
**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 March 31, 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 April 30, 2002, the registrant had 71,192,155 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)

ASSETS

	March 31, 2002	December 31, 2001
	-----	-----
	(Unaudited)	
Current assets:		
Cash and cash equivalents.....	\$ 18,191	\$ 20,741
Short-term investments.....	19,431	16,947
Accounts receivable, net	7,569	9,798
Inventories.....	2,828	3,756
Other current assets.....	3,131	2,332
	-----	-----
Total current assets.....	51,150	53,574
Restricted investments.....	2,093	2,370
Property and equipment, net.....	10,391	9,690
Acquired technology, net	37,118	37,879
Other assets.....	18,154	13,960
	-----	-----
	\$ 118,906	\$ 117,473
	=====	=====

LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)

Current liabilities:		
Accounts payable.....	\$ 7,033	\$ 5,385
Accrued liabilities.....	10,736	12,245
Current portion of deferred revenue.....	7,415	8,729
Current portion of equipment financing obligations	2,637	2,867
Convertible subordinated debentures.....	47,994	--
Convertible note	2,500	2,500
	-----	-----
Total current liabilities.....	78,315	31,726
Long-term portion of deferred revenue	3,990	4,164
Long-term portion of equipment financing obligations	2,879	3,354
Convertible subordinated debentures.....	--	47,326
Accrued acquisition obligation.....	2,700	2,700
Zero coupon convertible senior notes.....	--	86,078
	-----	-----
Total liabilities.....	87,884	175,348
	-----	-----
Commitments and contingencies (Note 5)		
Stockholders' equity (deficit):		
Convertible preferred stock, \$0.001 par value; 5,000,000 shares authorized; none issued....	--	--
Common stock, \$0.001 par value; 130,000,000 shares authorized; 66,855,090 shares and 60,164,840 shares issued at March 31, 2002 and December 31, 2001, respectively.....	67	60
Additional paid-in capital.....	624,556	529,374
Deferred warrant expense.....	(346)	(692)
Accumulated other comprehensive (loss) income..	(49)	14
Accumulated deficit.....	(592,295)	(585,720)
	-----	-----
	31,933	(56,964)
Treasury stock, at cost; 73,842 shares.....	(911)	(911)
	-----	-----
Total stockholders' equity (deficit)...	31,022	(57,875)
	-----	-----

\$ 118,906 \$ 117,473
=====

See accompanying notes.

LIGAND PHARMACEUTICALS INCORPORATED

CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)
(in thousands, except per share data)

Three Months Ended March 31,

	2002	2001
Revenues:		
Product sales.....	\$ 13,696	\$ 8,607
Collaborative research and development and other revenues	11,190	8,428
Total revenues.....	24,886	17,035
Operating costs and expenses:		
Cost of products sold	4,460	2,839
Research and development.....	13,115	12,405
Selling, general and administrative.....	9,658	10,157
Total operating costs and expenses.....	27,233	25,401
Loss from operations.....	(2,347)	(8,366)
Other income (expense):		
Interest income.....	291	731
Interest expense.....	(2,252)	(3,445)
Debt conversion expense	(2,015)	--
Other, net.....	(252)	(501)
Total other expense, net.....	(4,228)	(3,215)
Net loss.....	\$ (6,575)	\$ (11,581)
Basic and diluted per share amounts:		
Net loss.....	\$ (.10)	\$ (.20)
Weighted average number of common shares	63,122,905	58,854,394

See accompanying notes.

LIGAND PHARMACEUTICALS INCORPORATED

CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(in thousands)

Three Months Ended March 31,

	2002	2001
OPERATING ACTIVITIES		
Net loss.....	\$ (6,575)	\$ (11,581)
Adjustments to reconcile net loss to net cash used in operating activities:		
Accretion of debt discount and interest.....	1,133	2,253
Depreciation and amortization of property and equipment.....	794	936
Amortization of acquired technology	830	830
Equity in loss of affiliate	232	533
Debt conversion expense.....	2,015	--
Other.....	421	477
Changes in operating assets and liabilities:		
Accounts receivable	2,229	(2,087)
Inventories.....	928	629
Other current assets	(799)	(4,282)
Accounts payable and accrued liabilities.....	139	(184)
Deferred revenue.....	(1,488)	(64)
Net cash used in operating activities.....	(141)	(12,540)
INVESTING ACTIVITIES		
Purchases of short-term investments.....	(3,122)	(6,082)
Proceeds from sale of short-term investments.....	591	687
Purchases of property and equipment.....	(1,495)	(863)
Decrease in other assets.....	98	27
Net cash used in investing activities.....	(3,928)	(6,231)
FINANCING ACTIVITIES		
Principal payments on equipment financing obligations.....	(705)	(1,104)
Decrease/(increase) in restricted investments.....	277	(1,299)
Net proceeds from issuance of zero coupon convertible senior notes.....	--	10,000
Net proceeds from issuance of common stock.....	1,947	22,922
Net cash provided by financing activities.....	1,519	30,519
Net (decrease)/increase in cash and cash equivalents.....	(2,550)	11,748
Cash and cash equivalents at beginning of period.....	20,741	9,224
Cash and cash equivalents at end of period.....	\$ 18,191	\$ 20,972
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Interest paid.....	\$ 2,077	\$ 2,181
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 months ended March 31, 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 March 31, 2002 and the consolidated results of operations for the three months ended March 31, 2002 and 2001. The results of operations for the period ended March 31, 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.

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 consolidated 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.

Reclassifications. Certain prior year amounts have been reclassified to conform to the current year presentation.

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):

	March 31, 2002	December 31, 2001
Raw materials	\$ 157	\$ 143
Work-in-process	1,566	2,729
Finished goods	1,105	884
	<u>\$ 2,828</u>	<u>\$ 3,756</u>

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

	March 31, 2002	December 31, 2001	
Technology license	\$ 9,000	\$ 4,000	
Prepaid royalty buyout, net	3,332	3,400	
Deferred rent	3,163	3,204	
Investment in X-Ceptor	2,216	2,448	
Other	443	908	
	\$ 18,154	\$ 13,960	

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

	March 31, 2002	December 31, 2001	
Compensation	\$ 3,079	\$ 2,786	
Interest	969	1,942	
Royalties	2,652	2,736	
Payment to licensor	2,500	2,500	
Other	1,536	2,281	
	\$ 10,736	\$ 12,245	

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 months ended March 31, 2002 and 2001 is as follows (in thousands):

	Three Months Ended March 31,	
	2002	2001
Comprehensive loss	\$ (6,638)	\$ (11,546)

2. Elan Note Conversions

In February 2002, pursuant to an agreement reached in December 2001, the Company converted \$50 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 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 million and options to acquire up to an additional 1.00% of net sales for \$50 million. The \$6 million was recognized as revenue in the first quarter of 2002. In April 2002, Royalty Pharma exercised the first option to acquire an additional 0.125% of such product net sales for \$3 million.

4. Avinza™ 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 million milestone payment to Elan that was settled through the issuance of 302,554 shares of common stock.

Under the Avinza™ license agreement, the Company is committed to spend not less than \$7 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.

5. 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 terminates in 2014 and can be extended for a period of five years. The lease agreement provides for increases in annual rent of 4%. 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, is considering modifications to existing accounting principles that under certain conditions could result in consolidation of such entities or treatment of such lease arrangements as capital leases. If Ligand were required to treat such lease arrangement as a financing obligation, the Company's consolidated balance sheet as of March 31, 2002 would reflect additional property and equipment of \$13.9 million and additional debt of \$12.9 million. The impact of such treatment on the Company's historical operating results is not significant.

Convertible Subordinated Debentures

The convertible subordinated debentures pay interest semi-annually at 7.5% per annum and mature in January 2003. In May 2002, the Company gave notice to the holders of the convertible subordinated debentures that the debentures would be redeemed in the second quarter of 2002.

Convertible Note

The \$2.5 million convertible note was issued in connection with the Company's collaborative arrangement with SmithKline Beecham Corporation. The note is convertible, at the option of SmithKline Beecham, into the Company's common stock at \$13.56 per share and is due 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.

6. Subsequent Events

Under a 1999 investment agreement with X-Ceptor Therapeutics, Inc. ("X-Ceptor"), Ligand has the right at June 30, 2002 to acquire all of the outstanding stock of X-Ceptor not held by Ligand, or to extend the purchase right for 12 months by providing additional funding of \$5 million. In April 2002, Ligand informed X-Ceptor that it was extending its purchase right. The \$5 million payment is due no later than July 15, 2002.

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.

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 annual 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[®], ONTAK[®], Panretin[®], Targretin[®], and Avinza[™]. 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, 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, and Signal Transducers and Activators of Transcription, also known as STATs.

We currently market four products in the United States: ONTAK[®], for the treatment of patients with persistent or recurrent cutaneous T-cell lymphoma ("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 ("FDA") approved Avinza[™], a product we license from our strategic partner Elan Corporation, plc ("Elan"), for the relief of chronic, moderate to severe pain. We have exclusive marketing rights to Avinza[™] in the United States and Canada and expect to launch Avinza[™] in the U.S. in the second quarter of 2002. In Europe, we were granted a marketing authorization for Panretin[®] gel in October 2000 and for Targretin[®] capsules in March 2001 and have marketing authorization applications under review for Targretin[®] gel and ONZAR (ONTAK[®] in the U.S.). Targretin[®] capsules and Panretin[®] gel were launched in Europe in the fourth quarter of 2001.

We are currently involved in the research phase of research and development collaborations with Eli Lilly and Company and TAP Pharmaceutical Products Inc. ("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.

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 and revenues earned from product sales and collaborative research and development arrangements. Some of these fluctuations may be significant.

Results of Operations

Total revenues for the first quarter of 2002 increased to \$24.9 million compared to \$17.0 million for the first quarter of 2001, an increase of 46%. Net loss for the first quarter of 2002 decreased to \$6.6 million or \$0.10 per share, compared to \$11.6 million or \$0.20 per share for the first quarter of 2001. Loss from operations for the first quarter of 2002 decreased to \$2.3 million from \$8.4 million for the 2001 period.

Product Sales

Product sales for the first quarter of 2002 were \$13.7 million compared to \$8.6 million for the 2001 period. The increase was driven by an increase in sales of ONTAK[®] to \$8.6 million in the 2002 period from \$4.8 million in 2001, and an increase in sales of Targretin[®] capsules to \$3.8 million in 2002 compared to \$2.3 million in 2001. Sales of Targretin[®] gel and Panretin[®] gel were \$1.3 million for the first quarter of 2002 compared to \$1.4 million for the first quarter of 2001.

