UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-Q

MARK ONE

[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15 (D) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 1997 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	77-0160744
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(I.R.S. EMPLOYER IDENTIFICATION NO.)
9393 TOWNE CENTRE DRIVE SAN DIEGO, CA (ADDRESS OF PRINCIPAL EXECUTIVE OFFICES)	92121 (ZIP CODE)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: (619)535-3900

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 __X__ No _____

As of October 31, 1997 the registrant had 32,994,999 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

<TABLE>
LIGAND PHARMACEUTICALS INCORPORATED
CONSOLIDATED BALANCE SHEETS
(IN THOUSANDS, EXCEPT SHARE DATA)

<CAPTION>

	September 30, 1997	December 31, 1996
	(Unaudited)	
<S>	<C>	<C>
ASSETS		
Current assets:		
Cash and cash equivalents	$ 13,437	$ 34,830
Short-term investments	37,121	45,822
Receivable from a related party	3,146	3,087
Other current assets	1,102	1,706
Total current assets	54,806	85,445
Restricted short-term investments	3,056	3,527
Property and equipment, net	14,991	11,680
Notes receivable from officers and employees	553	534
Other assets	4,533	954
	$ 77,939	$ 102,140
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		

Accounts payable	$ 3,601	$ 4,137
Accrued liabilities	4,732	4,870
Deferred revenue	909	2,151
Current portion of obligations under capital leases	2,917	2,607
Total current liabilities	12,159	13,765
Long-term obligations under capital leases	8,711	8,711
Convertible subordinated debentures	35,959	33,953
Convertible note	5,000	11,250
Stockholders' equity:		
Convertible preferred stock, $.001 par value; 5,000,000 shares authorized; none issued	-- --	-- --
Common stock, $.001 par value; 80,000,000 shares authorized; 32,977,938 shares and 31,799,617 shares issued at September 30, l997 and December 31, 1996, respectively	33	32
Paid-in capital	226,719	214,887
Warrant subscription receivable	(924)	(2,453)
Adjustment for unrealized gains (losses) on available-for-sale securities	4	(78)
Accumulated deficit	(209,711)	(177,594)
Deferred compensation and consulting	-- --	(322)
	16,121	34,472
Less treasury stock, at cost (1,114 shares at September 30, 1997 and December 31, 1996)	(11)	(11)
Total stockholders' equity	16,110	34,461
	$ 77,939	$ 102,140

</TABLE>

SEE ACCOMPANYING NOTES.

<TABLE>

LIGAND PHARMACEUTICALS INCORPORATED
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)
(IN THOUSANDS, EXCEPT PER SHARE DATA)

<CAPTION>

	Three Months Ended September 30,		Nine Months Ended September 30,	
	1997	1996	1997	1996
<S>	<C>	<C>	<C>	<C>
Revenues:				
Collaborative research and development:				
Related parties	$ 6,710	$ 5,522	$ 18,923	$ 12,784
Unrelated parties	3,363	4,529	10,652	14,407
Other	99	43	325	161
	10,172	10,094	29,900	27,352
Costs and expenses:				
Research and development	18,038	15,093	51,353	42,174
Selling, general and administrative	2,501	2,106	7,379	7,278

Total operating expenses	20,539	17,199	58,732	49,452
Loss from operations	(10,367)	(7,105)	(28,832)	(22,100)
Interest income	798	730	2,800	2,729
Interest expense	(1,995)	(2,039)	(6,085)	(6,162)
Net loss	$ (11,564)	$ (8,414)	$ (32,117)	$ (25,533)
Net loss per share	$ (.35)	$ (.30)	$ (.99)	$ (.91)
Shares used in computing net loss per share	32,800	28,237	32,484	28,073

</TABLE>

SEE ACCOMPANYING NOTES.

<TABLE>

LIGAND PHARMACEUTICALS INCORPORATED
CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)
(IN THOUSANDS)

<CAPTION>

	Nine Months Ended September 30,	
	1997	1996
<S>	<C>	<C>
OPERATING ACTIVITIES		
Net loss	$ (32,117)	$ (25,533)
Adjustments to reconcile net loss to net cash used by operating activities:		
Depreciation and amortization	3,037	2,907
Amortization of notes receivable from officers and employees	185	174
Amortization of deferred compensation and consulting fees	322	378
Amortization of warrant subscription receivable	1,529	1,420
Accretion of debt discount	2,006	2,006
Company stock received for milestone revenue	--	(1,320)
Gain on sale of property and equipment	(69)	--
Change in operating assets and liabilities:		
Other current assets	696	(1,830)
Receivable from a related party	(59)	(384)
Accounts payable and accrued liabilities	(674)	(4,707)
Deferred revenue	(1,242)	(122)
Net cash used in operating activities	(26,386)	(27,011)
INVESTING ACTIVITIES		
Purchase of short-term investments	(18,584)	(37,486)
Proceeds from short-term investments	27,367	52,508
Increase in notes receivable from officers and employees	(220)	(180)
Payment of notes receivable from officers and employees	16	63

Increase in deposits and other assets	(3,668)	(2)
Decrease in deposits and other assets	89	88
Purchase of property and equipment	(3,727)	(511)
Proceeds from sale of property and equipment	32	-- --
Net cash provided by investing activities	1,305	14,480
FINANCING ACTIVITIES		
Principal payments on obligations under capital leases	(2,366)	(1,726)
Net change in restricted short-term investment	471	3,233
Net proceeds from sale of common stock	5,583	2,075
Net cash provided by financing activities	3,688	3,582
Net decrease in cash and cash equivalents	(21,393)	(8,949)
Cash and cash equivalents at beginning of period	34,830	15,963
Cash and cash equivalents at end of period	$ 13,437	$ 7,014
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Interest paid	$ 5,142	$ 5,292
SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Additions to obligations under capital leases	$ 2,676	$ 1,928
Conversion of note to common stock	$ 6,250	$ 3,750
Retirement of treasury stock	-- --	$ 1,320

</TABLE>

SEE ACCOMPANYING NOTES.

LIGAND PHARMACEUTICALS INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

SEPTEMBER 30, 1997

1. BASIS OF PRESENTATION

The consolidated financial statements of Ligand Pharmaceuticals Incorporated (the "Company") for the three and nine months ended September 30, 1997 and 1996 are unaudited. These financial statements reflect all adjustments, consisting of only normal recurring adjustments which, in the opinion of management, are necessary to fairly present the consolidated financial position as of September 30, 1997 and the consolidated results of operations for the three and nine months ended September 30, 1997 and 1996. The results of operations for the periods ended September 30, 1997 are not necessarily indicative of the results to be expected for the year ending December 31, 1997. 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, 1996 included in the Ligand Pharmaceuticals Incorporated Form 10-K filed with the Securities and Exchange Commission.

In February 1997, the Financial Accounting Standards Board issued Statement No. 128, "Earnings Per Share", ("Statement 128") which is effective for fiscal periods ending after December 15, 1997. At that time, the Company will be required to change the method currently used to compute earnings per share and to restate all prior periods presented. Under the new requirements for calculating primary earnings per share, which will be renamed basic earnings per share, stock options, warrants and convertible securities will always be excluded. The impact of Statement 128 on the calculation of basic and diluted earnings per share for the quarters ended September 30, 1997 and 1996 will have no effect.

2. NET LOSS PER SHARE

Net loss per share is computed using the weighted average number of common shares outstanding.

3. CONVERSION OF CONVERTIBLE NOTE

In March 1997, and again in July 1997, the Company converted $3.8 million and $2.5 million, respectively, of the convertible notes outstanding with American Home Products Corporation, into 374,626 and 249,749 shares, respectively, of the Company's Common Stock at a $10.01 conversion price.

4. COLLABORATION FINANCING INVESTMENTS

In February 1997, SmithKline Beecham Corporation ("SmithKline Beecham") provided a third installment equity investment of $2.5 million by purchasing 164,474 shares of the Company's Common Stock as a result of their election to expand the scope of research under its research agreement with the Company. The final installment of $2.5 million was provided in October 1997 to the Company as a convertible note as a result of SmithKline Beecham's election to extend the collaboration. The note is convertible into the Company's Common Stock at $13.56 per share and is due October 2002 unless converted into the Company's Common Stock earlier. The interest rate on the note is payable semi-annually at prime.

