AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON NOVEMBER 17, 1997

REGISTRATION NO. 333-36535

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 2

TO

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

LIGAND PHARMACEUTICALS INCORPORATED
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

<TABLE>
<S> <C> <C>

DELAWARE	8731	77-0160744
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE)	(I.R.S. EMPLOYER IDENTIFICATION NO.)

</TABLE>

9393 TOWNE CENTRE DRIVE, SAN DIEGO, CALIFORNIA 92121 (619) 535-3900
(ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

DAVID E. ROBINSON
CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER
LIGAND PHARMACEUTICALS INCORPORATED
9393 TOWNE CENTRE DRIVE, SAN DIEGO, CALIFORNIA 92121
(619) 535-3900
(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

COPIES TO:

FAYE H. RUSSELL, ESQ.
MARIA P. SENDRA, ESQ.
BROBECK, PHLEGER & HARRISON LLP
550 WEST C STREET, SUITE 1300
SAN DIEGO, CALIFORNIA 92101

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box: [ ]

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: [ ] _____

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement

for the same offering: [ ] _____

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: [ ] _____

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box: [ ]

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

SUBJECT TO COMPLETION, DATED NOVEMBER 17, 1997

PROSPECTUS

3,107,596 SHARES

LIGAND PHARMACEUTICALS INCORPORATED

Common Stock
(par value $.001 per share)

This Prospectus relates to the public offering, which is not being underwritten, of up to 3,107,596 shares of Common Stock, par value $.001 per share (the "Shares"), of Ligand Pharmaceuticals Incorporated ("Ligand" or the "Company"), with an aggregate value of $46,410,000. All of these Shares will be issued to the stockholders of Allergan Ligand Retinoid Therapeutics, Inc. ("ALRT") who will receive such Shares in connection with the exercise by Ligand of its option (the "Stock Purchase Option") to acquire all of the outstanding shares of ALRT Callable Common Stock, $0.001 par value per share ("the "Callable Common Stock"). The number of Shares to be delivered in payment of a portion of the Stock Purchase Option Exercise Price (as defined herein) is determined by dividing $46,410,000 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 exercise of the Stock Purchase Option. The shares of Callable Common Stock were originally issued pursuant to a subscription offering of rights to purchase units consisting of one share of the Callable Common Stock and two warrants to purchase the Common Stock of Ligand (the "Subscription Offering"), which subscription offering was completed on June 3, 1995. The issuance of the Shares is being registered by the Company pursuant to obligations of Ligand, set forth in Article V of the Amended and Restated Certificate of Incorporation of ALRT (the "ALRT Certificate"), to provide the holders of Callable Common Stock with shares of Ligand Common Stock covered by an effective registration statement upon exercise of the Stock Purchase Option. See "Business -- Strategic Alliances -- Allergan, Inc." and "Business -- Recent Developments."

A formal Notice of Exercise and a Letter of Transmittal for use in surrendering the certificates representing the shares of Callable Common Stock for payment in the form of cash and certificates representing the Shares has previously been delivered to all stockholders of ALRT. The Letter of Transmittal contains instructions that should be read carefully. No fractional Shares shall be issued by the Company. Any holder of Callable Common Stock entitled to receive a fraction of a Share will be paid in cash an amount equal to such fraction of a Share multiplied by the value of a Share determined in accordance with the provisions described herein.

The Shares are being issued in partial consideration of the per-share exercise price of $21.97 (the "Stock Purchase Option Exercise Price"). Pursuant to the formal Notice of Exercise, Ligand has notified the Callable Common Stockholders it intends to pay $7.69 per share of Callable Common Stock in cash and $14.28 per share of Callable Common Stock in the Shares. Notwithstanding the foregoing, and in accordance with the terms of Article V of the ALRT Certificate, Ligand 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. On September 24, 1997, Allergan, Inc. ("Allergan") gave notice to Ligand and ALRT of Allergan's election to exercise its option to purchase certain assets of ALRT (the "Asset Purchase Option"), pursuant to Section 1.5 of the Asset Purchase Agreement. In accordance with the terms of the Asset Purchase Agreement, Allergan's exercise price is $8,900,000, all of which will be paid to ALRT in cash. See "Certain Transactions -- Relationship Among Allergan Ligand Retinoid Therapeutics, Inc., Ligand and Allergan -- Asset Purchase Agreement."

Ligand Common Stock is traded on the Nasdaq National Market ("Nasdaq National Market") under the symbol "LGND." On November 17, 1997, the last sale price of Ligand Common Stock as reported on the Nasdaq National Market was $14 1/16 per share. The Callable Common Stock is traded on the Nasdaq National Market under the symbol "ALRI" and, as of October 31, 1997, the number of shares of outstanding Callable Common Stock was 3,250,000.

THE COMMON STOCK OFFERED HEREBY INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS."

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THE DATE OF THIS PROSPECTUS IS NOVEMBER 19, 1997.

AVAILABLE INFORMATION

The Company is subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files annual and quarterly reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). Such reports, proxy statements and other information may be inspected at the Commission's Public Reference Section, Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, as well as at the Commission's regional offices at 7 World Trade Center, 13th Floor, New York, New York 10048; and Northwest Atrium Center, 500 West Madison Street, Room 1400, Chicago, Illinois 60661-2511. Copies of such materials can also be obtained at prescribed rates from the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549. In addition, the Commission maintains a World Wide Web site on the Internet at http://www.sec.gov that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Commission. The Company's Common Stock is traded on the Nasdaq National Market, and copies of such materials can also be inspected at the offices of the National Association of Securities Dealers, Inc., 1735 K Street, N.W.,

Washington, D.C. 20006.

Ligand(R) and Targretin(TM) are trademarks of the Company, Galardin(TM) is a trademark of the Company's wholly-owned subsidiary, Glycomed Incorporated, and Panretin(TM) is a trademark of Allergan Ligand Retinoid Therapeutics, Inc. Proleukin(R) is a registered trademark of Cetus Oncology Corporation, a wholly-owned subsidiary of Chiron Corporation, and PHOTOFRIN(R) is a registered trademark of QLT Phototherapeutics, Inc. All other brand names or trademarks appearing in this Prospectus are the property of their respective owners.

The Company was incorporated in Delaware in 1987. The Company's principal executive offices are located at 9393 Towne Centre Drive, San Diego, California 92121, and its telephone number is (619) 535-3900.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and the Consolidated Financial Statements and Notes thereto appearing elsewhere and incorporated by reference in this Prospectus, including the information under "Risk Factors." Unless the context otherwise requires, references in this Prospectus to "Ligand" and the "Company" are to Ligand Pharmaceuticals Incorporated and its wholly-owned subsidiaries, Glycomed Incorporated, a California corporation ("Glycomed"), Ligand Pharmaceuticals (Canada) Incorporated, a corporation organized under the laws of the Canadian province of Saskatchewan ("Ligand Canada") and, following the closing of the exercise of the Stock Purchase Option, ALRT. This Prospectus may contain, in addition to historical information, forward-looking statements that involve risks and uncertainties. The Company's actual results and the timing of certain events could differ materially from those discussed in or projected by the forward-looking statements. Factors that could cause or contribute to such differences include those discussed under "Risk Factors," as well as those discussed elsewhere in this Prospectus. See "Special Note Regarding Forward-Looking Statements."

THE COMPANY

Ligand, a Delaware corporation, is a biopharmaceutical company engaged in the discovery and development of small-molecule drugs which mimic or block the activities of various hormones and cytokines to regulate gene activity and the genetic processes affecting many diseases. The Company's drug discovery and development programs are based on its proprietary technologies involving two natural mechanisms that regulate gene activity: (i) hormone-activated Intracellular Receptors ("IRs") and (ii) cytokine-activated Signal Transducers and Activators of Transcription ("STATs"). IRs play key roles in many disease processes, including certain cancers, disorders of women's health, cardiovascular diseases, inflammatory disorders and skin diseases. Similarly, STATs influence many biological processes, including cancer, inflammation and blood cell formation. In programs acquired with the Glycomed Incorporated ("Glycomed") and Ligand merger in May 1995 (the "Merger"), Ligand is also seeking to develop orally active drugs to modulate biological processes involving complex carbohydrates and other cell surface components for the treatment of inflammation and cancer.

Ligand is developing new drugs through a combination of internal and collaborative programs, including the formation of a research and development company, ALRT with Allergan, Inc. ("Allergan") and substantial collaborations with SmithKline Beecham Corporation ("SmithKline Beecham"), the Wyeth-Ayerst Laboratories Division of American Home Products Corporation ("AHP"), Abbott Laboratories ("Abbott"), Glaxo-Wellcome plc (formerly Glaxo, Inc.) ("Glaxo") and Sankyo Company, Ltd. ("Sankyo"). Following the closing of the exercise of the Stock Purchase Option, ALRT will be a wholly owned subsidiary of the Company and research, development, commercialization and sublicense rights for the ALRT compounds will subsequently be restructured. See "-- Recent Developments."

Through a combination of internal and partnered programs, supplemented by selective in-licensing of approved cancer products, Ligand has built a pipeline of numerous products in advanced preclinical testing, clinical development or

commercialization stages. Ligand is conducting human clinical trials with five products. Oral Panretin (ALRT1057), Topical Panretin (ALRT1057) and Oral ALRT 1550 are retinoids that may be useful for the treatment of various cancers, such as KS, and diseases of the skin and eyes and are being developed by Ligand and Allergan on behalf of ALRT. See "Business -- Strategic Alliances -- Allergan, Inc." The Company has initiated Phase III trials for Topical Panretin (ALRT1057) in Kaposi's Sarcoma ("KS") intended to support a New Drug Application ("NDA"). Ligand intends to file an NDA for this compound in early 1998 on behalf of ALRT, in the event that Phase III trials demonstrate sufficient safety and efficacy. Oral Panretin (ALRT1057) has entered Phase III clinical trials in APL and IIB clinical trials in various cancers.

Ligand is also performing clinical trials for the retinoids Oral Targretin (LGD1069) and Topical Targretin (LGD1069), to which Ligand has worldwide exclusive rights. Interim data from a Phase I/II study of Topical Targretin (LGD1069) in skin lymphoma have demonstrated significant activity, and based on discussions with the U.S. Food and Drug Administration ("FDA") on trial design, the Company has launched Phase III clinical trials in this indication with Topical Targretin (LGD1069) and Phase II/III trials

in this indication with Oral Targretin (LGD1069), each intended to support an NDA. The Company has received reports on interim findings from the University of Texas M.D. Anderson Cancer Center with respect to certain Phase II/III trials of Oral Targretin (LGD1069) intended to support an NDA in CTCL. See "Business -- Product Development Program -- Retinoids -- Topical Targretin (LGD1069) and Oral Targretin (LGD1069)." The Company has launched Phase II/III clinical trials with Oral Targretin (LGD1069) in various forms of cancer, including lung cancer. There can be no assurance that the clinical trials will proceed as planned or that any drugs will be successfully developed or commercialized.

To date, Ligand has entered into collaborations with seven corporate partners which include, in addition to ALRT: SmithKline Beecham (for hematopoietic growth factor mimetics for use in oncology and treatment of anemia), AHP (for women's health, e.g., hormone replacement therapy, osteoporosis, fertility control), Abbott (for inflammatory diseases), Sankyo (for inflammatory diseases, utilizing selected Glycomed technologies), Glaxo (for atherosclerosis and other diseases affecting the cardiovascular system) and Pfizer Inc. ("Pfizer") (for osteoporosis). These partners provide discovery resources complementary to those of Ligand and are expected to facilitate the development and commercialization of potential products for primary care markets. The collaborative partners have also been an important funding source for Ligand, contributing approximately two-thirds of its invested capital to date. In addition to ALRT, which was capitalized with $100.0 million to accelerate research and development of certain retinoid compounds (including cash contributions of $50.0 million and $17.5 million by Allergan and Ligand, respectively), Ligand's research activities have been supported by commitments from its partners of up to $90.2 million for research funding. Ligand's collaborative partners have also committed up to $96.5 million of additional equity and convertible notes to Ligand, of which $89.0 million has been received through September 30, 1997, and the remaining $7.5 million is subject to Ligand attaining certain milestones.