The increase in product sales in the first quarter of 2002 compared to 2001 reflect price increases, further penetration of private oncology practices and a higher level of “off-label” use for indications where our products may be effective but for which registration clinical trials have not been completed and for which FDA approval has not yet been granted. The impact of these factors was partially offset by the level of product stocked by wholesalers in the fourth quarter of 2001 as a result of purchases made in advance of announced price increases effective in 2002 and, for ONTAK[®], the initiation of wholesaler distribution stocking. We expect sales to continue to benefit from increased off-label use of ONTAK[®] and Targretin[®] capsules in 2002. The level and timing of any such off-label use, however, is influenced by the accrual of patients and overall progress of clinical trials which are managed by third parties. Furthermore, results from clinical trials that indicate a product is not effective in treating certain indications would have a detrimental effect on off-label use of that product and the sales generated therefrom.

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 100 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 and required minimum shipping quantities. As a result, our distributors may carry from two to six months worth of projected inventory usage. If our distributors were to 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 first quarter of 2002 were \$11.2 million compared to \$8.4 million for the 2001 period. The comparison of collaborative research and development and other revenues is as follows (in thousands):

	Three months ended March 31,	
	2002	2001
Collaborative research and development	\$ 5,113	\$ 4,736
Royalty sale	6,000	--
Distribution agreements	77	3,554
Other	--	138
	<u>\$ 11,190</u>	<u>\$ 8,428</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 increase in collaborative research and development revenue for the first quarter of 2002 is due to collaborative research funding earned under our agreement with TAP which was entered into in June 2001. This increase is partially offset by 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.

Other revenue includes \$6 million earned as a result of 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 million. In April 2002, Royalty Pharma exercised the first option to acquire an additional 0.125% of such product net sales for \$3 million.

Revenue from distribution agreements decreased to \$0.1 million for the first quarter of 2002 from \$3.6 million for the first quarter of 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 67.4% in the first quarter of 2002 compared to 67.0% in the first quarter of 2001. The 2002 margin compared to the prior year quarter reflects an increase due to higher product sales over which we spread fixed costs (amortization of acquired technology) almost completely offset by an increase in the contractual royalty rate of ONTAK[®] for 2002.

Operating Expenses

Research and development expenses were \$13.1 million in the first quarter of 2002 compared to \$12.4 million for the first quarter of 2001. The increase in 2002 reflects the funding of Phase III clinical trials for Targretin[®] capsules in non-small cell lung cancer. We expect development expenses to further increase in 2002 as additional patients are accrued under these trials.

Selling, general and administrative expenses were \$9.7 million for the first quarter of 2002 compared to \$10.2 million for the first quarter of 2001. The decrease reflects a high level of advertising and promotion expenses in the first quarter of 2001 in connection with the commencement of post-approval trials for Targretin[®] capsules and post-launch promotion, the impact of which is partially offset by higher expenses for Avinza[™] in the first quarter of 2002 in preparation for the second quarter launch of Avinza[™].

We expect to incur additional selling and marketing expenses in the second quarter of 2002 in connection with the launch of Avinza[™]. These include advertising and promotion expenses and costs associated with the hiring and deployment of approximately 25 sales representatives to target general pain centers not served by our existing oncology and dermatology sales forces.

Other Expenses

Other expense, net was \$4.2 million for the first quarter of 2002 compared to \$3.2 million for the first quarter of 2001. The increase in the net expense reflects debt conversion expense of \$2.0 million for an incentive provided to Elan in connection with the March 2002 conversion of \$20 million in issue price of zero coupon convertible senior notes into common stock. This increase is partially offset by a decrease in interest expense to \$2.3 million from \$3.4 million in the prior year quarter, resulting from the December 2001 conversion into common stock of \$50 million in issue price of zero coupon convertible senior notes. The first quarter conversion of senior notes will eliminate an additional \$2.0 million in annual interest charges starting in the second quarter of 2002.

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, capital and operating lease transactions, equipment financing arrangements, product sales and investment income.

At March 31, 2002, we had a working capital deficit of \$27.2 million reflecting the classification of convertible subordinated debentures with a carrying value of \$48.0 million and due January 2003 as a current liability. This compares to working capital of \$21.8 million at December 31, 2001. Cash, cash equivalents, short-term investments,

and restricted investments totaled \$39.7 million at March 31, 2002 compared to \$40.1 million at December 31, 2001. Additionally, in April 2002, we raised net proceeds of approximately \$65.9 million through a private placement of 4,252,500 shares of our common stock. We primarily invest our cash in United States government and investment grade corporate debt securities.

Operating activities used cash of \$0.1 million in the first quarter of 2002 compared to \$12.5 million in the first quarter of 2001. The improvement in operating cash flow in 2002 is primarily due to increased product sales and 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. 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 million. In April 2002, Royalty Pharma exercised the first option to acquire an additional 0.125% of such product net sales for \$3 million. Changes in operating assets and liabilities in the 2002 period provided net cash of approximately \$1.0 million from a decrease in accounts receivable and inventories partially offset by an increase in other current assets and a decrease in deferred revenue.

We expect cash flows from operating activities in 2002 to continue to improve as a result of increasing product sales, offset in part by increasing development expenses to fund clinical trials of our existing products in new indications and an increase in selling and marketing expenses in connection with the launch of Avinza™ and the formation of a new sales force to target general pain centers not served by our existing representatives.

Investing activities used cash of \$3.9 million in the first quarter of 2002 compared to \$6.2 million for the first quarter of 2001. The use of cash in 2002 reflects the net purchase of short-term investments of \$2.5 million and capital expenditures of \$1.5 million primarily for lab and computer equipment. Cash used for investing activities in the first quarter of 2001 includes net purchases of short-term investments of \$5.4 million and capital expenditures of \$0.9 million.

We have the right at June 30, 2002 to acquire all of the outstanding stock of X-Ceptor Therapeutics, Inc., a private company in which we have a minority equity interest. In April 2002, we informed X-Ceptor that we were extending our purchase right to June 30, 2003. The extension of the purchase right requires us to provide X-Ceptor with additional cash funding of \$5 million by July 15, 2002.

Financing activities provided cash of \$1.5 million in the first quarter of 2002 compared to \$30.5 million in the first quarter of 2001. Cash received in 2002 includes approximately \$1.0 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 partially offset by payments of \$0.7 million on equipment financing arrangements. Cash received in 2001 includes \$22.4 million from a private placement of our common stock and \$10 million in connection with the issuance of zero coupon convertible senior notes to Elan, partially offset by net repayments of \$1.1 million on equipment financing arrangements and \$1.3 million of cash restricted pursuant to certain third party service provider arrangements.

Our subsidiary, Glycomed, is obligated to make payments under convertible subordinated debentures in the total principal amount of \$50 million. The debentures pay interest semi-annually at a rate of 7 ½% per annum and mature in January 2003. In addition, at March 31, 2002, we had outstanding a \$2.5 million convertible note to SmithKline Beecham Corporation due in October 2002 with interest at prime and convertible into our common stock at \$13.56 per share.

In April 2002, we raised net proceeds of approximately \$65.9 million in a private placement of 4,252,500 shares of our common stock. Subsequently, we gave notice to the holders of the Glycomed convertible subordinated debentures that we would redeem the debentures in the second quarter of 2002.

Certain of our property and equipment is pledged as collateral under various equipment financing arrangements. As of March 31, 2002, \$5.5 million was outstanding under such arrangements with \$2.6 million classified as current. Our equipment financing arrangements have terms of three to five years with interest ranging from 8.06% 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 terminates in 2014 and can be extended for a period of five years. 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, is considering modifications to existing accounting principles that under certain conditions could result in consolidation of such entities or treatment of such lease arrangements as capital leases. If Ligand were required to treat such lease arrangement as a financing obligation, our consolidated balance sheet as of March 31, 2002 would reflect additional property and equipment of \$13.9 million and additional debt of \$12.9 million. The impact of such treatment on our historical operating results is not significant.

We are required to spend not less than \$7 million through May 2003 for clinical expenditures under the Avinza™ license agreement with Elan.

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 pace of scientific progress in our research and development programs; the magnitude of these programs; the scope and results of preclinical testing and clinical trials; 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 ability to establish additional collaborations or changes in existing collaborations; the efforts of our collaborators; 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. SFAS No. 142 is effective for fiscal years beginning after December 31, 2001.

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. SFAS No. 144 is effective for fiscal years beginning after December 15, 2001.

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 March 31, 2002, our accumulated deficit was approximately \$592 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, 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 U.S. sales force of about 80 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 other 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 4 products approved for marketing, one additional product, Avinza™, for which the licensor, Elan, has received approval 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 price for shares of our stock. 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 100 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 and required minimum shipping quantities. As a result, our distributors may carry from two to six months worth of projected inventory usage. If our distributors were to decide to substantially reduce the inventory they carry in a given period, our sales for that period could be substantially lower than historical levels.

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.

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.

For example, we are required under the terms of our agreement with Elan, to spend not less than \$7 million through May 2003 to undertake additional clinical activities related to the commercialization of Avinza™, formerly Morphelan™. In the event we do not spend this amount, any shortfall would have to be paid to Elan. 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 commercialization of our products, to sell some or all of our technology or assets or to merge with another entity.

Our products face significant regulatory hurdles prior to marketing which could delay or prevent sales.

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. 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. 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.

We may not be able to pay amounts due on our outstanding indebtedness when due which would cause defaults under these arrangements.

We and our subsidiaries may not have sufficient funds to make required payments due under existing debt. If we or our subsidiaries do not have adequate funds, we will be forced to refinance the existing debt and may not be successful in doing so. Our subsidiary, Glycomed, is obligated to make payments under convertible subordinated debentures in the total principal amount of \$50 million. The debentures incur interest semi-annually at a rate of 7 ½% per annum, are due in 2003 and convertible into our common stock at \$26.52 per share. On May 2, 2002 we announced the redemption of these debentures, which will occur on or about June 3, 2002. In addition, at April 1, 2002, we had outstanding a \$2.5 million convertible note to GlaxoSmithKline due in 2002 with interest at prime and convertible into our common stock at \$13.56 per share.

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 do not expect to 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.

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. 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.

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. 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.

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.

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, United States 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. 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 patent 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 United States 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. 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. If we are unable to develop our own facilities or contract with others for manufacturing services, 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 are dependent on our key employees, the loss of whose services could adversely affect us.

We depend on our key scientific and management staff, the loss of whose services could adversely affect our business. Furthermore, we may need to hire new scientific, management and operational personnel. Recruiting and

retaining qualified management, operations and scientific personnel is also critical to our success. We may not be able to attract and retain such personnel on acceptable terms given the competition among numerous drug companies, universities and other research institutions for such personnel.

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. 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.

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. Future announcements concerning us or our competitors 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 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 common stock may depress our stock price.

Sales of substantial amounts of our common stock in the public market could seriously harm prevailing market prices for our common stock. 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 shares other than through the sale of your shares of common stock.

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 in the foreseeable future. Accordingly, other than through a sale of your shares, you will not receive a return on your investment in our common stock.

Our shareholder rights plan and charter documents may prevent transactions that could be beneficial to you.