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

This quarterly report may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed below at "Risks and Uncertainties." While this outlook represents management's current judgment on the future direction of the business, such risks and uncertainties could cause actual results to differ materially from any future performance suggested below. The Company undertakes no obligation to release publicly the results of any revisions to these forward-looking statements to reflect events or circumstances arising after the date hereof.

OVERVIEW

Since January 1989, the Company has devoted substantially all of its resources to its Intracellular Receptor ("IR") and Signal Transducers and Activators of Transcription ("STATs") drug discovery and development programs. The Company has been unprofitable since its inception and expects to incur substantial additional operating losses for the next several years, due to continued requirements for research and development, preclinical testing, clinical trials, regulatory activities, establishment of manufacturing processes and sales and marketing capabilities.

The Company expects that losses will fluctuate from quarter to quarter as a result of differences in the timing of expenses incurred and the revenues earned from collaborative arrangements. Some of these fluctuations may be significant. As of September 30, 1997, the Company's accumulated deficit was approximately $209.7 million.

Upon the closing of the exercise of the option (the "Stock Purchase Option") to acquire all the outstanding shares of Allergan Ligand Retinoid Therapuetics, Inc. ("ALRT") Callable Common Stock, as further described in Item 5, the Company will record a one-time charge to operations for the write-off of in-process technology currently estimated at approximately $53.0 million, related to the excess of the aggregate of the Stock Purchase Option exercise price over the fair value of the assets acquired. In addition, continuation of development and commercialization of products previously under development by ALRT, to which the Company will acquire exclusive rights, will require substantive additional expenditures by the Company. The Company believes that its available cash, cash equivalents, marketable securities and existing sources of funding will be adequate to satisfy anticipated capital requirements through 1999, assuming the Company exercises the Stock Purchase Option for the combination of stock and cash as contemplated in the Registration Statement filed with the Securities and Exchange Commission ("SEC") on September 26, 1997, as further amended. Any increase in cash paid in connection with the Stock Purchase Option would reduce the Company's capital resources. The Company reserves the right, at any time prior to the closing of the exercise of the Stock Purchase Option, to make payment of a greater amount of the Stock Purchase Option exercise price in cash than set forth in the formal Notice of Exercise.

RESULTS OF OPERATIONS

THREE MONTHS ENDED SEPTEMBER 30, 1997 ("1997"), COMPARED WITH THREE MONTHS ENDED SEPTEMBER 30, 1996 ("1996")

The Company had revenues of $10.2 million for 1997 compared to revenues of $10.1 million for 1996. The slight increase in revenues is primarily due to increased contract research and development revenues from ALRT in 1997, offset by a milestone payment received from Pfizer Inc. ("Pfizer") in 1996. Revenues in 1997 were derived from the Company's research and development agreements with (i) ALRT of $6.7 million, (ii) American Home Products Corporation ("AHP") of $1.0 million, (iii) SmithKline Beecham Corporation ("SmithKline Beecham") of $1.0 million, (iv) Sankyo Company Ltd. ("Sankyo") of $667,000, (v) Glaxo-Wellcome plc ("Glaxo") of $432,000, (vi) Abbott Laboratories ("Abbott") of $300,000, as well as from product sales of Ligand Pharmaceuticals (Canada) Incorporated ("Ligand (Canada)") in-licensed products of $99,000. Revenues in 1996 were derived from the Company's research and development agreements with (i) ALRT of $5.5 million, (ii) AHP of $1.2 million, (iii) Sankyo of $692,000, (iv) SmithKline Beecham of $588,000, (v) Abbott of $540,000, (vi) Glaxo of $518,000, as well as from milestone payment received from Pfizer of $883,000, product sales of Ligand (Canada) in-licensed products of $43,000 and revenues from a National Institute of Health ("NIH") grant of $99,000.

For 1997, research and development expenses increased to $18.0 million from $15.1 million in 1996. These expenses increased primarily due to expansion of the Company's clinical retinoid program activities, as well as related additions of clinical and development personnel. Selling, general and administrative expenses increased to $2.5 million in 1997 from $2.1 million in 1996. The increase in selling, general and administrative expenses is due to personnel additions to support expanded clinical retinoid program activities. Interest income increased to $798,000 in 1997 from $730,000 in 1996. The increase was due to the completion of a public offering with net proceeds of approximately $35.2 million in October 1996, offset by usage of cash to support expansion of the clinical retinoid program

activities. Interest expense was $2.0 million in

both 1997 and 1996, and consisted of interest required by the Company's wholly-owned subsidiary, Glycomed Incorporated, ("Glycomed"), under its Convertible Subordinated Debentures ("Debentures"), accretion of debt discount under the Debentures, interest required under the convertible note to AHP, and capital lease obligations used to finance equipment.

NINE MONTHS ENDED SEPTEMBER 30, 1997 ("1997"), COMPARED WITH NINE MONTHS ENDED SEPTEMBER 30, 1996 ("1996")

The Company had revenues of $29.9 million for 1997 compared to revenues of $27.4 million for 1996. The increase in revenues is primarily due to a $6.1 million increase in contract research and development revenues from ALRT, offset by decreased revenues from the research and development agreement with AHP, due to a one time payment of $1.5 million in 1996, which expanded and amended the research and development agreement, as well as a $1.3 million milestone payment received from Pfizer in 1996. Revenues in 1997 were derived from the Company's research and development agreements with (i) ALRT of $18.9 million, (ii) AHP of $3.4 million, (iii) SmithKline Beecham of $2.5 million, (iv) Sankyo of $2.1 million, (v) Abbott of $1.4 million, (vi) Glaxo of $1.3 million and product sales of Ligand (Canada) in-licensed products of $325,000. Revenues in 1996 were derived from the Company's research and development agreements with (i) ALRT of $12.8 million, (ii) AHP of $5.6 million, (iii) Abbott of $2.0 million, (iv) Sankyo of $2.1 million, (v) SmithKline Beecham of $1.8 million, (vi) Glaxo of $1.6 million, as well as from milestone payment received from Pfizer of $1.3 million, products sales of Ligand (Canada) in-licensed products of $161,000 and revenues from an NIH grant of $99,000.

For 1997, research and development expenses increased to $51.4 million from $42.2 million in 1996. These expenses increased primarily due to expansion of the Company's clinical and development retinoid program activities, as well as related additions of clinical and development personnel. Selling, general and administrative expenses increased to $7.4 million in 1997 from $7.3 million in 1996. The increase was primarily attributable to additions to personnel in 1997 to support expanded clinical and development retinoid program activities, offset by higher legal expenses incurred in 1996 related to the settlement of future product rights litigation. Interest income increased to $2.8 million in 1997 from $2.7 million in 1996. The slight increase was due to the completion of a public offering in October 1996, offset by usage of cash to support expansion of the clinical and development retinoid program activities. Interest expense decreased slightly to $6.1 million in 1997 from $6.2 million in 1996 due to conversion of the AHP convertible notes to equity in 1997.

LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations through private and public offerings of its equity securities, collaborative research revenues, capital and operating lease transactions, issuance of convertible notes, investment income and product sales. From inception through September 1997, the Company has raised $163.9 million from sales of equity securities: $78.2 million from the Company's public offerings and an aggregate of $85.7 million from private placements and the exercise of options and warrants.

In March 1997 and again in July 1997, the Company converted $3.8 million and $2.5 million, respectively, of the convertible notes outstanding to AHP into 374,626 and 249,749 shares, respectively, of the Company's Common Stock at a $10.01 conversion price,

resulting in an outstanding balance of convertible notes to AHP of $5.0 million.

In February 1997, SmithKline Beecham provided a third installment equity investment of $2.5 million by purchasing 164,474 shares of the Company's Common Stock as a result of their election to expand the scope of research under its research agreement with the Company. The final installment of $2.5 million was provided in October 1997 to the Company as a convertible note as a result of SmithKline Beecham's election to extend the collaboration. The note is convertible into the Company's Common Stock at $13.56 per share and is due October 2002 unless converted into the Company's Common Stock earlier. The interest rate on the note is payable semi-annually at prime.