RECENT DEVELOPMENTS

ALRT. On September 24, 1997, Ligand and Allergan announced that they had exercised their respective options to purchase the Callable Common Stock and certain assets of ALRT. Ligand'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.

Ligand 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 Ligand's Stock Purchase Option and Allergan's Asset Purchase Option. See "Business -- Strategic Alliances -- Allergan, Inc." Prior to the restructuring and following the exercise of the Stock Purchase Option and Asset Purchase Option, Ligand 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. See "Certain Transactions -- Relationship Among Allergan Ligand Retinoid Therapeutics, Inc., Ligand and Allergan -- Stock Purchase Option" and "-- Asset Purchase Agreement." Under the restructured arrangement, however, Ligand 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 Retinoid X Receptor ("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 RXR selective compounds). In addition, Ligand 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. Ligand 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. Ligand will also pay to Allergan a royalty based on Ligand's net sales of Targretin for uses other than oncology and dermatology indications; in the event that Ligand licenses commercialization rights to Targretin to a third party, Ligand will pay to Allergan a percentage of royalties payable to Ligand with respect to sales of Targretin other than in oncology and dermatology indications. Under the restructured arrangement, on the closing of the exercise of the Stock Purchase Option and the Asset Purchase Option Ligand will pay to Allergan a non-refundable cash payment in the amount of $4.5 million.

Glycomed. On October 2, 1997, the Company announced the closure of the Alameda facility housing Glycomed at the expiration of the leases in October 1997. In connection with this closure, Glycomed's assets and programs will be transferred for integration with the Company's San Diego operations.

Eli Lilly and Company. On October 20, 1997, the Company and Eli Lilly and Company ("Lilly") announced that they intend to enter into a strategic alliance for the discovery and development of products based upon Ligand's IR technology. The collaboration will focus on products with broad applications across metabolic diseases, including diabetes, obesity, dislipidemia, insulin resistance and cardiovascular diseases associated with insulin resistance and obesity. The transaction is subject to receipt of necessary regulatory approvals and is contingent upon Ligand 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. As a result, no assurance can be given that the transaction will close or that the strategic alliance will be consummated until all appropriate requirements have been met.

Under the proposed alliance:

- Lilly will receive worldwide, exclusive rights to Targretin (LGD1069) and other Ligand compounds and technology associated with the RXR receptor. Lilly will receive additional rights to use Ligand technology to develop an RXR compound in combination with a Selective Estrogen Receptor Modulator ("SERM") in cancer. Ligand 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 Ligand's peroxisome proliferator activated receptor ("PPAR") technology, along with rights to use PPAR research technology with the RXR technology. Lilly and Ligand 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 Ligand's hepatic nuclear factor 4 ("HNF4") receptor and the obesity gene promoter technology.

- Ligand 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 Ligand. Should Ligand elect to obtain selected rights to the product, Lilly could receive milestones of up to $20 million in Ligand stock. In the event that Ligand 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, Ligand will sell an additional $20 million in equity to Lilly at a 20% premium to the then market price, and Ligand will qualify for certain additional royalties of up to 1.5% on net sales of Ligand's choice of Targretin (LGD1069), ALRT268 (LGD1268) or ALRT324 (LGD1324).

- Ligand will receive double-digit royalties on net sales of the most advanced products and single-digit royalties on net sales of earlier compounds. Ligand 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 Ligand upon the closing of the transaction and will, thereafter, pay to Ligand $12.5 million in upfront milestones.

THE OFFERING

<TABLE>
<S> <C>
Common Stock to be issued by the Company..... 3,107,596 shares
Common Stock to be outstanding after the
Offering..... 36,085,534 shares(1)
Nasdaq National Market symbol..... LGND
</TABLE>

SUMMARY CONSOLIDATED FINANCIAL DATA

The following summary consolidated financial data should be read in conjunction with Ligand's consolidated financial statements included elsewhere herein and "Management's Discussion and Analysis of Financial Condition and Results of Operations" which are included elsewhere in this Prospectus.

<TABLE>
<CAPTION>

	YEARS ENDED DECEMBER 31,					NINE MONTHS ENDED SEPTEMBER 30,	
	1992	1993	1994	1995	1996	1996	1997
	(IN THOUSANDS, EXCEPT NET LOSS PER SHARE)						
CONSOLIDATED STATEMENT OF OPERATIONS DATA:							
Revenues:	$ 5,883	$ 16,262	$ 13,309	$ 24,516	$ 36,842	$ 27,352	$ 29,900
Costs and expenses:							
Research and development	14,220	24,301	27,205	41,636	59,494	42,174	51,353
Selling, general and administrative	4,144	6,192	6,957	8,181	10,205	7,278	7,379
Write-off of acquired in-process technology	--	--	--	19,564	--	--	--
ALRT contribution	--	--	--	17,500	--	--	--
Total operating expenses	18,364	30,493	34,162	86,881	69,699	49,452	58,732
Loss from operations	(12,481)	(14,231)	(20,853)	(62,365)	(32,857)	(22,100)	(28,832)
Interest income (expense), net	198	1,652	619	(1,807)	(4,456)	(3,433)	(3,285)
Equity in operations of Joint Venture	(1,724)	(6,879)	(6,845)	--	--	--	--
Net loss	$(14,007)	$(19,458)	$(27,079)	$(64,172)	$(37,313)	$(25,533)	$(32,117)
Net loss per share	$ (3.96)	$ (1.19)	$ (1.57)	$ (2.70)	$ (1.30)	$ (.91)	$ (.99)
Shares used in computing net loss per share(2)	3,537	16,357	17,241	23,792	28,781	28,073	32,484

	SEPTEMBER 30, 1997	
	ACTUAL	PRO FORMA AS ADJUSTED(3)
	(IN THOUSANDS)	
CONSOLIDATED BALANCE SHEET DATA:		
Cash, cash equivalents and short-term investments(4)	$ 53,614	$ 44,005
Working capital	42,647	30,962
Total assets	77,939	68,404
Long-term debt	13,711	13,711
Convertible subordinated debentures(5)	35,959	35,959
Accumulated deficit	(209,711)	(273,946)
Total stockholders' equity	16,110	4,425

- ---

(1) As of September 30, 1997. Excludes (a) 4,001,104 shares of Common Stock issuable upon the exercise of outstanding options under the Company's stock option plans (at a weighted average exercise price of $9.99 per share), (b) 767,063 shares of Common Stock available for future grants under such plans or issuance under the Company's stock purchase plan, (c) 6,615,719 shares of Common Stock issuable upon exercise of outstanding warrants (at a weighted average exercise price of $7.21 per share), (d) 499,500 shares of Common Stock issuable upon conversion of the principal amount outstanding under convertible promissory notes, (e) 1,885,370 shares of Common Stock issuable upon conversion of the principal amount outstanding under Glycomed's 7 1/2% Convertible Subordinated Debentures Due 2003. See "Capitalization," "Business -- Strategic Alliances" and "Description of Capital Stock."

(2) Net loss per share is computed using the weighted average number of common shares outstanding (see Note 2 of Notes to Consolidated Financial Statements).

(3) Pro forma as adjusted to reflect the issuance of shares of Common Stock

offered hereby, the payment of that portion of the Stock Purchase Option exercise price to be paid in cash and the cash payments by Allergan and the Company for the exercise of Allergan's Asset Purchase Option and the Company's payment to Allergan for selected product rights, respectively. See "Ligand Pharmaceuticals Incorporated Pro Forma Condensed Consolidated Financial Statements."

(4) Includes restricted cash of $3,056,000.

(5) See Note 6 of Notes to Consolidated Financial Statements.

RISK FACTORS

An investment in the Company's Common Stock offered hereby involves a high degree of risk. In addition to the other information contained in this Prospectus, prospective investors should carefully consider the following risk factors before purchasing the Common Stock offered hereby.

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 1999, 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 ("The Salk Institute"), Baylor College of Medicine ("Baylor") 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 "Recent Developments," 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 proposed 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 19, 1997, the Average Value of the Ligand Common Stock would be $14.934375 resulting in a total of 3,107,596 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 $63.3 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, which was developed by Cetus Oncology Corporation and PHOTOFRIN, 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 Company's 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.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained or incorporated by reference in this Prospectus, including without limitation, statements containing the words "believes," "anticipates," "expects" and words of similar import, may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 (the "Reform Act"). Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Ligand, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking

statements. Such factors include, among others, the following: early stage of product development; technological uncertainty; history of operating losses; accumulated deficit; future capital needs; uncertainty of additional funding; uncertainties related to clinical trials; reliance on collaborative relationships; uncertainty of patent protection; dependence on proprietary technology; lack of manufacturing capability; reliance on third-party manufacturers; limited sales and marketing capability; substantial competition; risk of technological obsolescence; extensive government regulation; no assurance of regulatory approval; dependence on third party reimbursement and health care reform; product liability and insurance risks; exercise of the Stock Purchase Option; dependence on key employees; use of hazardous materials; volatility of stock price; absence of cash dividends; effect of Shareholder Rights Plan and certain anti-takeover provisions; potential adverse market impact of shares eligible for future sale; potential adverse impact of Proposition 211; and other factors referenced in this Prospectus. Certain of these factors are discussed in more detail elsewhere in this Prospectus, including without limitation, under the captions "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements. Ligand disclaims any obligation to update any such factors or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future events or developments.

PRICE RANGE OF COMMON STOCK

The Company's Common Stock trades on the Nasdaq National Market tier of the Nasdaq Stock Market under the symbol "LGND." The following table sets forth the high and low sales prices for the Company's Common Stock on the Nasdaq National Market for the periods indicated.

COMMON STOCK SALES PRICES

<TABLE>
<CAPTION>

	PRICE RANGE	
	HIGH	LOW
<S>	<C>	<C>
YEAR ENDED DECEMBER 31, 1995:		
1st Quarter	$ 8 1/2	$ 6
2nd Quarter	8 3/4	5 1/2
3rd Quarter	10 1/4	7 3/4
4th Quarter	11 3/8	7 5/8
YEAR ENDED DECEMBER 31, 1996:		
1st Quarter	$13 3/4	$ 9 3/4
2nd Quarter	19 3/4	11 1/8
3rd Quarter	16 1/8	10 3/8
4th Quarter	1511/16	11 1/4
YEAR ENDING DECEMBER 31, 1997:		
1st Quarter	$17	$10 1/4
2nd Quarter	14 1/2	9 1/8
3rd Quarter	17 3/4	11 5/8
4th Quarter (through November 17)	18 3/8	13 5/16

</TABLE>

On November 17, 1997, the last reported sale price of the Company's Common Stock on the Nasdaq National Market was $14 1/16 per share. As of September 30, 1997, there were approximately 1,000 holders of record of the Common Stock.

DIVIDEND POLICY

The Company has never declared or paid any cash dividends on its capital stock and does not intend to pay any cash dividends in the foreseeable future. The Company currently intends to retain its earnings, if any, to finance future growth.