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, including transactions in which you might otherwise receive a premium for your shares over then-current market prices. These provisions also may limit your ability to approve transactions that you deem to be in your best interests. 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.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

At March 31, 2002, our investment portfolio included fixed-income securities of \$18.0 million. These securities are subject to interest rate risk and will decline in value if interest rates increase. However, due to the short duration of our investment portfolio, 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 while increases in interest rates over time will increase our interest expense.

We do not have a significant level of transactions denominated in currencies other than U.S. dollars and as a result we have very 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.

PART II. OTHER INFORMATION

ITEM 2. CHANGES IN SECURITIES AND USE OF PROCEEDS

During the three-month period ended March 31, 2002, we issued the following securities:

On February 1, 2002, we issued to Elan International Services, Inc. ("EIS"), an affiliate of Elan Corporation, plc ("Elan"), 4,406,010 shares of our common stock upon the conversion of \$50.0 million issue price of zero coupon convertible senior notes, plus accrued interest.

On March 21, 2002, we issued to EIS 302,554 shares of our common stock as payment of a \$5.0 million milestone due to Elan upon FDA approval of Avinza™.

On March 28, 2002, we issued to EIS 1,766,916 shares of our common stock upon the conversion of \$20.0 million issue price of zero coupon convertible senior notes, plus accrued interest, and 102,151 shares of common stock as an incentive payment for the conversion.

On March 28, 2002, we issued to EIS 91,406 shares of our common stock upon the exercise of warrants held by EIS.

The shares of common stock identified above were issued to a single entity, under a claim of exemption under Regulation S promulgated by the Securities and Exchange Commission or, alternatively, under Section 4(2) of the Securities Act of 1933, as amended.

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 (6)	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company dated June 14, 2000.
Exhibit 4.1 (8)	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 (9)	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 4.5 (7)	Indenture, dated as of December 23, 1992 by and between Glycomed Incorporated and Chemical Trust Company of California. (Filed as Exhibit 4.3).
Exhibit 4.6 (5)	First Supplement Indenture, dated as of May 18, 1995 by and among the Company, Glycomed Incorporated and Chemical Trust Company of California. (Filed as Exhibit 10.133).
Exhibit 10.243	Incentive Agreement dated March 28, 2002 among the Company, Elan International Services, Ltd. and Monksland Holdings, BV.
Exhibit 10.244	Second Addendum to Amended and Restated Registration Rights Agreement dated June 29, 2000, effective as of March 28, 2002.
Exhibit 10.245	Purchase Agreement, dated March 6, 2002, between the Company and Pharmaceutical Royalties International (Cayman) Ltd. (with certain confidential portions omitted).

- (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 numbered exhibit filed with the Registration Statement on Form S-4 (No. 33-90160) filed on March 9, 1995, as amended.
- (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 Annual Report on Form 10-K for the period ended December 31, 2000.
- (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 S-3 of Glycomed Incorporated (Reg. No. 33-55042) filed on November 25, 1992, as amended.
- (8) 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.
- (9) 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

No reports on Form 8-K were filed during the quarter ended March 31, 2002.

LIGAND PHARMACEUTICALS INCORPORATED

March 31, 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: May 6, 2002

By: /S/ PAUL V. MAIER

Paul V. Maier
Senior Vice President, Chief Financial Officer

INCENTIVE AGREEMENT

This incentive agreement (this "Agreement"), dated as of March 28, 2002, is by and among Monksland Holdings B.V., a Dutch corporation ("Monksland"), Elan International Services, Ltd., a Bermuda corporation ("EIS"), and Ligand Pharmaceuticals Incorporated, a Delaware corporation ("Ligand").

RECITALS

WHEREAS, Ligand issued (i) to Monksland on March 1, 2000 a Zero Coupon Convertible Senior Note due 2008 at the issue price of \$20,000,000 (the "Note") upon repayment of \$20,000,000 of a \$40,000,000 note originally issued on July 14, 1999 under a Securities Purchase Agreement, dated as of November 6, 1998 (as amended, the "Purchase Agreement"), by and among Ligand, EIS and Elan Corporation, plc, a public limited company organized under the laws of Ireland ("Elan"), and (ii) to EIS, an Affiliate of Monksland (as defined in Rule 501 of Regulation D under the Securities Act), on November 22, 1999 an Amended and Restated Series X Warrant for the Purchase of 91,406 Shares of Common Stock of Ligand (the "Warrant"); and

WHEREAS, Ligand has requested that Monksland convert the Note into, and that EIS exercise the Warrant for, shares of Common Stock, and Monksland agrees to so convert the Note plus \$ 4,736,824 of accrued interest on the Note into shares of Common Stock and EIS agrees to so exercise the Warrant for shares of Common Stock.

NOW, THEREFORE, in consideration of the covenants and mutual agreements set forth herein and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

AGREEMENT

Section 1. AGREEMENT TO ISSUE INCENTIVE SHARES.

In consideration for Monksland's agreement to convert all of the aggregate issue price of the Note plus \$4,736,824 of accrued interest into Common Stock under the terms and conditions of the Note, as set forth on the Conversion Notice for the Note, dated as of the date hereof, and for EIS's agreement to exercise the Warrant in full for Common Stock under the terms and conditions of the Warrant, as set forth in the Purchase Form for the Warrant, dated as of the date hereof, Ligand will issue 102,151 shares of Common Stock (the "Incentive Shares") to EIS, subject to the terms and conditions of this Agreement.

Section 2. REPRESENTATIONS AND WARRANTIES OF LIGAND.

(i) Except as otherwise set forth in the Schedule of Exceptions (as updated on March 28, 2002) attached hereto as EXHIBIT A, the representations and warranties of Ligand contained in the Purchase Agreement that are qualified by any Material Adverse Effect or materiality are true and correct in all respects and the representations and warranties of Ligand contained in the Purchase Agreement that are not so qualified are true and correct in all material respects, in each case, on and as of the date hereof, except to the extent that such representations and warranties expressly relate to an earlier date, and Ligand has performed all covenants and agreements and satisfied all conditions on its part to be performed or satisfied under the Purchase Agreement at or prior to the date hereof;

(ii) As of the date hereof and since June 30, 1998, except as set forth in the SEC Reports or the Schedule of Exceptions (as updated on March 28, 2002), no event or development has occurred, and no information has become known, that, individually or in the aggregate, has or would be reasonably likely to have a Material Adverse Effect;

(iii) The issuance of the Incentive Shares has not been enjoined (temporarily or permanently);

(iv) Each of the Purchase Agreement, the New Registration Rights Agreement, the License Agreement and, to the extent outstanding, the Securities, are, and after giving effect to the issuance of the Incentive Shares, will be, valid and enforceable against Ligand, except that (A) the enforcement thereof may be subject to (i) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights generally and (ii) general principles of equity and the discretion of the court before which any proceeding therefor may be brought and (B) any rights to indemnity or contribution under the New Registration Rights Agreement may be limited by federal and state securities laws and public policy considerations, and no event that constitutes a breach of or a default under (or an event which, with notice or passage of time or both would constitute a default under) this Agreement, the New Registration Rights Agreement, the License Agreement or, to the extent outstanding, the Securities, by Ligand has occurred and is continuing or, after giving effect to the issuance and sale of the Incentive Shares, will have occurred and be continuing;

(v) Under the Preferred Share Rights Agreement, dated as of September 13, 1996, between Ligand and Wells Fargo Bank, N.A., as amended (the "Rights Agreement"), no event has occurred that has caused or will cause, and none of the execution of this Agreement or the consummation of the transactions contemplated hereby, including the issuance of the Incentive Shares, will cause, rights issued thereunder to become exercisable or a "Distribution Date" to occur, assuming compliance by Elan and its Affiliates with the provisions of Section 14(c) of the Purchase Agreement; and

(vi) The New Registration Rights Agreement has been duly amended to include the Incentive Shares within the definition of Registrable Securities thereunder.

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Section 3. REPRESENTATIONS AND WARRANTIES OF EIS.

(i) EIS acknowledges that the issuance of the Incentive Shares will not be registered under the Securities Act or any other applicable securities laws, and that the Incentive Shares will be issued in transactions not requiring registration under the Securities Act and, unless so registered, the Incentive Shares may not be offered, sold or otherwise transferred except in compliance with the registration requirements of the Securities Act or any other applicable securities law, pursuant to an exemption therefrom or in a transaction not subject thereto and in each case in compliance with the conditions for transfer set forth in paragraph (iii) below;

(ii) EIS is outside of the United States and is not a "U.S. person" (as such term is defined in Regulation S);

(iii) Until the expiration of the "one-year distribution compliance period" within the meaning of Rule 903 of Regulation S, EIS will not sell or otherwise transfer the Incentive Shares, except (i) to Ligand or its Subsidiaries, (ii) pursuant to an effective registration statement that has been declared effective under the Securities Act, (iii) in an offshore transaction in accordance with Rule 904 of Regulation S or (iv) pursuant to any other available exemption from the registration requirements of the Securities Act, including Rule 144. After the expiration of such "one-year distribution compliance period," EIS will not sell or otherwise transfer the Incentive Shares, except pursuant to registration under the Securities Act or an available exemption therefrom and, in any case, in accordance with the provisions of Regulation S and applicable state securities laws;

(iv) EIS understands that the certificates representing the Incentive Shares will, so long as appropriate, bear the legend set forth in clause (vi) of Section 4(a) of the Purchase Agreement;

(v) EIS agrees that Ligand shall be entitled to make a notation on its records and give instructions to any transfer agent of the Common Stock in order to implement the restrictions on transfer set forth in the Purchase Agreement;

(vi) EIS (a) believes that it has received all information it considers necessary or appropriate and has had an opportunity to ask questions and receive answers from Ligand regarding the terms and conditions of the issuance and sale of the Incentive Shares and the business, properties, prospects and financial

condition of Ligand; PROVIDED that this clause (vi) shall in no way limit or modify the representations and warranties of Ligand set forth in Section 3 of the Purchase Agreement or the right of EIS to rely thereon; (b) acknowledges that it is a sophisticated investor and that an investment in the Incentive Shares involves a high degree of risk; and (c) understands that the valuation price of the Incentive Shares may or may not exceed the last publicly quoted per share "asked" price of the Common Stock on the date hereof;

(vii) EIS will be acquiring the Incentive Shares for its own account for the purpose of

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investment and not (a) with a view to, or for sale in connection with, any distribution thereof or (b) for the account or on behalf of any "U.S. person" (as such term is defined in Regulation S); EIS understands, acknowledges and agrees that it must bear the economic risk of its investment in the Incentive Shares for an indefinite period of time and that prior to any offer or sale of such securities, Ligand may require, as a condition to effecting a transfer of the Incentive Shares, an opinion of its counsel, acceptable to Ligand, as to the registration or exemption therefrom under the Securities Act;

(viii) EIS was not formed specifically for the purpose of acquiring the Incentive Shares under this Agreement;

(ix) Neither EIS nor any of its Affiliates has entered into, directly or indirectly, within the past 90 days, nor will EIS or any of its Affiliates enter into, directly or indirectly, until the expiration of the "one-year distribution compliance period" within the meaning of Rule 903 of Regulation S (x) any short selling of any equity security of Ligand (including, without limitation, the Common Stock) or (y) any hedging transaction with respect to any equity security of Ligand, including, without limitation, puts, calls, or other option transactions, option writing and equity swaps, unless in compliance with the Securities Act;

(x) EIS, on behalf of itself and its Affiliates, acknowledges that the issuance of the Incentive Shares shall not result in an adjustment to either the Conversion Price of the Note under Section 6(i) thereof or the Exercise Price of the Warrant under Section 9 thereof.