As of September 30, 1997, the Company had acquired an aggregate of $24.2 million in property, laboratory and office equipment, and $4.7 million in tenant leasehold improvements, substantially all of which has been funded through capital lease and equipment note obligations and which also includes laboratory and office equipment acquired in the Company's merger with Glycomed in May 1995. In addition, the Company leases its office and laboratory facilities under operating leases. In July 1994, the Company entered into a long-term lease related to the construction of a new laboratory facility, which was completed and occupied in August 1995. Prior to the end of 1997, the Company anticipates the closure of its Alameda facility at the expiration of its lease. Such closure will have no material effect on the Company's financial position. At the end of 1997, one of the Company's main operating lease agreements for office and research facilities

expires, at which time the Company plans to move into its second build-to-suit facility. In March 1997, the Company entered into a long-term lease, related to the build-to-suit facility and loaned the construction partnership $3.7 million which will be paid back monthly at an interest rate of 8.5% over a 10-year period. In February 1997, the Company signed a master lease agreement to finance future capital equipment up to $1.5 million, and in July 1997, the master lease agreement was extended to December 1998 to include up to an additional $4.5 million. Each individual schedule under the extended master lease agreement will be paid back monthly with interest over a five-year period. As of September 30, 1997, the Company had $4.1 million available to finance future capital equipment.

Working capital decreased to $42.6 million as of September 30, 1997, from $71.7 million at the end of 1996. The decrease in working capital resulted from an increase in cash from collaborative research agreements and equity investments, offset by an increase in operating expenses, as described above, semi-annual interest payments due on the Debentures and interest paid on convertible notes. For the same reasons, cash and cash equivalents, short-term investments, and restricted cash decreased to $53.6 million at September 30, 1997 from $84.2 million at December 31, 1996. The Company primarily invests its cash in United States government and investment grade corporate debt securities.

The Company believes that its available cash, cash equivalents, marketable securities and existing sources of funding will be adequate to satisfy its anticipated capital requirements through 1999, assuming the Company exercises the Stock Purchase Option for the combination of stock and cash as contemplated in the Registration Statement filed with the SEC on September 26, 1997,

as further amended. The Company has the ability to increase the amount of cash paid in connection with the Stock Purchase Option from the amount contained in the notice of the Company's exercise of the Stock Purchase Option at any time prior to the closing of the exercise of the Stock Purchase Option. Any such increase in cash would reduce the Company's capital resources.

The Company's future capital requirements will depend on many factors, including the pace of scientific progress in research and development programs, the magnitude of these programs, the scope and results of preclinical testing and clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims, competing technological and market developments, the ability to establish additional collaborations, changes in the existing collaborations, the cost of manufacturing scale-up and the effectiveness of the Company's commercialization activities.

RISKS AND UNCERTAINTIES

THE FOLLOWING ARE AMONG THE FACTORS THAT SHOULD ALSO BE CONSIDERED CAREFULLY IN EVALUATING LIGAND AND ITS WHOLLY-OWNED SUBSIDIARIES GLYCOMED INC. AND LIGAND (CANADA) INC. ("LIGAND" OR THE "COMPANY") AND ITS BUSINESS.

EARLY STAGE OF PRODUCT DEVELOPMENT;TECHNOLOGICAL UNCERTAINTY. Ligand was founded in 1987 and has not generated any revenues from the sale of products developed by Ligand or its collaborative partners. To achieve profitable operations, the Company, alone or with others, must successfully develop, clinically test, market and sell its products. Any products resulting from the Company's or its collaborative partners' product development efforts are not expected to be available for sale for at least several years, if at all.

The development of new pharmaceutical products is highly uncertain and subject to a number of significant risks. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons. Such reasons include the possibilities that potential products are found during preclinical testing or clinical trials to be ineffective or to cause harmful side effects, that they fail to receive necessary regulatory approvals, are difficult or uneconomical to manufacture on a large scale, fail to achieve market acceptance or are precluded from commercialization by proprietary rights of third parties. To date, Ligand's resources have been substantially dedicated to the research and development of potential pharmaceutical products based upon its expertise in IR and STATs technologies. Even though certain pharmaceutical products act through IRs, some aspects of the Company's IR technologies have not been used to produce marketed products. In addition, the Company is 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. Most of the Company's potential products will require extensive additional development, including preclinical testing and clinical trials, as well as regulatory approvals, prior to commercialization. No assurance can be given that the Company's product development efforts will be successful, that required regulatory approvals from the FDA or equivalent foreign authorities for any indication will be obtained or that any products, if introduced, will be capable of being produced in commercial quantities at reasonable costs or will be successfully marketed. Further, the Company has no sales and only limited marketing capabilities outside Canada, and even if the Company's products in internal development are approved for

marketing, there can be no assurance that the Company will be able to develop such capabilities or successfully market such products.

HISTORY OF OPERATING LOSSES; ACCUMULATED DEFICIT; FUTURE CAPITAL NEEDS; UNCERTAINTY OF ADDITIONAL FUNDING. Ligand has experienced significant operating losses since its inception in 1987. As of September 30, 1997, Ligand had an accumulated deficit of approximately $209.7 million. To date, substantially all of Ligand's revenues have consisted of amounts received under collaborative arrangements. The Company expects to incur additional losses at least over the next several years and expects losses to increase as the Company's research and development efforts and clinical trials progress.

The discovery and development of products will require the commitment of substantial resources to conduct research, preclinical testing and clinical trials, to establish pilot scale and commercial scale manufacturing processes and facilities, and to establish and develop quality control, regulatory, marketing, sales and administrative capabilities. The future capital requirements of the Company will depend on many factors, including the pace of scientific progress in its research and development programs, the magnitude of these programs, the scope and results of preclinical testing and clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims, competing technological and market developments, the ability to establish additional collaborations, changes in existing collaborations, the cost of manufacturing scale-up and the effectiveness of the Company's commercialization activities. To date, Ligand has not generated any revenue from the sales of products developed by Ligand or its collaborative partners. There can be no assurance that Ligand independently or through its collaborations will successfully develop, manufacture or market any products or ever achieve or sustain revenues or profitability from the commercialization of such products. Moreover, even if profitability is achieved, the level of that profitability cannot be accurately predicted. Ligand expects that operating results will fluctuate from quarter to quarter as a result of differences in the timing of expenses incurred and the revenues received from collaborative arrangements and other sources. Some of these fluctuations may be significant. The Company believes that its available cash, cash equivalents, marketable securities and existing sources of funding will be adequate to satisfy its anticipated capital requirements through 1998, assuming the Company does not increase the amount of cash payable in connection with its exercise of the Stock Purchase Option.

Glycomed's outstanding indebtedness includes $50 million principal amount of 7 1/2% Convertible Subordinated Debentures Due 2003 (the "Debentures"). There can be no assurance that Glycomed will have the funds necessary to pay the interest on and the principal of the Debentures or, if not, that it will be able to refinance the Debentures.

The Company expects that it will seek any additional capital needed to fund its operations through new collaborations, the extension of existing collaborations, or through public or private equity or debt financings. There can be no assurance that additional financing will be available on acceptable terms, if at all. Any inability of the Company to obtain additional financing or of Glycomed to service its obligations under the Debentures could have a material adverse effect on the Company.

UNCERTAINTIES RELATED TO CLINICAL TRIALS. Before obtaining required regulatory approvals for the commercial sale of each product under development, the Company and its collaborators must demonstrate through preclinical studies and clinical trials that such product is safe and efficacious for use. The results of preclinical studies and initial clinical trials are not

necessarily predictive of results that will be obtained from large-scale clinical trials, and there can be no assurance that clinical trials of any product under development will demonstrate the safety and efficacy of such product or will result in a marketable product. The safety and efficacy of a therapeutic product under development by the Company must be supported by extensive data from clinical trials. A number of companies have suffered significant setbacks in advanced clinical trials, despite promising results in earlier trials. The failure to demonstrate adequately the safety and efficacy of a therapeutic drug under development would delay or prevent regulatory approval of the product and could have a material adverse effect on the Company. In addition, the FDA may require additional clinical trials, which could result in increased costs and significant development delays.