CAPITALIZATION

The following table sets forth the capitalization of the Company at September 30, 1997, and Pro forma as adjusted to reflect the issuance of shares of Common Stock offered hereby, the payment of that portion of the Stock Purchase Option exercise price to be paid in cash and the cash payments by Allergan and the Company for the exercise of Allergan's Asset Purchase Option and the Company's payment to Allergan for selected product rights, respectively. This table should be read in conjunction with the Company's consolidated financial statements, including the notes thereto, included elsewhere herein. See "Notes to Consolidated Financial Statements" and "Pro Forma Condensed Consolidated Financial Statements."

<TABLE>
<CAPTION>

	SEPTEMBER 30, 1997	
	ACTUAL	PRO FORMA AS ADJUSTED
	(IN THOUSANDS)	
<S>	<C>	<C>
Cash, cash equivalents, and short-term investments(1)	$ 53,614	$ 44,005
Current portion of obligations under capital leases and equipment notes payable	$ 2,917	$ 2,917
Long-term debt, less current portion:		
Long-term obligations under capital leases and equipment notes payable	8,711	8,711
Convertible subordinated debentures(2)	35,959	35,959
Convertible notes	5,000	5,000
Total long-term debt	49,670	49,670
Stockholders' equity:		
Convertible Preferred Stock, $0.001 par value; 5,000,000 shares authorized; no shares issued or outstanding actual and as adjusted	--	--
Common Stock, $0.001 par value; 80,000,000 shares authorized; 32,977,938 shares issued; shares as adjusted(3)	33	36
Paid-in capital	226,719	278,342
Warrant subscription receivable	(924)	--
Adjustment for unrealized gains on available-for-sale securities	4	4
Accumulated deficit	(209,711)	(273,946)
Less treasury stock, at cost (1,114 shares)	(11)	(11)
Total stockholders' equity	16,110	4,425
Total capitalization	$ 65,780	$ 54,095

</TABLE>

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(1) Includes restricted cash of $3,056,000.

(2) See Note 6 of Notes to Consolidated Financial Statements.

(3) As of September 30, 1997. Excludes (a) 4,001,104 shares of Common Stock issuable upon the exercise of outstanding options under the Company's stock option plans (at a weighted average exercise price of $9.99 per share), (b) 767,063 shares of Common Stock available for future grants under such plans

or issuance under the Company's stock purchase plan, (c) 6,615,719 shares of Common Stock issuable upon exercise of outstanding warrants (at a weighted average exercise price of $7.21 per share), (d) 499,500 shares of Common Stock issuable upon conversion of the principal amount outstanding under convertible promissory notes and (e) 1,885,370 shares of Common Stock issuable upon conversion of the principal amount outstanding under Glycomed's 7 1/2% Convertible Subordinated Debentures Due 2003. See "Business -- Strategic Alliances" and "Description of Capital Stock."

SELECTED CONSOLIDATED FINANCIAL DATA

The selected financial data set forth below with respect to the Company's consolidated statements of operations for each of the years in the three-year period ended December 31, 1996, and with respect to the consolidated balance sheets at December 31, 1995 and 1996, are derived from the audited financial statements that have been examined by Ernst & Young LLP, independent auditors, which are included elsewhere in this Prospectus and are qualified by reference to such financial statements. The consolidated statement of operations data for the years ended December 31, 1992 and 1993, and the consolidated balance sheet data at December 31, 1992, 1993 and 1994, are derived from audited financial statements not included in this Prospectus. The management of the Company believes that the unaudited data at September 30, 1997, and for the nine-month periods ended September 30, 1996 and 1997, contains all adjustments, consisting of only normal recurring accruals, necessary for a fair presentation of the financial position at such date and the results of operations for such periods. Operating results for the nine-month period ended September 30, 1997, are not necessarily indicative of results to be expected for the fiscal year ending December 31, 1997 or any other interim period. The data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Company's consolidated financial statements and related notes included elsewhere in this Prospectus.

<TABLE>
<CAPTION>

	YEARS ENDED DECEMBER 31,					NINE MONTHS ENDED SEPTEMBER 30,	
	1992	1993	1994	1995	1996	1996	1997
	(IN THOUSANDS, EXCEPT NET LOSS PER SHARE)						
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
CONSOLIDATED STATEMENT OF OPERATIONS DATA:							
Revenues:							
Collaborative research and development							
Related parties	$ 2,128	$ 9,974	$ 8,342	$ 11,972	$ 18,641	$ 12,784	$ 18,923
Unrelated party	3,417	6,138	4,893	12,424	17,994	14,407	10,652
Other	338	150	74	120	207	161	325
Total revenues	5,883	16,262	13,309	24,516	36,842	27,352	29,900
Costs and expenses:							
Research and development	14,220	24,301	27,205	41,636	59,494	42,174	51,353
Selling, general and administrative	4,144	6,192	6,957	8,181	10,205	7,278	7,379
Write-off of acquired in-process technology	--	--	--	19,564	--	--	--
ALRT contribution	--	--	--	17,500	--	--	--
Total operating expenses	18,364	30,493	34,162	86,881	69,699	49,452	58,732
Loss from operations	(12,481)	(14,231)	(20,853)	(62,365)	(32,857)	(22,100)	(28,832)
Interest income	523	2,005	1,298	3,603	3,704	2,729	2,800
Interest expense	(325)	(353)	(679)	(5,410)	(8,160)	(6,162)	(6,085)
Equity in operations of Joint Venture	(1,724)	(6,879)	(6,845)	--	--	--	--
Net loss	$(14,007)	$(19,458)	$(27,079)	$(64,172)	$(37,313)	$(25,533)	$(32,117)
Net loss per share	$ (3.96)	$ (1.19)	$ (1.57)	$ (2.70)	$ (1.30)	$ (.91)	$ (.99)

Shares used in computing net loss per share	3,537	16,357	17,241	23,792	28,781	28,073	32,484

<TABLE>
<CAPTION>

	DECEMBER 31,					SEPTEMBER 30,
	1992	1993	1994	1995	1996	1997
	(IN THOUSANDS)					
<S>	<C>	<C>	<C>	<C>	<C>	<C>
CONSOLIDATED BALANCE SHEET DATA:						
Cash, cash equivalents and short-term investments(1)	$ 55,605	$ 42,354	$ 38,403	$ 76,903	$ 84,179	$ 53,614
Working capital	55,117	40,588	33,567	57,349	71,680	42,647
Total assets	62,261	50,790	46,696	93,594	102,140	77,939
Long-term debt	1,750	2,324	12,285	18,585	19,961	13,711
Convertible subordinated debentures	--	--	--	31,279	33,953	35,959
Accumulated deficit	(29,571)	(49,029)	(76,108)	(140,281)	(177,594)	(209,711)
Total stockholders' equity	57,250	42,934	26,335	28,071	34,461	16,110

</TABLE>

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(1) Includes restricted cash of $6,759,000, $3,527,000 and $3,056,000 at December 31, 1995, December 31, 1996 and September 30, 1997, respectively.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

Since January 1989, the Company has devoted substantially all of its resources to its IR and 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 Stock Purchase Option, Ligand will record a one-time charge to operations for the write-off of in-process technology currently estimated at approximately $63.3 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 Ligand will acquire exclusive rights, will require substantive additional expenditures by Ligand. 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 this Prospectus. Any increase in cash paid in connection with the Stock Purchase Option would reduce Ligand's capital resources. Ligand 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

Nine months ended September 30, 1997, compared to the nine months ended September 30, 1996

The Company had revenues of $29.9 million for the nine months ended September 30, 1997 compared to revenues of $27.4 million for the same period 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 for the nine months ended September 30, 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 for the nine months ended September 30, 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 the nine months ended September 30, 1997, research and development expenses increased to $51.4 million from $42.2 million for the same period 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 for the nine months ended September 30, 1997 from $7.3 million for the same period 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 for the nine months ended September 30, 1997, from $2.7 million for the same period 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 for the nine months ended September 30, 1997, from $6.2 million for the same period in 1996, due to conversion of the AHP convertible notes to equity in 1997.

Year ended December 31, 1996 ("1996"), as compared to the year ended December 31, 1995 ("1995")

The Company had revenues of $36.8 million for 1996 compared to revenues of $24.5 million for 1995. The increase in revenues is primarily due to increased collaborative research and development revenues from ALRT, milestone revenues from Pfizer, increased revenues under an expanded and amended research and development agreement entered into in January 1996 (which began in September 1994) with AHP, and a full year effect of the collaborative research agreement with Sankyo (which became effective the date of the Merger). Revenues in 1996 were derived from the Company's research and development agreements with (i) ALRT of $18.6 million, (ii) AHP of $6.9 million, (iii) Sankyo of $2.7 million, (iv) Abbott of $2.5 million, (v) SmithKline Beecham of $2.4 million, (vi) Glaxo of $2.1 million, as well as from milestone revenues from Pfizer of $1.3 million, product sales of Ligand (Canada) in-licensed products of $207,000 and revenues from a National Institute of Health ("NIH") grant of $99,000. Revenues in 1995

were derived from the Company's research and development agreements with (i) ALRT of $12.0 million, (ii) AHP of $4.0 million, (iii) Abbott of $2.6 million, (iv) Glaxo of $2.1 million, (v) SmithKline Beecham of $2.1 million, (vi) Sankyo of $1.7 million, and from product sales of Ligand (Canada) in-licensed products of $120,000.

For 1996, research and development expenses increased to $59.5 million from $41.6 million in 1995. These expenses increased due to expansion of the Company's clinical and development retinoid program activities, and expanded collaborative research programs, related additions of clinical, development and research personnel and inclusion of the cost of Glycomed's operations for a full year in 1996. Selling, general and administrative expenses increased to $10.2 million in 1996 from $8.2 million in 1995. The increase was primarily due to additions to personnel to support clinical, development and research programs, as well as expanded sales and marketing activities. Interest income increased slightly to $3.7 million in 1996 from $3.6 million in 1995. Increases in interest income were a result of the completion of a public offering of approximately $35.3 million in October 1996, and increased research revenues, offset by usage of cash to support expansion activities. Interest expense increased to $8.2 million in 1996 from $5.4 million in 1995. The increase was primarily due to interest required under the Debentures, accretion of debt discount under the Debentures and capital lease obligations used to finance equipment.

A one-time charge of $19.6 million was incurred in 1995 for the write-off of in-process technology acquired in the merger with Glycomed. Another one-time charge of $17.5 million was incurred in 1995 for the Company's cash contribution for the formation of ALRT concurrent with the public offering in June 1995 by the Company and ALRT of 3,250,000 units with aggregate proceeds of $32.5 million (the "ALRT Offering").

Year ended December 31, 1995 ("1995"), as compared to the year ended December 31, 1994 ("1994")

The Company had revenues of $24.5 million for 1995 compared to revenues of $13.3 million for 1994. The increase is due to the full year effect of new collaborative research agreements with AHP (which began in September 1994), SmithKline Beecham (which began in February 1995), Abbott (which began in July 1994), Sankyo (with effect from the date of the Merger), as well as increased revenue from ALRT. Revenues in 1995 were derived from the Company's research and development agreements with (i) ALRT of $12.0 million, (ii) AHP of $4.0 million, (iii) Abbott of $2.6 million, (iv) SmithKline Beecham of $2.1 million, (v) Glaxo of $2.1 million and (vi) Sankyo of $1.7 million, and product sales of Ligand Pharmaceuticals (Canada), Inc., in-licensed products of $120,000. Revenues in 1994 were derived from the Company's research and development agreements with (i) the Allergan-Ligand Joint Venture, formed and owned 50 percent by each of Ligand and Allergan, and which developed technologies exclusively licensed to ALRT from 1992 (the "Joint Venture") of $8.3 million, (ii) AHP of $1.7 million, (iii) Glaxo of $2.0 million and (iv) Abbott of $1.2 million and other research grants of $74,000.