Section 4. ACKNOWLEDGMENT OF LIGAND.

Ligand acknowledges that, notwithstanding anything in the Purchase Agreement, the acquisition of the Incentive Shares by EIS shall not be violative of any standstill provision contained in the Purchase Agreement, including Section 14(c) thereof, or any standstill provision otherwise applicable to EIS, and that the Incentive Shares shall be afforded all of the rights and exceptions afforded the Shares under such applicable provisions; PROVIDED that Ligand shall have no obligation to amend the Rights Agreement with respect to the Incentive Shares.

Section 5. MISCELLANEOUS.

(i) APPLICABLE LAW. THE VALIDITY AND INTERPRETATION OF THIS AGREEMENT, AND THE TERMS AND CONDITIONS SET FORTH HEREIN, SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK APPLICABLE TO CONTRACTS MADE AND TO BE PERFORMED WHOLLY THEREIN, WITHOUT GIVING EFFECT TO ANY PROVISIONS THEREOF RELATING TO CONFLICTS OF LAW.

(ii) WAIVER. No failure or delay on the part of a party hereto in exercising any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial

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exercise of any such right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy hereunder.

(iii) COUNTERPARTS. This Agreement may be executed in two or more

counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

(iv) TERMS. Capitalized terms used but not otherwise defined herein shall have the meanings assigned to them in the Purchase Agreement.

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IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto and delivered as of the date first written above.

MONKSLAND HOLDINGS B.V.

By: /S/PIETER BOSSE
Name: PIETER BOSSE
Title: MANAGING DIRECTOR

By: /S/ILLEGIBLE
Name: AMACO (NETHERLANDS) B.V.
Title: MANAGING DIRECTOR

ELAN INTERNATIONAL SERVICES, LTD.

By: /S/KEVIN INSLEY
Name: KEVIN INSLEY
Title: PRESIDENT

LIGAND PHARMACEUTICALS INCORPORATED

By: /S/PAUL V. MAIER
Name: PAUL V. MAIER
Title: SENIOR VP & CFO

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SCHEDULE OF EXCEPTIONS

As Updated March 28, 2002

THIS SCHEDULE OF EXCEPTIONS IS MADE AND GIVEN PURSUANT TO SECTION 3 OF THE SECURITIES PURCHASE AGREEMENT DATED AS OF NOVEMBER 6, 1998 (THE "AGREEMENT"). THE SECTION NUMBERS IN THIS SCHEDULE OF EXCEPTIONS CORRESPOND TO THE SECTION NUMBERS IN THE AGREEMENT; HOWEVER, ANY INFORMATION DISCLOSED HEREIN UNDER ANY SECTION NUMBER SHALL BE DEEMED TO BE DISCLOSED AND INCORPORATED INTO ANY OTHER SECTION NUMBER UNDER THE AGREEMENT WHERE SUCH DISCLOSURE WOULD OTHERWISE BE APPROPRIATE. ANY TERMS DEFINED IN THE AGREEMENT SHALL HAVE THE SAME MEANING WHEN USED IN THIS SCHEDULE OF EXCEPTIONS AS WHEN USED IN THE AGREEMENT UNLESS THE CONTEXT OTHERWISE REQUIRES.

NOTHING HEREIN CONSTITUTES AN ADMISSION OF ANY LIABILITY OR OBLIGATION OF THE COMPANY NOR AN ADMISSION AGAINST THE COMPANY'S INTEREST. THE INCLUSION OF ANY AGREEMENT OR OTHER MATTER HEREIN OR ANY EXHIBIT HERETO SHOULD NOT BE INTERPRETED AS INDICATING THAT THE COMPANY HAS DETERMINED THAT SUCH AN AGREEMENT OR OTHER MATTER IS NECESSARILY MATERIAL TO THE COMPANY. PURCHASER ACKNOWLEDGES THAT CERTAIN INFORMATION CONTAINED IN THIS SCHEDULE MAY CONSTITUTE MATERIAL CONFIDENTIAL INFORMATION RELATING TO THE COMPANY WHICH MAY NOT BE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH PURCHASER'S DECISION TO PURCHASE CERTAIN SECURITIES OF THE COMPANY PURSUANT TO THE AGREEMENT.

SCHEDULE 3(E)

Rights granted pursuant to the Registration Rights Agreement have expired pursuant to its terms and such rights have been replaced with the New Registration Rights Agreement.

SCHEDULE 3(F)(I)

Glycomed, Inc.
Allergan Ligand Retinoid Therapeutics, Inc.
Seragen, Inc.
Seragen Technology, Inc.
Ligand Pharmaceuticals (Canada) Incorporated
Ligand Pharmaceuticals International, Inc.
Ligand Pharmaceuticals UK, Ltd.
Ligand JVR, Inc.

SCHEDULE 3(F)(II)

Epimmune, Inc. ("Epimmune") has rights to make certain payments under an agreement with the Company in shares of Epimmune common stock.

The Company is a member of Nexus Properties VI LLC ("Nexus VI"), holding a 1% interest. Nexus VI owns the parcel of land and the Company's headquarters at 10275 Science Center Drive, San Diego, California.

The Company owns 6,000,000 shares of the Series B Preferred Stock of X-Cepto Therapeutics, Inc.

SCHEDULE 3(M)

For purposes of this Schedule of Exceptions, Section 3(f) of the Agreement, Section 3(n) of the Agreement, Section 3(p) of the Agreement and Section 3(q) of the Agreement, "SEC Reports" shall mean the forms, reports, registration statements and documents filed by the Company from and including December 31, 1996 through March 28, 2002.

SCHEDULE 3(O)

Seragen, Inc., our subsidiary, and Ligand were named parties to SERGIO M. OLIVER, ET AL. V. BOSTON UNIVERSITY, ET AL., a putative shareholder class action filed on December 17, 1998 in the Court of Chancery in the State of Delaware in and for New Castle County, C.A. No. 16570NC, by Sergio M. Oliver and others against Boston University and others, including Seragen, its subsidiary Seragen Technology, Inc. and former officers and directors of Seragen. The complaint, as amended, alleged that Ligand aided and abetted purported breaches of fiduciary duty by the Seragen-related defendants in connection with the acquisition of Seragen by Ligand and made certain misrepresentations in related proxy materials and seeks compensatory and punitive damages of an unspecified amount. On July 25, 2000, the Delaware Chancery Court granted in part and denied in part defendants' motions to dismiss. Seragen, Ligand, Seragen Technology, Inc. and our acquisition subsidiary, Knight Acquisition Corporation were dismissed from the action. Claims of breach of fiduciary duty remain against the remaining defendants, including the former officers and directors of Seragen. The hearing on the plaintiffs' motion for class certification took place on February 26, 2001. The court certified a class consisting of shareholders as of the date of the acquisition and on the date of an earlier business unit sale by Seragen. The litigation is currently in the discovery phase. While Ligand and its subsidiary Seragen have been dismissed from the action, such dismissal is subject to a possible subsequent appeal upon judgment in the action against the remaining parties.

On December 11, 2001, a lawsuit was filed in the United States District Court for the District of Massachusetts against the Company by the Trustees of Boston University and other former stakeholders of Seragen. The complaint alleges breach of contract, breach of the implied covenants of good faith and fair dealing and unfair and deceptive trade practices based on, among other things, allegations that the Company wrongfully withheld approximately \$2.1 million in consideration due the plaintiffs under the Seragen acquisition agreement. The complaint seeks payment of the withheld consideration and treble damages. The complaint has not been served and the Company has not responded to the complaint.

On September 21, 2000, a class action lawsuit was filed in the Superior Court of the State of California against Ligand and a specified former employee of Ligand. The complaint, as amended, alleges claims of invasion of privacy, negligence, fraud and deceit, and negligent infliction of emotional distress based on, among other things, an allegation that Ligand, as successor-in-interest to our Glycomed subsidiary and by reason of its position as employer, negligently and fraudulently allowed a former employee to access and publish private information of the plaintiffs. The parties have signed a settlement pursuant to which plaintiffs will dismiss this litigation with prejudice.

SCHEDULE 3(Q)

In connection with the FDA's approval of the drug Avinza for marketing on March 21, 2002, the Company made a milestone payment to Elan in the amount of \$5 million by issuing to the Purchaser 302,554 shares of the Company's common stock.

SCHEDULE 3(S)

The Company has entered into capital lease and equipment note payable agreements. The Company has also entered into operating lease agreements for office and research facilities with varying terms. These agreements provide for security interests in the underlying assets. In early 1998, the Company entered into a 17-year lease and the Company loaned the construction partnership \$3.7 million which will be repaid with interest over a 10-year period.

SCHEDULE 3(T)

See Schedule 3(o).

SCHEDULE 3(U)

The Company has become aware that a United States patent has been issued to, and foreign counterparts have been filed by, Hoffman LaRoche ("LaRoche") which covers pharmaceutical uses of 9-cis-retinoic acid (LGD1057) which may conflict with the Company's rights under its patent applications. The U.S. Patent and Trademark Office ("PTO") has informed the Company that the overlapping claims are patentable to the Company and initiated an interference proceeding to determine whether the Company or LaRoche is entitled to a patent by having been first to invent the common subject matter. The Company cannot be assured of a favorable outcome in the interference proceeding because of factors not known at this time which may impact the outcome. In addition, the interference proceeding may delay the decision of the PTO regarding the Company's application for the current formulations of Oral and Topical Panretin (LGD1057) products. The LaRoche patent does not cover the use of the current formulations of Oral and Topical Panretin (LGD1057) to treat leukemias such as APL and sarcomas such as KS, or the treatment of skin diseases such as psoriasis, if the Company does not prevail in the interference proceeding, the LaRoche patent might block the Company's use of Oral Panretin (LGD1057) in certain cancers, and the Company may not be able to obtain patent protection for the Oral and Topical Panretin (LGD1057) products.

The Company has received notice from Oncogene Science, Inc. ("OSI") stating that the activities of the Company's STATs program may infringe one or more patents issued to OSI. The Company believes a number of companies in the biotechnology industry received similar letters. The Company has received a preliminary opinion of its outside patent counsel that its activities do not infringe OSI's patents.

