE AND EFFECT. Except as amended hereby, the Purchase Agreement shall remain in full force and effect.

6. COUNTERPARTS. This Amendment may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Amendment shall become effective when each party hereto shall have received a counterpart hereof signed by the other party hereto.

7. CAPTIONS. The titles and captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereof have caused this Amendment to be duly executed by their respective authorized officers of the day and year first written above.

LIGAND PHARMACEUTICALS INCORPORATED

By: /S/WARNER R. BROADDUS

Name: Warner R. Broaddus

Title: V.P., General Counsel & Secretary

PHARMACEUTICAL ROYALTIES INTERNATIONAL (CAYMAN) LTD.

By: /S/DAVE MADDEN

Name: Dave Madden

Title: Director

EXHIBIT 99.1

CERTIFICATION BY PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the accompanying Quarterly Report on Form 10-Q of Ligand Pharmaceuticals Inc. for the quarter ended September 30, 2002, I, David E. Robinson, Chairman, President and Chief Executive Officer of Ligand Pharmaceuticals Inc., hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge and belief, that:

(1) such Quarterly Report on Form 10-Q for the quarter ended September 30, 2002, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in such Quarterly Report on Form 10-Q for the quarter ended September 30, 2002, fairly presents, in all material respects, the financial condition and results of operations of Ligand Pharmaceuticals Inc.

Date: November 13, 2002

/S/DAVID E. ROBINSON

David E. Robinson
CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER

EXHIBIT 99.2

CERTIFICATION BY CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the accompanying Quarterly Report on Form 10-Q of Ligand Pharmaceuticals Inc. for the quarter ended September 30, 2002, I, Paul V. Maier, Senior Vice President, Chief Financial Officer of Ligand Pharmaceuticals Inc., hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge and belief, that:

(1) such Quarterly Report on Form 10-Q for the quarter ended September 30, 2002, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in such Quarterly Report on Form 10-Q for the quarter ended September 30, 2002, fairly presents, in all material respects, the financial condition and results of operations of Ligand Pharmaceuticals Inc.

Date: November 13, 2002

/S/PAUL V. MAIER

Paul V. Maier
SENIOR VICE PRESIDENT, CHIEF FINANCIAL OFFICER