The rate of completion of clinical trials of the Company's products is dependent upon, among other factors, obtaining adequate clinical supplies and the rate of patient accrual. Patient accrual is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites and the eligibility criteria for the trial. Delays in planned patient enrollment in clinical trials may result in increased costs, program delays or both, which could have a material adverse effect on the Company. In addition, some of the Company's current collaborative partners have certain rights to control the planning and execution of product development and clinical programs, and there can be no assurance that such corporate partners' rights to control aspects of such programs will not impede the Company's ability to conduct such programs in accordance with the schedules and in the manner currently contemplated by the Company for such programs. There can be no assurance that, if clinical trials are completed, the Company or its collaborative partners will submit an

NDA with respect to any potential products or that any such application will be reviewed and approved by the FDA in a timely manner, if at all.

RELIANCE ON COLLABORATIVE RELATIONSHIPS. The Company's strategy for the development, clinical testing, manufacturing and commercialization of certain of its potential products includes entering into collaborations with corporate partners, licensors, licensees and others. To date, Ligand has entered into drug discovery and development collaborations with SmithKline Beecham, AHP, Abbott, Sankyo, Glaxo, ALRT (which collaboration continues the work previously undertaken with Allergan through the Allergan Ligand Joint Venture) and Pfizer. These collaborations provide Ligand with funding and research and development resources for potential products for the treatment or control of hematopoiesis, women's health disorders, inflammation, cardiovascular disease, cancer and skin disease, and osteoporosis, respectively. The Company's collaborative agreements allow its collaborative partners significant discretion in electing to pursue or not to pursue any development program. There can be no assurance that the Company's collaborations will continue or that the collaborations will be successful. In addition, there can be no assurance that Ligand's collaborators will not pursue alternative technologies either on their own or in collaboration with others as a means of developing drugs competitive with the types of drugs currently being developed in collaboration with Ligand, and any such action may result in the withdrawal of support and increased competition for the Company's programs. In addition, if products are approved for marketing under these programs, any revenues to Ligand from these products will be dependent on the manufacturing, marketing and sales efforts of its collaborators, which generally retain commercialization rights under the collaborative agreements. Ligand's current collaborators also

generally have the right to terminate their respective collaborations under certain circumstances. If any of the Company's collaborative partners were to breach or terminate its agreements with the Company or otherwise fail to conduct its collaborative activities successfully, the development of the Company's products under such agreements would be delayed or terminated. The delay or termination of any of the collaborations could have a material adverse effect on Ligand.

There can be no assurance that disputes will not arise in the future with Ligand's collaborators, including with respect to the ownership of rights to any technology developed. For example, the Company was involved in litigation with Pfizer, which was settled in April 1996, with respect to Ligand's rights to receive milestones and royalties based on the development and commercialization of droloxifene. These and other possible disagreements between collaborators and the Company could lead to delays in the achievement of milestones or receipt of milestone payments or research revenue, to delays or interruptions in, or termination of, collaborative research, development and commercialization of certain potential products, or could require or result in litigation or arbitration, which could be time consuming and expensive and could have a material adverse effect on the Company.

UNCERTAINTY OF PATENT PROTECTION; DEPENDENCE ON PROPRIETARY TECHNOLOGY. The patent positions of pharmaceutical and biopharmaceutical firms, including Ligand, are uncertain and involve complex legal and technical questions for which important legal principles are largely unresolved. In addition, the coverage sought in a patent application can be significantly reduced before or after a patent is issued. This uncertain situation is also affected by revisions to the United States patent law adopted in recent years to give effect to international accords to which the United States has become a party. The extent to which such changes in law will affect the operations of Ligand cannot be ascertained. In addition, there is currently pending before Congress legislation providing for other changes to the patent law which may adversely affect pharmaceutical and biopharmaceutical firms. If such pending legislation is adopted, the extent to which such changes would affect the operations of the Company cannot be ascertained.

Ligand's success will depend in part on its ability to obtain patent protection for its technology both in the United States and other countries. A number of pharmaceutical and biotechnology companies and research and academic institutions have developed technologies, filed patent applications or received patents on various technologies that may be related to Ligand's business. Some of these patent applications, patents or technologies may conflict with Ligand's technologies or patent applications. Any such conflict could limit the scope of the patents, if any, that Ligand may be able to obtain or result in the denial of Ligand's patent applications. In addition, if patents that cover Ligand's activities are issued to other companies, there can be no assurance that Ligand would be able to obtain licenses to such patents at a reasonable cost, if at all, or be able to develop or obtain alternative technology. The Company has from time to time had, continues to have and may have in the future discussions with its current and potential collaborators regarding the scope and validity of the Company's patent and other proprietary rights to its technologies, including the Company's co-transfection assay. If a collaborator or other party were successful in having substantial patent rights of the Company determined to be invalid, it could adversely affect the ability of the Company to retain existing collaborations beyond their expiration or, where contractually permitted, encourage their termination. Such a determination could also adversely affect the Company's ability to enter into new collaborations. If any disputes should arise in the future with respect to the rights in any technology developed with a collaborator or with respect to other matters involving the collaboration, there could be delays in the achievement of

milestones or receipt of milestone payments or research revenues, or interruptions or termination of collaborative research, development and commercialization of certain potential products, and litigation or arbitration could result. Any of the foregoing matters could be time consuming and expensive and could have a material adverse effect on the Company.

Ligand owns or has exclusively licensed over 190 currently pending patent applications in the United States relating to Ligand's technology, as well as foreign counterparts of certain of these applications in many countries. There can be no assurance that patents will issue from any of these applications or, if patents do issue, that claims allowed will be sufficient to protect Ligand's technology. In addition, Ligand is the owner or exclusive licensee of rights covered by approximately 150 worldwide patents issued or allowed to it or to The Salk Institute of Biological Studies, Baylor College of Medicine and other licensors. Further, there can be no assurance that any patents issued to Ligand or to licensors of Ligand's technology will not be challenged, invalidated, circumvented or rendered unenforceable based on, among other things, subsequently discovered prior art, lack of entitlement to the priority of an earlier, related application, or failure to comply with the written description, best mode, enablement or other applicable requirements, or that the rights granted under any such patents will provide significant proprietary protection or commercial advantage to Ligand. The invalidation, circumvention or unenforceability of any of Ligand's patent protection could have a material adverse effect on the Company.

The commercial success of Ligand will also depend in part on Ligand's not infringing patents issued to competitors and not breaching technology licenses that cover technology used in Ligand's products. It is uncertain whether any third-party patents will require Ligand to develop alternative technology or to alter its products or processes, obtain licenses or cease certain activities. If any such licenses are required, there can be no assurance that Ligand will be able to obtain such licenses on commercially favorable terms, if at all. Failure by Ligand to obtain a license to any technology that it may require to commercialize its products could have a material adverse effect on Ligand. Litigation, which could result in substantial cost to Ligand, may also be necessary to enforce any patents issued or licensed to Ligand or to determine the scope and validity of third-party proprietary rights. There can be no assurance that Ligand's patents or those of its licensors, if issued, would be held valid by a court or that a competitor's technology or product would be found to infringe such patents. If any of its competitors have filed patent applications in the United States which claim technology also invented by Ligand, Ligand may be required to participate in interference proceedings declared by the U.S. Patent and Trademark Office ("PTO") in order to determine priority of invention and, thus, the right to a patent for the technology, which could result in substantial cost to Ligand to determine its rights.