Novartis AG has filed an opposition to our European patent that covers the principal active ingredient of our ONTAK(R) drug.

SCHEDULE 3(AA)

See Schedule 3(e) above.

The Company has granted registration rights pursuant to the New Registration Rights Agreement.

SCHEDULE 3(DD)

The Company has previously informed representatives of Purchaser of its engagement of Lehman Brothers and Bear, Stearns & Co. Inc. in connection with the transactions contemplated by the Agreement and/or the License Agreement, including the issuance of the Shares.

SECOND ADDENDUM TO AMENDED AND RESTATED
REGISTRATION RIGHTS AGREEMENT

This Second Addendum ("Addendum") to the Amended and Restated Registration Rights Agreement dated June 29, 2000 ("Registration Rights Agreement") by and among Ligand Pharmaceuticals Incorporated, a Delaware corporation (the "Company"), and those entities (the "Investors") set forth on SCHEDULE A to the Registration Rights Agreement is effective as of March 28, 2002.

RECITALS

A. On the date hereof, the Company has issued 102,151 shares of the Company's Common Stock (the "Incentive Shares") to EIS pursuant to the terms of that certain Incentive Agreement dated as of the date hereof among the Company, EIS and Monksland Holdings B.V., a Dutch corporation.

C. This Addendum serves to include the Incentive Shares within the definition of "Registrable Securities" under the Registration Rights Agreement pursuant to Section 2.6 of the Registration Rights Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth in the Registration Rights Agreement, the parties agree as follows:

1. Section 1.1, paragraph (f) of the Registration Rights Agreement is hereby restated in its entirety as follows:

"(f) The term "Registrable Securities" means (i) the shares of Common Stock (or the shares of such other class of stock into which the Common Stock is converted) issuable upon conversion of those certain Unsecured Convertible Promissory Notes dated October 30, 1997 issued to S.R. One Limited (the "S.R. One Notes") pursuant to the Stock and Note Purchase Agreement dated February 3, 1995 (and upon such conversion of the S.R. One Notes, SCHEDULE A shall be updated to include such shares), (ii) the shares of Common Stock (or the shares of such other class of stock into which the Common Stock is converted) issuable upon conversion of that certain Warrant (the "Warrant") issued to SmithKline Beecham plc pursuant to the Stock Purchase Agreement dated April 24, 1998 (and upon such conversion of the Warrant, SCHEDULE A shall be updated to include such shares), (iii) the 1,278,970 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to EIS pursuant to the Stock Purchase Agreement dated September 30, 1998, (iv) the 437,768 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to EIS pursuant to the Securities Purchase Agreement, dated November 6, 1998 (as amended, the "Elan Securities Purchase Agreement"), (v) the shares of Common Stock (or the shares of such other class of stock into which the Common Stock is converted) issued or issuable upon conversion of the Zero Coupon Convertible Senior Notes due 2008 (the "Elan Notes") issued pursuant to the Elan Securities

Purchase Agreement (and upon such conversion of the Elan Notes, SCHEDULE A shall be updated to include such shares), (vi) the 429,185 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to Elan pursuant to the Development, Licence and Supply Agreement dated November 9, 1998 (as amended, the "Elan License Agreement"), (vii) the shares of Common Stock (or the shares of such other class of stock into which the Common Stock is converted) that may be issued pursuant to the Elan License Agreement (and upon each such issuance, SCHEDULE A shall be updated to include such shares), (viii) the 52,742 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to EIS pursuant to the Stock Purchase Agreement dated September 30, 1999, (ix) the 91,406 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to EIS upon the exercise of that certain Amended and Restated Series X Warrant for the Purchase of 91,406 Shares of Common Stock dated November 22, 1999, (x) the 188,572 shares of Common Stock (or that number of shares

of such other class of stock into which the Common Stock is converted) issued to EIS pursuant to the Incentive Agreement dated December 31, 1999, (xi) the 98,580 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to EIS pursuant to the Incentive Agreement dated March 1, 2000, (xii) the 274,843 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to EIS pursuant to the Incentive Agreement dated December 20, 2001, (xiii) the 102,151 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to EIS pursuant to the Incentive Agreement dated March 28, 2002, and (xiv) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of the shares referenced in subsections (i) through (xiv) above, excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which rights under this Agreement are not assigned.

2. SCHEDULE A of the Registration Rights Agreement is hereby restated in its entirety as attached to this Addendum.

3. This Addendum may be executed in one or more counterparts.

4. This Addendum shall be binding upon the Company, EIS, each holder of Registrable Securities and each future holder of Registrable Securities pursuant to Section 2.6 of the Registration Rights Agreement.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

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IN WITNESS WHEREOF, the parties have executed this Addendum as of the date first above written.

LIGAND PHARMACEUTICALS INCORPORATED

By: /S/WARNER BROADDUS

Its: VP & GENERAL COUNSEL

ELAN INTERNATIONAL SERVICES, LTD.

By: /S/KEVIN INSLEY

Its: PRESIDENT

ELAN CORPORATION, PLC

By: /S/WILLIAM DANIEL

Its: COMPANY SECRETARY

[SIGNATURE PAGE TO SECOND ADDENDUM]

SCHEDULE A

to
Second Addendum to
Amended and Restated Registration Rights Agreement

<TABLE>
<CAPTION>

NAME	SHARES ISSUED

<S> Elan Corporation, plc	<C> 429,185
Elan International Services, Ltd.	13,612,141
TOTAL:	14,041,326

</TABLE>

PURCHASE AGREEMENT

BETWEEN

PHARMACEUTICAL ROYALTIES INTERNATIONAL (CAYMAN) LTD.

and

LIGAND PHARMACEUTICALS INCORPORATED

Dated as of March 6, 2002

TSE-424 ("BAZEDOXIFENE") ROYALTY

CP-336, 156 ("LASOFOXIFENE") ROYALTY

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EXHIBITS

<TABLE>

<S> <C>

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Exhibit A-2 Pfizer Agreement

Exhibit B Patents

</TABLE>

PURCHASE AGREEMENT

AGREEMENT dated as of March 6, 2002 between Ligand Pharmaceuticals Incorporated, a Delaware corporation ("Seller"), and Pharmaceutical Royalties International (Cayman) Ltd., a company organized under the laws of the Cayman Islands (including each of its successors, assigns and legal representatives, "Buyer").

WITNESSETH:

WHEREAS, Buyer desires to purchase the rights to receive certain royalty-based payments from Seller, and Seller desires to sell, assign and transfer such rights to Buyer, upon the terms and subject to the conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the foregoing and the representations, warranties, covenants and agreements herein contained, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

1.01 DEFINITIONS. The following terms, as used herein, have the following meanings:

"Affiliate" means with respect to any Person, any Person directly or indirectly controlling, controlled by or under common control with such other Person.

"Agreement" means this Purchase Agreement between Buyer and Seller.

"AHP" means American Home Products Corporation, a Delaware corporation.

"AHP Agreement" means the Research, Development and License Agreement between AHP and Seller dated September 2, 1994, as amended by agreements dated January 16, 1996; May 24, 1996; September 2, 1997; and September 9, 1999, together with the Option Agreement between Seller and AHP dated September 2, 1994, each of which is attached hereto as EXHIBIT A-1.

"AHP Net Sales" means that portion of "Net Sales" as defined in the

AHP Agreement on which royalties are due on sales of Products (as defined therein) containing TSE-424 ("bazedoxifene") during a given royalty payment and reporting period under the AHP Agreement.

"AHP Payment" means a payment of royalties from AHP or any other Person to Seller or Seller's assignee (if any) as scheduled in the AHP Agreement which includes royalties paid on AHP Net Sales.

"Applicable First Commercial Sale" shall mean (i) with respect to the Region consisting of North America, the first commercial sale in the United States, (ii) with respect to the Region consisting of Europe, the first commercial sale in a member country of the European Union, and (iii) with respect to the Region consisting of Japan, that country, (iv) with respect to the Region consisting of the Rest of World, the first commercial sale in a country within the Rest of the World.

"Applicable Percentage" has the meaning set forth in Section 2.01.

"Business Day" means any day that is not a Saturday, Sunday or a day on which banks are required or permitted to be closed in the city of New York, New York.

"Closing" has the meaning set forth in Section 2.01.

"Confidential Disclosure Agreement" has the meaning set forth in Section 5.02.

"Enabling Agreements" means the AHP Agreement and the Pfizer Agreement.

"Exception Notice" means a notice in writing delivered pursuant to Section 2.02(b) by one party to the other party hereto (i) specifying which of such party's representations and warranties contained herein are not true and correct in all material respects as of any applicable Exercise Date and (ii) providing, in reasonable detail, the facts and circumstances that render each such representation and warranty not true or correct.

"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.04.

"Exercise Date" has the meaning set forth in Section 2.02(a).

"Exercise Notice" has the meaning set forth in Section 2.02(b).

"Governmental Authority" means any government, court, regulatory or administrative agency or commission, or other governmental authority, agency or instrumentality, whether federal, state or local (domestic or foreign), including, without limitation, the PTO and the U.S. National Institutes of Health.

"Indemnified Party" has the meaning set forth in Section 6.02.

"Indemnifying Party" has the meaning set forth in Section 6.02.

"Lien" means, with respect to any agreement or other asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset.

"Loss" has the meaning set forth in Section 6.01.

"Notice Date" has the meaning set forth in Section 2.02.

"Notice Period" has the meaning set forth in Section 2.02.

"Option Exercise Price" has the meaning set forth in Section 2.02.

"Patents" means the patents and applications listed in EXHIBIT B

hereto which arise from or in relation to the Enabling Agreements.

"Person" means an individual, corporation, partnership, association, trust or other entity or organization, but not including a government or political subdivision or any agency or instrumentality of such government or political subdivision.

"Pfizer" means Pfizer, Inc., a Delaware corporation.

"Pfizer Agreement" means the agreement between Seller and Pfizer dated May 1, 1991, the Supplementary Agreement between the same parties dated October 1, 1993 and the Settlement Agreement and Mutual Release of All Claims between the same parties dated April 20, 1996, all of which are attached hereto as EXHIBIT A-2.

"Pfizer Net Sales" means that portion of "Net Sales" as defined in the Pfizer Agreement on which royalties are due on sales of CP-336,156 ("lasofoxifene") during a given royalty payment and reporting period under the Pfizer Agreement.

"Pfizer Payment" means a payment of royalties from Pfizer or any other Person to Seller or Seller's assignee (if any) as scheduled in the Pfizer Agreement which includes royalties paid on Pfizer Net Sales.

"PTO" means the United States Patent and Trademark Office.

"Purchase Price" has the meaning set forth in Section 2.01.

"Region" means (i) North America (consisting of the United States, Canada and Mexico), (ii) Europe (consisting of the member countries of the European Union), (iii) Japan or (iv) the Rest of World.

"Rest of the World" means every country of the world other than those countries in North America, Europe and Japan.