For 1995, research and development expenses increased to $41.6 million from $27.2 million in 1994. These expenses increased primarily due to additions of research and development personnel, expansion of the Company's research and development programs, and inclusion of the cost of Glycomed's operations from the date of the Merger. Selling, general and administrative expenses increased to $8.1 million in 1995 from $7.0 million in 1994. The increase was attributable to additions to personnel to support expanded research and development programs and expansion of the Company's sales and marketing activities. Interest income increased to $3.6 million in 1995 from $1.3 million in 1994. The increase in interest income was a result of an increase in cash balances due to the Merger, increased research revenues, additional equity investments, and convertible notes from collaborators, offset by net usage of cash to support expansion activities. Interest expense increased to $5.4 million in 1995 from $679,000 in 1994. The increase was primarily due to the acquisition of the Debentures, and accretion of debt discount under the Debentures, as well as interest required under a convertible note issued in connection with the AHP collaborative agreement. The 1994 equity loss in the Joint Venture of $6.8 million was the Company's share of the losses of the Joint Venture.

One-time charges of $19.6 million and $17.5 million were incurred in 1995

as described above due to the Merger and ALRT Offering, respectively.

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 June 1997, the Company has raised $162.5 million from sales of equity securities: $78.2 million from the Company's public offerings and an aggregate of $84.3 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 Merger. 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 will close 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 Prospectus. 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.

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.

BUSINESS

OVERVIEW

Ligand is a biopharmaceutical company engaged in the discovery and development of small-molecule drugs which mimic or block the activities of various hormones and cytokines to regulate gene activity and the genetic processes affecting many diseases. The Company's drug discovery and development programs are based on its proprietary technologies involving two natural mechanisms that regulate gene activity: (i) hormone-activated IRs and (ii) cytokine-activated STATs. IRs play key roles in many disease processes, including certain cancers, disorders of women's health, cardiovascular diseases, metabolic diseases, inflammatory disorders and skin diseases. Similarly, STATs influence many biological processes, including cancer, metabolic diseases, inflammation and blood cell formation. In programs acquired with the Merger, Ligand is also seeking to develop orally active drugs to modulate biological processes involving complex carbohydrates and other cell surface components for the treatment of inflammation and cancer.

Ligand is developing new drugs through a combination of internal and collaborative programs, including the formation of ALRT with Allergan and substantial collaborations with SmithKline Beecham, AHP, Abbott, Glaxo and Sankyo. Following the closing of the exercise of the Stock Purchase Option, ALRT will be a wholly-owned subsidiary of the Company and research, development, commercialization and sublicense rights for the ALRT compounds will subsequently be restructured. See "-- Recent Developments." Ligand has initiated human clinical trials for five products: the retinoids Oral Panretin (ALRT1057), Topical Panretin (ALRT1057) and Oral ALRT1550 on behalf of ALRT, and Oral Targretin (LGD1069) and Topical Targretin (LGD1069), which are Ligand's first products. Ligand also has 24 non-retinoid lead compounds in various stages of development, including a three compound series being developed by AHP, as well as two compounds which are now under development by Pfizer. One is an early clinical compound for osteoporosis development candidate; the other is an advanced clinical compound for breast cancer and osteoporosis.

IRs are members of a family of hormone-activated proteins that act inside the cell to directly regulate gene expression and cellular function. Although the effectiveness of IRs as drug targets has been demonstrated by drugs acting through IRs already on the market, such as retinoids (e.g., Retin-A(R) for acne and psoriasis) and sex steroid modulators (e.g., estrogens and progesterones for hormone replacement therapy and contraception, tamoxifen for breast cancer, flutamide for prostate cancer), the utility of these first-generation drugs has been limited by their often significant side effects. STATs are a recently discovered family of proteins that act inside cells to regulate gene expression in response to various cytokines such as interferons, interleukins and hematopoietic growth factors. Imbalances in the activity of these cytokines can lead to various pathological conditions, such as inflammation. While certain recombinant cytokines and other proteins which bind to cell surface receptors have proven to have clinical utility in the treatment of disease, they must be administered by injection and can be difficult to manufacture.

Ligand and its exclusive academic collaborators have advanced the understanding of the activities of hormones and hormone-related drugs and have made scientific discoveries relating to IR and STATs technologies. Ligand believes that its expertise in these technologies will enable the Company to develop novel small-molecule pharmaceutical products acting through IRs or STATs with more target-specific properties than currently available products,

resulting in either improved therapeutic and side effect profiles and new indications for IRs or novel mechanisms of action and oral bioavailability for STATs.

Ligand is conducting human clinical trials with five products. Oral Panretin (ALRT1057), Topical Panretin (ALRT1057) and Oral ALRT1550 are retinoids that may be useful for the treatment of various cancers, such as KS, and diseases of the skin and eyes and are being developed by Ligand and Allergan on behalf of ALRT. See "Business -- Strategic Alliances -- Allergan, Inc." The Company has initiated Phase III trials for Topical Panretin (ALRT1057) in KS intended to support an NDA. Ligand intends to file an NDA for this compound in early 1998 on behalf of ALRT, in the event that Phase III trials demonstrate sufficient safety and efficacy. Oral Panretin (ALRT1057) has entered Phase III clinical trials in APL and IIB clinical trials in various cancers. Ligand is also performing clinical trials for the retinoids Oral Targretin (LGD1069) and Topical Targretin (LGD1069), to which Ligand has worldwide exclusive rights. Interim data from a Phase I/II study of Topical Targretin (LGD1069) in skin lymphoma have demonstrated

significant activity, and based on discussions with the FDA on trial design, the Company has launched Phase III clinical trials in this indication with Topical Targretin (LGD1069) and Phase II/III trials in this indication with Oral Targretin (LGD1069), each intended to support an NDA. The Company has received reports on interim findings from the University of Texas M.D. Anderson Cancer Center with respect to certain Phase II/III trials of Oral Targretin (LGD1069) intended to support an NDA in CTCL. See "Business -- Product Development Program -- Retinoids -- Topical Targretin (LGD1069) and Oral Targretin (LGD1069)." The Company has launched Phase II/III clinical trials with Oral Targretin (LGD1069) in various forms of cancer, including lung cancer. There can be no assurance that the clinical trials will proceed as planned or that any drugs will be successfully developed or commercialized.

To date, Ligand has entered into collaborations with seven corporate partners which include, in addition to ALRT: SmithKline Beecham (for hematopoietic growth factor mimetics for use in oncology and treatment of anemia), AHP (for women's health, e.g., hormone replacement therapy, osteoporosis, fertility control), Abbott (for inflammatory diseases, utilizing selected IR-based approaches), Sankyo (for inflammatory diseases, utilizing selected Glycomed technologies), Glaxo (for atherosclerosis and other diseases affecting the cardiovascular system) and Pfizer (for osteoporosis). These partners provide discovery resources complementary to those of Ligand and are expected to facilitate the development and commercialization of potential products for primary care markets. The collaborative partners have also been an important funding source for Ligand, contributing approximately two-thirds of its invested capital to date. In addition to ALRT, which was capitalized with $100.0 million to accelerate research and development of certain retinoid compounds (including cash contributions of $50.0 million and $17.5 million, by Allergan and Ligand, respectively), Ligand's research activities have been supported by commitments from its partners of up to $90.2 million for research funding. Ligand's collaborative partners have also committed up to $96.5 million of additional equity and convertible notes to Ligand, of which $89.0 million has been received through September 30, 1997, and the remaining $7.5 million is subject to Ligand attaining certain milestones.

RECENT DEVELOPMENTS

ALRT. On September 24, 1997, Ligand and Allergan announced that they had exercised their respective options to purchase the Callable Common Stock and certain assets of ALRT. Ligand's notice of exercise of its 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 Asset Purchase Option Exercise Price of $8.9 million, the original exercise price designated for the exercise of the Asset Purchase Option at any time prior to June 3, 1998 under 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.

Ligand 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 Ligand'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, Ligand 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. See "Certain Transactions -- Relationship Among Allergan Ligand Retinoid Therapeutics, Inc., Ligand and Allergan -- Stock Purchase Option" and "-- Asset Purchase Agreement." Under the restructured arrangement, however, Ligand 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 RXR selective compounds). In addition, Ligand

and Allergan have participated in the Lottery for each of the approximately 2,000 retinoid compounds existing in the ALRT compound library as of the closing date, with each party to acquire exclusive, worldwide development, commercialization and sublicense rights to the compounds which they select. Ligand 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. Following commercialization of Targretin, Ligand will also pay to Allergan a royalty based on Ligand's net sales of Targretin for uses other than oncology and dermatology indications; in the event that Ligand licenses commercialization rights to Targretin to a third party, Ligand will pay to Allergan a percentage of royalties payable to Ligand with respect to sales of Targretin other than in oncology and dermatology indications. Under the restructured arrangement, on the closing of the exercise of the Stock Purchase Option and the Asset Purchase Option, Ligand will pay to Allergan a non-refundable cash payment in the amount of $4.5 million.

Glycomed. On October 2, 1997, the Company announced the closure of the Alameda facility housing Glycomed at the expiration of the leases. In connection with this closure, Glycomed's assets and programs will be transferred for integration with the Company's San Diego operations.

Eli Lilly and Company. On October 20, 1997, the Company and Lilly announced that they intend to enter into a strategic alliance for the discovery and development of products based upon Ligand's IR technology. The collaboration will focus on products with broad applications across metabolic diseases, including diabetes, obesity, dislipidemia, insulin resistance and cardiovascular diseases associated with insulin resistance and obesity. The transaction is subject to receipt of necessary regulatory approvals and is contingent upon Ligand 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. As a result, no assurance can be given that the transaction will close or that the strategic alliance will be consummated until all appropriate requirements have been met.

Under the proposed alliance:

- Lilly will receive worldwide, exclusive rights to Targretin (LGD1069) and other Ligand compounds and technology associated with the RXR receptor. Lilly will receive additional rights to use Ligand technology to develop

an RXR compound in combination with a SERM in cancer. Ligand 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 Ligand's PPAR technology, along with rights to use PPAR research technology with the RXR technology. Lilly and Ligand 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 Ligand's HNF4 receptor and the obesity gene promoter technology.

- Ligand 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 Ligand. Should Ligand elect to obtain selected rights to the product, Lilly could receive milestones of up to $20 million in Ligand stock. In the event that Ligand 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, Ligand will sell an additional $20 million in equity to Lilly at a 20% premium to the then market price, and Ligand will qualify for certain additional royalties of up to 1.5% on net sales of Ligand's choice of Targretin (LGD1069), ALRT268 (LGD1268) or ALRT324 (LGD1324).

- Ligand will receive double-digit royalties on net sales of the most advanced products and single-digit royalties on net sales of earlier compounds. Ligand 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 Ligand upon the closing of the transaction and will, thereafter, pay to Ligand $12.5 million in upfront milestones.

BUSINESS STRATEGY

Ligand's business strategy is to develop new drugs using its IR and STATs technologies through both internal and collaborative programs. Ligand's internal programs focus on the discovery, development and marketing of small-molecule drugs that address cancer, gynecological diseases and male hormonal imbalances, which are treated by medical specialists. An outgrowth of these programs has led to a development program in metabolic disease. Ligand also seeks to in-license or acquire products in these medical specialty markets which are in late-stage clinical development or which have been previously approved by regulatory authorities. Ligand's collaborative programs focus on building a royalty-based business through partnerships with large pharmaceutical companies that apply Ligand's technologies to discover drugs for primary care markets, such as markets for certain cardiovascular, inflammatory, metabolic and other diseases, as well as broad applications for women's and men's health.

