
**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, 2003 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

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

As of April 30, 2003, the registrant had 69,267,262 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)

	March 31, 2003	December 31, 2002
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 12,979	\$ 42,423
Short-term investments; \$9,069 and \$8,998 restricted at March 31, 2003 and December 31, 2002, respectively	21,004	21,825
Accounts receivable, net	17,086	12,176
Inventories	5,395	4,841
Other current assets	6,547	7,308
Total current assets	63,011	88,573
Restricted investments	10,741	10,646
Property and equipment, net	9,229	9,672
Acquired technology and product rights, net	145,862	148,546
Other assets	12,333	17,992
	\$ 241,176	\$ 275,429
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 13,441	\$ 11,979
Accrued liabilities	17,640	16,606
Current portion of deferred revenue	4,637	4,683
Current portion of equipment financing obligations	2,105	2,087
Total current liabilities	37,823	35,355
Long-term debt	155,250	155,250
Long-term portion of deferred revenue	2,709	3,014
Long-term portion of equipment financing obligations	3,707	4,095
Other long-term liabilities	3,664	3,700
Total liabilities	203,153	201,414
Commitments and contingencies (Note 5)		
Stockholders' equity:		
Convertible preferred stock, \$0.001 par value; 5,000,000 shares authorized; none issued	—	—
Common stock, par value \$0.001; 130,000,000 shares authorized, 69,341,104 shares and 71,522,156 shares issued at March 31, 2003 and December 31, 2002, respectively	70	72
Additional paid-in capital	677,561	693,213
Accumulated other comprehensive loss	(61)	(43)
Accumulated deficit	(638,636)	(618,316)
	38,934	74,926
Treasury stock, at cost; 73,842 shares	(911)	(911)
Total stockholders' equity	38,023	74,015
	\$ 241,176	\$ 275,429

See accompanying notes.

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

	Three Months Ended March 31,	
	2003	2002
Revenues:		
Product sales	\$ 18,928	\$ 13,696
Collaborative research and development and other revenues	4,195	11,190
Total revenues	23,123	24,886
Operating costs and expenses:		
Cost of products sold	6,620	4,460
Research and development	16,640	13,115
Selling, general and administrative	12,426	9,658
Total operating costs and expenses	35,686	27,233
Loss from operations	(12,563)	(2,347)
Other income (expense):		
Interest income	243	291
Interest expense	(2,682)	(2,252)
Debt conversion expense	—	(2,015)
Other, net	(5,318)	(252)
Total other expense, net	(7,757)	(4,228)
Net loss	\$ (20,320)	\$ (6,575)
Basic and diluted per share amounts:		
Net loss	\$ (.29)	\$ (.10)
Weighted average number of common shares	70,238,438	63,122,905

See accompanying notes.

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

	Three Months Ended March 31,	
	2003	2002
Operating activities		
Net loss	\$ (20,320)	\$ (6,575)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of acquired technology and licence rights	2,752	830
Depreciation and amortization of property and equipment	681	794
Amortization of debt discount and issuance costs	194	1,133
Write-off of X-Ceptor purchase right	5,000	—
Equity in loss of affiliate	302	232
Debt conversion expense	—	2,015
Other	70	421
Changes in operating assets and liabilities:		
Accounts receivable	(4,910)	1,782
Inventories	(554)	928
Other current assets	760	(799)
Accounts payable and accrued liabilities	6,629	586
Deferred revenue	(351)	(1,488)
Net cash used in operating activities	(9,747)	(141)
Investing activities		
Purchases of short-term investments	(331)	(3,122)
Proceeds from sale of short-term investments	1,223	591
Purchases of property and equipment	(238)	(1,495)
Payment for AVINZA [®] royalty rights	(4,133)	—
Other, net	85	98
Net cash used in investing activities	(3,394)	(3,928)
Financing activities		
Principle payments on equipment financing obligations	(621)	(705)
Proceeds from equipment financing arrangements	251	—
(Increase) decrease in restricted investments	(166)	277
Repurchase of common stock	(15,867)	—
Net proceeds from issuance of common stock	136	1,947
Decrease in other long-term liabilities	(36)	—
Net cash (used in) provided by financing activities	(16,303)	1,519
Net decrease in cash and cash equivalents	(29,444)	(2,550)
Cash and cash equivalents at beginning of period	42,423	20,741
Cash and cash equivalents at end of period	\$ 12,979	\$ 18,191
Supplemental disclosure of cash flow information		
Interest paid	\$ 132	\$ 2,077
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
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, 2003 and 2002 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, 2003 and the consolidated results of operations for the three months ended March 31, 2003 and 2002. The results of operations for the period ended March 31, 2003 are not necessarily indicative of the results to be expected for the year ending December 31, 2003. 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, 2002 included in the Company’s Annual Report on Form 10-K filed with the SEC.

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

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

New Accounting Pronouncements. In November 2002, the Financial Accounting Standards Board (“FASB”) issued FASB Interpretation No. 45 (“FIN 45”), *Guarantor’s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. FIN 45 requires that a liability be recorded in the guarantor’s balance sheet upon issuance of a guarantee. In addition, FIN 45 requires certain disclosures about each of the entity’s guarantees. Ligand will apply the recognition provisions of FIN 45 to any guarantees issued after December 31, 2002.

In December 2002, the FASB issued Statement of Financial Accounting Standard (“SFAS”) No. 148, *Accounting for Stock-Based Compensation, Transition and Disclosure*. SFAS No. 148 provides alternative methods of transition for those entities that elect to voluntarily adopt the fair value accounting provisions of SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 148 also requires more prominent disclosures of the pro forma effect of using the fair value method of accounting for stock-based employee compensation as well as pro forma disclosure of the effect in interim financial statements. The transition and annual disclosure provisions of SFAS No. 148 are effective for fiscal years ending after December 15, 2002. The interim disclosure requirements are effective for the first interim period ending after December 15, 2002. Ligand has not elected to adopt the fair value accounting provisions of SFAS No. 123 and therefore the adoption of SFAS No. 148 did not have a material effect on the Company’s results of operations or financial position.

In January 2003, the FASB issued FASB Interpretation No. 46 (“FIN 46”), *Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51*. FIN 46 requires the consolidation of certain variable interest entities by the primary beneficiary of the entity if the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties or if the equity investors lack the characteristics of a controlling financial interest. FIN 46 is effective for variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied in the first interim or annual period beginning after June 15, 2003. Refer to footnote 5 for a discussion of the potential effect of adopting FIN 46 on the Company’s results of operations and financial position.

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 potential common shares in the number of shares used for the diluted computation would be anti-dilutive.

Accounting for Stock-Based Compensation. The Company accounts for stock-based compensation in accordance with Accounting Principles Board Opinion (“APB”) No. 25, *Accounting for Stock Issued to Employees*, and FASB Interpretation No. 44, *Accounting for Certain Transactions Involving Stock Compensation*.

Pro forma information regarding net loss and loss per share is required by SFAS No. 123, *Accounting for Stock-based Compensation*, and has been determined as if the Company had accounted for its employee stock options under the fair value method of that Statement. For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options’ vesting period. The Company’s pro forma information is as follows (in thousands, except for net loss per share information):

	Three Months ended March 31,	
	2003	2002
Net loss as reported	\$ (20,320)	\$ (6,575)
Net loss pro forma	(21,872)	(8,025)
Net loss per share as reported	(0.29)	(0.10)
Net loss per share pro forma	(0.31)	(0.13)

The fair value for these options was estimated at the dates of grant using the Black-Scholes option valuation model with the following weighted-average assumptions:

	Three Months ended March 31,	
	2003	2002
Risk free interest rate	2.80%	4.75%
Dividend yield	—	—
Volatility	77%	70%
Weighted average expected life	5 years	5 years

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because the Company’s employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management’s opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

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, 2003	December 31, 2002
Raw materials	\$ 684	\$ 65
Work-in-process	2,824	2,914
Finished goods	1,887	1,862
	\$ 5,395	\$ 4,841

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

	March 31, 2003	December 31, 2002
Debt issue costs, net	\$ 4,879	\$ 5,073
Payment to extend X-Ceptor purchase right (Note 4)	—	5,000
Prepaid royalty buyout, net	3,060	3,128
Deferred rent	2,899	2,966
Equity investment in X-Ceptor	963	1,265
Other	532	560
	\$ 12,333	\$ 17,992

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

	March 31, 2003	December 31, 2002
Allowances for product returns, sales incentive, rebates and chargebacks (1)	\$ 6,485	\$ 4,820
AVINZA [®] royalty rights	—	4,133
Royalties	2,812	2,505
Compensation	3,189	2,338
Interest	3,209	880
Other	1,945	1,930
	<u>\$ 17,640</u>	<u>\$ 16,606</u>

(1) "Allowances for product returns, sales incentives, rebates and chargebacks" was netted against "Accounts receivable" in the Company's prior Consolidated Balance Sheets.

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 loss as a separate component of stockholders' equity. Comprehensive loss is as follows (in thousands):

	Three Months ended March 31,	
	2003	2002
Comprehensive loss	<u>\$ 20,338</u>	<u>\$ 6,638</u>

Reclassifications. Certain reclassifications have been made to amounts included in the prior period's financial statements to conform to the current period presentation.

2. Repurchase of Elan Shares

In connection with the November 2002 restructuring of the Company's AVINZA[®] license and supply agreement with Elan Corporation, plc ("Elan"), the Company agreed to repurchase approximately 2.2 million Ligand common shares held by an affiliate of Elan for \$9.00 a share. The difference between the \$9.00 purchase price and the public price of the shares at the time the agreement was signed, approximately \$4.1 million, was treated as an additional component of the price paid for the reduced AVINZA[®] royalty rate under the restructured license and supply agreement. The shares were repurchased and retired in February 2003. Following the retirement of these shares, Elan owns approximately 17.7% of Ligand's issued and outstanding common shares.

In addition, Elan agreed to a 6-month lock-up period on 11.8 million of its remaining 12.2 million Ligand shares. Ligand has agreed to changes to Elan's registration rights to facilitate an orderly distribution of its shares after the lock-up period.

3. AVINZA[®] Co-promotion

In February 2003, Ligand and Organon Pharmaceuticals USA Inc. ("Organon") announced that they had entered into an agreement for the co-promotion of AVINZA[®]. Under the terms of the agreement, Organon committed to a specified minimum number of primary and secondary product calls delivered to certain high prescribing physicians and hospitals beginning in April 2003. In exchange, Ligand will pay Organon a percentage of AVINZA[®] net sales based on the following schedule:

Annual Net Sales of Avinza [®]	% of Incremental Net Sales Paid to Organon by Ligand
\$0-35 million (2003 only)	0% (2003 only)
\$0-150 million	30%
\$150-300 million	40%
\$300-425 million	50%
>\$425 million	45%

Additionally, Ligand and Organon agreed to equally share all costs for AVINZA[®] advertising and promotion, medical affairs and clinical trials. Each company will also be responsible for its own sales force costs and other expenses. The initial term of the co-promotion agreement is ten years. Organon has the option any time prior to the end of year five to extend the agreement to 2017 by making a \$75.0 million payment to Ligand.

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

Under a 1999 investment agreement with X-Ceptor Therapeutics, Inc. (“X-Ceptor”), Ligand maintained the right to acquire all of the outstanding stock of X-Ceptor not held by Ligand at June 30, 2002, or to extend the purchase right for 12 months by providing additional funding of \$5.0 million. In April 2002, Ligand informed X-Ceptor that it was extending its purchase right. The \$5.0 million paid to X-Ceptor in July 2002 was carried as an asset until March 2003, when Ligand informed X-Ceptor that it would not exercise the purchase right. The \$5.0 million purchase right was written-off in March 2003 and is included in “Other, net” expense in the accompanying Consolidated Statement of Operations.

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 agreement provides for increases in annual rent of 4% and terminates in 2014. Ligand also has an option to either purchase the LLC or the leased premises from the LLC at a purchase price equal to the outstanding debt on the property plus a calculated return on the investment made by the LLC’s other shareholder.

In accordance with existing accounting standards, the lease is treated as an operating lease for financial reporting purposes. In January 2003, the FASB issued FASB Interpretation No. 46 (“FIN 46”), *Consolidation of Variable Interest Entities*, an Interpretation of ARB No. 51. FIN 46 requires the consolidation of certain variable interest entities by the primary beneficiary of the entity if the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties or if the equity investors lack the characteristics of a controlling financial interest. For variable interest entities created prior to February 1, 2003, the consolidation requirements of FIN 46 must be applied in the Company’s third quarter of 2003. Ligand is in the process of determining whether the LLC will have to be consolidated under FIN 46. If Ligand was required to consolidate the LLC, the Company’s consolidated balance sheet as of March 31, 2003 would reflect additional property and equipment of \$13.1 million and additional debt of \$12.7 million. The impact of such treatment on the Company’s operating results would not be significant.

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.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Caution: This discussion and analysis may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed at "Risks and Uncertainties". This outlook represents our current judgment on the future direction of our business. Such risks and uncertainties could cause actual results to differ materially from any future performance suggested. We undertake no obligation to release publicly the results of any revisions to these forward-looking statements to reflect events or circumstances arising after the date of this quarterly report. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

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

Overview

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

We currently market five products in the United States: AVINZA[®], for the relief of chronic, moderate to severe pain; ONTAK[®], for the treatment of patients with persistent or recurrent cutaneous T-cell lymphoma (or CTCL); Targretin[®] capsules and Targretin[®] gel, for the treatment of CTCL in patients who are refractory to at least one prior systemic therapy; and Panretin[®] gel, for the treatment of Kaposi's sarcoma in AIDS patients. AVINZA[®] was approved by the Food and Drug Administration (or FDA) in March 2002 and subsequently launched in the U.S. in June 2002. In Europe, we have marketing authorizations for Panretin[®] gel and Targretin[®] capsules and are currently marketing these products under arrangements with local distributors. In April 2003, we withdrew our ONZAR[™] (ONTAK[®] in the U.S.) marketing authorization application in Europe for our first generation product. It was our assessment that the cost of the additional clinical and technical information requested by the European Agency for the Evaluation of Medicinal Products (or EMEA) for the first generation product would be better spent on acceleration of the second generation ONTAK[®] development. We expect to resubmit the ONZAR[™] application with the second generation product in 2004 or early 2005.

We are currently involved in the research phase of research and development collaborations with Eli Lilly and Company (or Lilly) and TAP Pharmaceutical Products Inc. (or TAP). Collaborations in the development phase are being pursued by Abbott Laboratories, Allergan, Inc., GlaxoSmithkline, Organon, Pfizer and Wyeth. We receive funding during the research phase of the arrangements and milestone and royalty payments as products are developed and marketed by our corporate partners. In addition, in connection with some of these collaborations, we received non-refundable up-front payments. As of March 31, 2003, we had deferred revenue of \$1.2 million resulting from an up-front payment received under our collaboration agreement with TAP. This amount is being amortized as revenue over the service period of the agreement which runs from June 2001 to June 2004.

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

Recent Developments

In February 2003, we announced that we had entered into an agreement for the co-promotion of AVINZA® with Organon Pharmaceuticals USA Inc. (or Organon). Under the terms of the agreement, Organon committed to specified numbers of primary and secondary product calls delivered to high prescribing physicians and hospitals. In exchange, we will pay Organon a percentage of AVINZA® net sales based on the following schedule:

Annual Net Sales of Avinza®	% of Incremental Net Sales Paid to Organon by Ligand
\$0-35 million (2003 only)	0% (2003 only)
\$0-150 million	30%
\$150-300 million	40%
\$300-425 million	50%
>\$425 million	45%

Additionally, both companies agreed to share equally all costs for AVINZA® advertising and promotion, medical affairs and clinical trials. Each company will be responsible for its own sales force costs and other expenses. The initial term of the co-promotion agreement is 10 years. Organon has the option any time prior to the end of year five to extend the agreement to 2017 by making a \$75.0 million payment to us.

Results of Operations

Total revenues for the first quarter of 2003 were \$23.1 million compared to \$24.9 million for the first quarter of 2002. Net loss for the first quarter of 2003 of \$20.3 million, or \$0.29 per share, compares to net loss of \$6.6 million, or \$0.10 per share for the first quarter of 2002. Loss from operations for the first quarter of 2003 of \$12.6 million compares to \$2.3 million for the 2002 period.

Product Sales

Product sales for the first quarter of 2003 were \$18.9 million compared to \$13.7 million for the first quarter of 2002, an increase of 38.2%. Product revenue in 2003 includes sales of \$6.6 million for AVINZA®, which was launched in the U.S. in June 2002. The increase in first quarter 2003 AVINZA® sales relative to the prior quarters' sales is due to increasing prescriptions and additional retail pharmacy and wholesaler stocking in advance of promotional activity by our co-promotion partner, Organon, which started in March 2003. We expect AVINZA® prescriptions to continue to increase during the remainder of 2003 as a result of the incremental sales representatives now promoting the product. Any resulting increases in shipments and sales to our wholesaler customers, however, may depend on the level and timing of any such increases in AVINZA® prescriptions and the expansion of retail distribution.

Excluding AVINZA®, sales of our in-line products for the first quarter of 2003 were \$12.3 million compared to \$13.7 million in 2002. Sales of ONTAK® were \$7.1 million in the first quarter of 2003 compared to \$8.6 million in the first quarter of 2002. Sales of Targretin® capsules were \$3.6 million in the first quarter of 2003 compared to \$3.8 million in the first quarter of 2002. Sales of Targretin® gel and Panretin® gel increased to \$1.5 million in the first quarter of 2003 compared to \$1.3 million in 2002. Sales of both ONTAK® and Targretin® capsules in 2003 benefited from increased patient demand over the prior year quarter and the effect of 2002 price increases. The quarter over quarter comparison, however, is negatively impacted by additional sales in the first quarter of 2002 from the initiation of wholesaler stocking of ONTAK®.