"Seller's Knowledge" means the actual knowledge of the executive officers of Seller.

"UCC" means the U.S. Uniform Commercial Code as in effect in the State of California and any successor statute, as in effect from time to time.

ARTICLE II

PURCHASE AND SALE OF RIGHTS

2.01 PURCHASE AND SALE. Upon the terms and subject to the conditions of this Agreement:

(a) Buyer agrees to purchase from Seller, and Seller agrees to sell, transfer, assign and deliver, or cause to be sold, transferred, assigned or delivered, to Buyer, upon execution of this Agreement, free and clear of all Liens, the right to receive from Seller payments of 0.25% (the "Applicable Percentage") of the AHP Net Sales and the Applicable Percentage of the Pfizer Net Sales within ten (10) business days of and conditioned upon, the receipt by Seller (or any of Seller's assignees) of each AHP Payment or Pfizer Payment, respectively. The Applicable Percentage shall be increased from time to time by the additional percentage(s) specified in Section 2.02 upon the exercise of the option(s) and the payment of the applicable Option Exercise Price set forth therein. In order to secure its obligations to Buyer under this Agreement, Seller hereby grants to Buyer a continuing first security interest in and lien to all of Seller's right, title and interest in and to the Enabling Agreements, including, without limitation, its right to receive the AHP Payments and the Pfizer Payments.

(b) For and in consideration of this right, Buyer shall pay to Seller six million US dollars (\$6,000,000) (the "Purchase Price"). The payment of the Purchase Price by Buyer to Seller shall be made upon execution and delivery of this Agreement. The occurrence of such execution and delivery and payment is sometimes hereinafter referred to as the "Closing". Except to the extent otherwise provided in Section 6.01, the Purchase Price is non-refundable and is

not conditioned on the receipt of any royalties by Seller.

(c) At the Closing, Seller shall cause to be delivered to Buyer:

(i) a certified copy of the resolutions of the Board of Directors of Seller authorizing this Agreement and the transactions contemplated hereby;

(ii) a receipt for the Purchase Price;

(iii) an opinion of counsel to Seller addressed to Buyer confirming the matters warranted in Sections 3.01, 3.02, 3.03, 3.04, 3.06 and 3.07; and

(iv) a letter authorizing Buyer to file, pursuant to the security interest granted by Seller to Buyer in Section 2.01, a UCC financing statement on Form UCC-1, and all amendments and modifications thereto, securing Buyer's rights hereunder.

At and after the Closing, if requested by Buyer, Seller will execute and deliver to Buyer such instruments and documents as may be reasonably requested by Buyer in order to evidence its ownership of the rights acquired hereunder, including without limitation such further UCC registration forms as Buyer may request.

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>

Notice Date (each a "Notice Date")	Exercise Date (each an "Exercise Date")	Additional Percentage of Exercise Price (each, an "Option Exercise Price")	both AHP Net Sales and Pfizer Net Sales
<S> ***	<C> ***	<C> ***	<C> ***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***

</TABLE>

(b) If Buyer desires to exercise any option, Buyer shall give written notice (an "Exercise Notice") to Seller at any time from the date which is 30 days prior to the applicable Notice Date up to and including 5:00 p.m. (New York City time) on the applicable Notice Date (or, if not a Business Day, on the next following Business Day). If Buyer delivers an Exercise Notice, then:

(i) unless, at least two (2) Business Days prior to the applicable Exercise Date, Seller delivers to Buyer an Exception Notice, Seller shall be deemed to have represented and warranted to Buyer that, as of the applicable Exercise Date, all of Seller's representations and warranties contained herein are true and correct in all material respects on and as of the applicable Exercise Date as if made on such Exercise Date;

(ii) unless, at least two (2) Business Days prior to the

applicable Exercise Date, Buyer delivers to Seller an Exception Notice, Buyer shall (A) be deemed to have represented and warranted to Seller that, as of the applicable Exercise Date, all of Buyer's representations and warranties contained herein are true and correct in all material respects on and as of the applicable Exercise Date as if made on such Exercise Date and (B) have, as of the applicable Exercise Date, sufficient funds available to pay the applicable Option Exercise Price; and

(iii) on the applicable Exercise Date (or, if not a Business Day, on the next following Business Day), Buyer shall pay to Seller the applicable Option Exercise Price.

If Seller delivers to Buyer an Exception Notice as provided above, Buyer shall have the option, in its sole discretion, either (A) to withdraw the Exercise Notice at any time on or before the applicable Exercise Date or (B) to pay to Seller the applicable Option Exercise Price on the

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***Portions of this page have been omitted pursuant to a request for Confidential Treatment and filed separately with the Commission.

applicable Exercise Date. If Buyer elects to pay the Option Exercise Price pursuant to clause (B) in the immediately preceding sentence, Buyer shall be deemed to have waived the misrepresentation or breach of warranty to the extent specified in Seller's Exception Notice; provided that Buyer shall not be deemed to have waived any willful or intentional misrepresentation or breach.

If Buyer delivers to Seller an Exception Notice as provided above, Buyer shall be liable to Seller for any Loss suffered by Seller as a result of such misrepresentation or breach of warranty.

Except to the extent otherwise provided in Section 6.01, each Option Exercise Price shall be non-refundable and is not conditioned on the receipt of any payments by Seller from AHP, Pfizer or others.

2.03 EXPIRATION OF RIGHTS TO RECEIVE PAYMENTS. Each of the rights set forth in Sections 2.01 and 2.02, whether granted pursuant to Section 2.01 or acquired by the exercise of an option pursuant to Section 2.02, shall expire as follows:

- (a) for all lasofoxifene-related rights (including those related to any lasofoxifene combination products), on the 10th anniversary of the Applicable First Commercial Sale on a Region by Region basis of any lasofoxifene product under the Pfizer Agreement or any amendment, modification or continuation thereof;
- (b) for rights based on AHP Net Sales of bazedoxifene not sold in combination with other drugs, on the 10th anniversary of the Applicable First Commercial Sale on a Region by Region basis of any bazedoxifene product under the AHP Agreement or any amendment, modification or continuation thereof;
- (c) for rights based on AHP Net Sales of bazedoxifene sold in combination with Premarin, on the 10th anniversary of the Applicable First Commercial Sale on a Region by Region basis of any bazedoxifene-Premarin combination product under the AHP Agreement or any amendment, modification or continuation thereof;
- (d) for rights based on AHP Net Sales of bazedoxifene sold in combination with any other drug(s), on the later to occur of (b) and (c) above.

For clarity, each such right of Buyer to receive payment from Seller shall in any event expire not later than the expiration of Seller's right to receive royalties on the corresponding product under the Enabling Agreements or any amendment, modification or continuation thereof.

2.04 EXCLUDED LIABILITIES AND OBLIGATIONS. Notwithstanding any provision in this Agreement or any other writing to the contrary, Buyer is acquiring only the rights and options to receive payments from Seller as

expressly set forth herein and is not assuming any liability or obligation of Seller of whatever nature, whether presently in existence or arising or asserted hereafter, whether under any of the Enabling Agreements or otherwise. All such liabilities and obligations shall be retained by and remain obligations and liabilities of Seller (the "Excluded Liabilities and Obligations").

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2.05 EXCLUDED ASSETS. Buyer does not, by purchase of the rights granted hereunder, acquire any assets or contract rights of Seller under the Enabling Agreements, except to the extent of the security interest granted by Seller to Buyer pursuant to Section 2.01(a). Buyer acknowledges that milestone payments made to Seller pursuant to the Enabling Agreements are not included in the rights and options granted hereunder.

ARTICLE III

REPRESENTATIONS AND WARRANTIES OF SELLER

Seller hereby represents and warrants to Buyer that:

3.01 CORPORATE EXISTENCE AND POWER. Seller is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware, and has all corporate powers and all material governmental licenses, authorizations, consents and approvals required to carry on its business as now conducted.

3.02 CORPORATE AUTHORIZATION. The execution, delivery and performance by Seller of this Agreement, and the consummation by Seller of the transactions contemplated hereby are within Seller's corporate powers and have been duly authorized by all necessary corporate action on the part of Seller. This Agreement has been duly executed and delivered and constitutes a valid and binding agreement of Seller, enforceable against Seller in accordance with its terms.

3.03 GOVERNMENTAL AUTHORIZATION. The execution, delivery and performance by Seller of this Agreement does not require any notice to, action or consent by or in respect of, or filing with, any Governmental Authority except for filings required by the Securities Act of 1933, the Securities Exchange Act of 1934 or actions taken or filings made, if any.

3.04 NON-CONTRAVENTION. (a) The execution, delivery and performance by Seller of this Agreement does not and will not (i) contravene or conflict with the corporate charter or bylaws of Seller, (ii) contravene or conflict with or constitute a violation of any provision of any law or regulation binding upon or applicable to Seller, the AHP Payments or the Pfizer Payments which contravention, conflict or violation could reasonably be expected to have a material adverse effect on the AHP Payments or the Pfizer Payments; (iii) contravene or conflict with or constitute a violation of any judgment, injunction, order or decree binding upon or applicable to the Seller, the AHP Payments or the Pfizer Payments which contravention, conflict or violation could reasonably be expected to have a material adverse effect on the AHP Payments or the Pfizer Payments; (iv) constitute a default under or give rise to any right of termination, cancellation or acceleration of any right or obligation of Seller or to a loss of any benefit relating to the AHP Payments or the Pfizer Payments, or (v) result in the creation or imposition of any Lien on the AHP Payments or the Pfizer Payments (except for any Lien in favor of the Buyer).

(b) Other than pursuant to this Agreement, Seller has not granted, and there does not currently exist, any Lien on the AHP Payments or the Pfizer Payments, on any of the Enabling Agreements.

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3.05 NO UNDISCLOSED MATERIAL LIABILITIES. There are no material liabilities or obligations of Seller related to the AHP Payments or Pfizer Payments of any kind whatsoever, whether accrued, contingent, absolute, determined, determinable or otherwise, and there is no existing condition, situation or set of circumstances which could reasonably be expected to result in such a liability or obligation, other than those which could not reasonably be expected to adversely affect Buyer's rights hereunder.

3.06 LITIGATION. There is no action, suit, investigation or proceeding (or any basis therefor), of which Seller has received notice, pending or, to Seller's Knowledge, threatened, before any Governmental Authority or arbitrator that has or could materially adversely affect the AHP Payments or the Pfizer Payments. To Seller's Knowledge, there have been no claims made by any Person with respect to, and no actions, suits or other proceedings relating to the AHP Agreement or Pfizer Agreement which could reasonably be expected to have a material adverse effect on Buyer's rights hereunder.

3.07 COMPLIANCE WITH LAWS. Seller is not in violation of, has not violated, and to the knowledge of Seller, is not under investigation with respect to and has not been threatened to be charged with or given notice of any violation of, any law, rule, ordinance or regulation, or judgment, order or decree entered by any Governmental Authority applicable to the AHP Agreement or the Pfizer Agreement which could reasonably be expected to have a material adverse effect on Buyer's rights hereunder.