Ligand's internal efforts have been focused primarily on the discovery and development of improved retinoids, sex steroid receptor agonists and antagonists and cytokine agonists for use in specialty market applications, principally cancer, gynecological disorders and male hormonal imbalances. Products for these specialty markets typically require less resource-intensive clinical trials and can be marketed by a targeted sales force. Ligand has initiated human clinical trials for five products: the retinoids Oral Panretin (ALRT1057), Topical Panretin (ALRT1057) and Oral ALRT1550 on behalf of ALRT, and Oral Targretin (LGD1069) and Topical Targretin (LGD1069), which are Ligand's first products. In connection with the exercise of the Stock Purchase Option and the exclusive

licensing arrangement with Allergan described in "Recent Developments," Ligand will acquire the exclusive right to develop and commercialize Oral and Topical Panretin (ALRT1057), ALRT1550, ALRT268 and ALRT324. Glycomed internal programs focus on the development of orally active drugs to modulate biological processes involving complex carbohydrates and other cell surface components for the treatment of inflammation and cancer.

Externally, Ligand is collaborating with large pharmaceutical companies, with the goal of building a royalty-based business through the application of its technologies to primary care markets, such as cardiovascular, inflammatory, broad aspects of women's and men's health and other diseases. In addition to ALRT, Ligand has established six major collaborative arrangements to discover and develop drugs that address disorders principally treated by primary care physicians, specifically hematopoiesis with SmithKline Beecham, female health disorders with AHP, inflammatory disease with Abbott, cardiovascular disease with Glaxo, osteoporosis with Pfizer and has inherited a collaboration through the Merger, with Sankyo in inflammation based on cell adhesion research. Ligand believes its collaborators have the significant resources, including clinical and regulatory experience, manufacturing capabilities and marketing infrastructure, needed to develop and commercialize drugs for these markets. Each of these arrangements provides for collaborative discovery programs funded largely by the corporate partners aimed at discovering new therapies for diseases treated by primary care physicians. In general, drugs resulting from these collaborations will be developed, manufactured and marketed by the corporate partners, with Ligand receiving research revenue during the drug discovery stage, additional milestone revenue for successful compounds moving through clinical development and milestone revenue as well as royalty revenue on sales of drugs marketed by its collaborators.

SCIENTIFIC BACKGROUND AND DRUG DISCOVERY OPPORTUNITIES

Intracellular Receptors ("IRs")

Hormones are natural chemicals within the body that control important physiological processes, including reproduction and cell growth and differentiation. The known non-peptide hormones are the retinoids, the sex steroids (estrogens, progesterones and androgens), the adrenal steroids (glucocorticoids and mineralocorticoids), vitamin D and thyroid hormone. The understanding of hormones and their actions has increased substantially in the last 10 years. Driving this rapid expansion of knowledge has been the discovery of the family of IRs through which all the known small-molecule (i.e., non-peptide) hormones act. Dr. Ronald Evans at The Salk Institute, Ligand's scientific co-founder and exclusive consultant, was the first to clone and characterize an IR in 1985. Since that time, approximately 75 IRs have been defined and characterized, many

by Ligand's scientists or its exclusive collaborators. IRs play key roles in a variety of diseases, including certain cancers, gynecological disorders, and cardiovascular, metabolic inflammatory and skin diseases.

Hormones act by binding to their corresponding IRs to regulate the expression of genes in order to maintain and restore balanced cellular function within the body. Hormonal imbalances can lead to a variety of diseases. The hormones themselves and drugs which mimic or block hormone action may be useful in the treatment of these diseases. Furthermore, hormone mimics (agonists) or blockers (antagonists) can be used in the treatment of diseases in which the underlying cause is not hormonal imbalance.

The effectiveness of the IRs as drug targets has been demonstrated by currently available drugs acting through IRs for many of these diseases. However, the use of most of these drugs has been limited by their often significant side effects. Examples of currently marketed hormone-related drugs acting on IRs are glucocorticoids (steroids used to treat inflammation), estrogens and progesterones (used for hormone replacement therapy and contraception), tamoxifen (an estrogen antagonist used in the treatment of breast cancer), and various retinoids such as Accutane(R) and Retin-A (used to treat acne and psoriasis).

Ligand's early recognition of the drug discovery opportunities inherent in emerging IR research has enabled it to build a strong proprietary position and accumulate substantial expertise in IRs applicable to drug discovery and

development. Building on its recent scientific findings about the molecular basis of hormone action, Ligand has created proprietary new tools to explore and manipulate non-peptide hormone action for potential therapeutic benefit. The Company has exclusive relationships in the field of IRs with Dr. Ronald Evans, a professor in the Gene Expression Laboratory of The Salk Institute, and Dr. Bert O'Malley, Professor and Chairman of the Center for Reproductive Biology at Baylor, where many of the core discoveries in IR research have been made. The Company has exclusively licensed most of these discoveries. Ligand has also developed proprietary IR assays that it believes can rapidly and accurately predict the probable therapeutic and side effect profiles of compounds with potential as drugs. The Company believes that its IR expertise will enable it to discover and develop drugs that have equal or greater therapeutic efficacy and reduced incidence and severity of side effects compared to existing drugs acting through IRs. The Company also believes these drugs will be orally bioavailable.

In many diseases, there is an imbalance of cytokine action. For example, some inflammatory conditions may represent excessive actions of certain interleukins or interferons. In these conditions, it may prove beneficial to block the actions of specific cytokines. In other pathological states, there is insufficient activity of specific cytokines. For example, in patients with chronic renal failure, diminished erythropoietin ("EPO") release by the damaged kidneys results in the inadequate production of red blood cells, resulting in anemia. Recombinant human EPO protein (Epogen(R)) can be administered to effectively correct this anemia, but must be injected. Many other cytokines are useful as injected protein medicines, including interferons (Intron-A(R), Roferon(R), Betaseron(R)), interleukins (Proleukin which Ligand markets in Canada), hematopoietic growth factors (Epogen(R), Neupogen(R)) and others. Each of these and many other cytokines appears to exert their actions through STAT/JAK signal transduction pathways. Ligand is utilizing STAT/JAK technology to seek low molecular weight compounds which can mimic or block the actions of medically relevant cytokines for uses in various pathological conditions, including cancer, inflammation and disorders of blood cell formation. Because these are small molecules, whereas the cytokines themselves are proteins, they offer potential significant advantages, including oral activity and greater ease of manufacture and stability. Ligand's STAT/JAK technology forms the basis for the Company's collaboration with SmithKline seeking small molecule mimetics of EPO, Granulocyte-Colony Stimulating Factor ("G-CSF"), and thrombopoietin.

LIGAND'S IR DRUG DISCOVERY OPPORTUNITIES

Ligand and its collaborators have made major discoveries pertaining to IRs and small molecule hormones and compounds which interact with these IRs. These discoveries include: (i) the identification of the IR superfamily, (ii) the recognition of IR subtypes, (iii) the discovery of orphan IRs and (iv) the heterodimer biology of RXR selective compounds. Ligand believes that each of these broad areas of knowledge provides important opportunities for drug discovery.

IR Superfamily. The receptors for all the non-peptide hormones are closely related members of a superfamily of proteins known as IRs. The IRs are similar in both structure and mechanisms of action. Human IRs for all of the known non-peptide hormones have now been cloned, primarily by Ligand's scientists or its collaborators, building an understanding of the similar underlying mechanisms of action shared by the non-peptide hormones.

Ligand believes that the relatedness of the IRs for the non-peptide hormones has major implications for drug discovery. IRs share a common mechanism of action, which often enables drug discovery insights about one IR to be directly applied to other members of the IR superfamily, bringing synergy to Ligand's IR-focused drug discovery efforts. First generation drugs were developed and commercialized for their therapeutic benefits prior to the discovery of IRs and often cross-react with the IRs for hormones other than the intended target, resulting in often significant side effects. The understanding that the IRs are structurally similar has enabled Ligand to determine the basis for the side effects of some first generation drugs and to discover improved drug candidates.

IR Subtypes. For some of the non-peptide hormones, several closely related but non-identical IRs, known as IR subtypes, have been discovered. These include six subtypes of the IRs for retinoids and four subtypes of the IRs for thyroid hormone. Patent applications covering most of these IR subtypes have been

exclusively licensed by Ligand. Ligand believes that drugs that activate a subset of IR subtypes will allow more specific pharmacological intervention better matched to therapeutic need. Ligand's clinical candidate Targretin (LGD1069) was discovered as a result of Ligand's understanding of retinoid receptor subtypes.

Orphan IRs. Over 50 additional members of the IR superfamily which do not interact with the known non-peptide hormones or vitamin derivatives have been discovered. Ligand has an exclusive license to many of these orphan IRs. Ligand believes that among the orphan IRs may be receptors for uncharacterized small molecule hormones and that the physiological roles of the various orphan IRs are likely to be diverse. Ligand has devised strategies to isolate small molecules that interact with orphan IRs and is working to identify new orphan IRs as drug targets and to identify their natural and synthetic modulators as possible drug candidates. For example, the RXRs, one subfamily of IRs activated by certain retinoids, were orphan IRs when initially discovered. Panretin (ALRT1057), a compound being developed on behalf of ALRT, was discovered by virtue of its activation of the RXR retinoid receptors.

RXR Heterodimer Biology. Retinoids that bind to the RXR family deliver their therapeutic effects through partnered IRs. Recently scientists have discovered that RXRs are obligate partners in these IR pairs through all tissues. These IR pairs consist of one RXR and one of a variety of other IRs, such as RARs, PPARs or thyroid hormone receptors. While RXRs are widely expressed, their IR partners are more discreet, being expressed in selective tissues, such as liver, fat or muscle. As a result, compounds that bind RXRs offer the unique potential to be broadly active compounds that can treat a variety of diseases, including metabolic diseases.

In animal models of type II diabetes, RXR agonists appear to stimulate the physiological pathways responsive to RXR-PPAR receptor partners expressed in key target tissues that are involved in glucose metabolism. As a result, a discrete set of genes is activated in these tissues resulting in a decrease in serum glucose levels, triglycerides and insulin.

LIGAND'S STAT DRUG DISCOVERY OPPORTUNITIES

SIGNAL TRANSDUCERS AND ACTIVATORS OF TRANSCRIPTION ("STATS")

STATs are a recently discovered family of proteins that are a key part of the signal transduction pathway for a variety of biologically important peptide hormones (e.g., interferons, interleukins, leptin and hematopoietic growth factors) collectively termed Extracellular Signaling Proteins ("ESPs"). STATs play a role in the biology of ESPs functionally analogous to that played by IRs in the biology of the non-peptide hormones: both STATs and IRs are families of transcription factors which change cell function by selectively turning on particular genes in response to circulating signals which impinge on cells. When various cytokines bind to their receptors on the cell surface, this triggers the activation of specific members of the Janus Kinase family of

tyrosine protein kinases ("JAKs"), which in turn activate specific STATs. The activated STATs enter the cell nucleus and bind to the control regions of specific target genes and increase their expression, thereby modulating physiologic or pathophysiologic processes.

In many diseases, there is an imbalance of cytokine action. For example, some inflammatory conditions may represent excessive actions of certain interleukins or interferons. In these conditions it may prove beneficial to block the actions of specific cytokines. In other pathological states there is insufficient activity of specific cytokines. For example, in patients with chronic renal failure, diminished erythropoietin EPO release by the damaged kidneys results in the inadequate production of red blood cells, causing anemia. Recombinant human EPO protein (Epogen) can be administered to correct this anemia effectively, but must be injected. Many other cytokines are useful as injected protein medicines, including interferons (Intron-A, Roferon, Betaseron), interleukins (e.g., Proleukin, which Ligand markets in Canada), hematopoietic growth factors (Epogen, Neupogen) and others. Each of these and many other cytokines appear to exert their actions through STAT/JAK signal transduction pathways.