Our product sales for any individual quarter can be influenced by a number of factors including changes in demand for a particular product, the level and nature of promotional activity, the timing of announced price increases, and wholesaler inventory practices. We expect that product sales will increase in 2003 due primarily to higher sales of AVINZA[®], which will be promoted for an entire year and will benefit from our co-promotion arrangement with Organon. We also continue to expect that demand for and sales of ONTAK[®] and Targretin[®] capsules will increase when and as further data is obtained from ongoing expanded-use clinical trials and the initiation of new expanded-use trials. The level and timing of any such increases, however, are influenced by a number of factors including the accrual of patients and overall progress of clinical trials that are managed by third parties.

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

Collaborative Research and Development and Other Revenues

Collaborative research and development and other revenues for the quarter ended March 31, 2003 were \$4.2 million compared to \$11.2 million for the quarter ended March 31, 2002. A comparison of collaborative research and development and other revenues is as follows (in thousands):

	Quarter ended March 31,	
	2003	2002
Collaborative research and development	\$ 4,117	\$ 5,113
Royalty sale	—	6,000
Other	78	77
	<u>\$ 4,195</u>	<u>\$ 11,190</u>

Collaborative research and development revenue includes reimbursement for ongoing research activities, earned development milestones and recognition of prior years' up-front fees previously deferred in accordance with Staff Accounting Bulletin ("SAB") No. 101, *Revenue Recognition in Financial Statements*. Royalty sale revenue represents the sale to third parties of rights and options to future royalties we may earn from the sale of products now in development with our collaborative partners.

The decrease in collaborative research and development revenue in 2003 compared to 2002 is due to lower funding from our collaborative research arrangement with Lilly, which contributed \$1.4 million to revenue in the first quarter of 2003 compared to \$2.3 million in the first quarter of 2002. The initial research term of the Lilly collaboration was extended for one year in November 2002 at a lower level of ongoing research funding. Revenue from up-front fees, which are recognized over the initial contract period during which we provide research services, also decreased from \$1.5 million in 2002 to \$0.4 million in 2003 due to the completion of the initial research phase of the Lilly collaboration in November 2002 and the termination of the research phase of our collaboration arrangement with Organon in February 2002. These decreases were partially offset by a net \$1.1 million development milestone earned from Lilly in the first quarter of 2003. There were no development milestones earned in the first quarter of 2002.

Royalty sale represents revenue earned from the sale to Royalty Pharma AG of rights 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. Royalty Pharma acquired the rights to 0.25% of such product net sales in the first quarter of 2002 and an additional 0.4375% of product net sales through the exercise of options in subsequent quarters in 2002. Royalty Pharma holds options to acquire an additional 0.875% of net sales including individual options for \$12.5 million to acquire 0.25% of net sales in each of the third and fourth quarters of 2003.

Gross Margin

Gross margin on product sales was 65.0% for the first quarter of 2003 compared to 67.4% for the first quarter of 2002. The decrease in the margin in 2003 is due to sales of AVINZA[®], which was launched in June 2002. AVINZA[®] cost of product sold includes the amortization of license and royalty rights capitalized in connection with the restructuring of our AVINZA[®] license and supply agreement in November 2002. The total amount of capitalized license and royalty rights, \$114.4 million, is being amortized to cost of product sold on a straight-line basis over 15 years. Given the fixed level of amortization of the capitalized AVINZA[®] license and royalty rights, we expect the AVINZA[®] gross margin percentage to increase as sales of AVINZA[®] increase. The decrease in the gross margin percentage due to AVINZA[®] is partially offset by a lower contractual royalty rate on sales of ONTAK[®] in 2003 compared to 2002.

Research and Development Expenses

Research and development expenses were \$16.6 million in the first quarter of 2003 compared to \$13.1 million for the first quarter of 2002. The increase in 2003 is due to higher development funding of Phase III clinical trials for Targretin[®] capsules in non-small cell lung cancer (or NSCLC) as additional patients are accrued under these ongoing studies. This increase was partially offset by decreased research efforts on our collaboration programs due to lower research funding under our arrangements with Lilly and Organon, the research phase of which concluded in February 2002 and lower expenses on post-marketing regulatory commitments. The major components of research and development expenses are as follows (in thousands):

	Quarter Ended March 31,	
	2003	2002
<i>Research</i>		
Research performed under collaboration agreements	\$ 2,914	\$ 4,190
Internal research programs	2,861	2,337
Total research	5,775	6,527
<i>Development</i>		
New product development	8,762	3,173
Existing product support (1)	2,103	3,415
Total development	10,865	6,588
Total research and development	\$ 16,640	\$ 13,115

(1) Includes costs incurred to comply with U.S. post-marketing regulatory commitments.

We expect research and development expenses to increase further during 2003 as additional patients are accrued under the Phase III clinical trials of Targretin[®] capsules in non-small cell lung cancer.

A summary of our significant internal research and development programs is as follows:

<u>Program</u>	<u>Disease/Indication</u>	<u>Development Phase</u>
AVINZA [®]	Chronic, moderate-to-severe pain	Marketed in U.S. Phase IIIB/IV
ONTAK [®]	CTCL Chronic lymphocytic leukemia B-cell Non-Hodgkin's lymphoma Psoriasis (severe) Peripheral T-cell lymphoma	Marketed in U.S. Phase II Phase II Phase II Planned Phase II
Targretin [®] capsules	CTCL NSCLC first-line NSCLC monotherapy Advanced breast cancer Psoriasis (moderate to severe) Renal cell cancer	Marketed in U.S. and Europe Phase III Planned Phase II/III Phase II Phase II Phase II
Targretin [®] gel	CTCL Hand dermatitis(eczema) Psoriasis	Marketed in U.S. Phase II Phase II
Panretin [®] gel	Kaposi's sarcoma	Marketed in U.S. and Europe
Panretin [®] capsules	Kaposi's sarcoma Bronchial metaplasia	Phase II Phase II
LGD1550 (RAR agonist)	Advanced cancers Acne Psoriasis	Phase II Pre-clinical Pre-clinical
LGD1331 (Androgen antagonist)	Prostate cancer, hirsutism, acne, androgenetic alopecia	Pre-clinical
Glucocorticoid agonists	Inflammation, cancer	Pre-clinical
Mineralocorticoid receptor modulators	Congestive heart failure, hypertension	Research

We do not provide forward-looking estimates of costs and time to complete our ongoing research and development projects, as such estimates would involve a high degree of uncertainty. Uncertainties include, but are not limited to, our ability to predict the outcome of complex research, our ability to predict the results of clinical studies, regulatory requirements placed upon us by regulatory authorities such as the FDA and the EMEA, our ability to predict the decisions of our collaborative partners, our ability to fund research and development programs, competition from other entities of which we may become aware in future periods, predictions of market potential from products that may be derived from our research and development efforts, and our ability to recruit and retain personnel or third-party research organizations with the necessary knowledge and skills to perform certain research. Refer to the "Risks and Uncertainties" section for additional discussion of the uncertainties surrounding our research and development initiatives.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were \$12.4 million for the first quarter of 2003 compared to \$9.7 million for the first quarter of 2002. The increase in 2003 is primarily due to higher advertising and promotion expenses for AVINZA[®] which was launched in June 2002 and costs associated with additional Ligand sales representatives hired to promote AVINZA[®]. Selling, general and administrative expenses are expected to continue to increase throughout 2003 as a result of increased selling and marketing activities for AVINZA[®] which will be promoted on a broader scale and by a significantly larger sales force as a result of our co-promotion agreement with Organon. Under the co-promotion agreement, we and Organon will share equally all costs for AVINZA[®] advertising and promotion, medical affairs and clinical trials.

Other Expenses, Net

Other expenses, net were \$7.8 million for the first quarter of 2003 compared to \$4.2 million for the first quarter of 2002. Other expenses in the 2003 period include the write-off of a \$5.0 million one-time payment made in July 2002 to X-Ceptor Therapeutics, Inc. (or X-Ceptor) to extend Ligand's right to acquire the outstanding stock of X-Ceptor not already held by Ligand. In March 2003, we informed X-Ceptor that we would not exercise the purchase right. Other expenses in the first quarter of 2002 include debt conversion expense of \$2.0 million incurred in connection with the early conversion of \$20.0 million in issue price of zero coupon convertible senior notes into common stock.

Interest expense increased to \$2.7 million for the first quarter of 2003 compared to \$2.3 million for the first quarter of 2002. The 2003 expense primarily represents interest on the \$155.3 million of 6% convertible subordinated notes that we issued in November 2002. The 2002 expense represents interest on the \$20.0 million in issue price of zero coupon convertible senior notes that was converted into common stock in March 2002 and interest on our outstanding \$50.0 million face value of convertible subordinated debentures that was redeemed in June 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, product sales, capital and operating lease transactions, equipment financing arrangements and investment income.

At March 31, 2003, working capital was \$25.2 million compared to working capital of \$53.2 million at December 31, 2002. Cash, cash equivalents, short-term investments, and restricted investments totaled \$44.7 million at March 31, 2003 compared to \$74.9 million at December 31, 2002. We primarily invest our cash in United States government and investment grade corporate debt securities.

Operating activities used cash of \$9.7 million for the three months ended March 31, 2003 compared to \$0.1 million for the three months ended March 31, 2002. Operating cash flow in 2003 compared to the prior year period reflects increased product sales driven by AVINZA[®], which was launched in June 2002. Operating cash was negatively impacted, however, by higher development expenses to fund clinical trials of our existing products in new indications including Phase III registration trials for Targretin[®] capsules in non-small cell lung cancer, and higher selling and marketing expenses for AVINZA[®]. Cash flows for the first quarter of 2002 also reflect \$6.0 million in cash received in connection with the sale to Royalty Pharma AG of rights to future royalties from certain collaborative partner's net sales of three selective estrogen receptor modulator (SERM) products.

Investing activities used cash of \$3.4 million for the three months ended March 31, 2003 compared to \$3.9 million for the three months ended March 31, 2002. The use of cash in 2003 reflects a \$4.1 million payment to Elan in connection with the November 2002 restructuring of the AVINZA[®] license and supply agreement, partially offset by net proceeds of \$0.9 million from the sale of short-term investments. Cash used for investing activities in 2002 reflects the net purchase of short-term investments of \$2.5 million and capital expenditures of \$1.5 million.

Financing activities used cash of \$16.3 million for the three months ended March 31, 2003 and provided cash of \$1.5 million for the three months ended March 31, 2002. The use of cash in 2003 reflects the \$15.9 million repurchase of approximately 2.2 million shares of our outstanding common stock held by an affiliate of Elan in connection with a November 2002 share repurchase agreement. Cash provided from financing activities 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.

Certain of our property and equipment is pledged as collateral under various equipment financing arrangements. As of March 31, 2003, \$5.8 million was outstanding under such arrangements with \$2.1 million classified as current. Our equipment financing arrangements have terms of three to five years with interest ranging from 4.75% to 10.66%

We expect operating cash flows to benefit in 2003 from increased product sales driven by AVINZA[®]. Operating cash will be negatively impacted, however, by higher development expenses to fund clinical trials of our existing products in new indications including Phase III registration trials for Targretin[®] capsules in non-small cell lung cancer, and higher selling and marketing expenses on AVINZA[®]. Additionally, we are required to pay interest of approximately \$9.3 million in 2003 on the \$155.3 million in 6% convertible subordinated notes issued in November 2002. Of the net proceeds from issuance of the 6% convertible subordinated notes, \$18.0 million was invested in U.S. government securities and placed with a trustee to pay the first four scheduled interest payments. These investments are presented as restricted investments in our consolidated balance sheet.

We lease our office and research facilities under operating lease arrangements with varying terms through July 2015. The Company leases its corporate headquarters from a limited liability company (the "LLC") in which Ligand holds a 1% ownership interest. The lease agreement provides for increases in annual rent of 4% and terminates in 2014. Ligand also has an option to either purchase the LLC or the leased premises from the LLC at a purchase price equal to the outstanding debt on the property plus a calculated return on the investment made by the LLC's other shareholder.

In accordance with existing accounting standards, the lease is treated as an operating lease for financial reporting purposes. In January 2003, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 46 ("FIN 46"), *Consolidation of Variable Interest Entities*, an Interpretation of ARB No. 51. FIN 46 requires the consolidation of certain variable interest entities by the primary beneficiary of the entity if the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties or if the equity investors lack the characteristics of a controlling financial interest. For variable interest entities created prior to February 1, 2003, the consolidation requirements of FIN 46 must be applied in the Company's third quarter of 2003. We are in the process of determining whether the LLC will have to be consolidated under FIN 46. If we were required to consolidate the LLC, however, our consolidated balance sheet as of March 31, 2003 would reflect additional property and equipment of \$13.1 million and additional debt of \$12.7 million. The impact of such treatment on our operating results would not be significant.

As of March 31, 2003, future minimum payments, including interest, due under our contractual lease obligations are as follows (in thousands):

	Total	Payments Due by Period			After 5 years
		1 year	2-3 years	4-5 years	
Capital lease obligations	\$ 6,299	\$2,616	\$ 3,274	\$ 409	\$ —
Operating leases	37,757	3,045	6,267	6,212	22,233
Total contractual lease obligations	\$44,056	\$5,661	\$ 9,541	\$ 6,621	\$ 22,233

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

Critical Accounting Policies

Certain of our accounting policies require the application of management judgement in making estimates and assumptions that affect the amounts reported in the consolidated financial statements and disclosures made in the accompanying notes. Those estimates and assumptions are based on historical experience and various other factors deemed to be applicable and reasonable under the circumstances. The use of judgement in determining such estimates and assumptions is by nature, subject to a degree of uncertainty. Accordingly, actual results could differ from the estimates made. Accordingly, actual results could differ from the estimates made. Management believes there have been no material changes during the three-month period ended March 31, 2003 to the critical accounting policies reported in the Management's Discussion and Analysis section of our annual report on Form 10-K for the year ended December 31, 2002.

New Accounting Pronouncements

In November 2002, the FASB issued FASB Interpretation No. 45 ("FIN 45"), *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. FIN 45 requires that a liability be recorded in the guarantor's balance sheet upon issuance of a guarantee. In addition, FIN 45 requires certain disclosures about each of the entity's guarantees. We will apply the recognition provisions of FIN 45 to guarantees issued after December 31, 2002.

In December 2002, the FASB issued Statement of Financial Accounting Standard ("SFAS") No. 148, *Accounting for Stock-Based Compensation, Transition and Disclosure*. SFAS No. 148 provides alternative methods of transition for those entities that elect to voluntarily adopt the fair value accounting provisions of SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 148 also requires more prominent disclosures of the pro forma effect of using the fair value method of accounting for stock-based employee compensation as well as pro forma disclosure of the effect in interim financial statements. The transition and annual disclosure provisions of SFAS No. 148 are effective for fiscal years ending after December 15, 2002. The interim disclosure requirements are effective for the first interim period ending after December 15, 2002. We have not elected to adopt the fair value accounting provisions of SFAS No. 123 and therefore the adoption of SFAS No. 148 did not have a material effect on our results of operations or financial position.

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), *Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51*. FIN 46 requires the consolidation of certain variable interest entities by the primary beneficiary of the entity if the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties or if the equity investors lack the characteristics of a controlling financial interest. FIN 46 is effective for variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied in the first interim or annual period beginning after June 15, 2003. Refer to footnote 5 of our Notes to Consolidated Financial Statements for a discussion of the potential effect of adopting FIN 46 on our results of operations and 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, 2003, our accumulated deficit was approximately \$639 million. To date, we have received the majority of our revenues from our collaborative arrangements and only began receiving revenues from the sale of pharmaceutical products in 1999. To become profitable, we must successfully develop, clinically test, market and sell our products. Even if we achieve profitability, we cannot predict the level of that profitability or whether we will be able to sustain profitability. We expect that our operating results will fluctuate from period to period as a result of differences in when we incur expenses and receive revenues from product sales, collaborative arrangements and other sources. Some of these fluctuations may be significant.

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

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

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

Developing the sales force to market and sell products is a difficult, expensive and time-consuming process. We have developed a US sales force of about 90 people. 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. Our reliance on these third parties means our results may suffer if any of them are unsuccessful or fail to perform as expected. 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. With respect to our co-promotion or licensing arrangements, for example our co-promotion agreement for AVINZA[®], any revenues we receive will depend substantially on the marketing and sales efforts of others, which may or may not be successful.

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

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

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

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

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

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

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

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

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

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

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

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

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

We have incurred losses since our inception and may not generate positive cash flow to fund our operations for one or more years. As a result, we may need to complete additional equity or debt financings to fund our operations. Our inability to obtain additional financing could adversely affect our business. Financings may not be available at all or on favorable terms. In addition, these financings, if completed, still may not meet our capital needs and could result in substantial dilution to our stockholders. For instance, in February and March 2002 we issued to Elan 6.3 million shares upon the conversion of zero coupon convertible senior notes held by Elan, and in April 2002 we issued 4.3 million shares of our common stock in a private placement. These transactions have resulted in the issuance of significant numbers of new shares. In addition, in November 2002 we issued in a private placement \$155,250,000 in aggregate principal amount of our 6% convertible subordinated notes due 2007, which could be converted into 25,149,025 shares of our common stock.

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

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

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

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

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

We face substantial competition which may limit our revenues.

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

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

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

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

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

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

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

We may have disputes in the future with our collaborators, including disputes concerning which of us owns the rights to any technology developed. For instance, we were involved in litigation with Pfizer, which we settled in April 1996, concerning our right to milestones and royalties based on the development and commercialization of droloxifene. These and other possible disagreements between us and our collaborators could delay our ability and the ability of our collaborators to achieve milestones or our receipt of other payments. In addition, any disagreements could delay, interrupt or terminate the collaborative research, development and commercialization of certain potential products, or could result in litigation or arbitration. The occurrence of any of these problems could be time-consuming and expensive and could adversely affect our business. Challenges to or failure to secure patents and other proprietary rights may significantly hurt our business. Our success will depend on our ability and the ability of our licensors to obtain and maintain patents and proprietary rights for our potential products and to avoid infringing the proprietary rights of others, both in the United States and in foreign countries. Patents may not be issued from any of these applications currently on file, or, if issued, may not provide sufficient protection. In addition, disputes with licensors under our license agreements may arise which could result in additional financial liability or loss of important technology and potential products and related revenue, if any.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The market prices and trading volumes for our securities, and the securities of emerging companies like us, have historically been highly volatile and have experienced significant fluctuations unrelated to operating performance. For example, in 2002, the intraday sale price of our common stock on the Nasdaq National Market was as high as \$20.50 and as low as \$4.64. Future announcements concerning us or our competitors as well as other companies in our industry and other public companies may impact the market price of our common stock. These announcements might include:

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

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

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

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

We have not paid any cash dividends on our common stock to date. We intend to retain any earnings to support the expansion of our business, and we do not anticipate paying cash dividends on any of our securities in the foreseeable future.