3.08 NO PRIOR TRANSFER. Seller has not assigned and has not in any other way conveyed, transferred, or encumbered all or any portion of its right, title and interest to the AHP Payments or the Pfizer Payments, except as could not reasonably be expected to adversely affect Buyer's rights hereunder. Seller has received no notice from AHP or Pfizer that could reasonably be construed to mean that any future payment from AHP or Pfizer will not be timely made under the AHP Agreement or the Pfizer Agreement, respectively.

3.09 ENABLING AGREEMENTS. A true, correct and complete copy of each of the Enabling Agreements is attached hereto as EXHIBIT A-1 and A-2. Each of the Enabling Agreements is in full force and effect in the forms attached hereto as EXHIBIT A-1 and A-2. There have been no amendments or modifications to any of the Enabling Agreements, other than attached as exhibits hereto. Neither AHP nor Pfizer has been released, in whole or in part, from any of its obligations under the AHP Agreement and the Pfizer Agreement, respectively. Neither the AHP Payments nor the Pfizer Payments is subject to any existing claim of rescission, offset, counterclaim or defense for any other liability or obligation of Seller. To Seller's Knowledge, no event has occurred or circumstance exists that would entitle either AHP or Pfizer to exercise any such right of rescission, offset, counterclaim or defense. Seller is in compliance with the Enabling Agreements and is not in breach of its obligations with respect thereto which breach could reasonably be expected to have a material adverse effect on its rights thereunder. AHP and Pfizer are, to Seller's Knowledge, in material compliance with, respectively, the AHP Agreement and the Pfizer Agreement and Seller has no reason to believe that either AHP or Pfizer does not intend to comply with its obligations pursuant to the AHP Agreement and the Pfizer Agreement, respectively, including their respective obligations to pay royalties on products covered thereby. Except for the Enabling Agreements and this Agreement, there are no other contracts,

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arrangements, or understandings relating to AHP Payments or the Pfizer Payments, except as could not reasonably be expected to adversely affect Buyer's rights hereunder. Each of the AHP Agreement and the Pfizer Agreement is the legal, valid and binding obligation of Seller enforceable against Seller in accordance with its respective terms.

3.10 INTELLECTUAL PROPERTY. (a) Seller has not received any notice in writing to the effect that any Person has claimed that the Patents are invalid or unenforceable. To Seller's Knowledge, there is no set of facts or circumstances that if presented to a Governmental Authority could reasonably be expected to render the Patents invalid or unenforceable.

(b) To Seller's Knowledge, the manufacture, use, sale or import of bazedoxifene or lasofoxifene would not infringe a patent or other intellectual property right of another Person. To Seller's Knowledge, there is no pending or threatened action, suit, proceeding or claim by others that the manufacture, sale or proposed sale of bazedoxifene or lasofoxifene would infringe any patent or other intellectual property right of another Person.

(c) Pursuant to the Enabling Agreements, (i) Seller is entitled to receive a royalty stream from (A) Pfizer based on the sale of lasofoxifene and (B) AHP based on the sale of bazedoxifene and (ii) Seller has not received

notice from either AHP or Pfizer that the development of bazedoxifene or lasofoxifene, as the case may be, has been discontinued.

3.11 FINDERS' FEES. There is no investment banker, broker, finder or other intermediary which has been retained by or is authorized to act on behalf of Seller who might be entitled to any fee or commission from Buyer or any of its Affiliates upon consummation of the transactions contemplated by this Agreement.

3.12 OTHER INFORMATION. Neither this Agreement nor any of the exhibits appended hereto contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained therein not misleading, except as could not reasonably be expected to have a material adverse effect on Buyer's rights hereunder.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer hereby represents and warrants to Seller that:

4.01 ORGANIZATION AND EXISTENCE. Buyer is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization and has all applicable powers and all material governmental licenses, authorizations, consents and approvals required to carry on its business as now conducted.

4.02 CORPORATE AUTHORIZATION. The execution, delivery and performance by Buyer of this Agreement and the consummation by Buyer of the transactions contemplated hereby are within the powers of Buyer and have been duly authorized by all necessary action on the part of Buyer. This Agreement constitutes a valid and binding agreement of Buyer.

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4.03 GOVERNMENTAL AUTHORIZATION. The execution, delivery and performance by Buyer of this Agreement does not require any action by or in respect of, or filing with, any Governmental Authority (except for actions taken or filings made, if any).

4.04 NON-CONTRAVENTION. The execution, delivery and performance by Buyer of this Agreement does not and will not (i) contravene or conflict with the organizational documents of Buyer, (ii) contravene or conflict with or constitute a violation of any provision of any law or regulation binding upon or applicable to Buyer; or (iii) contravene or conflict with or constitute a violation of any judgment, injunction, order or decree binding upon or applicable to Buyer, except as could not reasonably be expected to materially adversely affect Seller's rights to receive or retain the Purchase Price and any Option Exercise Price paid hereunder.

4.05 FINDERS' FEES. There is no investment banker, broker, finder or other intermediary that has been retained by or is authorized to act on behalf of Buyer who might be entitled to any fee or commission from Seller upon consummation of the transactions contemplated by this Agreement.

4.06 FINANCING. At the Closing, Buyer will have sufficient funds available to pay the Purchase Price.

4.07 LITIGATION. There is no action, suit, investigation or proceeding (or any basis therefor), of which Buyer has received notice, pending against, or to the knowledge of Buyer, threatened against or affecting, Buyer before any court or arbitrator or any governmental body, agency or official which could reasonably be expected to materially adversely affect Seller's rights to receive or retain the Purchase Price and any Option Exercise Price paid hereunder.

4.08 COMPLIANCE WITH LAWS. Buyer is not in violation of, has not violated, and to the knowledge of Buyer, is not under investigation with respect to and has not been threatened to be charged with or given notice of any violation of, any law, rule, ordinance or regulation, or judgment, order or decree entered by any Governmental Authority which could reasonably be expected to materially adversely affect Seller's rights to receive or retain the Purchase Price and any Option Exercise Price paid hereunder.

ARTICLE V

COVENANTS

Buyer and Seller agree that:

5.01 MAINTENANCE OF ENABLING AGREEMENTS. (a) Seller shall exercise fully all of its rights, and comply fully with all of its obligations, under the Enabling Agreements, except as could not reasonably be expected to adversely affect the AHP Payments or the Pfizer Payments. Seller shall not permit any amendment to the Enabling Agreements that could reasonably be expected to reduce the AHP Payments or the Pfizer Payments below 1.25% of AHP Net Sales or

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Pfizer Net Sales, respectively. Subject to Section 5.02, Seller shall provide to Buyer a copy of any amendment or modification to, or waiver under, any of the Enabling Agreements.

(b) Seller shall not sell, transfer, assign or otherwise dispose of any right, title or interest in or to the AHP Payments, the Pfizer Payments or the Enabling Agreements if such sale, transfer, assignment or disposition could reasonably be expected to reduce Seller's economic interest therein below 1.25% of AHP Net Sales or 1.25% of Pfizer Net Sales. Seller shall not grant any Lien on the AHP Payments, the Pfizer Payments or the Enabling Agreements except any such Lien as would be subordinate in priority and right of payment to the security interest granted by Seller to Buyer pursuant to Section 2.01 hereof.

5.02 CONFIDENTIALITY. The parties have entered into a Confidential Disclosure Agreement dated January 24, 2002 (the "Confidential Disclosure Agreement") which, to the extent not otherwise inconsistent with this Agreement, remains in full force and effect.

5.03 PUBLIC ANNOUNCEMENT. The Confidential Disclosure Agreement notwithstanding, each party shall have the right to make disclosures relevant to this Agreement that are required by law, governmental rules and regulations or the rules and regulations of any applicable securities exchange or trading system. The parties agree to consult with each other before issuing any other press release or making any other public statement with respect to this Agreement.

5.04 PAYMENTS. Within ten (10) business days of receipt of an AHP Payment or Pfizer Payment, or in the absence of such receipt, the making by AHP or Pfizer of an AHP Payment or Pfizer Payment to any other Person, Seller will remit to Buyer payments due hereunder, pursuant to Section 2.01, in US dollars by federal funds wire transfer at New York pursuant to instructions received from Buyer. The amount of the payment shall be determined based upon AHP Net Sales or Pfizer Net Sales reported under the Enabling Agreements, as applicable and shall be calculated by multiplying (a) such AHP Net Sales or Pfizer Net Sales, as the case may be, by (b) the Applicable Percentage (expressed as a decimal). By way of example only, if first and second options were exercised, the amount due Buyer hereunder would be:

If AHP Net Sales or Pfizer Net Sales are not separately reported in the applicable royalty reports received by Seller from AHP or Pfizer, then Buyer and Seller shall jointly determine in good faith the amount of each such payment owed by Seller to Buyer hereunder, using such information as they jointly decide is appropriate including, without limitation, any publicly available information, it being understood that such public information shall not necessarily be determinative. If the parties are not able to jointly determine any such payment, within three (3) business days of Buyer's or Seller's request, Seller's CEO or CFO and a Managing Director of Buyer (or other executive officer of an Affiliate of Buyer) shall meet in person in Chicago, Illinois to determine such payment. Seller shall immediately pay any amount not in dispute. If,

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notwithstanding each party's good faith efforts to jointly determine such payment, the parties remain unable to agree upon such payment, then Seller shall use reasonable commercial efforts to obtain separately reported AHP Net Sales and Pfizer Net Sales.

Any payment due hereunder (pursuant to Section 2.01) which is not made when due shall bear interest until paid at the prime interest rate as announced by Citibank, N.A., plus 2%, compounded monthly. Any payment due hereunder (pursuant to Section 2.01) shall be made without offset or deduction for any claim of rescission, offset or counterclaim or for any defense or other liability or obligation of Seller or any of its Affiliates to AHP, Pfizer or any of their respective Affiliates. By notice to Seller in writing, Buyer may instruct Seller to make such payments to another of its accounts or the account(s) of Buyer's Affiliate(s); PROVIDED that Buyer provides to Seller any applicable tax forms exempting Seller from any withholding, transfer, value-added or sales tax imposed against Seller by any Governmental Authority.

5.05 CERTAIN NOTICES. Seller shall provide written notice to Buyer within five (5) business days of receipt by Seller of any notice or report from AHP or Pfizer that the development of bazedoxifene or lasofoxifene, as the case may be, has been discontinued.