Ligand has learned that a United States patent has been issued to, and foreign counterparts have been filed by, Hoffman LaRoche ("Roche") that include claims to a formulation of 9-cis-Retinoic acid (Panretin (ALRT1057)) and use of that compound to treat epithelial cancers. Ligand had previously filed an application which has an earlier filing date than the Roche patent and which has claims that the Company believes are broader than but overlap in part with claims under the Roche patent. Ligand's rights under its patent application have been exclusively licensed to ALRT. In connection with the exercise of the Stock Purchase Option and

the exclusive licensing arrangement with Allergan described in "Liquidity and Capital Resources," Ligand will acquire the exclusive right to develop and commercialize Oral and Topical Panretin (ALRT1057). Ligand and ALRT are currently investigating the scope and validity of this patent to determine its impact upon the Oral and Topical Panretin (ALRT1057) products. The PTO has informed Ligand that the overlapping claims are patentable to Ligand and stated its intention to initiate an interference proceeding to determine whether Ligand or Roche is entitled to a patent by having been first to invent the common subject matter. The Company cannot be assured of a favorable outcome in the interference proceeding because of factors not known at this time upon which the outcome may depend. In addition, the interference proceeding may delay the decision of the PTO regarding the Company's application with claims covering the Oral and Topical Panretin (ALRT1057) products. While the Company believes that the Roche patent does not cover the use of Oral and Topical Panretin (ALRT1057) to treat leukemias such as APL and sarcomas such as KS, or the treatment of skin diseases such as psoriasis, if the Company and ALRT do not prevail in the interference proceeding, the Roche patent might block the Company's use of Oral and Topical Panretin (ALRT1057) in certain cancers, and the Company may not be able to obtain patent protection for the Oral and Topical Panretin (ALRT1057) products.

Ligand also relies upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain its competitive position. There can be no assurance that others will not independently develop substantially equivalent proprietary information or otherwise gain access to or disclose such information regarding Ligand. It is Ligand's policy to require its employees, certain contractors, consultants, members of its Scientific Advisory Board and parties to collaborative agreements to execute confidentiality agreements upon the commencement of employment or consulting relationships or a collaboration with Ligand. There can be no assurance that these agreements will not be breached, that they will provide meaningful protection of Ligand's trade secrets or adequate remedies in the event of unauthorized use or disclosure of such information or that Ligand's trade secrets will not otherwise become known or be independently discovered by its competitors.

EXERCISE OF STOCK PURCHASE OPTION. If Ligand does not successfully complete the Stock Purchase Option, Allergan will have the right to acquire all of the outstanding Callable Common Stock and Ligand will have no further rights in the compounds or assets developed by ALRT. In addition, the recently-announced strategic alliance with Lilly is contingent upon Ligand successfully closing the exercise of the Stock Purchase Option and successfully closing the restructure with Allergan of the terms and conditions relating to research, development, commercialization and sublicense rights for the ALRT compounds.

The number of Shares to be delivered in payment of a portion of the Stock Purchase Option Exercise Price shall be determined by dividing the portion of the Stock Purchase Option Exercise Price to be paid in Shares by the average of the closing price of a Share on the Nasdaq National Market for the 20 trading days immediately preceding the day prior to the closing of the Stock Purchase Option Exercise (the "Average Value"). If the Stock Purchase Option Exercise closed on November 3, 1997, the Average Value of the Ligand Common Stock would be $16.396875, resulting in a total of 2,830,417 shares of Ligand Common Stock being issued in connection with the Stock Purchase Option Exercise. Ligand has the ability to increase the amount of cash paid in connection with the Stock Purchase Option from the amount

contained in the notice of Ligand's exercise of the Stock Purchase Option. Any such increase in cash would reduce Ligand's capital resources.

Upon the closing of the exercise of the Stock Purchase Option, Ligand will record a one-time charge to operations for the write-off of in-process technology currently estimated at approximately $53.0 million, related to the excess of the aggregate of the Stock Purchase Option Exercise Price over the fair value of the assets acquired.

In addition, continuation of development and commercialization of Oral and Topical Panretin (ALRT1057) and other products under development by ALRT to which Ligand will acquire exclusive rights under its exclusive licensing arrangement with Allergan will require substantial additional expenditures by Ligand. If Ligand does not successfully complete its exercise of the Stock Purchase Option prior to expiration, the Company may lose valuable rights, including rights to Oral and Topical Panretin (ALRT1057) and other ALRT assets.

LACK OF MANUFACTURING CAPABILITY; RELIANCE ON THIRD-PARTY MANUFACTURERS. Ligand currently has no manufacturing facilities and, accordingly, relies on third parties, including its collaborative partners, for clinical or commercial production of any compounds under consideration as products. Ligand is currently constructing and validating a cGMP pilot manufacturing capability in order to produce sufficient quantities of products for preclinical testing and initial clinical trials. If Ligand is unable to develop or contract on acceptable terms for manufacturing services, Ligand's ability to conduct preclinical testing and human clinical trials will be adversely affected, resulting in the delay of submission of products for regulatory approval and delay of initiation of new development programs, which in turn could materially impair Ligand's competitive position. Although drugs acting through IRs and STATs have been manufactured on a commercial scale by other companies, there can be no assurance that Ligand will be able to manufacture its products on a commercial scale or that such products can be manufactured by Ligand or any other party on behalf of Ligand at costs or in quantities to make commercially viable products.

LIMITED SALES AND MARKETING CAPABILITY. The creation of infrastructure to commercialize pharmaceutical products is a difficult, expensive and time-consuming process. Ligand currently has no sales and only limited marketing capability outside Canada. In Canada, Ligand has been appointed as the sole distributor of two oncology products, Proleukin(R), which was developed by Cetus Oncology Corporation and PHOTOFRIN(R), which was developed by QLT PhotoTherapeutics, Inc. To market any of its products directly, the Company will need to develop a marketing and sales force with technical expertise and distribution capability or contract with other pharmaceutical and/or health care companies with distribution systems and direct sales forces. There can be no assurance that the Company will be able to establish direct or indirect sales and distribution capabilities or be successful in gaining market acceptance for proprietary products or for other products. To the extent the Company enters into co-promotion or other licensing arrangements, any revenues received by the Company will be dependent on the efforts of third parties, and there can be no assurance that any such efforts will be successful.

SUBSTANTIAL COMPETITION; RISK OF TECHNOLOGICAL OBSOLESCENCE. Some of the drugs which Ligand is developing will compete with existing therapies. In addition, a number of companies are pursuing the development of novel pharmaceuticals which target the same diseases that Ligand is targeting as well as IR-related, STAT-related and complex carbohydrate-related approaches to drug discovery and development. Many of Ligand's existing or potential competitors, particularly large pharmaceutical companies, have substantially greater financial, technical and human resources than Ligand and may be better equipped to develop, manufacture

and market products. In addition, many of these companies have extensive experience in preclinical testing and human clinical trials, obtaining FDA and other regulatory approvals and manufacturing and marketing pharmaceutical products. Academic institutions, governmental agencies and other public and private research

organizations are conducting research to develop technologies and products that may compete with those under development by the Company. These institutions are becoming increasingly aware of the commercial value of their findings and are becoming more active in seeking patent protection and licensing arrangements to collect royalties for the use of technology that they have developed. These institutions also may market competitive commercial products on their own or through joint ventures and will compete with the Company in recruiting highly qualified scientific personnel. Any of these companies, academic institutions, government agencies or research organizations may develop and introduce products and processes competitive with or superior to those of Ligand. The development by others of new treatment methods for those indications for which Ligand is developing products could render Ligand's products noncompetitive or obsolete.

Ligand's products under development target a broad range of markets. Ligand's competition will be determined in part by the potential indications for which Ligand's products are developed and ultimately approved by regulatory authorities. For certain of Ligand's potential products, an important factor in competition may be the timing of market introduction of Ligand's or competitors' products. Accordingly, the relative speed at which Ligand or its existing or future corporate partners can develop products, complete the clinical trials and regulatory approval processes, and supply commercial quantities of the products to the market is expected to be an important competitive factor. Ligand expects that competition among products approved for sale will be based, among other things, on product efficacy, safety, reliability, availability, price and patent position.

Ligand's competitive position also depends upon its ability to attract and retain qualified personnel, obtain patent protection or otherwise develop proprietary products or processes, and secure sufficient capital resources.