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

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

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

At March 31, 2003, our investment portfolio included fixed-income securities of \$11.9 million. These securities are subject to interest rate risk and will decline in value if interest rates increase. This risk is mitigated, however, due to the conservative nature of our investments and relatively short effective maturities of the debt instruments in our investment portfolio. Accordingly, an immediate 10% change in interest rates would have no material impact on our financial condition, results of operations or cash flows. Declines in interest rates over time will, however, reduce our interest income.

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

ITEM 4. CONTROLS AND PROCEDURES

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

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

PART II. OTHER INFORMATION

ITEM 6. (A) EXHIBITS

Exhibit 3.1 (1)	Amended and Restated Certificate of Incorporation of the Company (Filed as Exhibit 3.2).
Exhibit 3.2 (1)	Bylaws of the Company, as amended (Filed as Exhibit 3.3).
Exhibit 3.3 (2)	Amended Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of the Company.
Exhibit 3.5 (5)	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company dated June 14, 2000.
Exhibit 4.1 (6)	Specimen stock certificate for shares of Common Stock of the Company.
Exhibit 4.2 (3)	Preferred Shares Rights Agreement, dated as of September 13, 1996, by and between the Company and Wells Fargo Bank, N.A. (Filed as Exhibit 10.1)
Exhibit 4.3 (4)	Amendment to Preferred Shares Rights Agreement, dated as of November 9, 1998, between the Company and ChaseMellon Shareholder Services, L.L.C., as Rights Agent (Filed as Exhibit 99.1).
Exhibit 4.4 (7)	Second Amendment to the Preferred Shares Rights Agreement, dated as of December 23, 1998, between the Company and ChaseMellon Shareholder Services, L.L.C., as Rights Agent (Filed as Exhibit 1).
Exhibit 4.7 (8)	Fourth Amendment to the Preferred Shares Rights Agreement and Certification of Compliance with Section 27 Thereof, dated as of October 3, 2002, between the Company and Mellon Investor Services LLC, as Rights Agent.
Exhibit 4.8 (9)	Registration Rights Agreement dated November 26, 2002 between Ligand Pharmaceuticals Incorporated and UBS Warburg LLC. (Filed as Exhibit 4.2)
Exhibit 10.256	Co-Promotion Agreement, dated January 1, 2003, by and between the Company and Organon Pharmaceuticals USA Inc. (with certain confidential portions omitted).
Exhibit 99.1	Certification by Principal Executive Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley act of 2002.
Exhibit 99.2	Certification by Principal Financial Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley act of 2002.

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

- (7) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Registration Statement on Form 8-A/A Amendment No. 2 (No. 0-20720) filed on December 24, 1998.
- (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 Quarterly Report on Form 10-Q for the period ended September 30, 2002.
- (9) 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. 333-102483) filed on January 13, 2003, as amended.

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

The following reports on Form 8-K were filed during the quarter ended March 31, 2003:

<u>Date of Filing</u>	<u>Description</u>	
February 25, 2003	Item 5 and 7, Other Events	— Organon, Ligand to Co-Promote AVINZA [®] , First True Once-Daily Opioid for Chronic, Moderate-to-Severe Pain
		— Total Revenues for the Year Increase 27%, Per Share Loss Decreases 35%

LIGAND PHARMACEUTICALS INCORPORATED

March 31, 2003

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 5, 2003

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

CHIEF EXECUTIVE OFFICER CERTIFICATION

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

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

2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;

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

a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;

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

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

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

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

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

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

Date: May 5, 2003

/S/DAVID E. ROBINSON

David E. Robinson

Chairman, President and Chief Executive Officer

CHIEF FINANCIAL OFFICER CERTIFICATION

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

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

2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;

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

a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;

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

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

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

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

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

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

Date: May 5, 2003

/S/PAUL V. MAIER

Paul V. Maier

Senior Vice President, Chief Financial Officer

CO-PROMOTION AGREEMENT

This CO-PROMOTION AGREEMENT (this "Agreement") is entered into and effective as of this 1st day of January, 2003 (the "Effective Date"), by and between LIGAND PHARMACEUTICALS INCORPORATED, a Delaware corporation ("Ligand"), and ORGANON PHARMACEUTICALS USA INC., a New Jersey corporation ("Co-Promotion Partner").

RECITALS

WHEREAS, Ligand has exclusive rights to market, sell and distribute the Product in the United States;

WHEREAS, Co-Promotion Partner is engaged in the business of and has expertise in, among other things, the promotion to physicians of pharmaceutical products; and

WHEREAS, Ligand and Co-Promotion Partner desire to work together to promote the Product in the United States upon the terms and conditions set forth herein.

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

1. DEFINITIONS. Capitalized terms used herein without definition shall have the meanings specified in this Section 1 (such definitions to be equally applicable to both the singular and plural forms of the terms defined). Unless otherwise specified, all references in this Agreement to "Sections" are to Sections of this Agreement.

"Act" shall mean the United States Federal Food, Drug and Cosmetic Act, as it may be amended from time to time.

"Affiliate" shall mean, with respect to any Person, any other Person that directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with, such Person. A Person shall be regarded as in control of another Person if such Person owns, or directly or indirectly controls, more than fifty percent (50%) of the voting securities (or comparable equity interests) or other ownership interests of the other Person, or if such Person directly or indirectly possesses the power to direct or cause the direction of the management or policies of the other Person, whether through the ownership of voting securities, by contract or any other means whatsoever.

"Agreement" shall mean this Agreement, together with all appendices, exhibits and schedules referenced herein or attached hereto, and as the same may be amended or supplemented from time to time hereafter pursuant to the provisions hereof.

"Applicable Laws and Regulations" shall mean all applicable federal, state and local laws, regulations, rules or guidelines that govern the services and transactions contemplated by this Agreement, including without limitation the Act and the Controlled Drug Substances Act, as the same may be amended from time to time.

Certain confidential portions of this Exhibit were omitted by marking such portions with asterisks (the "Mark"). This Exhibit has been filed separately with the Secretary of the Commission without the Mark pursuant to the Company's Application Requesting Confidential Treatment under Rule 24b-2 under the 1934 Act.

"Audited Party" shall have the meaning set forth in Section 9.2(a).

"Auditing Party" shall have the meaning set forth in Section 9.2(a).

"Budget" shall mean the annual budget for Shared Costs to be incurred by

both parties in connection with the promotion and marketing of the Product, as annually prepared by the Commercial Committee and approved by the Steering Committee and included in each annual Marketing Plan.

"Change of Control" shall mean (a) the acquisition, directly or indirectly, by any Person or group of related Persons (other than any Person that controls, is controlled by or is under common control with a party) of beneficial ownership (as such term is defined in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended (the "34 Act")) of securities possessing more than fifty percent (50%) of the total combined voting power of a party's outstanding securities; (b) a merger or consolidation in which securities possessing more than fifty percent (50%) of the total combined voting power of such party's outstanding securities are transferred to a Person or Persons different from the Persons holding those securities immediately prior to such transaction; or (c) the sale, transfer or other disposition of all or substantially all of such party's assets.

"Commercially Reasonable Efforts" shall mean efforts and resources normally used by a party for a product owned by it or to which it has rights, which is of similar market potential at a similar stage in its development or product life, taking into account issues of safety, efficacy, product profile, the competitiveness of the marketplace, the proprietary position of the product, the regulatory structure involved, the profitability of the applicable products, and other relevant commercial factors.

"Contract Year" shall mean a 12-month period commencing as of January 1 and ending as of December 31. For the purposes of this Agreement, the first contract year shall commence on the Effective Date and end on December 31, 2003.

"Co-Promotion Partner" shall have the meaning set forth in the Preamble of this Agreement.

"Co-Promotion Partner Detail Report" shall have the meaning set forth in Section 3.2.

"Co-Promotion Partner Trademarks" shall mean the trademark Organon(R), any other related trademark or service mark containing the word "Organon."

"CRO" shall mean a contract research organization.

"DEA" shall mean the Drug Enforcement Agency, Department of Justice, or any successor entity thereto.

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"Direct Costs" shall mean all costs, supported by vendor invoices or accruals per GAAP, that are exclusively incurred for (as opposed to allocated to) Product (i) advertising and promotion expenses and (ii) market research, medical affairs, post-approval clinical trials, Phase IV trials and physician-sponsored clinical trials, CRO and Grant expenses. Examples of direct advertising and promotion expenses include without limitation promotional material and goods, symposia, advisory boards, print production/reprints, advertising agency fees, advertising space, direct mail/spin off, other trade show expenses, free goods, public relations, Exhibit fees, advocate investigator meetings, training material and special programs.

"Effective Date" shall have the meaning set forth in the Preamble of this Agreement.

"Execution Date" shall mean the date on which this Agreement is signed by the last party to sign below.

"FDA" shall mean the United States Food and Drug Administration or any successor entity thereto.

"First Position Details" shall mean Product Calls in which the promotional message involving the Product is presented in the first position and is a principal topic of discussion and the Product is discussed for the longest period of time during the contact.

"Force Majeure Event" shall have the meaning set forth in Section 16.10.

"Fully Allocated Costs" shall mean, with respect to a party during any period, the sum total of costs (excluding Product acquisition costs, which shall mean all costs relating to the manufacture of the Product for commercial sale) to such party that are allocable to the Product in accordance with such party's established and reasonable standard accounting practices and GAAP (in each case, consistently applied), and inclusive of salary cost (including bonus, benefits and allowances), and other expenses incurred by or charged to the following functions: Medical Affairs, and other R & D departments, in each case specifically limited to post-approval clinical trials, Phase IV trials and physician-sponsored clinical trials.

"GAAP" shall mean United States generally accepted accounting principles, as may be amended from time to time.

"Good Manufacturing Practices" shall mean the current standards for manufacture, as set forth in the Act and applicable regulations and guidelines promulgated thereunder or successors thereto, as shall be in effect from time to time during the Term.

"Governmental or Regulatory Authority" shall mean any court, tribunal, arbitrator, agency, commission, official or other instrumentality of any government or of any federal, state, county, city or other political subdivision thereof, including without limitation FDA and DEA.

"Grant" shall mean a payment to a physician, a cooperative group or an institution for the conduct of clinical trials or medical education.

"Gross Sales" shall mean the amount of sales for Product in the Territory invoiced by Ligand, its Affiliates, subcontractors and permitted sublicensees to un-Affiliated third parties.

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"Indemnitee" shall have the meaning set forth in Section 12.3.

"Indemnitor" shall have the meaning set forth in Section 12.3.

"Ligand" shall have the meaning set forth in the Preamble.

"Ligand Detail Report" shall have the meaning set forth in Section 4.4(a).

"Ligand Trademarks" shall mean the trademark Ligand(R), any other related trademark or service mark containing the word "Ligand."

"Marketing Authorization" shall mean the authorization to sell the Product in any applicable country as granted by the relevant Governmental or Regulatory Authorities.

"Marketing Materials" shall have the meaning set forth in Section 5.2(a).

"Marketing Plan" shall mean an annual plan for the promotion, marketing and sale of the Product as developed pursuant to Section 7.2(b)(i). Each Marketing Plan shall set forth the manner in which the Product is to be promoted and marketed during the period to which the Marketing Plan relates and shall include, at a minimum: (a) subject to Section 3.1(b) and 4.1(b), the minimum number of quarterly and annual Product Calls and First and Second Position Details to be provided by each party and targets therefor; (b) Product positioning, strategy and tactics with supporting advertising and promotional activity to be undertaken; (c) all budgets for costs to be incurred by either party in connection with the performance of its obligations hereunder; (d) any training programs to be conducted; (e) medical and education programs to be conducted; (f) professional and trade relations activities; (g) any information to be specifically included in any Co-Promotion Partner Detail Report or Ligand Detail Report; (h) specifications for the development of Marketing Materials; and (i) such other information relating to the marketing of the Product as deemed advisable by the Commercial Committee. Neither party shall make any material change in any previously approved Marketing Plan without the prior written approval of the Commercial Committee.

"NDA" shall mean the new drug applications related to the Product,

submitted to the FDA pursuant to provisions of the Act and applicable regulations related thereto.

"Net Sales" shall mean, for the applicable period, Gross Sales (in accordance with Ligand's standard accounting principles and GAAP) less the following:

(a) customs duties or other taxes (excluding income or corporation tax), directly related to the sale of the Product which are paid by Ligand; and

(b) returns, rebates, chargebacks, allowances for bad debt, and discounts directly related to the sale of the Product and lawfully allowed.

"Non-Serious Adverse Event" shall mean any adverse drug experience associated with the use of the Product in humans, whether or not considered drug-related, which is not a Serious Adverse Event.

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"Other Morphine Product" shall mean a controlled-release oral or transdermal dosage formulation containing morphine as its sole, active analgesic ingredient, other than the Product.

"PDMA" shall mean the Prescription Drug Marketing Act, as amended, and the implementing rules and regulations thereunder.

"Person" shall mean an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, pool, syndicate, sole proprietorship, unincorporated organization, governmental authority, or any other form of entity not specifically listed herein.

"Product" shall mean the 30 mg, 60 mg, 90 mg and 120 mg dosage strengths (and all other dosage strengths or presentations that may be marketed by Ligand) of the once daily oral dosage microparticulate formulation, developed by Elan Corporation plc and Ligand, manufactured on behalf of, and marketed by, Ligand under the trademark Avinza(R), and having morphine as its sole active ingredient.

"Product Calls" shall mean face-to-face contacts by a sales representative with a Target Healthcare Professional during which time the promotional message involving the Product is presented in the first or second position and is a principal topic of discussion and the Product is discussed for the longest period of time during the contact or the second-longest period of time.

"Product Technical Complaint" shall mean any complaint that questions the purity, identity, potency or quality of the Product, its packaging or labeling or the compliance of any batch of the Product with Applicable Laws and Regulations and current Good Manufacturing Practices; any complaint that concerns any incident that causes the Product or its labeling to be mistaken for, or applied to, another article; any bacteriological contamination or significant chemical, physical or other change or deterioration in the Product; any failure of one or more batches of the Product to meet the specifications therefor in the NDA; or any complaint or evidence of tampering with the Product.

"Product Trademarks" shall mean the trademark Avinza(R) associated with the Product, any other related trademark or service mark containing the word "Avinza" and any other trademark or service mark (whether registered or unregistered) used on or with the Product or in any Marketing Material (other than Ligand Trademarks and Co-Promotion Partner Trademarks, as applicable) in the Territory during the Term.

"Second Position Details" shall mean Product Calls in which the promotional message involving the Product is presented in the second position and is a principal topic of discussion and the Product is discussed for the second-longest period of time during the contact.

"Serious Adverse Event" shall mean any serious and unexpected adverse drug experience, as defined by FDA in 21 C.F.R. Section 314.80 or Section 312.32, associated with the use of the Product in humans, whether or not considered

drug-related.

"Shared Costs" shall mean, with respect to a party during any period, the sum of (i) Direct Costs for such party and (ii) any Fully Allocated Costs for such party.

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"Steering Committee" shall have the meaning set forth in Section 7.1.

"Strategic Plan" shall mean a five (5)-year rolling strategic plan relating to the promotion and marketing of the Product, as annually prepared and approved by the Steering Committee.

"Target Healthcare Professionals" shall mean medical doctors and doctors of osteopathy that are primary care physicians (i.e., general practitioners, family practitioners and internal medicine physicians), pain specialists, physical medicine and rehabilitation specialists, neurologists, anesthesiologists, sports medicine specialists, or other prescribers of pain management therapeutics, in each case who are authorized by applicable law to prescribe the Product.

"Term" shall have the meaning set forth in Section 10.1.

"Territory" shall mean the United States of America and its territories.

2. GRANTS OF RIGHTS.

2.1 CO-PROMOTION RIGHTS.

a. CO-PROMOTION. Ligand hereby grants to Co-Promotion Partner, on an exclusive basis together with Ligand, the right to promote the Product in the Territory during the Term and the right to provide other Co-Promotion Partner services, upon and subject to the terms and conditions set forth in this Agreement.

b. OTHER MORPHINE PRODUCTS. From the Effective Date and for one year after the end of the Term, neither Co-Promotion Partner nor its Affiliates shall, without the prior written consent of Ligand, market or sell any Other Morphine Product in the Territory.

c. OPTION FOR OTHER MORPHINE PRODUCTS.

(i) Subject to paragraph 2.1(b) hereof, Ligand hereby grants to Co-Promotion Partner the exclusive option to co-promote any Other Morphine Product newly marketed by Ligand or an Affiliate in the Territory during the Term, in each case subject to a separate Co-Promotion Agreement containing terms and conditions that are acceptable to both Ligand and Co-Promotion Partner.

(ii) Within fifteen (15) days after Ligand submits an NDA for or acquires the right to market (whichever occurs earlier) any Other Morphine Product in the Territory during the Term, Ligand shall provide written notice to Co-Promotion Partner of such submission or acquisition, identifying the Other Morphine Product in reasonable detail. Co-Promotion Partner shall have sixty (60) days after its receipt of such notice to exercise its rights under Section 2.1(c)(i) by providing written notice thereof (the "Exercise Notice") to Ligand. During the period (which period shall not exceed one hundred eighty (180) days or such longer period of time as the parties mutually agree) after Ligand's receipt of the Exercise Notice, as the case may be, the parties will negotiate in good faith towards a definitive agreement for the co-promotion of such Other Morphine Product, after which period the rights under Section 2.1(c)(i) shall no longer be effective with respect to such Other Morphine Product.