5.06 AUDITS. (a) Not more than once in any calendar year, at Buyer's request and at Buyer's expense, Seller shall cause a certified public accountant mutually acceptable to the parties to conduct an audit of the relevant books and records of Seller, for the purposes of verifying amounts due Buyer hereunder. Buyer's then-current independent accountant shall be deemed mutually acceptable to the parties under the preceding sentence. Such books and records are confidential information of Seller, AHP and/or Pfizer and may not be disclosed to Buyer. Accountant shall report to Buyer only that the amounts paid hereunder have been correct, or the amount of shortfall or overpayment, if any. Seller shall promptly pay any shortfall reported by such accountant and Buyer shall promptly refund any overpayment. If any shortfall in payments owed to Buyer exceeds 5% of the aggregate payments for Buyer for such calendar year, then Seller shall reimburse Buyer for the cost of such audit.

(b) If at any time Seller disposes of its entire interest in the AHP Payments or the Pfizer Payments (not including the Applicable Percentage of the Pfizer Net Sales or AHP Net Sales sold to Buyer hereunder), then at Buyer's request and at Buyer's expense, Seller's successors or assigns shall direct a certified public accountant mutually agreeable to the parties to perform an audit of the relevant books and records of AHP and/or Pfizer on the terms provided for in the AHP Agreement and the Pfizer Agreement; provided that such audit shall only be directed to bazedoxifene or lasofoxifene products, as the case may be; and provided that Buyer shall be entitled to any recoupment of expenses pursuant to provisions governing audit rights under the AHP Agreement and the Pfizer Agreement.

5.07 BREACH OF THE ENABLING AGREEMENTS. Upon any occurrence of a breach by AHP or Pfizer under the AHP Agreement or Pfizer Agreement, as the case may be, which is not cured as provided in the applicable agreement and which would adversely affect Buyer's rights hereunder, Seller shall give prompt written notice thereof to Buyer and at Buyer's request, the parties hereto shall meet and confer to determine a course of action with respect to such breach. Seller shall have the right to control any litigation or other proceeding unless otherwise agreed in

writing; PROVIDED that, solely to the extent necessary to protect its interests in the AHP Net Sales and the Pfizer Net Sales, Buyer may, at its option and expense, participate in any such litigation or other proceeding, including any counterclaim alleging invalidity of the Patents or otherwise alleging that the AHP Agreement or the Pfizer Agreement is invalid or unenforceable and including in all settlement discussions or meetings; and provided that Buyer shall be entitled to share, pro rata as to its proportion of the AHP Payments and Pfizer Payments, in any judgment awarded in such circumstances, net of Buyer's pro rata

share of Seller's reasonable expenses and reasonable attorneys' fees relating to AHP Net Sales or Pfizer Net Sales. For greater certainty, it is understood and agreed between the parties that the right of Buyer to "participate" in any such litigation or other proceeding shall be limited to: (i) the right to review and comment on all draft pleadings and other documents to be filed with any Governmental Authority, arbitrator or mediator, but not the right to require that any changes be made thereto, (ii) the right to review and comment on all proposed settlement agreements, but not the right to require that any changes be made thereto; and (iii) unless the opposing party(ies) object, the right to be present at any hearings or conferences and at settlement discussions or other meetings and the right to communicate at such hearings or conferences, discussions or meetings with Seller and counsel for Seller, but not the right to communicate directly with the applicable Governmental Authority, arbitrator or mediator or with the opposing party at any such hearings, conferences, discussions or meetings. Nothing in this Section 5.07 is intended to affect the rights and obligations of the parties hereto set forth elsewhere in this Agreement, including without limitation in Sections 5.01 and 5.04 hereof.

5.08 COMMERCIALY REASONABLE EFFORTS; FURTHER ASSURANCES. Subject to the terms and conditions of this Agreement, each party will use its commercially reasonable efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary under applicable laws and regulations to consummate the transactions contemplated by this Agreement; PROVIDED that Buyer shall not be obligated to pay any amount of money or deliver any goods or services to Seller or any third party except as otherwise expressly provided in this Agreement. Buyer and Seller agree to execute and deliver such other documents, certificates, agreements and other writings (including any UCC filings requested by Buyer) and to take such other actions as may be reasonably necessary in order to consummate or implement expeditiously the transactions contemplated by this Agreement.

ARTICLE VI

SURVIVAL; INDEMNIFICATION

6.01 INDEMNIFICATION. (a) Seller hereby indemnifies Buyer and its Affiliates against, and agrees to hold each of them harmless from, any and all damage, loss, liability and expense (including, without limitation, reasonable expenses of investigation and reasonable attorneys' fees and expenses in connection with any action, suit or proceeding) (collectively, "Loss") incurred or suffered by Buyer and its Affiliates arising out of any misrepresentation or breach of warranty, covenant or agreement made or to be performed by the Seller pursuant to this Agreement, including any failure by the Seller to satisfy any of the Excluded Liabilities and Obligations.

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(b) Buyer hereby indemnifies Seller and its Affiliates against, and agrees to hold each of them harmless from, any and all Loss incurred or suffered by Seller and its Affiliates arising out of (i) any misrepresentation or breach of warranty contained in Article IV; (ii) any breach of Section 5.02; and (iii) any failure by Buyer, after delivery to Seller of any Exercise Notice, to pay the applicable Exercise Price on the applicable Exercise Date, in accordance with, and subject to the terms and conditions of, Section 2.02(b), provided that this clause (iii) shall not apply if Seller delivers an Exception Notice to Buyer and Buyer withdraws the Exercise Notice prior to the applicable Exercise Date in accordance with Section 2.02(b).

6.02 PROCEDURES; NO WAIVER; EXCLUSIVITY. (a) The party seeking indemnification under Section 6.01 (the "Indemnified Party") agrees to give prompt notice to the party against whom indemnity is sought (the "Indemnifying Party") of the assertion of any claim, or the commencement of any suit, action or proceeding in respect of which indemnity may be sought under Section 6.01; PROVIDED that the failure to give such notice shall not affect the Indemnified Party's rights hereunder except to the extent the Indemnifying Party is materially prejudiced by such failure. The Indemnifying Party shall control the defense of any such third party suit, action or proceeding at its own expense. The Indemnifying Party shall not be liable under Section 6.01 for any settlement effected without its prior consent of any claim, litigation or proceeding in respect of which indemnity may be sought hereunder; provided that such consent may not be unreasonably withheld.

(b) No investigation by Buyer of the Enabling Agreements or by either party of other matters shall limit such party's rights to indemnification hereunder.

(c) After the Closing, Section 6.01 will provide the exclusive remedy for any misrepresentation, breach of warranty, covenant or other agreement or other claim arising out of this Agreement or the transactions contemplated hereby.

(d) The representations, warranties, covenants and agreements contained herein shall survive the Closing. The expiration of any term of this Agreement shall not excuse any party hereto from its liability in respect of any breach hereof prior to such expiration.

ARTICLE VII

TERM

7.01 TERM. This Agreement will expire simultaneously with the last to expire right to receive payment under Section 2.03; PROVIDED, that Buyer shall have received all applicable payments due hereunder. The provisions of Section 5.02, Section 8.03 and Article VI in respect of any breaches prior to the expiration date of this Agreement, shall survive any expiration of this Agreement.

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ARTICLE VIII

MISCELLANEOUS

8.01 NOTICES. All notices, requests and other communications to either party hereunder shall be in writing and shall be given by regular mail or courier as follows:

(a) if to Buyer, to:

c/o Royalty Pharma AG
675 Third Avenue
Suite 3000
New York, NY 10017
Attention: Alexander B. Kwit, Esq.
Telecopy: (917) 368-0021

with a copy to:

Testa, Hurwitz & Thibault, LLP
125 High Street
Boston, MA 02110
Attention: F. George Davitt, Esq.
Telecopy: (617) 248-7100

(b) if to Seller, to:

Ligand Pharmaceuticals Incorporated
10275 Science Center Drive
San Diego, CA 92121
Attention: General Counsel
Facsimile: ***

or to such other address as any party may have furnished to the other in writing in accordance herewith. All notices and other communications given to any party hereto in accordance with the provisions of this Agreement shall be deemed to have been given on the date of receipt.

8.02 AMENDMENTS; NO WAIVERS. (a) Any provisions of this Agreement may be amended or waived if, and only if, such amendment or waiver is in writing and signed, in the case of an amendment, by Buyer and Seller or in the case of a waiver, by the party against whom the waiver is to be effective.

(b) No failure or delay by either party in exercising any right, power

or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by law.

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***Portions of this page have been omitted pursuant to a request for Confidential Treatment and filed separately with the Commission.

8.03 EXPENSES. Except as otherwise provided herein, all costs and expenses incurred in connection with this Agreement shall be paid by the party incurring such cost or expense.

8.04 SUCCESSORS AND ASSIGNS. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns. After the Closing, without limiting the generality of the foregoing, nothing herein shall prohibit or restrict Buyer from assigning any of its rights and obligations hereunder to any Affiliate of Buyer or any other Person; provided that, without the consent of Seller, no such assignment shall relieve Buyer from its obligations hereunder.

8.05 GOVERNING LAW; JURISDICTION. This Agreement shall be construed in accordance with and governed by the law of the State of New York. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court.

8.06 COUNTERPARTS; EFFECTIVENESS. This Agreement 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 Agreement shall become effective when each party hereto shall have received a counterpart hereof signed by the other party hereto.

8.07 ENTIRE AGREEMENT. This Agreement and the Exhibits hereto, and the Confidential Disclosure Agreement constitute the entire agreement between the parties with respect to the subject matter hereof and supersede all prior agreements, understandings and negotiations, both written and oral, between the parties with respect to the subject matter of this Agreement; PROVIDED that in the event of any inconsistency between this Agreement and the Confidential Disclosure Agreement, the provisions of this Agreement shall govern. No representation, inducement, promise, understanding, condition or warranty not set forth herein has been made or relied upon by either party hereto. None of this Agreement, nor any provision hereof, is intended to confer upon any Person other than the parties hereto any rights or remedies hereunder.

8.08 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]

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

LIGAND PHARMACEUTICALS INCORPORATED

By: /s/ Paul Maier
Name: Paul V. Maier
Title: Senior VP, CFO

PHARMACEUTICAL ROYALTIES INTERNATIONAL (CAYMAN) LTD.

By: /s/ David Madden
Name: David Madden
Title: Attorney-in-fact

By: _____
Name:
Title:

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EXHIBIT A-1
AHP AGREEMENT

*This exhibit was previously filed as part of, and is hereby incorporated by reference to exhibit 10.77 filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1994.

EXHIBIT A-2
PFIZER AGREEMENT

*This exhibit was previously filed as part of, and is hereby incorporated by reference to exhibit 10.35 filed with the Company's Registration Statement on Form S-1 (No. 33-47257) filed on April 16, 1992 as amended.

*This exhibit was previously filed as part of, and is hereby incorporated by reference to exhibit 10.151 filed with the Company's Quarterly report on Form 10-Q for the period ended June 30, 1996

EXHIBIT B
PATENTS AND PATENT APPLICATIONS

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***Portions of this page have been omitted pursuant to a request for Confidential Treatment and filed separately with the Commission.