EXTENSIVE GOVERNMENT REGULATION; NO ASSURANCE OF REGULATORY APPROVAL. The manufacturing and marketing of Ligand's products and its ongoing research and development activities are subject to and regulation for safety and efficacy by numerous governmental authorities in the United States and other countries. Prior to marketing, any drug developed by the Company must undergo rigorous preclinical and clinical testing and an extensive regulatory approval process mandated by the FDA and equivalent foreign authorities. These processes can take a number of years and require the expenditure of substantial resources.

The time required for completing such testing and obtaining such approvals is uncertain, and there is no assurance that any such approval will be obtained. The Company or its collaborative partners may decide to replace a compound in testing with a modified or optimized compound, thus extending the test period. In addition, delays or rejections may be encountered based upon changes in FDA policy during the period of product development and FDA review of each submitted new drug application or product license application. Similar delays may also be encountered in other countries. There can be no assurance that even after such time and expenditures, regulatory approval will be obtained for

any products developed by the Company. Moreover, prior to receiving FDA or equivalent foreign authority approval to market its products, the Company may be required to demonstrate that its products represent improved forms of treatment over existing therapies. If regulatory approval of a product is granted, such approval may entail limitations on the indicated uses for which the product may be marketed. Further, even if such regulatory approval is obtained, a marketed product, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections, and subsequent discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on such product or manufacturer, including withdrawal of the product from the market.

DEPENDENCE ON THIRD-PARTY REIMBURSEMENT AND HEALTH CARE REFORM. Ligand's commercial success will be heavily dependent upon the availability of reimbursement for the use of any products developed by the Company or its collaborative partners. There can be no assurance that Medicare and third-party payors will authorize or otherwise budget reimbursement for the prescription of any of Ligand's potential products. Additionally, third-party payors, including Medicare, are increasingly challenging the prices charged for medical products and services and may require additional cost-benefit analysis data from the Company in order to demonstrate the cost-effectiveness of its products. There can be no assurance that the Company will be able to provide such data in order to gain market acceptance of its products with respect to pricing and reimbursement.

In the United States, the Company expects that there will continue to be a number of federal and state proposals to implement government control of pricing and profitability of prescription pharmaceuticals. In addition, increasing emphasis on managed health care will continue to put pressure on such pricing. Cost control initiatives could decrease the price that the Company or any of its collaborative partners or other licensees receives for any drugs it or they may discover or develop in the future and, by preventing the recovery of development costs, which could be substantial, and an appropriate profit margin, could have a material adverse effect on the Company. Further, to the extent that cost control initiatives have a material adverse effect on the Company's collaborative partners, the Company's ability to commercialize its products and to

realize royalties may be adversely affected. Furthermore, federal and state regulations govern or influence the reimbursement to health care providers of fees and capital equipment costs in connection with medical treatment of certain patients. If any actions are taken by federal and/or state governments, such actions could adversely affect the prospects for sales of the Company's products. There can be no assurance that action taken by federal and/or state governments, if any, with regard to health care reform will not have a material adverse effect on the Company.

PRODUCT LIABILITY AND INSURANCE RISKS. Ligand's business exposes it to potential product liability risks which are inherent in the testing, manufacturing and marketing of human therapeutic products. Certain of the compounds the Company is investigating could be injurious to humans. For example, retinoids as a class are known to contain compounds which can cause birth defects. Ligand currently has limited product liability insurance; however, there can be no assurance that Ligand will be able to maintain such insurance on acceptable terms or that such insurance will provide adequate coverage against potential liabilities. The Company expects to procure additional insurance when its products progress to a later stage of development and if

any rights to later-stage products are in-licensed in the future. To the extent that product liability insurance, if available, does not cover potential claims, the Company will be required to self-insure the risks associated with such claims. A successful product liability claim or series of claims brought against the Company could have a material adverse effect on the Company.

DEPENDENCE ON KEY EMPLOYEES. Ligand is highly dependent on the principal members of its scientific and management staff, the loss of whose services might impede the achievement of development objectives. Furthermore, Ligand is currently experiencing a period of rapid growth which requires the hiring of significant numbers of scientific, management and operational personnel. Accordingly, recruiting and retaining qualified management, operations and scientific personnel to perform research and development work in the future will also be critical to Ligand's success. Although Ligand believes it will be successful in attracting and retaining skilled and experienced management, operational and scientific personnel, there can be no assurance that Ligand will be able to attract and retain such personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies, universities and other research institutions for such personnel.

USE OF HAZARDOUS MATERIALS. Ligand's research and development involves the controlled use of hazardous materials, chemicals and various radioactive compounds. For example, retinoids as a class are known to contain compounds which can cause birth defects. Although the Company believes that its current safety procedures for handling and disposing of such materials, chemicals and compounds, comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of any accident, the Company could be held liable for any damages that result and any such liability could be significant. The Company may incur substantial costs to comply with environmental regulations. Any such event could have a material adverse effect on the Company.

VOLATILITY OF STOCK PRICE. The market prices and trading volumes for securities of emerging companies, like Ligand, have historically been highly volatile and have experienced significant fluctuations unrelated to the operating performance of such companies. Future announcements concerning the Company or its competitors may have a significant impact on the market price of the Common Stock. Such announcements might include the results of research, development testing, technological innovations, new commercial products, government regulation, developments concerning proprietary rights, litigation or public concern as to the safety of the products.

ABSENCE OF CASH DIVIDENDS. No cash dividends have been paid on the Company's Common Stock to date, and Ligand does not anticipate paying cash dividends in the foreseeable future.

EFFECT OF SHAREHOLDER RIGHTS PLAN AND CERTAIN ANTI-TAKEOVER PROVISIONS. In September 1996, the Company's Board of Directors adopted a preferred shares rights plan (the "Shareholder Rights Plan") which provides for a dividend distribution of one preferred share purchase right (a "Right") on each outstanding share of the Common Stock. Each Right entitles stockholders to buy 1/1000th of a share of Ligand Series A Participating Preferred Stock at an exercise price of $100, subject to adjustment. The Rights will become exercisable following the tenth day after a person or group announces acquisition of 20% or more of the Company's Common Stock, or announces commencement of a tender offer, the consummation of which would result in ownership by the person or group of 20% or more of the Company's Common Stock. The Company will be entitled to redeem the Rights at $0.01 per Right at any time on or before the earlier of the tenth day following acquisition by a person or group of 20% or more of the Company's Common Stock and September 13, 2006.

Ligand's Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") includes a provision that requires the approval of the holders of 66 2/3% of Ligand's voting stock as a condition to a merger or certain other business

transactions with, or proposed by, a holder of 15% or more of Ligand's voting stock, except in cases where certain directors approve the transaction or certain minimum price criteria and other procedural requirements are met (the "Fair Price Provision"). The Certificate of Incorporation also requires that any action required or permitted to be taken by stockholders of Ligand must be effected at a duly called annual or special meeting of stockholders and may not be effected by any consent in writing. In addition, special meetings of the stockholders of Ligand may be called only by the Board of Directors, the Chairman of the Board or the President of Ligand or by any person or persons holding shares representing at least 10% of the outstanding Common Stock of the Company. The Shareholder Rights Plan, the Fair Price Provision and other charter provisions may discourage certain types of transactions involving an actual or potential change in control of Ligand, including transactions in which the stockholders might otherwise receive a premium for their shares over then current market prices, and may limit the ability of the stockholders to approve transactions that they may deem to be in their best interests. In addition, the Board of Directors has the authority to fix the rights and preferences of and issue shares of preferred stock, which may have the effect of delaying or preventing a change in control of Ligand without action by the stockholders.