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2.2 RIGHTS TO TRADEMARKS.

a. LICENSES.

(i) Ligand hereby grants to Co-Promotion Partner a non-exclusive, royalty-free license to use the Product Trademarks solely to market the Product in the Territory during the Term.

(ii) Ligand hereby grants to Co-Promotion Partner a non-exclusive, royalty-free license to use the Ligand Trademarks solely in connection with performing its obligations hereunder. Co-Promotion Partner hereby grants to Ligand a non-exclusive, royalty-free license to use the Co-Promotion Partner Trademarks solely in connection with performing its obligations hereunder.

b. REQUIRED USE AND COMPLIANCE.

(i) Except for the use of the Ligand Trademarks in labeling, package inserts, Product monographs and packaging for Products, and the Ligand Trademarks and the Co-Promotion Trademarks in Marketing Materials, each party shall promote the Product only under the Product Trademarks. Each party shall ensure that each use by it of the Product Trademarks is accompanied by an acknowledgement that the Product Trademarks are owned by Ligand. Neither party shall (A) use the Product Trademarks in a way that might materially prejudice their distinctiveness or validity or the goodwill of Ligand therein, or (B) use any trademarks or tradenames so resembling any of the Product Trademarks as to be likely to cause confusion or deception.

(ii) Ligand shall ensure that each use of the Co-Promotion Partner Trademarks by it is accompanied by an acknowledgement that the Co-Promotion Partner Trademarks are owned by Co-Promotion Partner. Ligand shall not (A) use the Co-Promotion Partner Trademarks in a way that might materially prejudice their distinctiveness or validity or the goodwill of Co-Promotion Partner therein, or (B) use any trademarks or tradenames so resembling any of the Co-Promotion Partner Trademarks as to be likely to cause confusion or deception.

(iii) Co-Promotion Partner shall ensure that each use of the Ligand Trademarks by it is accompanied by an acknowledgement that the Ligand Trademarks are owned by Ligand. Co-Promotion Partner shall not (A) use the Ligand Trademarks in a way that might materially prejudice their distinctiveness or validity or the goodwill of Ligand therein, or (B) use any trademarks or tradenames so resembling any of the Ligand Trademarks as to be likely to cause confusion or deception.

c. VALIDITY OF TRADEMARKS. Each party acknowledges the validity of Co-Promotion Partner's right, title and interest in and to the Co-Promotion Partner Trademarks and the validity of Ligand's right, title and interest in and to the Ligand Trademarks and the Product Trademarks. The parties shall not have, assert or acquire any right, title or interest in or to any of Ligand Trademarks or the Product Trademarks or the goodwill pertaining thereto (in the case of Co-Promotion Partner), or the Co-Promotion Partner Trademarks or the goodwill pertaining thereto (in the case of Ligand), except as otherwise explicitly provided in this Agreement.

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d. NOTICE OF INFRINGEMENT.

(i) Co-Promotion Partner shall give Ligand prompt notice of any infringement or threatened infringement of any of the Product Trademarks or the Ligand Trademarks used in connection with the Product, and Ligand shall give Co-Promotion Partner prompt notice of any infringement or threatened infringement of any of the Product Trademarks or the Co-Promotion Partner Trademarks used in connection with the Product.

(ii) Ligand shall determine in its sole discretion what action, if any, to take in response to the infringement or threatened infringement of any Product Trademark or Ligand Trademark. Co-Promotion Partner shall determine in its sole discretion what action, if any, to take in response to the infringement or threatened infringement of any Co-Promotion Partner Trademark.

3. RESPONSIBILITIES OF CO-PROMOTION PARTNER.

3.1 PROMOTION BY CO-PROMOTION PARTNER.

a. As of the Execution Date, Co-Promotion Partner shall commence certain services listed in EXHIBIT F, as mutually agreed upon by the parties. Commencing April 1, 2003 and continuing throughout the Term, Co-Promotion Partner shall use its Commercially Reasonable Efforts to market and promote the Product to Target Healthcare Professionals in the Territory in accordance with the then-current Marketing Plan (collectively, the "Co-Promotion Partner Detailing Services"). Subject to Section 3.1(b), the exact number, targeting and frequency of Product Calls to be provided by Co-Promotion Partner will be determined by the Commercial Committee and stated in the Marketing Plan.

b. Commencing April 1, 2003 and thereafter during each Contract Year throughout the Term, Co-Promotion Partner shall complete, subject to pro rata adjustment for the initial partial year, a minimum of *** Product Calls in each such Contract Year, of which a minimum of (i) *** Product Calls shall be delivered to primary care physicians, (ii) *** Product Calls shall be delivered to high-prescribing physicians specializing in pain management, and (iii) *** Product Calls shall be delivered to hospitals; provided, however, in the first three Contract Years, all Product Calls shall be First Position Details and thereafter, at least *** of all Product Calls shall be First Position Details, and the remainder shall be Second Position Details. For the avoidance of doubt, in the first Contract Year, starting April 1, 2003 and ending December 31, 2003, Co-Promotion Partner shall complete a minimum of *** Product Calls.

(i) In the event that Net Sales for the Contract Year ending as of December 31, 2005 are less than *** the parties shall negotiate in good faith a reduction in Co-Promotion Partner's obligations set forth in Section 3.1(b) above; provided that for each Contract Year commencing as of January 1, 2006 and for the remainder of the Term, in each Contract Year Co-Promotion Partner shall provide no less than *** Product Calls, of which not less than *** shall be First Position Details, with the balance being Second Position Details.

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(ii) In the event that Net Sales for the Contract Year ending as of December 31, 2007 are less than *** each party shall have the right, but not the obligation, to terminate this Agreement as more fully set forth in Section 10.4.

c. In performing its duties hereunder, Co-Promotion Partner shall, and shall cause its employees to, comply with all regulatory, professional and legal requirements, including, without limitation, the FDA's regulations and guidelines concerning the advertising of prescription drug products, the American Medical Association's Guidelines on Gifts to Physicians, the PhRMA Guidelines for Marketing Practices, and the ACCME Standards for Commercial Support of Continuing Medical Education, which may be applicable to the services to be provided by Co-Promotion Partner hereunder. No employee of Co-Promotion Partner shall make any representation, statement, warranty or guaranty with respect to the Product that is not consistent with current labeling of the Product or Marketing Materials approved by the Commercial Committee, that is deceptive or misleading or that disparages the Products or the good name, goodwill and reputation of Ligand. Co-Promotion Partner shall use Commercially Reasonable Efforts to ensure that its services hereunder will be provided in a professional, ethical and competent manner. Notwithstanding Section 10.2 hereof, Ligand may immediately, upon written notice to Co-Promotion Partner, terminate this Agreement for any material breach of this Section 3.1(c).

3.2 CO-PROMOTION PARTNER DETAIL REPORTS. Co-Promotion Partner shall provide Ligand with a report (each a "Co-Promotion Partner Detail Report"), within thirty (30) calendar days after the end of each calendar quarter included in the Term (and within such period after the end of the Term), setting forth the following information regarding the efforts of Co-Promotion Partner's sales force in promoting and marketing the Product during the preceding quarter (or part thereof): (i) the number of Product Calls and a breakdown of First Position Details and Second Position Details made and recorded by Co-Promotion Partner's standard record keeping procedures based on data recorded by the sales force; (ii) the names and addresses of the Target Healthcare Professionals called upon; and (iii) such other information as may be required in the then-current Marketing Plan. An example of a Co-Promotion Detail Report is attached to this Agreement as EXHIBIT A. Each such Co-Promotion Detail Report shall be in an

electronic format and in hard copy form. Each Co-Promotion Detail Report shall be treated as Confidential Information of Co-Promotion Partner pursuant to Section 11 of this Agreement and shall not be used or disclosed to third parties without Co-Promotion Partner's prior written approval or direction.

3.3 CO-PROMOTION PARTNER SALES FORCE.

a. Except as agreed by the parties, Co-Promotion Partner shall be solely responsible for the costs and expenses of establishing, maintaining and training Co-Promotion Partner's sales force, and conducting Co-Promotion Partner's other activities under this Agreement; provided, however, that (i) such Product training shall be conducted in accordance with Section 5.1 and (ii) the content and strategic direction of any Product training provided by Co-Promotion Partner that relates specifically to the Product shall be overseen by the Commercial Committee.

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b. To the extent practicable, all written, electronic and visual communications provided to any of Co-Promotion Partner's sales representatives regarding strategy, positioning or selling messages for the Product will be subject to review and approval by the Commercial Committee.

3.4 SUPPORT SERVICES. Co-Promotion Partner will provide such other Product-related services from time to time during the Term as are expressly approved by the Commercial Committee or the Clinical/Regulatory Sub-Committee, and specified in EXHIBIT F.

4. RESPONSIBILITIES OF LIGAND.

4.1 PROMOTION OF PRODUCT BY LIGAND.

a. Commencing as of the Execution Date and continuing throughout the Term, Ligand shall use its Commercially Reasonable Efforts to market and promote the Product to Target Healthcare Professionals in the Territory in accordance with the then-current Marketing Plan (collectively, the "Ligand Detailing Services"). The exact number, targeting and frequency of Product Calls to be provided by Ligand will be determined by the Commercial Committee and stated in the Marketing Plan.

b. Commencing April 1, 2003 and thereafter during each Contract Year throughout the Term, Ligand shall complete, subject to pro rata adjustment for the initial partial year, a minimum of *** Product Calls in each such Contract Year; provided, however, in the first three Contract Years, all Product Calls shall be First Position Details and thereafter, at least *** of all Product Calls shall be First Position Details, and the remainder shall be Second Position Details. For the avoidance of doubt, in the first Contract Year, starting April 1, 2003 and ending December 31, 2003, Ligand shall complete a minimum of *** Product Calls.

(a) In the event that Net Sales for the Contract Year ending as of December 31, 2005 are less than *** the parties shall negotiate in good faith a reduction in Ligand's obligations set forth in Section 4.1(b) above; provided that for each Contract Year commencing as of January 1, 2006 and for the remainder of the Term, in each Contract Year Ligand shall provide no less than *** Product Calls, of which not less than *** shall be First Position Details, with the balance being Second Position Details.

c. In performing its duties hereunder, Ligand shall, and shall cause its employees to, comply with all regulatory, professional and legal requirements, including, without limitation, the FDA's regulations and guidelines concerning the advertising of prescription drug products, the American Medical Association's Guidelines on Gifts to Physicians, the PhRMA Guidelines for Marketing Practices, and the ACCME Standards for Commercial Support of Continuing Medical Education, which may be applicable to the services to be provided by Ligand hereunder. No employee of Ligand shall make any representation, statement, warranty or guaranty with respect to the Product that is not consistent with current labeling of the Product or Marketing Materials approved by the Commercial Committee, that is deceptive or misleading or that disparages the Products or the good name, goodwill and reputation of Co-Promotion Partner. Ligand shall use Commercially Reasonable Efforts to ensure that its services hereunder will be provided in a professional, ethical and

competent manner. Notwithstanding Section 10.3 hereof, Co-Promotion Partner may immediately, upon written notice to Ligand, terminate this Agreement for any material breach of this Section 4.1(c).

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4.2 MANUFACTURE, SHIPMENT, ETC. OF THE PRODUCT.

a. As between Ligand and Co-Promotion Partner, Ligand (and/or its Affiliates) shall have the sole responsibility for the sale, manufacture, shipment, distribution, warehousing, billing, order confirmation of the Product and for the collection of receivables resulting from sales of the Product in the Territory, and for recording of Product sales in its books of account. If for any reason Co-Promotion Partner receives orders for Products, Co-Promotion Partner shall forward such orders to Ligand (or if directed by Ligand to Ligand's wholesalers) as soon as practicable.

b. Ligand shall manufacture, ship, distribute and warehouse, or cause to be manufactured, shipped, distributed and warehoused the Product in accordance with Applicable Laws and Regulations, the NDA and Good Manufacturing Practices. Ligand shall use its Commercially Reasonable Efforts to ensure that adequate quantities of the Product are available to meet the anticipated demand for the Product during the Term. Ligand shall promptly notify Co-Promotion Partner, in writing, of any material shortage in supply occurring at the distribution, wholesale and/or retail level during the Term, and any actions Ligand intends to take to correct same.

c. If Product supply is interrupted (other than for reasons outside of Ligand's control, which reasons shall include without limitation any quota in allowable supply imposed by the DEA, any Force Majeure Event and any action or inaction by Co-Promotion Partner constituting a breach of the provisions of this Agreement or a violation of Applicable Laws and Regulations) so as to prevent for two (2) calendar months or more the filling of wholesale orders essential to meet patient prescription demand representing fifty percent (50%) or more of overall demand for the Product, then as compensation to Co-Promotion Partner, Ligand shall pay to Co-Promotion Partner an amount equal to the average compensation paid to Co-Promotion Partner in the previous two (2) calendar quarters in which there was no interruption, prorated based upon the number of days that the Product interruption continues, retroactive to the first day of the interruption, net of payments otherwise due and payable for Products supplied during the same period. Ligand shall make such payments to Co-Promotion Partner on a monthly basis for so long as the interruption shall continue, up to a maximum of six (6) monthly payments. Payments shall revert to those otherwise payable to Co-Promotion Partner under this Agreement at such time as the interruption is corrected. In the event that market interruption lasts for more than six (6) months (including for reasons outside of Ligand's control, which reasons shall include without limitation any quota in allowable supply imposed by the DEA, any Force Majeure Event and any action or inaction by Co-Promotion Partner constituting a breach of the provisions of this Agreement or a violation of Applicable Laws and Regulations), this shall be considered a material breach of the Agreement, and either party hereto may, in its sole discretion, terminate this Agreement as set forth in Section 10.2(a) or Section 10.3(a), as applicable.

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d. Ligand will use Commercially Reasonable Efforts to identify a second-source supplier for the Product, and apply for approval of such second-source supplier to applicable Governmental or Regulatory Authorities by December 31, 2006.

e. Co-Promotion Partner may make recommendations to the Commercial Committee from time to time regarding pricing strategies for the Product in the Territory during the Term. The Commercial Committee may make recommendations from time to time to Ligand regarding pricing strategies for the Product during the Term. Notwithstanding recommendations received from the Commercial Committee, Ligand shall have the sole authority to determine the price of the Product during the Term, including price increases and decreases and the timing thereof, which increases or decreases shall be commercially

reasonable.

4.3 LIGAND SALES FORCE.

a. Except as agreed by the parties, Ligand shall be solely responsible for the costs and expenses of establishing, maintaining and training Ligand's sales force, and conducting Ligand's other activities under this Agreement; provided, however, that (i) such Product training shall be conducted in accordance with Section 5.1 and (ii) the content and strategic direction of any Product training provided by Ligand that relates specifically to the Product shall be coordinated with the Commercial Committee.

b. To the extent practicable, all written, electronic and visual communications provided to any of Ligand's sales representatives regarding strategy, positioning or selling messages for the Product will be subject to review and approval by the Commercial Committee.

4.4 LIGAND DETAIL AND SALES REPORTS.

a. Ligand shall provide Co-Promotion Partner with a report (each a "Ligand Detail Report"), within thirty (30) calendar days after the end of each calendar quarter included in the Term (and within such period after the end of the Term), setting forth the following information regarding the efforts of Ligand's sales force in promoting and marketing the Product during the preceding quarter (or part thereof): (i) the number of Product Calls and a breakdown of First Position Details and Second Position Details made and recorded by Ligand's standard record keeping procedures based on data recorded by the sales force; (ii) the names and addresses of the Target Healthcare Professionals called upon; and (iii) such other information as may be required in the then-current Marketing Plan. An example of a Ligand Detail Report is attached to this Agreement as EXHIBIT B. Each such Ligand Detail Report shall be in an electronic format and in hard copy form. Each Ligand Detail Report shall be treated as Confidential Information of Ligand pursuant to Section 11 of this Agreement and shall not be used or disclosed to third parties without Ligand's prior written approval or direction.

b. Ligand shall provide Co-Promotion Partner with a report (each, a "Ligand Sales Report") within forty five (45) calendar days after the end of each calendar quarter included in the Term (and within such period after the end of the Term) setting forth the Gross Sales and Net Sales in the Territory for such calendar quarter (or part thereof). An example of a Ligand Sales Report is attached to this Agreement as EXHIBIT C. Each such Ligand Sales Report shall be provided to Co-Promotion Partner either by facsimile or transmitted electronically, in each case with a confirmation copy sent by mail. Each Ligand Sales Report shall be treated as Confidential Information of Ligand pursuant to Section 11 of this Agreement and shall not be used or disclosed to third parties without Ligand's prior written approval or direction.

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c. Ligand shall provide Co-Promotion Partner with an interim report on a weekly basis setting forth the Gross Sales and Net Sales in the Territory for the previous week. Each such weekly report shall be provided to Co-Promotion Partner either by facsimile or transmitted electronically, in each case with a confirmation copy sent by mail. Each such weekly report shall be treated as Confidential Information of Ligand pursuant to Section 11 of this Agreement and shall not be used or disclosed to third parties without Ligand's prior written approval or direction.

4.5 SUPPORT SERVICES. Ligand will provide such other Product-related services from time to time during the Term as it determines to be necessary or advisable.

5. TRAINING AND MARKETING MATERIALS.

5.1 TRAINING.

a. Each of the parties agrees to make its sales representatives available for Product training with respect to the marketing and sale of the Product. Ligand shall, subject to the Commercial Committee's approval, be responsible for developing and, if applicable, conducting Product training programs for each of Co-Promotion Partner's and Ligand's sales forces.