Ligand believes that its STAT/JAK technologies may lead to the discovery of

low molecular weight compounds able to mimic or block the actions of medically relevant cytokines for uses in various pathological conditions, including cancer, inflammation and disorders of blood cell formation. Because these compounds are small molecules, whereas the cytokines themselves are proteins, they offer potentially significant advantages, including oral bioavailability, greater ease of manufacture and improved stability.

The discovery of STATs, the elucidation of their roles in interferon signal transduction, and the first cloning of genes encoding STATs were all accomplished by Ligand's exclusive collaborators Dr. James Darnell at Rockefeller University and Dr. David Levy at New York University ("NYU"), and were described initially in August 1992. Since then, over half a dozen members of the STAT family have been identified and a large number of ESPs in addition to interferons have also been shown to utilize STAT signal transduction. Among the ESPs which have been shown to use STAT signaling pathways are the interferons (alpha, beta and gamma), the hematopoietic colony stimulating factors (interleukin-3, EPO, G-CSF, GM-CSF and thrombopoietin), many of the interleukins (including IL-2, IL-4, IL-6, IL-12 and IL-13, the related ESPs Oncostatin M and Leukemia Inhibitory Factor), the cytokine leptin and several protein hormones (growth hormone and prolactin).

Based on insights into STAT/JAK signal transduction and the generation of the necessary reagents, Ligand has developed STAT technologies for drug discovery which include cell culture-based high throughput screens to identify small molecule drugs and biochemical assays that define where in the STAT/JAK signal transduction pathways the small molecules act. Ligand believes that its STAT/JAK drug discovery technology can produce drug candidates to control gene expression to address a broad range of uses, including treating cancer, providing hematopoietic support for cancer patients undergoing chemotherapy or bone marrow transplantation, combating inflammation and viral or other infections, treating anemia in chronically ill patients (e.g., those with renal failure), treating dwarfism and related disorders of stature and enhancing immune function.

Ligand is using its high throughput screening assays to discover small molecule drugs to act as interferon agonists for potential application in various cancers and viral diseases. Ligand has also established a collaboration with SmithKline Beecham to discover and characterize small molecule drugs to modulate specific STAT/JAK pathways to control the formation of red and white blood cells for treating patients with cancer or anemia. Ligand has additional assays under development to allow high throughput screening for and subsequent optimization of small molecule drugs to act through STAT/JAK signaling pathways to block or mimic other medically significant ESPs. See "Strategic Alliances."

GLYCOMED'S COMPLEX CARBOHYDRATES PROGRAMS

Ligand, through its wholly-owned subsidiary Glycomed, is seeking drugs that modulate processes involving complex carbohydrates and other components of the extracellular matrix. The cells in the body are in many cases embedded in various gelatinous or fibrous background substances such as proteins (e.g., collagen) or glycoproteins and mucopolysaccharides (various complex biological polymers containing amino

acid and sugar building blocks). This background substance, termed extracellular matrix, can exert important effects on cells, modifying their function and controlling their migration. Additionally, related complex carbohydrates, glycoproteins and mucopolysaccharides are located on the surfaces of cells, where they can play important roles in controlling interactions among various cells, including, for example, the attachment of white blood cells to the inner linings of blood vessels, a necessary part of some inflammatory responses.

Glycomed has expertise and core technology relating to the biology and chemistry of complex carbohydrates and related components of the extracellular matrix. Ligand is focusing Glycomed's expertise and core technologies to seek small molecule, potentially orally active drugs to modulate the biological processes involving complex carbohydrates and other cell surface and extracellular matrix components for the treatment of inflammation and cancer. Glycomed's research is currently focused on selectin antagonists for the treatment of inflammation in a collaboration with Sankyo. One Glycomed compound is Galardin(TM), a matrix metaloproteinase inhibitor in-licensed by Glycomed prior to the Merger. In Phase II/III trials, Galardin(TM) treated patients had

significantly lower incidence of corneal perforation. Since the Merger, the Company has sought a partner to further develop the product. Sankyo has Galardin(TM) under development in Phase II trials in Japan for opthalmic indications.

LIGAND'S DRUG DISCOVERY AND DEVELOPMENT PROCESS

Ligand's advanced molecular-based IR research focuses on analyzing the biological systems regulated by IRs to choose the most promising molecular targets for drug discovery. After selecting a target, the next critical step in drug discovery is the identification of suitable lead compounds (chemical structures suitable as starting points for optimization as drugs by the application of medicinal chemistry). Traditional drug discovery generally uses animal models or biochemical screening systems for lead compound identification. Animal models are relatively slow, complicated and expensive; and results in animals do not always correlate to those obtained in humans. Biochemical assays are fast and inexpensive, but give limited information and frequently identify poor lead compounds. Ligand has developed a hybrid approach to lead compound identification that retains the best features and avoids the pitfalls of traditional methods to discover leads.

Ligand has developed a proprietary cell-culture based assay system for IR-modulating small molecules, referred to as the co-transfection assay, that simulates the actual cellular processes controlled by IRs. The system is (i) fast, compared to animal models; (ii) capable of cost-effective, high throughput screening of thousands of compounds per week; (iii) highly predictive of in vivo pharmacology of both agonists and antagonists; (iv) able to separate complex targets, such as receptor subtypes; and (v) conducted using the actual human receptors which are the ultimate drug targets. Ligand's co-transfection assay is a key component of Ligand's IR drug discovery and development programs, and facilitates both the identification of lead compounds and their optimization as clinical candidates.

The co-transfection assay is able to preclinically detect both agonists and antagonists of specific IRs. It determines not only whether a compound interacts with a particular human IR, but also whether this interaction mimics or blocks the effects of the natural regulatory molecules on target gene expression. The Company's assays also enable the Company to detect useful lead compounds which could be missed by alternative biochemical screens or animal models. Ligand has successfully automated its co-transfection assays for high throughput screening of thousands of compounds per week. Ligand's screening in co-transfection assays has resulted in the identification of lead compounds for novel estrogen agonists, non-steroidal progestins and antiprogestins, non-steroidal antiandrogens, non-steroidal glucocorticoid agonists, new retinoid analogues and PPAR agonists that are now undergoing further investigation.

Ligand has developed similar automated high throughput assays to identify lead compounds acting as agonists or antagonists of selected STAT/JAK signaling pathways for particular ESPs such as interferons, certain interleukins and selected hematopoietic growth factors. Additional STAT-based screening assays are under development.

Once Ligand verifies a lead compound for a particular target, the next critical process is optimization of the compound to achieve specificity and appropriate properties as a drug. Specificity is achieved when the compound interacts only with the intended target molecule and not with related but unintended molecules.

Ligand's unique and comprehensive ability to assess compounds preclinically for interactions with all the known human IRs or in various STAT pathways is a significant advantage in obtaining specificity in a lead compound. Optimization of a lead compound is an iterative process in which analogues of the lead compound, designed and synthesized by medicinal chemists, are assayed for activity. The results obtained with each set of analogues guide the medicinal chemists in the design of compounds with greater specificity. The co-transfection assay produces results which enhance the accuracy and efficiency of this iterative optimization process. Ligand believes the STAT-based assays may have similar advantages.

Ligand believes that its combination of modern molecular and traditional approaches to drug discovery will accelerate its progress to develop new drug

candidates. To that end, Ligand has built a strong multidisciplinary team, consisting of molecular biologists, medicinal chemists, pharmacologists and specialists in drug metabolism and distribution, and other pharmaceutical scientists. Ligand believes the similarities between hormone and cytokine mechanisms of action allow it to leverage its drug discovery resources efficiently in the IR and STATs areas.

PRODUCT DEVELOPMENT PROGRAM

Ligand, as part of its overall business strategy, is developing new drugs through a combination of internal and collaborative programs: (i) internally, by focusing on the discovery, development and marketing of small-molecule drugs that address diseases, such as cancer and gynecological disease, treated by medical specialists, and by seeking to in-license or acquire later-stage products in these medical specialties; and (ii) by collaborating with large pharmaceutical companies, with the goal of building a royalty-based business through the application of its technologies to primary care markets, such as cardiovascular, inflammatory and other diseases, and broad aspects of women's health.

Ligand is currently pursuing five major internally-funded and collaborative drug discovery programs: two are based on specific IRs (the retinoid and sex steroid receptor programs for cancer, skin and eye disease, and women's health); one is based on a combination of disease indications and transcription factor targets (inflammatory diseases); one is based on STATs; and one is based on Glycomed's inhibitors of cell adhesion technology. Additionally, Ligand has in-licensed and is distributing two anti-cancer products in Canada.

The following table summarizes the current status of Ligand's product research, development and marketing programs:

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PROGRAM	DISEASE INDICATION	DEVELOPMENT PHASE(1)	MARKETING RIGHTS
<S>	<C>	<C>	<C>
ALRT RETINOIDS(2)			
Topical Panretin (ALRT1057)(3)	KS	Phase III	ALRT
Oral Panretin (ALRT1057)(3)	APL	Phase III	ALRT
	Cancers, including, KS, MDS, ovarian, prostate	Phase IIB	ALRT
	Psoriasis	Phase II	ALRT
Oral ALRT 1550(3)	Cancer	Phase I/IIA	ALRT
ALRT4310 & analogues(3)	Skin diseases and cancer	Preclinical	ALRT
ALRT RAR(LOGO) agonists(3)	Leukemia, lymphoma, breast cancer	Preclinical	ALRT
ALRT268, ALRT324 & analogues(3)(4)	Cancer, skin and metabolic diseases (type II diabetes)	Preclinical	ALRT
LIGAND RETINOIDS(2)			
Topical Targretin (LGD1069)(4)	Cutaneous T-cell lymphoma and other malignancies of skin	Phase III	Ligand worldwide
	Actinic keratoses	Phase II	Ligand worldwide
Oral Targretin (LGD1069)(5)	Cutaneous T-cell lymphoma	Phase II/III	Ligand worldwide
	Lung cancer	PhaseII/III	Ligand worldwide
	Cancers, including ovarian, head and neck, KS	Phase IIB	Ligand worldwide
	Skin and metabolic diseases (type II diabetes)	Phase II	Ligand worldwide
SEX STEROIDS			
Droloxifene(6)	Breast Cancer	Phase III	Pfizer
	Osteoporosis	Phase II	Pfizer
Estrogen agonist (CP336,156)(7)	Osteoporosis	Phase I	Pfizer
Progesterone antagonists (LG1447 series)	Cancer, endometriosis, uterine fibroids	Lead compounds selected	AHP/Ligand(8)
Progesterone agonists (LG2527/2716 series)	Breast cancer, hormone replacement therapy	Lead compounds selected	AHP/Ligand(8)
Estrogen agonists (TSE424)(9)	Osteoporosis	Development candidate	AHP/Ligand(8)
Tissue selective estrogen or	Gynecological disease,	Lead compounds	AHP/Ligand(8)

progesterone agonists and antagonists	cardiovascular disease, hormone replacement therapy	selected	
Androgen antagonists (LG2293 series)	Prostate cancer, skin disease	Lead compounds selected	Ligand worldwide
Androgen agonists	Male hormone replacement therapy, osteoporosis	Lead compounds identified	Ligand worldwide
CARDIOVASCULAR/METABOLIC DISEASE			
Lipid regulators - LDL lowering	Atherosclerosis	Lead compounds selected	Glaxo
PPAR modulators	Atherosclerosis and other disorders affecting the cardiovascular system	Lead compounds selected	Glaxo
Lipid regulators - HDL elevation	Atherosclerosis	Research	Glaxo
INFLAMMATORY DISEASE			
Glucocorticoid agonists	Rheumatoid arthritis, inflammatory bowel disease, asthma, dermatitis	Lead compounds selected	Abbott/Ligand(8)
GLYCOMED INFLAMMATORY DISEASE			
Galardin(TM) MMPI (GM6001) Matrix metalloproteinase inhibitor ("MMPI")(10)	Ophthalmic inflammation	Phase II/III completed Phase II(11)	Ligand; Sankyo in Far East (ophthalmic indications)
GM1998 Cell adhesion inhibitors	Acute and chronic inflammation	Lead compounds selected	Ligand; Sankyo in Far East
GM1925, GM2296, GM1380 & analogues	Acute and chronic inflammation	Lead compounds selected	Ligand; Sankyo in Far East
GM1892 Endothelial protective agent	Reperfusion injury	Lead compounds selected	Ligand worldwide