PART II. OTHER INFORMATION

ITEM 5. OTHER INFORMATION

EXERCISE OF ALLERGAN LIGAND RETINOID THERAPEUTICS, INC. STOCK AND ASSET PURCHASE OPTIONS

In December 1994, the Company and Allergan, Inc. ("Allergan") formed ALRT to continue the research and development activities previously conducted by the Allergan Ligand Joint Venture (the "Joint Venture"). In June 1995, the Company and ALRT completed a public offering of 3,250,000 units (the "Units") with aggregate proceeds of $32.5 million (the "ALRT Offering") and cash contributions by Allergan and the Company of $50.0 million and $17.5 million, respectively, providing for net proceeds of $94.3 million for retinoid product research and development. Each Unit consisted of one share of ALRT's Callable Common Stock and two warrants, each warrant entitling the holder to purchase one share of the Company's Common Stock. Immediately prior to the consummation of the ALRT Offering, Allergan Pharmaceuticals (Ireland) Ltd., Inc. made a $6.0 million investment by purchasing 994,819 shares of the Company's Common Stock at $6.03 per share. The Company's $17.5 million cash contribution resulted in a one-time charge to operations. The Company also recorded a warrant subscription receivable and corresponding increase in paid-in capital of $5.9 million (6,500,000 warrants valued at $.90 per warrant) pursuant to the ALRT Offering. Since June 3, 1995, cash received from ALRT pursuant to a Research and Development

Agreement was prorated between contract revenue and the warrant subscription receivable based on their respective values. In 1996 and for the first nine months of 1997 and 1996, $2.1 million, $1.5 million and $1.4 million, respectively, of the proceeds received from ALRT were applied to the warrant subscription receivable. In conjunction with the consummation of the ALRT Offering, all rights held by the Joint Venture were licensed to ALRT. The Company, Allergan and ALRT entered into certain other agreements in connection with the funding of ALRT, including, a Technology License Agreement, a Commercialization Agreement and Services and Administrative Agreements, and ALRT granted to the Company and Allergan an option to acquire certain assets related to Oral and Topical Panretin (ALRT1057) and an option to acquire all the outstanding shares of ALRT Callable Common Stock. If the Company exercises the option, to acquire all ALRT Callable Common Stock, Allergan has an option to purchase an undivided 50% interest in all of the assets of ALRT.

On September 24, 1997, the Company and Allergan announced that they had exercised their respective options to purchase the Callable Common Stock and certain assets of ALRT. The Company's notice of exercise of the Stock Purchase Option included a stock purchase option exercise price of $21.97 per share of outstanding Callable Common Stock, the original exercise price designated for the exercise of the Stock Purchase Option at any time prior to June 3, 1998. Allergan's notice of exercise of its Asset Purchase Option included an aggregate asset purchase price of $8.9 million (the "Asset Purchase Option Exercise Price"), the original exercise price designated for the exercise of the Asset Purchase Option at any time prior to June 3, 1998 under the governing asset purchase agreement (the "Asset Purchase Agreement"). The Asset Purchase Option Exercise Price will be paid in cash to ALRT concurrently with the payment to holders of ALRT Callable Common Stock of the Stock Purchase Option Exercise Price and may be used to pay a portion of such Stock Purchase Option Exercise Price.

The Company and Allergan also agreed to restructure the terms and conditions relating to research, development, commercialization and sublicense rights for the ALRT compounds in the period following the closing of the exercise of the Company's Stock Purchase Option and Allergan's Asset Purchase Option. Prior to the restructuring and following the exercise of the Stock Purchase Option and Asset Purchase Option, the Company (and ALRT) and Allergan would have had equal, co-exclusive development, commercialization and sublicense rights in the compounds and assets developed by ALRT and a 50% interest in ALRT's liabilities. The Company (and ALRT) will receive exclusive, worldwide development, commercialization and sublicense rights to Oral and Topical Panretin (ALRT1057) (currently in pivotal Phase III clinical trials), ALRT1550 (currently in Phase I/IIa clinical trials for oncology applications) and ALRT268 and ALRT324 (two advanced preclinical RXR selective compounds); Allergan will receive exclusive, worldwide development, commercialization and sublicense rights to ALRT4310, an RAR antagonist being developed for topical application against mucocutaneous toxicity associated with currently marketed retinoids as well as for psoriasis. Allergan will also receive ALRT326 and ALRT4204 (two advanced preclinical Retinoid X Receptor ("RXR" selective compounds). In addition, the Company and Allergan have participated in a lottery for each of the approximately 2,000 retinoid compounds existing in the ALRT compound library as of the closing date (the "Lottery"), with each party to acquire exclusive, worldwide development, commercialization and sublicense rights to the compounds which they selected. The Company (and ALRT) and Allergan will each pay the other a royalty based on net sales of products developed from (i) the compounds selected by each in the Lottery and (ii) the other ALRT compounds to which each acquires exclusive rights. The Company will also pay to Allergan a royalty based on the Company's net sales of Targretin for uses other than oncology and dermatology

indications; in the event that the Company licenses commercialization rights to Targretin to a third party, the Company will pay to Allergan a percentage of royalties payable to the Company with respect to sales of Targretin other than in oncology and dermatology indications. On the closing of the exercise of the Stock Purchase Option and the Asset Purchase Option, the Company will pay to Allergan a non-refundable cash payment in the amount of $4.5 million.

COLLABORATION WITH ELI LILLY AND COMPANY

On October 20, 1997, the Company and Eli Lilly and Company ("Lilly") announced that they had entered into a strategic alliance for the discovery and development of products based upon the Company's IR technology. The collaboration will focus on products with broad applications across metabolic diseases. The closing of the transaction is subject to receipt of necessary regulatory approvals and is contingent upon the Company successfully closing the exercise of the Stock Purchase Option and successfully closing the restructure of the terms and conditions relating to research, development, commercialization and sublicense rights for the ALRT compounds as described above.

Lilly will receive worldwide, exclusive rights to Targretin (LGD1069) and other Company compounds and technology associated with the RXR receptor. Lilly will receive additional rights to use the Company's technology to develop an RXR compound in combination with a Selective Estrogen Receptor Modulator ("SERM") in cancer. The Company retains exclusive rights to independently research, develop and commercialize Targretin (LGD1069) and other RXR compounds in the fields of cancer and dermatology.

Lilly will also receive worldwide, exclusive rights in certain areas to the Company's peroxisome proliferator activated receptor ("PPAR") technology, along with rights to use PPAR research technology with the RXR technology. Lilly and the Company also intend to begin research programs aimed at discovering novel compounds which therapeutically activate PPAR subtypes for treatment of cardiovascular disease. Finally, Lilly will receive exclusive rights to the Company's hepatic nuclear factor 4 ("HNF4") receptor and the obesity gene promoter technology.

The Company has the option to obtain selected rights to one Lilly specialty pharmaceutical product. The product would fit into a current area of strategic focus for the Company. Should the Company elect to obtain selected rights to the product, Lilly could receive milestones of up to $20 million in the Company stock. In the event that the Company does not exercise this product option during the first 90 days after the effective date of the agreements, currently anticipated to occur one business day following the closing of the exercise of the Stock Purchase Option, the Company will sell an additional $20 million in equity to Lilly at a 20% premium to the then market price, and the Company will qualify for certain additional royalties of up to 1.5% on net sales of the Company's choice of Targretin (LGD1069), ALRT268 (LGD1268) or ALRT324 (LGD1324).

The Company will receive double-digit royalties on net sales of the most advanced products and single-digit royalties on net sales of earlier compounds. The Company will also receive milestones, royalties and options to obtain certain co-development and co-promotion rights for the Lilly-selected RXR compound in combination with a SERM.

Lilly will make a $37.5 million equity investment in the Company upon the closing of the transaction and will, thereafter, pay to the Company $12.5 million in upfront milestones.

ITEM 6 (A) EXHIBITS

Exhibit 10.164 Third Amendment to Agreement, dated September 2, 1997, between the Company and American Home Products Corporation.

Exhibit 27.0 Financial Data Schedule

ITEM 6 (B) REPORTS ON FORMS 8-K

None.

LIGAND PHARMACEUTICALS INCORPORATED

September 30, 1997

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Ligand Pharmaceuticals Incorporated

Date: November 13, 1997 By /s/ Paul V. Maier

Paul V. Maier
Senior Vice President and
Chief Financial Officer

[AMERICAN HOME PRODUCTS CORPORATION LETTERHEAD]

August 20, 1997

William L. Respess, Esq.
Senior Vice President
General Counsel, Government Affairs
Ligand Pharmaceuticals, Inc.
9393 Towne Centre Drive
San Diego, CA 92121

Dear Larry:

Enclosed please find one fully executed original of the Third Amendment to the Agreement. Best regards.