Co-Promotion Partner shall participate in conducting such Product training to the extent requested by Ligand or the Commercial Committee. As between the parties hereto and except as expressly provided otherwise elsewhere in this Agreement, Ligand shall own all right, title and interest in Product training materials developed hereunder.

b. Product training shall be carried out at a time which is mutually acceptable to the parties. As additional members are added to the parties' respective sales forces responsible for marketing the Product, training will be given to groups of the newly added members. Each party shall decide where the Product training of its sales representatives will occur and, unless the Commercial Committee decides otherwise, will absorb the costs of transporting, housing and maintaining their respective personnel for such training.

5.2 MARKETING MATERIALS.

a. All sales, promotion and advertising materials, regardless of form ("Marketing Materials"), relating to the Product shall be developed under the direction of the Commercial Committee, subject to Ligand's review and approval. Co-Promotion Partner shall participate in conducting such development to the extent requested by Ligand or the Commercial Committee. As between the parties hereto and except as expressly provided otherwise elsewhere in this Agreement, Ligand shall own all right, title and interest in all Marketing Materials.

b. After the Execution Date, whenever Marketing Materials are presented and described to the medical communities (including, for example, the physician, pharmacy, governmental, reimbursement and hospital sectors), the parties will be presented and described as joining in the promotion of the Product in the Territory. All Marketing Materials approved by the Commercial Committee after the Execution Date will state this arrangement and will display the names and logos of the parties with equal prominence, as permitted by applicable law.

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5.3 NON-SOLICITATION OF EMPLOYEES. The parties hereby agree that, throughout the Term and for a period of one year immediately thereafter, neither will, directly or indirectly, solicit for employment any employee of the other party (or of the other party's designee); provided, however, that the hiring of employees who respond to general advertisements for employment (not targeted to employees of the other party or their designee) shall not be deemed to violate the foregoing provision.

6. CERTAIN REGULATORY MATTERS.

6.1 LICENSES. Each party hereto shall, at its sole cost and expense, maintain in full force and effect all necessary licenses, permits and other authorizations required by law, regulation, ordinance or statute to carry out its duties and obligations under this Agreement.

6.2 REGULATORY RESPONSIBILITY.

a. COMMUNICATION AND FILINGS WITH GOVERNMENTAL OR REGULATORY AUTHORITIES. As between the parties, all regulatory matters regarding the Product, including without limitation, all filings in connection therewith, shall be the obligation and responsibility solely of Ligand, subject to the participation by Co-Promotion Partner as requested by the Clinical/Regulatory Sub-Committee. Co-Promotion Partner shall not without the consent of Ligand or unless so required by applicable law (and then only pursuant to the terms of this Section 6.2), correspond or communicate with any Governmental or Regulatory Authority, whether within the Territory or otherwise, concerning the Products or otherwise take any action concerning any authorization or permission under which the Products are sold or any application for the same. Furthermore, Co-Promotion Partner shall, immediately upon receipt of any communication from any Governmental or Regulatory Authority relating to the Product, forward a copy or description of the same to Ligand and respond to all inquiries by Ligand relating thereto. If Co-Promotion Partner is advised by its counsel that it must communicate with any Governmental or Regulatory Authority, then Co-Promotion Partner shall so advise Ligand immediately and, unless prohibited by applicable law, provide Ligand in advance with a copy of any proposed written communication

with any Governmental or Regulatory Authority and comply with any and all reasonable direction of Ligand and the Clinical/Regulatory Sub-Committee concerning any meeting or written or oral communication with any Governmental or Regulatory Authority. Notwithstanding the foregoing, Ligand shall promptly provide Co-Promotion Partner with copies of all communications received from any Governmental or Regulatory Authority concerning the Product or any Marketing Materials and shall promptly submit to Co-Promotion Partner copies of all communications and filings concerning the Product or any Marketing Materials made to any Governmental or Regulatory Authority during the Term.

b. LABELING AND MARKETING MATERIALS. The Clinical/Regulatory Sub-Committee shall coordinate strategy and policy for obtaining any necessary Governmental or Regulatory Authority approvals of any labeling, package inserts, Product monographs, packaging for the Products and Marketing Materials, and for determining whether the same requires Governmental or Regulatory Authority approval, subject to Ligand's review and approval. As between the parties, all filings and communications with Governmental or Regulatory Authorities in connection therewith shall be the obligation and responsibility solely of Ligand. No Product labeling, package inserts, Product monographs, packaging for the Products or Marketing Materials may be used or distributed by Co-Promotion Partner unless such labeling, package inserts, Product monographs, packaging for the Products or Marketing Materials have been approved in advance by Ligand.

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6.3 EFFICACY AND SAFETY INFORMATION. Ligand shall furnish Co-Promotion Partner with efficacy and safety information reasonably requested by Co-Promotion Partner to assist Co-Promotion Partner in promoting the Product to Target Healthcare Professionals in the Territory, including without limitation relevant clinical and safety data included in the NDA for the Product and additional information, if any, related to the efficacy and safety profile of the Product since the Product's approval by the FDA. Except for that information that is to be disclosed to Target Healthcare Professionals in connection with providing Product Calls, such information shall be treated as Confidential Information of Ligand pursuant to Section 11 of this Agreement and shall not be disclosed to third parties without Ligand's prior written approval or direction.

6.4 NOTICE OF ADVERSE EVENTS. Each party shall promptly notify the other party of any event(s) that materially affect(s) or could materially affect the marketing of the Product, including without limitation adverse drug reactions and governmental inquiries. Serious Adverse Events for the Product learned of by Co-Promotion Partner shall be submitted in writing to Ligand within two (2) business days from the date of learning thereof by Co-Promotion Partner. Non-Serious Adverse Events for the Product learned of by Co-Promotion Partner shall be submitted in writing to Ligand no more than five (5) business days from the date of learning thereof by Co-Promotion Partner. As between the parties, Ligand shall have the sole responsibility for reporting and responding to such events to applicable Governmental or Regulatory Authorities; provided, that Co-Promotion Partner may take such actions (including issuing such reports) as it determines is required by applicable law. For all Serious Adverse Events and Non-Serious Adverse Events, Co-Promotion Partner and its professional sales representatives shall not make any statement or give any opinion (written or verbal) to anyone that could be reasonably construed as an admission of fault on Ligand's part or a promise that Ligand will compensate anyone.

6.5 PRODUCT TECHNICAL COMPLAINTS AND RECALLS.

a. If Co-Promotion Partner becomes aware of any Product Technical Complaint concerning the Product, Co-Promotion Partner shall submit a written report of such complaint, along with a sample of the Product involved in the complaint, if available, to Ligand within two (2) business days of receipt of such notice by Co-Promotion Partner; provided, however, that such time period relating to any such complaint involving tampering with the Product shall be one (1) business day.

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b. As between the parties, Ligand shall have the sole authority and responsibility to respond to any Governmental or Regulatory Authorities, including without limitation the FDA, to respond to Product Technical Complaints and medical complaints, and to handle all returns, field alerts, recalls or

market withdrawals of the Product in accordance with applicable law, at Ligand's cost and expense; provided, however, that if any such returns, field alerts, market withdrawals or recalls of Product are caused solely by actions or inactions by Co-Promotion Partner constituting a breach of the provisions of this Agreement or a violation of Applicable Laws and Regulations, Co-Promotion Partner shall bear all reasonable costs associated with such actions or inactions in connection therewith. Subject to Section 4.2(c), Ligand shall be under no liability whatsoever to compensate Co-Promotion Partner or make any other payment to Co-Promotion Partner for any decision to recall, initiate a market withdrawal or take any other corrective action with respect to the Product contemplated in this Section 6.5(b), unless such action results from a breach of the provisions of this Agreement or a violation of Applicable Laws and Regulations by Ligand, its sublicensees or subcontractors.

c. Each party shall promptly (but in any case, not later than forty-eight (48) hours) notify the other party in writing of any order, request or directive of a court or other Governmental or Regulatory Authority to recall or withdraw the Product. As between the parties, Ligand shall be solely responsible for determining whether to issue a recall or withdrawal and for the cost and expense of any such recall or withdrawal of the Product.

6.6 RETURNS. If any quantities of the Product are returned to Co-Promotion Partner, Co-Promotion Partner shall immediately notify Ligand and ship them to the facility designated by Ligand, with any reasonable or authorized shipping or other documented direct cost to be paid by Ligand. Co-Promotion Partner, at its option, may advise the customer who made the return that the Products have been returned to Ligand, but shall take no other steps in respect of any return without the consent of Ligand.

6.7 GOVERNMENT INSPECTIONS AND INQUIRIES. Upon (a) being contacted by the FDA or any other Governmental or Regulatory Authority for any regulatory purpose pertaining specifically to this Agreement or to the Product or (b) becoming aware of an impending inspection or audit of the facilities or operations involved in the manufacture, processing, testing or packaging of the Product, a party shall immediately notify the other party. Co-Promotion Partner agrees that it shall not respond to any such agency making an inquiry of it until and only as directed by Ligand; provided, however, that the foregoing shall not be construed to prevent Co-Promotion Partner in any way from complying with any Governmental or Regulatory Authority or applicable laws, rules or regulations. Co-Promotion Partner may permit unannounced regulatory inspections and respond to the extent necessary to comply with its obligations under applicable law. Co-Promotion Partner shall allow Ligand to participate in other inspections to the extent necessary, in the reasonable opinion of Ligand, as such inspections and responses pertain to the Product, at Ligand's cost and expense. Ligand agrees that, to the extent it becomes aware of the results, observations and/or outcome of any inspections or audits of the facilities or operations involved in the manufacture, processing, testing or packaging of the Product conducted by Governmental or Regulatory Authorities, including without limitation the FDA, Ligand will notify Co-Promotion Partner of any such information as it relates to the Product within three (3) days of obtaining the information.

6.8 PRODUCT INQUIRIES.

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a. For questions which Co-Promotion Partner and its professional sales representatives are unable to answer concerning Product identification, Product ingredients or stability/storage information, Co-Promotion Partner shall refer such questions to Ligand's Professional Services Department.

b. For medical inquiries, including those related to information outside of labeling received by Co-Promotion Partner and its professional sales representatives, Co-Promotion Partner shall refer such inquiries to Ligand's Medical Affairs Department. As between the parties, all responses to such inquiries from patients, medical professionals, or other third parties shall be provided solely by Ligand. Co-Promotion Partner shall provide reasonable assistance to Ligand, at Ligand's request and expense, in an effort to fully respond to such communications.

7. MANAGEMENT COMMITTEES. The parties hereto recognize that it is in the best interests of both parties to maximize the sales of the Product in the

Territory and to coordinate the activities of both parties with respect to the promotion of the Product in the Territory. Accordingly, the parties hereby establish the committees and procedures described in this Section 7 to govern their respective rights and obligations under this Agreement.

7.1 STEERING COMMITTEE.

a. ESTABLISHMENT. The parties hereby establish a committee (the "Steering Committee"), which shall have as its overall purpose the ultimate governance of the relationship between the parties hereunder. The Steering Committee shall consist of three (3) senior-executive representatives of each party. Members of the Steering Committee shall be employees of the parties, and shall not be outside consultants, independent contractors or outside legal counsel, but such Persons are permitted to attend meetings of the committee upon the consent of both parties. Each party shall be solely responsible for appointing, removing and filling vacancies among its own representatives. Co-Promotion Partner shall appoint one of its representatives on the Steering Committee to serve as the initial chair of the committee, and such person shall serve in such role until the first anniversary of the Effective Date. On such date, Ligand shall appoint one of its representatives on the committee to serve as chair of the Steering Committee, and such person shall serve until the second anniversary of the Effective Date. Thereafter, on each anniversary of the Effective Date during the Term, the parties shall continue to alternate in designating the chairman of the Steering Committee.

b. RESPONSIBILITIES. The Steering Committee shall review the activities of the Commercial Committee (which shall likewise review the activities of the Clinical/Regulatory Sub-Committee) and any other committees or subcommittees formed by it from time to time, and shall:

(i) guide the overall relationship between the parties, including the strategy, budgeting, major resource allocation and other high-level matters related to the marketing and regulatory approval of the Product, including reviewing and approving the Marketing Plan and the Strategic Plan prepared annually by the Commercial Committee no later than November 1 of each year (for the Marketing Plan and Strategic Plan applicable to the next calendar year);

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(ii) make decisions with respect to all issues not specifically granted to Commercial Committee or Clinical/Regulatory Sub-Committee; and

(iii) perform the dispute resolution functions set forth in Section 7.4 hereof.

c. MEETINGS. During the Term of this Agreement, the Steering Committee shall meet: (i) at least once every six months on a date and at a location to be agreed to by the parties, and (ii) upon written notice by either party to the other that a meeting is required or requested, in which case a meeting will be held within thirty (30) calendar days of such notice on a date and at a location to be agreed to by the parties, or sooner if warranted by circumstances. Notice requesting a meeting shall include adequate information describing the purpose of the meeting. Any meetings of the Steering Committee shall be held in person or, if an in-person meeting is impracticable, by videoconference or teleconference. When meetings are held in person, individual members of the Steering Committee may nonetheless participate by videoconference or teleconference. If unable to attend in person or by videoconference or teleconference, an individual member of the Steering Committee may grant a proxy to another individual member of the Steering Committee in order to act on his or her behalf on any matter to be acted upon at any meeting of the Steering Committee. Other representatives of the parties may attend Steering Committee meetings as non-voting participants. At least one week prior to any meeting of the Steering Committee, each of the parties shall provide the other party with a proposed agenda of the matters to be discussed at such meeting. The parties shall agree, at the first meeting of the Steering Committee, upon procedures for maintaining meeting minutes.

d. ACTION OF COMMITTEE. The Steering Committee may take action on a matter at a meeting only if a quorum exists with respect to that matter. The attendance of at least two (2) members of the Steering Committee of each party

at a meeting shall constitute a quorum for the transaction of business. Each member of the Steering Committee shall be entitled to cast one (1) vote, either in person or by proxy, on any matter to be acted upon at any meeting of the Steering Committee. All decisions made by the Steering Committee shall require a majority vote by the members of the Steering Committee, either in person or by proxy. Any action required or permitted to be taken at any meeting of the Steering Committee may be taken without a meeting if the action is taken by all members of the Steering Committee. Such action must be evidenced by one or more written consents describing the action taken and signed by each member of the Steering Committee. In the event the Steering Committee is unable to achieve a majority vote on any issue, then the dispute resolution process set forth in Section 7.4 will be followed with respect to such issue.

7.2 COMMERCIAL COMMITTEE.

a. ESTABLISHMENT. The parties hereby establish a committee (the "Commercial Committee"), which shall have as its overall purpose the overall design and coordination of all sales, marketing and distribution activities for the Product. The Commercial Committee shall consist of five (5) executive representatives of each party. Members of the Commercial Committee shall be employees of the parties, and shall not be outside consultants, independent contractors or outside legal counsel, but such Persons are permitted to attend meetings of the committee upon the consent of both parties. Each party shall be solely responsible for appointing, removing and filling vacancies among its own representatives. Each of the parties shall select a co-chair to provide joint direction to the committee.

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b. RESPONSIBILITIES. In addition to the specific responsibilities of the Commercial Committee set forth elsewhere in this Agreement, the Commercial Committee shall:

(i) By October 1 of each calendar year during the Term, prepare the Marketing Plan and the Strategic Plan for the next calendar year and submit such plans to the Steering Committee for approval (provided, however, that the Commercial Committee shall prepare the Marketing Plan for 2003 and submit such plan to the Steering Committee for approval within sixty (60) days after the Execution Date);

(ii) periodically as directed by the Steering Committee prepare other plans and budgets for approval by the Steering Committee, including without limitation, an annual budget for Direct Costs;

(iii) be responsible for the execution of such approved plans and budgets;

(iv) periodically provide written reports to the Steering Committee comparing actual results to the approved plans and budgets;

(v) approve all training materials and Marketing Materials to be used in the marketing of the Product;

(vi) oversee and coordinate the efforts of the Clinical/Regulatory Sub-Committee; and

(vii) perform such other functions as directed by the Steering Committee.

c. MEETINGS. During the Term of this Agreement, the Commercial Committee shall meet: (i) at least quarterly on a date and at a location to be agreed to by the parties, and (ii) upon written notice by either party to the other that a meeting is required or requested, in which case a meeting will be held within thirty (30) calendar days of such notice on a date and at a location to be agreed to by the parties, or sooner if warranted by circumstances. Notice requesting a meeting shall include adequate information describing the purpose of the meeting. Any meetings of the Commercial Committee shall be held in person or, if an in-person meeting is impracticable, by videoconference or teleconference. When meetings are held in person, individual members of the Commercial Committee may nonetheless participate by videoconference or teleconference. If unable to attend in person or by videoconference or teleconference, an individual member of the Commercial Committee may grant a

proxy to another individual member of the Commercial Committee in order to act on his or her behalf on any matter to be acted upon at any meeting of the Commercial Committee. Other representatives of the parties may attend Commercial Committee meetings as non-voting participants. At least one week prior to any meeting of the Commercial Committee, each of the parties shall provide the other party with a proposed agenda of the matters to be discussed at such meeting. The parties shall agree, at the first meeting of the Commercial Committee, upon procedures for maintaining meeting minutes.

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d. ACTION OF COMMITTEE. The Commercial Committee may take action on a matter at a meeting only if a quorum exists with respect to that matter. The attendance of at least three (3) members of the Commercial Committee of each party at a meeting shall constitute a quorum for the transaction of business. Each member of the Commercial Committee shall be entitled to cast one (1) vote, either in person or by proxy, on any matter to be acted upon at any meeting of the Commercial Committee. All decisions made by the Commercial Committee shall require a majority vote by the members of the Commercial Committee, either in person or by proxy. Any action required or permitted to be taken at any meeting of the Commercial Committee may be taken without a meeting if the action is taken by all members of the Commercial Committee. Such action must be evidenced by one or more written consents describing the action taken and signed by each member of the Commercial Committee. In the event the Commercial Committee is unable to achieve a majority vote on any material issue, then the dispute resolution process set forth in Section 7.4 will be followed with respect to such issue.