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PROGRAM	DISEASE INDICATION	DEVELOPMENT PHASE(1)	MARKETING RIGHTS
GLYCOMED CANCER			
GM1474, GM1306 Growth factor modulators	Cancer	Lead compounds selected	Ligand worldwide
GM6001 & analogues Matrix metalloproteinase inhibitors	Cancer	Lead compounds selected	Ligand worldwide
GM1603 & analogues Heparinase inhibitors	Cancer	Lead compounds selected	Ligand worldwide
STATS			
Interferon agonists	Cancer, infectious disease	Lead compounds selected	Ligand worldwide
Interferon antagonists	Rheumatoid arthritis, inflammatory bowel disease, asthma, dermatitis	Lead compounds selected	Ligand Worldwide
Hematopoietic growth factors	Oncological uses, anemia	Lead compounds selected	SmithKline Beecham/Ligand(8)
Other cytokine agonists and antagonists	Cancer, immunology, growth control	Research	Ligand worldwide
IN-LICENSED			
PHOTOFRIN(TM)	Esophageal cancer, superficial bladder cancer	Market	Ligand (Canada only)
Proleukin(TM)	Kidney cancer	Market	Ligand (Canada only)

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(1) "Development Phase" refers to the current stage of development of the most advanced indication.

"Research" activities include research related to specific intracellular receptor and STATs targets and the identification of lead compounds.

"Lead compounds" are chemicals that have been identified that meet preselected criteria in cell culture models for activity and potency against IR or STATs targets. More extensive evaluation is then undertaken to determine if the compound should be selected to enter into preclinical

development. Once lead compound is selected, chemical modification of the compound is then undertaken to create the best drug candidate.

"Preclinical" includes pharmacology and toxicology testing in preclinical models (in vitro and in vivo), formulation work and manufacturing scale-up to gather necessary data to comply with applicable regulations prior to commencement of human clinical trials.

"Development candidates" are lead compounds that have successfully undergone in vitro and in vivo evaluation to demonstrate that they have an acceptable profile which justifies taking them through preclinical development with the intention of filing an IND and initiating human clinical testing.

Clinical trials are typically conducted in three sequential phases that may overlap. In "Phase I," the initial introduction of the pharmaceutical into healthy human volunteers, the emphasis is on testing for safety (adverse effects), dosage tolerance, metabolism, distribution, excretion and clinical pharmacology. "Phase II" involves studies in a limited patient population to determine the efficacy of the pharmaceutical for specific targeted indications, to determine dosage tolerance and optimal dosage and to identify possible adverse side effects and safety risks. Once a compound is found to be effective and to have an acceptable safety profile in Phase II evaluations, "Phase III" trials are undertaken to evaluate clinical efficacy further and to further test for safety within an expanded patient population at multiple clinical study sites sometimes Phase I and II trials or Phase II and III trials are combined. The FDA reviews both the clinical plans and the results of the trials and may discontinue the trials at any time if there are significant safety issues.

(2) Ligand and Allergan have exercised their respective options to purchase the Callable Common Stock and assets of ALRT, and Ligand and Allergan have also agreed to restructure the terms and conditions relating to the research, development, commercialization and sublicense rights for the ALRT compounds. See " -- Recent Developments."

(3) All rights currently owned by ALRT. In connection with the exercise of the Stock Purchase Option and the exclusive licensing arrangement with Allergan described in "-- Recent Developments," Ligand will acquire the exclusive right to develop and commercialize Oral and Topical Panretin (ALRT1057), ALRT1550, ALRT268 and ALRT324. In addition, Ligand and Allergan have participated in the Lottery for each of the approximately 2,000 retinoid compounds existing in the ALRT compound library as of the closing date, with each party to acquire exclusive, worldwide development, commercialization and sublicense rights to the compounds which they select. Allergan will acquire rights to ALRT4310 and may acquire rights to selected RAR(LOGO) agonists in the Lottery. See "Strategic Alliances -- Allergan, Inc." for a more complete description of the mechanics of the Lottery.

(4) In connection with the strategic alliance with Lilly described in "-- Recent Developments," Lilly will receive worldwide, exclusive rights to Targretin (LGD1069) and other Ligand compounds and technology associated with the RXR receptor in all fields other than cancer and dermatology.

(5) Oral Targretin (LGD1069) has entered Phase II human clinical trials in diabetes in March 1997 in Europe.

(6) Droloxifene is a Pfizer compound. Ligand performed work on droloxifene at Pfizer's request. Ligand and Pfizer entered into a settlement agreement with respect to a lawsuit in April 1996. Under the terms of the settlement agreement, the Company is entitled to receive milestones if Pfizer continues development and royalties if Pfizer commercializes the product. See "-- Strategic Alliances -- Pfizer Inc."

(7) A compound discovered through the Company's collaborative relationship with Pfizer to which Pfizer has retained marketing rights. The Company has been informed by Pfizer that Pfizer intended to complete Phase I trials in Europe and intended to file an IND in the U.S. for CP336,156 in June 1997. Ligand is awaiting confirmation from Pfizer. There can be no assurance that clinical trials will proceed as planned or that any new drugs will be successfully developed. See "-- Government Regulation."

(8) Ligand has retained certain compound rights. See "-- Strategic Alliances."

(9) IND filing expected by first quarter of 1998.

(10) Ligand is seeking a partner to further the development and commercialization of Galardin for ophthalmic use. See "-- Inflammatory Disease."

(11) Phase II trials ongoing in Japan.

RETINOIDS

Retinoic acid, a derivative of Vitamin A, is one of the body's natural regulatory hormones and has a broad range of biological actions, influencing cell growth, differentiation, apoptosis and embryonic development. Many chemical analogues of retinoic acid, also called retinoids, also have biological activity. Specific retinoids have been approved by the FDA for the treatment of psoriasis and certain severe forms of acne. Evidence also suggests that retinoids can be used to arrest and, to an extent, reverse the effects of skin damage arising from prolonged exposure to the sun. Other evidence suggests that retinoids are useful in the treatment of a variety of cancers, including kidney cancer and certain forms of leukemia. For example, all-trans-Retinoic-acid ("ATRA") has been approved by the FDA for the treatment of APL. Retinoids have also shown an ability to reverse precancerous (premalignant) changes in tissues, reducing the risk of development of cancer, and may have potential as preventive agents for a variety of epithelial malignancies, including skin, head and neck, bladder and prostate cancer.

Despite the therapeutic benefits of currently-marketed retinoids, their use to date has been limited by their propensity to cause significant side effects, such as severe birth defects if fetal exposure occurs, severe irritation of the skin and mucosal surfaces, elevation of plasma lipids, headache and skeletal abnormalities. Currently-marketed retinoids were developed and commercialized for their therapeutic benefits prior to the discovery of retinoid-responsive IRs ("RRs"), and were developed with suboptimal tools.

The six RRs that have been identified to date can be grouped in two subfamilies: Retinoic Acid Receptors ("RARs") and RXRs. Patent applications covering members of both families of RRs have been licensed exclusively to Ligand primarily from The Salk Institute, and have been further sublicensed to ALRT as part of the ALRT Offering. See "-- Recent Developments." The RR subtypes appear to have different functions, based on their distribution in the various tissues within the body and data arising from in vitro studies and from studies of transgenic mice.

Several of the retinoids currently in commercial use are either non-selective in their pattern of RR subtype activation or are not ideal drugs for other reasons. Ligand, on its own and on behalf of ALRT, is developing chemically synthesized retinoids which, by selectively activating RR subtypes, may preserve desired therapeutic effects while reducing side effects. Because of their subtype selectivity or other desirable activities, Ligand's and ALRT's retinoid agonists are expected to have more specific pharmacological effects and less side effects, thus providing a better therapeutic index than currently used retinoids, many of which are not RR subtype specific or are suboptimal for other reasons.

Ligand, on behalf of ALRT, has three retinoid products in clinical trials, Topical Panretin (ALRT1057), Oral Panretin (ALRT1057) and Oral ALRT1550, and three retinoid compounds in advanced preclinical evaluation. In connection with the exercise of the Stock Purchase Option and the exclusive licensing arrangement with Allergan described in "-- Recent Developments," Ligand will acquire the exclusive right to develop and commercialize Oral and Topical Panretin (ALRT1057) and ALRT1550. In addition, Ligand and Allergan will participate in a lottery for each of the approximately 2,000 retinoid compounds existing in the ALRT compound library as of the closing date, with each party acquiring exclusive, worldwide development, commercialization and sublicense rights to the compounds which they select. In addition, Ligand has two retinoid products in clinical trials, Topical Targretin (LGD1069) and Oral Targretin (LGD1069), which are the sole property of Ligand and have not been licensed to ALRT. There were 45 clinical trials conducted with Panretin and Targretin in 1996 and early 1997. On September 24, 1997, Ligand and Allergan 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 Ligand's Stock Purchase Option and Allergan's Asset Purchase Option. On October 20, 1997, Ligand and Lilly announced that they intend to enter into a strategic alliance for the discovery and development of products based on Ligand's IR technology. See "-- Strategic Alliances."

Topical Panretin (ALRT1057). 9-cis-Retinoic acid (Panretin (ALRT1057)) is a non-peptide hormone isolated and characterized by Ligand in 1992 in

collaboration with scientists at The Salk Institute and Baylor. This is the first nonpeptide hormone discovered in over 25 years and appears to be a natural ligand for the

RAR and RXR subfamilies of retinoid receptors. 9-cis-Retinoic acid has pharmacological properties which ALRT and Ligand believe give it therapeutic utility.

In June 1994, prior to the formation of ALRT, Ligand initiated a Phase I/II human clinical trial for Topical Panretin (ALRT1057) in AIDS-related, cutaneous KS. Interim results of this Phase I/II clinical trial reported in January 1996 showed that, when evaluated at 12 weeks after the start of each patient's therapy, Topical Panretin (ALRT1057) induced a partial or complete clinical response in 30% of 43 patients with AIDS-related, cutaneous KS evaluated by AIDS Clinical Trial Group ("ACTG") criteria as applied to topical therapy, compared with 9% of patients with untreated control lesions. This interim assessment supports results of an earlier assessment reported in September 1995. Final results of this Phase I/II clinical trial involving 115 patients were reported in December 1996 and were consistent with the interim data. Following a meeting with the FDA in November 1995, ALRT launched in the second quarter of 1996, a pivotal Phase III study to evaluate Topical Panretin (ALRT1057) in over 200 patients with AIDS-related, cutaneous KS. In addition, Topical Panretin (ALRT1057) began international Phase III trials for KS in the third quarter of 1996. In January 1997, the Company reported an interim assessment of the control (placebo) response. Based on the first 100 patients, the control response was equal to or below 10% which would permit the statistical power of the study to be maintained without expanding the patient sample size. However, the Company decided to enroll an additional 35 patients which will add time to the accrual process but should not impact the targeted NDA filing date.