Sincerely,

/s/ GARRETT L. STACKMAN

Garrett L. Stackman

cc: George Tarnowski, Esq.
Wyeth-Ayerst Laboratories

THIRD AMENDMENT TO AGREEMENT

This Third Amendment to Agreement, effective September 2, 1997, is by and between AMERICAN HOME PRODUCTS CORPORATION ("AHP"), A Delaware corporation, as represented by its Wyeth-Ayerst Research Division, having its principal place of business at 533 East Lancaster Pike, St. Davids, Pennsylvania, and LIGAND PHARMACEUTICALS INCORPORATED ("Ligand"), a Delaware corporation having its principal place of business at 9393 Towne Centre Drive, San Diego, California.

WHEREAS, AHP and Ligand have previously entered into a Research, Development and License Agreement effective September 2, 1994 (the "Agreement") under which inter alia, AHP sponsors research at Ligand with the goal of discovering and or/designing small molecule compounds which act through the estrogen and progesterone receptors and to develop pharmaceutical products from such compounds;

WHEREAS, the scope of the Agreement was subject to an Option Agreement effective September 2, 1994 under which AHP had the option exercisable on or after January 1, 1996 inter alia, to expand the scope of research at Ligand, which option was timely exercised by AHD;

WHEREAS, the Agreement was amended pursuant to an Amendment to Agreement effective January 16, 1996, inter alia, to permit Wyeth-Ayerst to develop certain compounds originating from Ligand;

WHEREAS, the Agreement was amended pursuant to a Second Amendment to Agreement effective May 24, 1996, inter alia, to bring within the scope of the Agreement certain compounds under development by AHP;

WHEREAS, the Agreement as modified by exercise of the Option Agreement and by adoption of the Amendment to the Agreement and Second Amendment to Agreement defines a Research Program which is subject to a Research Program Term which expires September 2, 1997, unless extended by AHP pursuant to Section 3.3 of the Agreement or by mutual agreement of the parties; and

WHEREAS, the parties wish to extend the Research Program Term for an

additional year and otherwise amend the modified Agreement, inter alia, to limit the research at Ligand supported by AHP to the discover and/or design of drugs acting through the progesterone receptor.

NOW, THEREFORE, in consideration of the foregoing and of the mutual covenants hereinafter set forth, it is agreed by AHP and Ligand as follows:

1. Terms not otherwise defined herein shall have the meanings given them in the Agreement, the Option Agreement, the Amendment to Agreement or Second Amendment to Agreement.

2. The Research Program Term is extended until September 2, 1998. The aggregate Annual Research Fee for contract year 4 shall be $2,000,000.

3. The composition of the PMC shall be as follows:

Ligand Representatives	AHP Representatives
Dr. Leonard Fish	Dr. Richard Lyttle
Dr. William Schrader	Dr. Magid Abou-Gharbia
Dr. Todd Jones	Dr. Richard Jackson
Dr. Andres Negro-Vilar (Alternate)	Dr. Richard Winneker (Alternate)

4. Effective September 3, 1997, Section 1.20 of the Agreement is amended to read as follows:

> 1.20 "Research Compound" shall mean compound, including an Existing Compound for which AHP acquires rights under Article 7 of this Agreement, which is identified or confirmed as acting through or mediating the activity of a Designated Receptor, provided further, that (i) in the case of a compound which acts through or mediates the estrogen receptor, identification or confirmation by Ligand must occur prior to September 3, 1997 and by AHP prior to March 3, 1999 and (ii) in the case of a compound which acts through or mediates the progesterone receptor (all isoforms and splice variants), identification or

> confirmation must occur (a) during the term of the Research Program or (b), except in the case of termination by AHP under Section 16.3, below, by AHP within eighteen (18) months after expiration or earlier termination of the Research Program.

5. Effective September 3, 1997, Section 3.3 of the Agreement is amended by adding the following sentence at the end of that section:

> Notwithstanding the foregoing, the one year extension of the Research Program provided for in the Third Amendment to the Agreement does not give rise to the obligation under the Stock and Note Purchase Agreement to make the third installment as defined therein.

6. Effective September 3, 1997, Section 3.5.1 of the Agreement is

amended by deleting the last sentence and adding the following:

Additionally, except as expressly permitted under this Agreement, Ligand shall not engage in any activity with any third party in the Field prior to March 3, 1998 with respect to the discovery, development or commercialization of a compound which acts through or mediates the activity of the estrogen receptor (all isoforms and splice variants).

7. Effective September 3, 1997, Section 3.5.2 of the Agreement shall read as follows:

3.5.2 Notwithstanding the provisions of Section 3.5.1 above, but subject to AHP's license rights under Article 6 below and the parties' confidentiality obligations set forth in Articles 13 and 14 below, during the Research Program Term Ligand shall have the right to use Designated Receptors to engage in (a) pilot internal research programs in the Field; (b) compound screening with or for non-commercial third parties; provided, however, that no screening shall be done with or for a non-commercial third party under terms which do not provide Ligand with material rights to progesterone ligands discovered in such screening which would permit their adoption as Research Compounds under this Agreement; and (c), alone or with any Affiliate or third party, to engage in (i) cross-reactivity testing and (ii) toxicology testing. These activities will not use a compound or information supplied by AHP or information gained from screening compounds supplied by AHP. In the event that a compound identified by Ligand as a part of the screening activity under (a) or (b) above shares activity on the progesterone receptor and another receptor, such a compound will be deemed a Research Compound if so designated by the PMC.

8. Effective September 3, 1997, Section 3.8 of the Agreement shall read as follows:

Ligand-in-Licensed Compounds. Ligand retains the right to in-license from third parties and develop and commercialize on its own behalf and through third parties, including Affiliates and sublicensees, compounds which are agonists or antagonists of the Designated Receptors; provided, however, that until expiration of the Research Program Term, such in-licensed compounds are, if they act through the progesterone receptor, at least development stage compounds, but including more advanced compounds up to and including compounds approved for marketing. As used in this Section 3.8, a "development stage" compound is a compound requiring only process and scale-up development and preclinical toxicology and pharmacology investigation to complete IND requirements.

9. Effective September 3, 1997, Article 8 of the Agreement is amended by the addition thereto of the following new Section 8.7:

8.7 Limited Extension of Designation of a Ligand Compound. Ligand, having completed the screening of the WARD compound library in accordance with Section 8.1 and 8.2 of the Agreement, has provided AHP with a list of screened compounds it has identified as a result of that screening. Section 8.3 of the Agreement provides that Ligand must give notice to AHP of its intention to designate any screened compound(s) as lead compound(s) within one year of

Ligand's initial screening of the compound(s). As of the date of this Third Amendment, Ligand has not given AHP any notice as described above. Accordingly, in order to provide Ligand additional time to complete a full

evaluation of the compounds it has identified from the WARD compound library, AHP shall extend the time for Ligand to designate a screened compound as a lead compound for further development by a period not to exceed six (6) months from the effective date of this Third Amendment. During that six (6) month period, Ligand can request resupply of compounds as provided under the last sentence of Section 8.2 of the Agreement that it has previously screened.

10. Except as expressly amended or supplemental by this Third Amendment to Agreement, all of the terms and conditions of the Agreement, Option Agreement, Amendment to Agreement, and Second Amendment to Agreement shall remain in full force and effect in accordance with their terms. No agreement or understanding bearing in this Third shall be binding on either party hereto unless it shall be in writing and signed by the duly authorized officers or represenatatives of each AHP and Ligand shall expressly refer to this Third Amendment to Agreement.

IN WITNESS WHEREOF, the parties have caused the Amendment to be executed by their duly authorized representatives.

AMERICAN HOME PRODUCTS CORPORATION	LIGAND PHARMACEUTICALS INCORPORATED
BY: /s/ Gerald A. Jibilian	BY: /s/ William L. Respess
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(Signature)	(Signature)
Title: Vice President	Titles: Sr. Vice President, General Counsel, Government Affairs

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This schedule contains summary financial information extracted from SEC Form 10Q for the nine months ended September 30, 1997 and is qualified in its entirety by reference to such financial statements.
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