7.3 CLINICAL/REGULATORY SUB-COMMITTEE.

a. ESTABLISHMENT. The Commercial Committee shall establish a sub-committee (the "Clinical/Regulatory Sub-Committee"), which shall have as its overall purpose the overall design and coordination of all medical, clinical and regulatory plans and activities for the Product. The Clinical/Regulatory Sub-Committee shall consist of three (3) executive representatives of each party. At least one such representative from each party shall also be a member of the Commercial Committee. Outside consultants, independent contractors or outside legal counsel are permitted to attend meetings of the committee upon the consent of both parties. Each party shall be solely responsible for appointing, removing and filling vacancies among its own representatives. Each of the parties shall select a co-chair to provide joint direction to the committee.

b. RESPONSIBILITIES. In addition to the specific responsibilities of the Clinical/Regulatory Sub-Committee set forth elsewhere in this Agreement, the Clinical/Regulatory Sub-Committee shall:

(i) provide guidance regarding regulatory communications and filings, procedures for regulatory review of Marketing Materials and other materials related to the Product which are subject to review by Governmental or Regulatory Authorities;

(ii) provide guidance regarding the design and implementation of Phase IV studies (requested by the Commercial Committee or otherwise), expanded label or expanded use clinical studies and other regulatory, clinical or medical affairs relating to the Product; and

(iii) coordinate the joint work of the parties on regulatory issues relating to the distribution of the Product.

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c. MEETINGS. During the Term of this Agreement, the Clinical/Regulatory Sub-Committee shall meet: (i) at least quarterly on a date and at a location to be agreed to by the parties, and (ii) upon written notice by either party to the other that a meeting is required or requested, in which case a meeting will be held within thirty (30) calendar days of such notice on a date and at a location to be agreed to by the parties, or sooner if warranted by circumstances. Notice requesting a meeting shall include adequate information describing the purpose of the meeting. Any meetings of the Clinical/Regulatory Sub-Committee shall be held in person or, if an in-person meeting is impracticable, by videoconference or teleconference. Any action required or

permitted to be taken at any meeting of the Clinical/Regulatory Sub-Committee may be taken without a meeting if the action is taken by all members of the Clinical/Regulatory Sub-Committee. Such action must be evidenced by one or more written consents describing the action taken and signed by each member of the Clinical/Regulatory Sub-Committee. Other representatives of the parties may attend Clinical/Regulatory Sub-Committee meetings as non-voting participants. At least one week prior to any meeting of the Clinical/Regulatory Sub-Committee, each of the parties shall provide the other party with a proposed agenda of the matters to be discussed at such meeting. The parties shall agree, at the first meeting of the Clinical/Regulatory Sub-Committee, upon procedures for maintaining meeting minutes.

d. ACTION OF COMMITTEE. The Clinical/Regulatory Sub-Committee may take action on a matter at a meeting only if a quorum exists with respect to that matter. The attendance of at least two (2) members of the Clinical/Regulatory Sub-Committee of each party at a meeting shall constitute a quorum for the transaction of business. Each member of the Clinical/Regulatory Sub-Committee shall be entitled to cast one (1) vote, either in person or by proxy, on any matter to be acted upon at any meeting of the Clinical/Regulatory Sub-Committee. All decisions made by the Clinical/Regulatory Sub-Committee shall require a majority vote by the members of the Clinical/Regulatory Sub-Committee, either in person or by proxy. Any action required or permitted to be taken at any meeting of the Clinical/Regulatory Sub-Committee may be taken without a meeting if the action is taken by all members of the Clinical/Regulatory Sub-Committee. Such action must be evidenced by one or more written consents describing the action taken and signed by each member of the Clinical/Regulatory Sub-Committee. In the event the Clinical/Regulatory Sub-Committee is unable to achieve a majority vote on any material issue, then the dispute resolution process set forth in Section 7.4 will be followed with respect to such issue.

7.4 DISPUTE RESOLUTION.

a. The parties recognize that disputes as to certain matters delegated to the Steering Committee, Commercial Committee or Clinical/Regulatory Sub-Committee may from time to time arise during the Term that relate to either party's rights and/or obligations hereunder. It is the objective of the parties to establish procedures to facilitate the resolution of disputes arising in such committees in an expedient manner by mutual cooperation and without resort to litigation. To accomplish this objective, the parties agree to follow the procedures set forth in this Section 7.4 if and when a dispute arises with respect to the actions or decision-making authority delegated to such committees under this Agreement.

b. Unless otherwise specifically recited in this Agreement, any disputes arising from any subcommittee formed under this Agreement, including without limitation, the Clinical/Regulatory Sub-Committee, shall be referred to the Commercial Committee as soon as reasonably possible after such dispute has arisen.

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c. If the Commercial Committee is unable to resolve such a dispute within fifteen (15) days of being requested by the parties to resolve such dispute, or if any dispute or issue originates within the Commercial Committee, such dispute or other issue shall be referred to the Steering Committee as soon as reasonably possible after such dispute has arisen or such deadlock is reached.

d. If the Steering Committee is unable to resolve such a dispute or issue within fifteen (15) days after being requested to resolve such dispute or issue, the dispute or issue shall be referred to the Chief Executive Officers of Ligand and Co-Promotion Partner for attempted good faith resolution by negotiations within thirty (30) days after such referral.

e. If the Chief Executive Officers of the parties are unable to resolve such dispute or issue, then Ligand's Chief Executive Officer shall have the deciding vote, it being understood and agreed that any such decision shall be commercially reasonable to both parties, in light of such considerations as the posture of similar products at similar points in product phase or life cycle. Notwithstanding the foregoing, Co-Promotion Partner shall not be obligated to accept any such decision that materially modifies Co-Promotion

Partner's obligations to supply a minimum level of Product Calls as set forth in Section 3.1 or that would cause Co-Promotion Partner to bear an aggregate annual amount of Shared Costs that is more than twenty-five percent (25%) above the annual amount of aggregate Shared Costs to be borne by Co-Promotion Partner as set forth in the most recently approved Budget.

8. CO-PROMOTION COMPENSATION.

8.1 CO-PROMOTION PAYMENTS. Effective January 1, 2003, within forty-five (45) days after the end of each calendar quarter during the Term, Ligand shall pay to Co-Promotion Partner (by wire transfer of immediately available funds to an account designated by Co-Promotion Partner to Ligand in writing) an amount equal to the following percentages of Net Sales in the applicable calendar year:

<TABLE>
<CAPTION>

CALENDAR YEAR NET SALES TIER	PERCENTAGE OF NET SALES TIER
<S> \$0 to \$35 million*	<C> Zero percent (0%)*
\$0 to \$150 million	Thirty percent (30%)
Greater than \$150 million, up to \$300 million	Forty percent (40%)
Greater than \$300 million, up to \$425 million	Fifty percent (50%)
Greater than \$425 million	Forty-five percent (45%)

</TABLE>

* only applicable during calendar year 2003.

For the avoidance of doubt, each percentage set forth in the table above applies only to the portion of calendar year Net Sales shown in the corresponding left column.

8.2 COST SHARING. Shared Costs shall be split 50/50 between the parties for each such calendar quarter during the Term and shall not exceed previously approved budgeted amounts without the prior written consent of each party. In the event that one party's aggregate Shared Costs exceed budgeted amounts, then the other party shall not be obligated to split such additional Shared Costs, unless the same are expressly approved in writing by both parties. If Ligand's Shared Costs are in excess of 50% of the parties' combined Shared Costs in a given quarter, pursuant to this Section 8.2, Ligand shall offset the difference between its costs and 50% of the combined costs from any payment to be made to Co-Promotion Partner for such calendar quarter pursuant to Section 8.1; if Co-Promotion Partner's Shared Costs are in excess of 50% of the parties' combined Shared Costs in a given quarter, pursuant to this Section 8.2, Ligand shall include the difference between Co-Promotion Partner's costs and 50% of the parties' combined costs in any payment to be made to Co-Promotion Partner for such calendar quarter pursuant to Section 8.1. In the event that no payment is due to Co-Promotion Partner under Section 8.1 for any calendar quarter during the Term, then the party (if any) whose Shared Costs for such quarter are less than 50% of the combined Shared Costs for such quarter shall remit the difference between its costs and 50% of the combined Shared Costs to the other party within 45 days after the end of such calendar quarter.

8.3 COST REPORTS. Each party shall provide the other with the following Shared Costs reports within thirty (30) calendar days after the end of each calendar quarter included in the Term (and within thirty (30) calendar days after the end of the Term):

a. A report of the party's Direct Costs (each, a "Direct Cost Report") setting forth the following information relating to the preceding quarter (or part thereof) and comparisons of such information to the then-current Marketing Plan and Budget: the party's Direct Costs showing each

specific type of cost included in the definition of Direct Costs separately and listing the vendor relating to each such cost, if applicable. Each such Direct Cost Report shall be delivered in a mutually-agreeable electronic format and in hard copy form. An example of a Direct Cost Report is attached to this Agreement as EXHIBIT D. Each Direct Cost Report shall be treated as Confidential Information of the reporting party pursuant to Section 11 of this Agreement and shall not be disclosed to third parties without the such party's prior written approval or direction.

b. A report of the party's Fully Allocated Costs (each, a "Fully Allocated Cost Report") setting forth the following information relating to the preceding quarter (or part thereof) and comparisons of such information to the then-current Marketing Plan and Budget: the party's Fully Allocated Costs showing each specific function involved with Product activities, the amount allocated to each function and a brief description of the allocation method used. Each such Fully Allocated Cost Report shall be delivered in a mutually-agreeable electronic format and in hard copy form. An example of a Fully Allocated Cost Report is attached to this Agreement as EXHIBIT E. Each Fully Allocated Cost Report shall be treated as Confidential Information of the reporting party pursuant to Section 11 of this Agreement and shall not be disclosed to third parties without such party's prior written approval or direction.

8.4 END OF TERM PAYMENTS. At the end of the Term, Ligand shall make payments to Co-Promotion Partner pursuant this Section 8 with respect to the last portion of a calendar quarter as if the last day of the Term was the last day of a calendar quarter.

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9. RECORDKEEPING AND AUDITS. The parties recognize that audits and reviews of records are in the best interests of both parties. The parties shall have the audit rights specified in this section. Solely for the purposes of Sections 9.1, 9.2 and 9.3 below, Audited Party (as hereinafter defined) shall mean (a) in reference to Ligand, Ligand, its Affiliates, permitted sublicensees, subcontractors and contract manufacturers; and (b) in reference to Co-Promotion Partner, Co-Promotion Partner, its Affiliates and subcontractors.

9.1 MAINTENANCE OF BOOKS AND RECORDS. Each party shall maintain complete and accurate books and records in sufficient detail, in accordance with GAAP and all applicable laws, rules, ordinances and regulations, to enable verification of the performance of such party's obligations under this Agreement. Such records shall be maintained for a period of twelve (12) months after the end of the Term or longer if required by applicable law.

9.2 AUDITS.

a. Either Ligand or Co-Promotion Partner (herein, the "Auditing Party") may demand, no more than once during any calendar year from the Effective Date until one (1) year following the end of such calendar year, an audit of the relevant books and records of Co-Promotion Partner or Ligand, as the case may be (herein, the "Audited Party") in order to verify the Audited Party's reports on the matters addressed in this Agreement. Upon no less than fifteen (15) days' prior written notice to the Audited Party, the Audited Party shall grant reasonable access to members of a nationally recognized independent public accounting firm selected by the Auditing Party to the relevant books and records of the Audited Party in order to conduct a review or audit thereof. Such access shall be permitted during normal business hours. The accounting firm shall report its conclusions and calculations to the Auditing Party and the Audited Party; provided, that in no event shall the accounting firm disclose any information of the Audited Party except to the extent necessary to verify the Audited Party's reporting and other compliance with the terms of this Agreement and, at the request of the Audited Party, such accounting firm will execute appropriate non-disclosure agreements. In the event that the Audited Party is a subcontractor or sublicensee of Ligand, and is either unwilling or unable to permit such audit, then Ligand shall provide written assurances to Co-Promotion Partner, including, but not limited to, certification that (i) an audit was performed for Ligand by a nationally recognized public accounting firm; and (ii) the results of such audit either (A) revealed no significant deviations from Ligand's accounting practices and GAAP or (B) revealed significant deviations from Ligand's accounting practices and GAAP and the quality and quantity of such deviations. In the event that the Audited Party is a subcontractor or

sublicensee of Co-Promotion Partner, and is either unwilling or unable to permit such audit, then Co-Promotion Partner shall provide written assurances to Ligand, including, but not limited to certification that (i) an audit was performed for Co-Promotion Partner by a nationally recognized public accounting firm; and (ii) the results of such audit either (A) revealed no significant deviations from Co-Promotion Partner's accounting practices and GAAP or (B) revealed significant deviations from Co-Promotion Partner's accounting practices and GAAP and the quality and quantity of such deviations. Except as hereinafter set forth, the Auditing Party shall bear the full cost of the performance of any such audit.

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b. If as a result of any audit of the books and records of Audited Party it is shown that the Audited Party's payments to the Auditing Party under this Agreement with respect to the period of time audited were less than the amount which should have been paid to the Auditing Party pursuant to this Agreement, then the Audited Party shall pay to the Auditing Party the amount of such shortfall within thirty (30) days after the Auditing Party's demand therefor. If as a result of any audit of the books and records of Audited Party it is shown that the Audited Party's payments to the Auditing Party under this Agreement with respect to the period of time audited were more than the amount which should have been paid to the Auditing Party pursuant to this Agreement, then the Auditing Party shall pay to the Audited Party the amount of such overpayment within thirty (30) days after the Audited Party's demand therefor. In addition, if any amount of underpayment by the Audited Party is more than ten percent (10%) of the amount which should have been paid to the Auditing Party pursuant to this Agreement with respect to the period in question, then the Audited Party shall also reimburse the Auditing Party for its documented reasonable out-of-pocket costs and expenses incurred in connection with the audit.

9.3 COMPLIANCE AUDITS. In addition to the access and audit rights of Ligand and Co-Promotion Partner set forth in Section 9.2, upon reasonable prior notice from the other party and no more than once during any calendar year during the Term, each party shall afford to the other party reasonable access during normal business hours (and at such other times as the parties may mutually agree) to inspect and audit the relevant books, records and other information of such party in order to monitor such party's compliance with such party's Product Call obligations under the applicable Marketing Plan and the terms of this Agreement, to the extent such party is responsible for the relevant function as directed by the Commercial Committee or the terms of this Agreement, and for the purposes of determining compliance with the applicable rules and regulations of Governmental or Regulatory Authorities and the terms of this Agreement. Such access shall be available during normal business hours. Any inspection conducted by either party pursuant to this Section 9.3 shall be at the sole cost and expense of such party.

10. TERM AND TERMINATION.

10.1 TERM OF AGREEMENT. The term of this Agreement (the "Term") shall commence as of the Effective Date hereof and shall continue until December 31, 2012, unless terminated sooner or extended pursuant to this Section 10.1. At any time prior to the fifth (5th) anniversary of the Effective Date, Co-Promotion Partner shall have the option, exercisable by (a) providing written notice to Ligand of its intention to exercise such option in accordance with the provisions of Section 14 hereof and (b) paying an extension fee to Ligand (by wire transfer of immediately available funds to an account designated by Ligand in writing) in the amount of seventy-five million U.S. dollars (\$75 million), to extend the Term through November 25, 2017.

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10.2 TERMINATION BY LIGAND.

a. Ligand shall have the right to terminate this Agreement at any time upon written notice to Co-Promotion Partner if Co-Promotion Partner materially breaches any of its representations, warranties, covenants or agreements set forth in this Agreement or otherwise materially defaults in the performance of any of its duties or obligations under this Agreement, which breach or default shall not be cured within sixty (60) days after written notice

is given to Co-Promotion Partner specifying the breach or default. For the avoidance of doubt and without limiting the universe of possible circumstances that could constitute such a material breach or default, any failure by Co-Promotion Partner to meet less than ninety-five percent (95%) of its minimum obligations with respect to Product Calls as set forth in Section 3.1(b) hereof shall be deemed to be a material breach of this Agreement.

b. To the extent permitted by law, Ligand shall have the right to terminate this Agreement immediately upon notice to Co-Promotion Partner if Co-Promotion Partner shall become insolvent, file or consent to the filing of a petition under any bankruptcy or insolvency law or have any such petition filed against it which has not been stayed within sixty (60) days of such filing or have a receiver appointed over any of Co-Promotion Partner's property or assets.

10.3 TERMINATION BY CO-PROMOTION PARTNER.

a. Co-Promotion Partner shall have the right to terminate this Agreement at any time upon written notice to Ligand if Ligand materially breaches any of its representations, warranties, covenants or agreements set forth in this Agreement or otherwise materially defaults in the performance of any of its duties or obligations under this Agreement, which breach or default shall not be cured within sixty (60) days after written notice is given to Ligand specifying the breach or default. For the avoidance of doubt and without limiting the universe of possible circumstances that could constitute such a material breach or default, any failure by Ligand to meet less than ninety-five percent (95%) of its minimum obligations with respect to Product Calls as set forth in Section 4.1(b) hereof shall be deemed to be a material breach of this Agreement.

b. To the extent permitted by law, Co-Promotion Partner shall have the right to terminate this Agreement immediately upon notice to Ligand if Ligand shall become insolvent, file or consent to the filing of a petition under any bankruptcy or insolvency law or have any such petition filed against it which has not been stayed within sixty (60) days of such filing or have a receiver appointed over any of Ligand's property or assets.

10.4 TERMINATION BY EITHER PARTY. Each party shall have the right to terminate this Agreement as set forth in Section 3.1(b)(ii). Such termination right must be exercised by written notice ("Notice") to the other party no later than March 31, 2008, stating the terminating party's desire to terminate the Agreement as set forth in Section 3.1(b)(ii) and this Section 10.4. Following such termination, and effective upon receipt of such Notice, Ligand shall thereafter, within forty-five (45) days after the end of each calendar quarter included in the Royalty Term, pay to Co-Promotion Partner (by wire transfer of immediately available funds to an account designated by Co-Promotion Partner in writing) an amount in cash equal to nine percent (9%) of Net Sales during such calendar quarter.

"Royalty Term" shall mean that period of time from the effective date of the Notice hereunder and continuing until December 31, 2012.

10.5 EFFECTS OF TERMINATION.

a. Neither the termination nor expiration of this Agreement shall release or operate to discharge either party from any liability or obligation that may have accrued prior to such termination or expiration. Any termination of this Agreement as provided herein shall not be an exclusive remedy but shall be in addition to any remedies whatsoever that may be available to the terminating party.

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b. Notwithstanding the giving of any notice of termination pursuant to this Section 10, each party shall continue to fulfill its obligations under this Agreement at all times until the effective date of any such termination.

10.6 ACTIONS UPON TERMINATION. Upon the termination or expiration of this Agreement for any reason, Co-Promotion Partner shall immediately cease all of its promotional and marketing activities for the Product, discontinue any use of Ligand Trademarks and Product Trademarks and return to Ligand or destroy all sales materials, training materials and Marketing Materials for the Product.

After any termination Ligand shall retain the right to use any sales training and Marketing Materials developed during the term of this Agreement, provided, however, that Ligand shall have no further right to use Co-Promotion Partner's name or any Co-Promotion Partner Trademarks or logos in connection therewith.

10.7 SURVIVAL. The representations, warranties, covenants and agreements of the parties in Sections 1, 9.1, 9.2, 10.4 (in the event of termination pursuant to such Section) 10.5-10.7 and 11-16 hereof, and all provisions relating to the ownership of intellectual property rights, shall survive any expiration or termination of this Agreement. In addition, any provision of this Agreement that, either from the express language or the context thereof, is intended to survive any termination or expiration of this Agreement shall survive any such expiration or termination.

11. CONFIDENTIALITY.

11.1 CONFIDENTIAL INFORMATION. "Confidential Information" as used in this Agreement shall mean any and all technical and non-technical information (whether written or oral or otherwise in tangible or intangible form) that is transmitted or otherwise provided by or on behalf of a party either before, on or after the date hereof and that may be reasonably understood from notices or legends, the nature of such information itself or the circumstances of such information's disclosure to be confidential or proprietary to such party. "Confidential Information" may include, but is not limited to, patents, copyrights, trade secrets, information related to or underlying such intellectual property rights and other proprietary information, techniques, sketches, drawings, models, inventions, know-how, processes, apparatus, equipment, algorithms, software programs, software source documents, formulae, research plans and results, clinical data, experimental work, development, design details and specifications and other technical information relating to current, future and proposed products and services, engineering data, financial information, procurement requirements, purchasing and manufacturing information, customer lists, business forecasts and sales, marketing and merchandising plans and information and sales and detail reports delivered pursuant to this Agreement. "Confidential Information" also includes proprietary or confidential information of any third party, including Elan, that may disclose such information to either party in the course of the other party's business.

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11.2 NONDISCLOSURE AND NON-USE OBLIGATIONS. Each party hereto (the "Recipient") understands that the other party (the "Disclosing Party") and/or its respective shareholders, directors, officers, employees, Affiliates, representatives (including, without limitation, financial advisors, attorneys and accountants) or agents (collectively, "Representatives") have disclosed or may disclose Confidential Information to the Recipient and its respective Representatives. Each of the parties, as Recipient, agrees that such Recipient and its Representatives will not use, disseminate, or in any way disclose any Confidential Information of the other party, as Disclosing Party, to any person, firm or business, except to the extent necessary for performance of the Recipient's obligations hereunder, and under no circumstances will such Recipient or its Representatives disassemble, reverse engineer, or copy without the express written consent of the Disclosing Party, any such Confidential Information. Each of the parties, as Recipient, agrees that such Recipient shall disclose or cause to be disclosed Confidential Information of the other party, as Disclosing Party, only to those of such Recipient's Representatives that need to know such information, and such Recipient certifies that such Recipient's Representatives have previously agreed, either as a condition to employment or in order to obtain the Confidential Information of the Disclosing Party, to be bound by terms and conditions substantially similar to those terms and conditions applicable to such Recipient under this Agreement. Each of the parties, as the Recipient, shall cause its Representatives to observe the terms of this Agreement, and such Recipient shall be responsible for any breach of this Agreement by any of its Representatives. Each of the parties, as Recipient, shall and shall cause its Representatives to ensure that all copies, extracts, summaries or other embodiments of the Confidential Information of the other party, as Disclosing Party, carry a confidentiality notice similar to that, if any, with which it was submitted to the Recipient or its Representatives. Each of the parties, as Recipient, agrees that such Recipient and its Representatives shall treat all Confidential Information of the other party, as Disclosing Party, with the same degree of care as such Recipient accords to such Recipient's own similar Confidential Information, but under no circumstances

less than reasonable care. Each of the parties, as Recipient, shall immediately give, or shall cause its Representatives to give, notice to the other party, as Disclosing Party, of any unauthorized use or disclosure of Disclosing Party's Confidential Information. Each of the parties, as Recipient, agrees to assist and cause its Representatives to assist the other party, as Disclosing Party, in remedying any such unauthorized use or disclosure of Disclosing Party's Confidential Information.

11.3 EXCLUSIONS FROM NONDISCLOSURE AND NONUSE OBLIGATIONS. The obligations under Section 11.2 of each of the parties, as Recipient (together with its Representatives), with respect to any portion of the Confidential Information of the other party, as Disclosing Party, shall not apply to such Confidential Information or portion thereof that such Recipient can document: (a) was in or becomes a part of the public domain at or subsequent to the time such Confidential Information or portion thereof was communicated to such Recipient or its Representatives by such Disclosing Party or its Representatives through no improper action or inaction of such Recipient or such Recipient's Representatives, (b) was in such Recipient's or its Representatives' possession free of any obligation of confidence at or subsequent to the time such Confidential Information or portion thereof was communicated to such Recipient or its Representatives by such Disclosing Party or its Representatives, or (c) was developed by such Recipient or its Representatives independently of and without reference to any information communicated to such Recipient or its Representatives by such Disclosing Party or its Representatives. For purposes of clause (a) of the foregoing sentence, "public domain" shall mean information that is reasonably accessible to the public in a written publication, and shall not include information that is only available through research of published literature or information the substance of which must be pieced together with substantial effort from a number of different publications and sources. A disclosure by either of the parties, as Recipient (together with its

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Representatives), of Confidential Information of the other party, as Disclosing Party, either (a) in response to a valid subpoena or order by a court or other governmental body, (b) as otherwise required by law, or (c) as necessary to establish the rights of either party under this Agreement, shall not be considered to be a breach of this Agreement by such Recipient or a waiver of confidentiality for other purposes; provided, however, that such Recipient or its Representatives shall provide sufficient prior written notice thereof to such Disclosing Party to enable such Disclosing Party to seek a protective order or otherwise prevent or limit the extent of such disclosure, and that such Recipient and its Representatives shall thereafter disclose only such Confidential Information as is reasonably necessary under the circumstances. Each of the parties, as Recipient, agrees that the foregoing exceptions are to be narrowly construed and that its obligations (and those of its Representatives) under this Agreement are released solely with respect to those specific portions of the Confidential Information of the other party, as Disclosing Party, that fall within the foregoing exceptions and not with respect to related portions, or other combinations or characteristics of, the Confidential Information of such Disclosing Party.

11.4 OWNERSHIP AND RETURN OF CONFIDENTIAL INFORMATION AND OTHER MATERIALS. All Confidential Information of each of the parties, as Disclosing Party, and any Derivatives thereof, whether created by such Disclosing Party or its Representatives or the other party, as Recipient (or its Representatives), shall, as between the parties, remain the sole and exclusive property of such Disclosing Party, and no license or other rights to such Disclosing Party's Confidential Information or Derivatives is granted or implied hereby. For purposes of this Agreement, "Derivatives" shall mean: (a) for copyrightable or copyrighted material, any translation, abridgment, revision or other form in which an existing work may be recast, transformed or adapted; (b) for patentable or patented material, any improvement thereon; and (c) for material which is protected by trade secret, any new material derived from such existing trade secret material, including new material which may be protected under copyright, patent and/or trade secret laws.

11.5 SURVIVAL. The obligations set forth in this Section 11 shall survive the termination or expiration of this Agreement for a period of five (5) years.

12. INDEMNIFICATION AND INSURANCE; LIMITATION OF LIABILITY.

12.1 INDEMNIFICATION BY CO-PROMOTION PARTNER. Co-Promotion Partner shall defend, indemnify and hold Ligand and its Affiliates, and their respective officers, directors, employees, successors and assigns, harmless from and against any and all claims, liabilities, losses, costs, actions, suits, damages and expenses, including reasonable attorney's fees (collectively, "Damages"), arising out of: (a) any breach by Co-Promotion Partner of any representation, warranty or covenant contained in this Agreement; (b) any claims by third parties or other liabilities relating to the performance or nonperformance of Co-Promotion Partner's obligations under this Agreement; and (c) the infringement or other violation of any third party trademarks with respect to the use by the parties of the Co-Promotion Partner Trademarks in connection with the Product under this Agreement; provided, however, that Co-Promotion Partner shall not be required to indemnify Ligand with respect to any Damages hereunder to the extent the same is caused by any negligent act or omission or intentional misconduct by Ligand or any of its Affiliates or is otherwise covered by Ligand's indemnification obligation in Section 12.2.

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12.2 INDEMNIFICATION BY LIGAND. Ligand shall defend, indemnify and hold Co-Promotion Partner and its Affiliates, and their respective officers, directors, employees, successors and assigns, harmless from and against any and all Damages arising out of: (a) any breach by Ligand of any representation, warranty or covenant contained in this Agreement; (b) any personal injury (including death) and/or property damage resulting from the handling, possession or use of the Product; and (c) any other liability arising out of the manufacture, marketing, sale, labeling, distribution or use of the Product, including without limitation, any actual or alleged infringement of any trademarks (excepting infringement arising from the use of Co-Promotion Partner Trademarks as set forth in Section 12.1(c)), know-how, trade secrets, patent rights or other intellectual property rights of any Person or any violation of Applicable Laws and Regulations, including any failure to manufacture the Product in accordance with Good Manufacturing Practice; provided, however, that Ligand shall not be required to indemnify Co-Promotion Partner with respect to any Damages hereunder to the extent the same is caused by any negligent act or omission or intentional misconduct by Co-Promotion Partner or any of its Affiliates or is otherwise covered by Co-Promotion Partner's indemnification obligation in Section 12.1.

12.3 CLAIMS PROCEDURES. A party (the "Indemnitee") which intends to claim indemnification under this Section 12 shall notify the other party (the "Indemnitor") within a reasonable time in writing of any action, claim or liability in respect of which the Indemnitee believes it is entitled to claim indemnification, provided that the failure to give timely notice to the Indemnitor shall not release the indemnitor from any liability to the Indemnitee to the extent the Indemnitor is not prejudiced thereby. The Indemnitor shall have the right, by notice to the Indemnitee, to assume the defense of any such action or claim within the fifteen (15) day period after the Indemnitor's receipt of notice of any action or claim with counsel of the Indemnitor's choice and at the sole cost of the Indemnitor. If the Indemnitor does not so assume the defense of such claim, the Indemnitee may assume such defense with counsel of its choice and at the sole cost of the Indemnitor. If the Indemnitor so assumes such defense, the Indemnitee may participate therein through counsel of its choice, but at the sole cost of the Indemnitee. The party not assuming the defense of any such claim shall render all reasonable assistance to the party assuming such defense, and all reasonable out-of-pocket costs of such assistance shall paid be for by the party determined ultimately liable. No such claim shall be settled other than by the party defending the same, and then only with the consent of the other party which shall not be unreasonably withheld; provided that the Indemnitee shall have no obligation to consent to any settlement of any such action or claim which imposes on the Indemnitee any liability or obligation which cannot be assumed and performed in full by the Indemnitor, and the Indemnitee shall have no right to withhold its consent to any settlement of any such action or claim if the settlement involves only the payment of money by the Indemnitor or its insurer.

12.4 INSURANCE. Each party shall maintain insurance (either through purchase of a policy from a nationally recognized third party insurer or through maintenance of a self-insurance program) against such risks and upon such terms (including coverages, deductible limits and self-insured retentions) as set forth in EXHIBIT G.

12.5 LIMITATION OF LIABILITY. In no event will either party be liable in any way in connection with its performance under this Agreement for: (a) any loss of profit or any other special damages, including, but not limited to, special, incidental, consequential, or other damages (collectively, "Special

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Damages"); or (b) any amount in excess of an aggregate of fifty million dollars (\$50 million), in each case whether arising in contract, tort (including negligence), strict liability or otherwise. Notwithstanding anything herein to the contrary, the limitation on liability in the preceding sentence shall not apply to Ligand's payment obligations contained in Sections 4.2(c), 8.1 and 10.4 hereof or to any liability of either party for death, material personal injury or property damage, which has been determined by a court of final adjudication to have been proximately caused by the negligence, recklessness or willful misconduct of such party or any of its personnel.

13. REPRESENTATIONS AND WARRANTIES.

13.1 BY CO-PROMOTION PARTNER. Co-Promotion Partner represents and warrants to Ligand that, as of the Execution Date:

a. the execution, delivery and performance of this Agreement by Co-Promotion Partner does not conflict with, or constitute a breach of or under, any order, judgment, agreement or instrument to which Co-Promotion Partner is a party; and

b. the execution, delivery and performance of this Agreement by Co-Promotion Partner does not require the consent of any Person or the authorization of (by notice or otherwise) any Governmental or Regulatory Authority.

13.2 BY LIGAND. Ligand represents and warrants to Co-Promotion Partner that, as of the Execution Date:

a. the execution, delivery and performance of this Agreement by Ligand does not conflict with, or constitute a breach of or under, any order, judgment, agreement or instrument to which Ligand is a party;

b. Ligand has all material licenses, authorizations, permissions, consents or approvals from any applicable Governmental or Regulatory Authority or third parties necessary to make, use, sell and offer to sell the Product, and the execution, delivery and performance of this Agreement by Ligand does not require the consent of any Person or the authorization of (by notice or otherwise) any Governmental or Regulatory Authority;

c. the rights granted by Ligand to Co-Promotion Partner hereunder do not conflict with any rights granted by Ligand to any third party;

d. Ligand has responded to Co-Promotion Partner's reasonable requests for information regarding the Product, and, to the best of Ligand's knowledge, Ligand has not withheld information regarding the Product which is responsive to such requests and which Ligand reasonably deems material, and, to the best of Ligand's knowledge, any such information was provided to Co-Promotion Partner promptly following receipt of Co-Promotion Partner's request and, taken as a whole, was up to date and accurate;

e. to the best of Ligand's knowledge, the manufacture, sale or import of the Product will not infringe any patents or trademarks of any third party and, to the best of Ligand's knowledge, no third party is infringing in the Territory any patent or trademark applicable to the Product;

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f. there are no actions, suits, proceedings or claims pending against Ligand, any of its Affiliates or, to the best of Ligand's knowledge, third parties from whom Ligand has obtained any intellectual property rights covering the Product, or, to the best of Ligand's knowledge, threatened against Ligand, any of its Affiliates or any third party from whom Ligand has obtained any intellectual property rights covering the Product, at law or equity, or

before or by any court or by any Governmental or Regulatory Authority relating to the Product, or any matter contemplated herein;

g. Ligand and its Affiliates or, to the best of Ligand's knowledge, third parties from whom Ligand has obtained any intellectual property rights covering the Product, have all the rights in all intellectual property covering the Product required to enable Ligand to make, use, sell and offer to sell the Product and to grant to Co-Promotion Partner the rights granted herein;

h. Ligand holds all right, title and interest to the Ligand Trademarks and Product Trademark, and such trademarks are in full force and from the Execution Date Ligand will use its Commercially Reasonable Efforts to maintain such trademarks;

i. no patent covering the Product has been declared invalid and all patents covering the Product are in full force and Ligand will use its Commercially Reasonable Efforts to maintain such patents;

j. the Restated License and Supply Agreement among Elan Corporation PLC, Elan Management Ltd. and Ligand Pharmaceuticals Incorporated has been executed and is in full force and effect, and all of Ligand's obligations, conditions or commitments thereunder have been completed, including without limitation, the transfer of title to the Product NDA to Ligand; and

k. from the Execution Date, Product to be distributed by Ligand will, at the time of shipment by or on behalf of Ligand, not be misbranded or adulterated under the terms of the Act or comparable state laws.

13.3 EXCEPT AS EXPRESSLY STATED IN THIS SECTION 13, ALL OTHER WARRANTIES, CONDITIONS AND REPRESENTATIONS, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING A WARRANTY AS TO THE QUALITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE PRODUCT, ARE HEREBY EXCLUDED.

14. NOTICES. Except as otherwise specifically provided herein, any notice or other documents to be given under this Agreement shall be in writing and shall be deemed to have been duly given if sent by nationally recognized overnight courier or confirmed facsimile transmission to a party (followed by hard copy by mail) or delivered in person to a party at the address or facsimile number set out below for such party or such other address as the party may from time to time designate by written notice to the other in accordance with this Section 14:

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If to Ligand:

Ligand Pharmaceuticals Incorporated
10275 Science Center Drive
San Diego, CA 92121
Attn: General Counsel
Facsimile: (858) 550-1825

with a copy to:

Faye H. Russell, Esq.
Clifford Chance US LLP
3811 Valley Centre Drive, 2nd Floor
San Diego, CA 92130
Facsimile: (858) 720-3501

If to Co-Promotion Partner:

Organon Pharmaceuticals USA Inc.
56 Livingston Avenue
Roseland, NJ 07068
Attn: Michael V. Novinski, President
Facsimile: (973) 422-7287

with a copy to:

Organon Pharmaceuticals USA Inc.

56 Livingston Avenue
Roseland, NJ 07068
Attn: Patrick J. Osinski, Vice President, Business Development
and Government Affairs

Facsimile: (973) 325-4705

Any such notice or other document shall be deemed to have been received by the addressee simultaneously with the transmission or delivery thereof.

15. DISPUTE RESOLUTION.

15.1 The parties recognize that claims for breach of this Agreement may arise from time to time arise (other than matters for which decisions or approvals are taken under Section 7 or rights reserved to Ligand under this Agreement) ("Dispute(s)"). It is the objective of the parties to establish procedures to facilitate the resolution of Disputes in an expedient manner by mutual cooperation and without resort to litigation. To accomplish this objective, the Parties agree to follow the procedures set forth in this Section 15 if and when a Dispute arises under this Agreement.

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15.2 Any Dispute shall be first referred to the President for each party at any time after such Dispute has arisen and a party believes that there has been sufficient discussion of the matter prior to such referral. If the Presidents of Ligand and Co-Promotion Partner cannot resolve the Dispute within thirty (30) days after being requested by a party to resolve the Dispute, then either party may, by written notice to the other, invoke the provisions of Section 15.3.

15.3 In the event of a Dispute not resolved pursuant to Section 15.2, the parties shall endeavor to settle the dispute by mediation under the supervision of and in accordance with the CPR Model Mediation Procedures. Unless otherwise agreed, both parties or each individual party may request the CPR to appoint an independent mediator. If the dispute has not been resolved by the means provided herein within one hundred eighty (180) days of the initiation of such procedure, either Party shall have the right to file a lawsuit to resolve the dispute; provided, however, if Ligand files such lawsuit, it must be filed in the courts of New York and if Co-Promotion Partner files such lawsuit, it must be filed in the courts of California.

16. MISCELLANEOUS PROVISIONS.

16.1 ASSIGNMENT. Neither party shall assign or otherwise transfer its rights or obligations under this Agreement or any interest herein or right hereunder without the prior written consent of the other party, and any such purported assignment, transfer or attempt to assign or transfer any interest herein or right hereunder shall be void and of no effect; except that each party may assign all (but not less than all) of its rights and obligations hereunder to an Affiliate or to the transferee or successor of its assets or securities in the event of a Change of Control without the prior consent of the other party, provided that in the case of an assignment to an Affiliate, the assigning party shall remain responsible for all of its obligations and agreements set forth herein, notwithstanding such assignment. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns.

16.2 GOVERNING LAW. This Agreement shall be construed under and in accordance with, and governed in all respects by, the laws of the State of New York, without regard to its conflicts of law principles.

16.3 NON-WAIVER. The failure of either party to enforce or to exercise, at any time or for any period of time, any term of or any right arising pursuant to this Agreement does not constitute, and shall not be construed as, a waiver of such term or right, and shall in no way affect that party's right later to enforce or exercise such term or right.

16.4 ENTIRE AGREEMENT. This Agreement and any and all documents or agreements referenced herein contain all of the terms agreed to by the parties regarding the subject matter of this Agreement and shall supersede any prior oral or written agreements, understandings or arrangements between them,

including without limitation the Mutual Non-Disclosure Agreement between the parties dated as of December 13, 2002. This Agreement may not be amended, modified, altered or supplemented except by means of a written agreement or other instrument executed by both of the parties hereto. No course of conduct or dealing between the parties shall act as a modification or waiver of any provisions of this Agreement.

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16.5 SEVERABILITY. In the event that any provision (or portion thereof) of this Agreement is held to be invalid, illegal or unenforceable by a court of competent jurisdiction or a Governmental or Regulatory Authority, such provision (or portion of provision) shall be construed and enforced as if it had been narrowly drawn so as not to be invalid, illegal or unenforceable and the validity, legality and enforceability of the enforceable portion of any such provision and the remaining provisions shall not be adversely affected thereby.

16.6 RELATIONSHIP OF THE PARTIES. The parties hereto are acting and performing as independent contractors, and nothing in this Agreement creates the relationship of partnership, joint venture, sales agency or principal and agent. Neither party is the agent of the other, and neither party may hold itself out as such to any other Person. All financial obligations associated with each party's business shall be the sole responsibility of such party.

16.7 NO IMPLIED LICENSES. Each of the parties hereby acknowledges and agrees that, except as otherwise explicitly provided in this Agreement, such party shall not by entering into this Agreement have, assert or acquire any right, title or interest in or to any intellectual property or other proprietary rights of the other party.

16.8 PUBLIC ANNOUNCEMENTS. The form and content of any public announcement to be made by one party regarding the execution or existence of this Agreement, or the subject matter contained herein, shall be subject to the prior written consent of the other party (which consent shall not be unreasonably withheld, delayed or conditioned), except as may be required by applicable law (including, without limitation, disclosure requirements of the SEC, NYSE, or any other stock exchange or NASDAQ), in which case the other party shall give the other party reasonable advance notice and review of any such disclosure. Following the dissemination of such initial public announcement, neither party (nor any of their respective direct or indirect, majority-owned subsidiaries) shall issue any press release or make any public announcement with respect to this Agreement and the transactions contemplated hereby without prior consultation with the other party, except as may be required by applicable law upon the advice of counsel. Each party shall use its Commercially Reasonable Efforts to provide the other party with a reasonable opportunity to first review the release or other public announcement.

16.9 COUNTERPARTS. This Agreement shall become binding when any one or more counterparts hereof, individually or taken together, shall bear the signatures of each of the parties hereto. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original as against the party whose signature appears thereon, but all of which taken together shall constitute but one and the same instrument.

16.10 FORCE MAJEURE. Neither party shall be liable to the other party for any failure to perform as required by this Agreement if the failure to perform is due to circumstances reasonably beyond such party's control including, without limitation, any act of God, civil disorder or commotion, act of aggression, terrorism, fire, explosion, flood, drought, war, sabotage, embargo, utility failure, material shortage, labor disturbance, national health emergency, or appropriation of property (each, a "Force Majeure Event"). A party whose performance is affected by a Force Majeure Event shall take prompt action using its Commercially Reasonable Efforts to remedy the effects of the Force Majeure Event.

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16.11 INTERPRETATION. The parties hereto acknowledge and agree that:
(a) each party and its representatives have reviewed and negotiated the terms and provisions of this Agreement and have contributed to its preparation; and
(b) the terms and provisions of this Agreement shall be construed fairly as to

each party hereto and not in favor of or against either party, regardless of which party was generally responsible for the preparation or drafting of this Agreement.

16.12 CERTAIN EXPENSES AND COMMISSIONS. Except as otherwise expressly set forth in this Agreement, the parties hereto shall each pay all their costs and expenses, including legal and accounting fees, incurred in connection with the preparation, negotiation, execution and delivery of this Agreement, respective brokerage fees, commissions and finder's fees, if any, and shall indemnify and hold the other harmless from and against any and all other claims or liabilities for such costs and expenses, brokerage fees, commissions and finder's fees incurred by reason of any action taken by any such party.

16.13 HEADINGS. The headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

16.14 SUBCONTRACTORS. Each party may use third-party subcontractors in the performance of their obligations under this Agreement; PROVIDED, HOWEVER, that neither party may use third party subcontractors in the performance of their Product Call obligations under this Agreement without the prior written consent of the other party. In the event that a party appoints a permitted third party subcontractor, such appointment shall be subject to the confidentiality provisions of Section 11. In addition, such party shall be solely responsible and liable to the other party for the performance of said contractor. The party hiring the subcontractor shall ensure that the subcontractor complies in all material respects with the requirements of Governmental or Regulatory Authorities and Applicable Laws and Regulations as it relates to the Product or otherwise.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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IN WITNESS WHEREOF, the parties have duly executed this Co-Promotion Agreement as of the last date of a party's signature below.

LIGAND PHARMACEUTICALS INCORPORATED

By: /S/ DAVID E. ROBINSON

Name: David E. Robinson
Title: Chairman of the Board, President and
Chief Executive Officer
Date: FEBRUARY 19, 2003

ORGANON PHARMACEUTICALS USA INC.

By: /S/ MICHAEL V. NOVINSKI

Name: Michael V. Novinski
Title: President
Date: 2/20/03

By: /S/ PATRICK J. OSINSKI

Name: Patrick J. Osinski
Title: Vice President
Date: 2/20/03

EXHIBIT A

Example of Co-Promotion Detail Report

DETAIL REPORT FOR CALENDAR QUARTER ENDED _____

<TABLE>
<CAPTION>

	ACTUAL	BUDGET
	#	#
	-----	-----
<S>	<C>	<C>
Total # Calls		
Product Calls:		
First Position Details		
Second Position Details		
TOTAL	-----	-----
	=====	=====

</TABLE>

AVINZA REACH AND FREQUENCY:

YEAR-TO-DATE PRODUCT DETAILS:

MONTH	DETAILS
January 20__	
February 20__	
March 20__	
April 20__	
May 20__	
June 20__	
July 20__	
August 20__	
September 20__	
October 20__	
November 20__	
December 20__	

Exhibit A-1

CALENDAR QUARTER DETAILS BY PAIN SALESFORCE:

<TABLE>
<CAPTION>

DECILE	CONTACTS SEEN	TOTAL CONTACTS	REACH	FREQUENCY
<S>	<C>	<C>		
10		%		
09		%		
08		%		
07		%		
06		%		
05		%		
04		%		
03		%		

02	%
Others	%
TOTAL	%

AVINZA PHYSICIAN CALLS FOR CALENDAR QUARTER ENDED

-----:

ME NUMBER	LAST NAME	FIRST NAME	CITY	STATE	POSTAL	AMA	NUMBER OF
		CODE	SPECIALTY		CALLS		
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>

Exhibit A-2

EXHIBIT B

Example of Ligand Detail Report

DETAIL REPORT FOR CALENDAR QUARTER ENDED _____

	ACTUAL	BUDGET
	#	#
	-----	-----
Total # Calls	<C>	<C>
Product Calls:		
First Position Details		
Second Position Details		
TOTAL	-----	-----
	=====	=====

AVINZA REACH AND FREQUENCY:

YEAR-TO-DATE PRODUCT DETAILS:

MONTH	DETAILS
January 20__	
February 20__	
March 20__	
April 20__	
May 20__	
June 20__	
July 20__	
August 20__	
September 20__	
October 20__	
November 20__	
December 20__	

Exhibit B-1

CALENDAR QUARTER DETAILS BY PAIN SALESFORCE:

<TABLE>
<CAPTION>

DECILE	CONTACTS SEEN	TOTAL CONTACTS	REACH	FREQUENCY
<S>	<C>	<C>	<C>	<C>
10		%		
09		%		
08		%		
07		%		
06		%		
05		%		
04		%		
03		%		
02		%		
Others		%		
TOTAL		%		

</TABLE>

AVINZA PHYSICIAN CALLS FOR CALENDAR QUARTER ENDED

-----:

<TABLE>

ME NUMBER	LAST NAME	FIRST NAME	CITY	STATE	POSTAL	AMA	NUMBER OF
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
		CODE	SPECIALTY		CALLS		

</TABLE>

Exhibit B-2

EXHIBIT C

Example of Ligand Sales Report

SALES AND ROYALTY REPORT FOR THE CALENDAR QUARTER ENDED _____

<TABLE>
<CAPTION>

	30 MG	60 MG	90 MG	120 MG
<S>	<C>	<C>	<C>	<C>
UNITS (by package size/presentation)				
WAC (by package size/presentation)				
Gross Sales (Units x WAC)				
Deductions/Allowances:*				
Customs duties and other taxes				
Returns				
Bad debt				
Managed Care Rebates				
Charge backs				

Medicaid Rebates				
Discounts				
Cash				
Other				
Net Sales	-----	-----	-----	-----
	=====	=====	=====	=====

</TABLE>

Royalty: Net Sales \$ X % = \$

Example: \$450mm Net Sales

$$\begin{aligned}
 \text{Royalty} &= (150\text{mm} \times 30\%) + (150\text{mm} \times 40\%) + (125\text{mm} \times 50\%) + (25\text{mm} \times 45\%) \\
 &= 45\text{mm} + 60\text{mm} + 62.5 + 11.25\text{mm} \\
 &= 178.75\text{mm}
 \end{aligned}$$

*Deductions/Allowances based on estimates, adjusted periodically to actual experience.

Exhibit C-1

EXHIBIT D

Example of Direct Cost Report

DIRECT COSTS REPORT FOR THE CALENDAR QUARTER ENDED _____

<TABLE>			
<CAPTION>			
EXPENSE CATEGORY	VENDOR	ACTUAL	BUDGET
-----	-----	-----	
<S>	<C>	<C>	
ADVERT. & PROMOT.		\$	\$
	-----	-----	
SUB-TOTAL	\$	\$	
MARKET RESEARCH		\$	\$
	-----	-----	
SUB-TOTAL	\$	\$	
CLINICAL TRIALS*		\$	\$
	-----	-----	
SUB-TOTAL	\$	\$	
CRO	\$	\$	
	-----	-----	
SUB-TOTAL	\$	\$	
GRANTS	\$	\$	
	-----	-----	
SUB-TOTAL	\$	\$	

</TABLE>

*To include Consulting, Outside Services, Clinical Supplies, Lab Services and Clinical Case Report Forms

Exhibit D-1

EXHIBIT E

Example of Fully Allocated Cost Report

FULLY ALLOCATED COST REPORT FOR THE CALENDAR QUARTER ENDED _____

<TABLE>
 <CAPTION>
 FUNCTION/DPT OR EXPENSE TYPE METHOD OF ALLOCATION ACTUAL BUDGET
 ----- ----- ----- -----
 <S> <C> <C> <C> <C>
 MEDICAL AFFAIRS \$ \$
 R&D DEPARTMENTS \$ \$
 TOTAL ----- -----
 \$ \$
 ===== =====

</TABLE>

Exhibit E-1

EXHIBIT F

SERVICES

- Brand Management
- Market Research
- Medical Education/Professional Services
- Long Term Care Sales Representatives
- National/Regional Account Managers
- Trade
- GPO/Government Affairs
- Contract Administration
- Finance--Managed Care
- Regional Medical Liaisons
- Medical Services
- Sales Training (National and Regional)

Exhibit F-1

EXHIBIT G

INSURANCE

Each party shall, through the purchase of any insurance policy from a recognized third party insurer or through maintenance of a qualified self insurance program, obtain and maintain at its own expense during the term of this Agreement, and for a period of at least one (1) year after the expiration or termination of this Agreement, all insurance coverage required by law as well as appropriate and customary insurance coverage to protect against claims or liabilities, subject to the limitations of Section 12.5 of this Agreement, that may arise directly or indirectly as a result of such party's performance under this Agreement. This insurance shall include the following coverage for not less than the limits specified, or as required by law, whichever is greater:

- 1) Workers' Compensation & Employers Liability
 - Worker's Compensation: Statutory
 - Employer's Liability: ***

- 2) Commercial General Liability

Covering premises, products, completed operations, independent contractors, personal injury, blanket broad from contractual liability.

- -Bodily Injury & Property Damage: *** Combined Single Limit per occurrence

- 3) Automobile Liability

Covering all owned, non-owned, hired and borrowed vehicles used in the performance of work under this Agreement

- - Bodily Injury & Property Damage: *** Combined Single Limit per occurrence

- 4) Umbrella / Excess Liability *** Combined Single
(following form) Limit per occurrence

ADDITIONAL COVERAGE

Insurance specified herein shall be minimum requirements; each party is responsible for providing any additional insurance coverage, or self-insurance, deemed necessary to protect itself from claims in excess of the minimum coverage. None of the requirements contained herein as to coverage types or limits of insurance to be maintained by a party are intended to and shall not in any manner limit the liability or indemnity obligations of one party to the other hereunder.

Exhibit G-1

INSURANCE CERTIFICATES/PROOF OF SELF-INSURANCE

Each party shall deliver to the other upon execution of this Agreement a Certificate(s) of Insurance evidencing: (i) the insurer(s) affording coverage; (ii) the effective and expiration dates of the policies; (iii) the limits of liability per occurrence and in the aggregate; and (iv) that either party shall be given thirty (30) days advance written notice prior to cancellation, non-renewal or material change of any policy. Each party shall provide the other current Certificates of Insurance evidencing renewal of insurance throughout the term of this Agreement. Upon the request of either party, the other party shall name the other as an additional insured on applicable policies (excepting workers compensation).

To the extent either party elects to self-insure, or be a qualified self-insurer under governing state statutes for any of the insurance coverages mentioned in this Exhibit G, such party shall provide the other party, throughout the term of this agreement and for a period of at least one (1) year after the expiration or termination of this Agreement, with proof of continuing financial responsibility equal to or greater than the minimum limits of insurance required hereunder.

Exhibit G-2

EXHIBIT 99.1

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

In connection with the accompanying Quarterly Report on Form 10-Q of Ligand Pharmaceuticals Inc. for the quarter ended March 31, 2003, I, David E. Robinson, Chairman, President and Chief Executive Officer of Ligand Pharmaceuticals Inc., hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge and belief, that:

(1) such Quarterly Report on Form 10-Q for the quarter ended March 31, 2003, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in such Quarterly Report on Form 10-Q for the quarter ended March 31, 2003, fairly presents, in all material respects, the financial condition and results of operations of Ligand Pharmaceuticals Inc.

Date: May 5, 2003

/S/DAVID E. ROBINSON

David E. Robinson
CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER

EXHIBIT 99.2

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

In connection with the accompanying Quarterly Report on Form 10-Q of Ligand Pharmaceuticals Inc. for the quarter ended March 31, 2003, I, Paul V. Maier, Senior Vice President, Chief Financial Officer of Ligand Pharmaceuticals Inc., hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge and belief, that:

(1) such Quarterly Report on Form 10-Q for the quarter ended March 31, 2003, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in such Quarterly Report on Form 10-Q for the quarter ended March 31, 2003, fairly presents, in all material respects, the financial condition and results of operations of Ligand Pharmaceuticals Inc.

Date: May 5, 2003

/S/PAUL V. MAIER

Paul V. Maier
SENIOR VICE PRESIDENT, CHIEF FINANCIAL OFFICER