In August 1997, the Company reported an interim analysis of the first 82 patients in the international Phase III trial showing that 42% of KS patients treated with Panretin had complete or partial responses compared with 7% treated with placebo. The Company intends to file an NDA for Topical Panretin (ALRT1057) on behalf of ALRT for treating KS in early 1998 in the event that Phase III trials demonstrate sufficient safety and efficacy.

Oral Panretin (ALRT1057). In completed Phase I/IIA human clinical trials, Oral Panretin (ALRT1057) was well tolerated at doses as high as 140 mg/m(2)/day (milligram per square meter of body surface, per day), the maximum tolerated dose ("MTD"). At the MTD level, side effects, including headaches, elevated triglyceride levels, hypercalcemia and mucocutaneous irritation, were dose limiting toxicities. Memorial Sloan-Kettering Cancer Center ("Sloan-Kettering") interim data indicate that nine of 39 patients with advanced or otherwise untreatable cancer treated with Oral Panretin (ALRT1057) experienced no disease progression for periods ranging from 14 to 28 weeks. The Phase I/IIA clinical data also indicate that Oral Panretin (ALRT1057) has good bioavailability. Patient exposure to Oral Panretin (ALRT1057) is proportional to the administered dose of the compound over a broad range of doses.

United States and international Phase IIB trials have been launched on behalf of ALRT with Oral Panretin (ALRT1057) in a number of cancer indications, including kidney cancer (in combination with interferon alpha), ovarian cancer (with cis-platin), KS, prostate cancer, non-Hodgkin's lymphoma and multiple myeloma. In June 1997, kidney cancer, non-Hodgkin's lymphoma and multiple myeloma trials were discontinued due to insufficient activity. In addition, a Phase III trial with Oral Panretin (ALRT1057) at a dose of 140 mg/m(2)/day in APL was initiated in the fourth quarter of 1996. In September 1997, the final analysis of a Phase I/IIA trial of Oral Panretin in APL showed that 4 of 5 newly diagnosed patients achieved complete remission and 4 of 12 relapsed patients also experienced complete remission. The FDA has approved an application by Ligand, on behalf of ALRT, to have Oral Panretin (ALRT1057) designated an "Orphan Drug" for the treatment of APL. Oral Panretin (ALRT1057) entered a Phase II trial for psoriasis in the United States in September 1995, a Phase IIB trial for myelodysplastic syndrome in Europe in the second quarter of 1996 and a Phase II trial for proliferative vitreo-retinopathy, which was discontinued in July 1997 due to inability to accrue patients in this small patient population. In July 1997, the Company reported interim results of a Phase II study for Oral Panretin in KS showing that Oral Panretin has an acceptable safety profile and a sufficient number of positive responders to continue full accrual of the trial by the Aids Malignancy Consortium. In an ongoing 50 patient Phase II trial of

Oral Panretin in psoriasis, Oral Panretin appears to be well-tolerated in patients with moderate to severe plaque psoriasis. In this study, 50% (5 of 10 patients) who received the optimal dose level of 0.9 mg/kg administered daily, achieved a 50% or greater improvement based on the Physician's Global Evaluation.

There is currently substantial interest among oncologists in the potential of retinoids, as evidenced by the existence of over 60 open protocols at the National Cancer Institute ("NCI") to examine the effects of retinoids on a variety of cancers. A Phase I/II study is currently being conducted by the NCI to evaluate the safety and efficacy of Oral Panretin (ALRT1057) in children with malignancies, and trials are underway sponsored by the NCI to evaluate the safety and efficacy of Oral Panretin (ALRT1057) in patients with lung cancer, cervical cancer and those with breast cancer. There were 25 clinical trials conducted with Panretin in 1996 and early 1997.

Oral ALRT1550. A very potent RAR agonist, ALRT1550 strongly inhibits growth of several human cancer cell lines. In the fourth quarter of 1996, an IND was submitted and was cleared with no regulatory delay to begin human testing. Phase I/IIA Clinical Trials in advanced cancer began at Sloan-Kettering and Lombardi Comprehensive Cancer Center at Georgetown University in the first quarter of 1997.

Other ALRT Compounds. ALRT's drug development pipeline includes seven additional retinoid compounds in preclinical evaluation. These include: (i) ALRT4310 and analogues, RAR antagonists for topical use to ameliorate mucocutaneous irritation accompanying therapy for cancer or skin disease with systemic retinoids such as Accutane, Vesanoid, and Oral Panretin (ALRT1057); (ii) ALRT1455 and analogues, RAR-alpha-selective retinoids for possible use in treating leukemias, lymphoma, and breast cancer; (iii) RXR-selective retinoids including ALRT268 and ALRT324 with possible utilities in various metabolic disorders such as diabetes mellitus; and (iv) four additional retinoid receptor selective compounds with possible utilities in various cancers and skin disease.

Topical Targretin (LGD1069) and Oral Targretin (LGD1069). Ligand has created synthetic retinoids that show distinctive patterns of RR subtype selectivity. Ligand's research indicates that one of these retinoids, Targretin (LGD1069), has a beneficial effect in squamous epithelial growth, showing activity with human skin cells in culture and in a preclinical model of psoriasis. Targretin (LGD1069), which is the first RXR-selective retinoid in clinical development, has shown anti-cancer activity in vitro and in vivo preclinically. Because Targretin (LGD1069) has attractive preclinical effects to induce programmed cell death (apoptosis) in cancer cell lines, Ligand believes it may have utility in solid tumors, such as breast, colon or lung cancer, which grow relatively slowly and therefore respond poorly to conventional cytotoxic chemotherapeutic agents. In vivo preclinical data indicate that Targretin (LGD1069) is orally and topically active and well tolerated. Ligand's research indicates that Targretin (LGD1069) has a pattern of RR subtype activation distinct from that of Panretin (ALRT1057).

In June 1994, Ligand initiated Phase I/II clinical trials in patients with a form of skin lymphoma or with cutaneous KS with Topical Targretin (LGD1069). In interim data presented by investigations from the University of Cincinnati in March 1997, Topical Targretin (LGD1069) induced responses in 43% of 48 evaluable patients with cutaneous T-cell lymphoma ("CTCL"). In January 1996, the Company presented interim data which showed that Topical Targretin (LGD1069) induced responses in 15% of 46 patients with AIDS-related KS, a result which confirmed earlier interim results presented in September 1995. The Company met with the FDA on trial design and in late 1996 and early 1997 initiated three Phase II/III and pivotal Phase III clinical trials in CTCL; two studies with Oral Targretin (LGD1069) and one with Topical Targretin (LGD1069). In September 1997, researchers from the University of Texas M.D. Anderson Cancer Center reported on interim findings with respect to two Phase II/III pivotal trials of Oral Targretin (LGD1069). Forty-one percent of early and advanced stage cutaneous T-Cell lymphoma patients who had been refractory or intolerant to prior therapy and then received higher dose Targretin capsules achieved a complete or partial response compared to none of a group of early stage patients who received a lower dose of Targretin capsules. All rights to Topical Targretin (LGD1069) are the sole property of Ligand and have not been licensed to ALRT.

Ligand initiated clinical trials for Oral Targretin (LGD1069) for cancer

indications in January 1994. Phase I/IIA trials in patients with advanced cancer were conducted at centers including Sloan-Kettering and the Lombardi Comprehensive Cancer Center at Georgetown University. These studies were designed to gather human safety data and to determine the maximum tolerated dose of Oral Targretin (LGD1069) to facilitate design of Phase IIB and later studies. Phase I/IIA interim trial results of Oral Targretin

(LGD1069) were presented by Sloan-Kettering investigators at ASCO in May 1995. The Sloan-Kettering team reported on 33 patients with various cancers treated at oral daily doses up to 140 mg/m(2)/day. No dose limiting toxicities were reported in the study and investigators reported that the bioavailability of the drug is excellent. In April 1996, clinical investigators reported stabilization of disease in many of their patients with non-small lung cancer (NSCLC). Investigators from the Lombardi Comprehensive Cancer Center at Georgetown University reported eight of 15 lung cancer patients with stable disease in excess of three months. Investigators at Memorial Sloan-Kettering Cancer Center reported that eight of 20 lung patients demonstrated stabilization of disease for three to eight-plus months. Georgetown investigators reported results of an ongoing Phase I-IIa human clinical trial on Oral Targretin (LGD 1069) at the annual meeting of the American Association for Cancer Research and investigators from Sloan-Kettering reported results of a close Phase I-IIa human clinical trial of Oral Targretin (LGD1069) at the Cancer Institute (NCI) and European Organization for Research and Treatment of Cancer (EORETC) Symposium on New Drugs in Cancer Therapy. The safety profile of Oral Targretin (LGD1069) remains favorable. The drug also has displayed milder side effects than those often seen with other retinoids, and it appears to be well-tolerated at doses which are clinically active. Phase I/IIA studies are continuing. A Phase II/III clinical trial has begun in lung cancer, Phase IIB clinical trials have begun in KS, ovarian cancer, head and neck and prostate cancer, and a Phase II clinical trial has begun in kidney cancer (in combination therapy with interferon alpha). There were nearly 20 trials conducted with Targretin in 1996 and early 1997. All rights to Oral Targretin (LGD1069) are the sole property of Ligand and have not been licensed to ALRT.

Preclinical studies conducted in 1996 with RXR-selective retinoids such as Oral Targretin (LGD1069) indicate possible utilities in breast cancer and metabolic disorders such as diabetes mellitus. Preclinical studies conducted in 1996 in mouse models of human type II diabetes, a subset of diabetes mellitus, and obesity demonstrated the ability of Targretin (LGD1069) to decrease blood glucose, triglyceride and insulin levels. In a rat model of breast cancer prevention conducted in 1996, Targretin (LGD1069) reduced incidence and tumor frequency at least as well as an estrogen antagonist compared to control, without the undesirable reduction in mean body weight produced by the estrogen antagonist.

A Phase II multicenter trial in type II diabetes in Europe was initiated with Oral Targretin in the first quarter of 1997. U.S. trials are expected to begin in 1998. The clinical studies have two main objectives: to study the safety and tolerability of different dose levels of Targretin in type II diabetic patients, and to determine the potential for this RXR agonist to have positive metabolic effects on carbohydrate and /or lipid metabolism in this population. If Phase II studies are successful Ligand expects to enter full development on a registration tract during 1998. Ligand's goal is to initiate a significant pharmaceutical partnership in type II diabetes in 1997 to conduct the development.

Ligand will pay to Allergan a royalty based on Ligand's net sales of Targretin for uses other than oncology and dermatology indications; in the event that Ligand licenses commercialization rights to Targretin to a third party, Ligand will pay to Allergan a percentage of royalties payable to Ligand with respect to sales of Targretin other than in oncology and dermatology indications.

SEX STEROIDS

The primary objective of Ligand's sex steroid program is to define agonists, partial agonists and antagonists of the sex steroid receptors as drugs for hormonally-responsive cancers of men and women, hormone replacement therapies and the treatment and prevention of diseases affecting women's health as well as hormonal disorders prevalent in men. Ligand's programs in the sex steroid areas target (i) development of tissue-selective modulators of the

progesterone receptor ("PR") and estrogen receptor ("ER") for uses including various chronic disease indications and (ii) the development of androgen receptor ("AR") agonists and antagonists for use in cancer and other indications. Lead compounds have been identified in each of these project areas. Substantial medicinal chemistry efforts have yielded compounds active in animals as PR and AR modulators. Ligand is pursuing these programs alone and in collaboration with certain partners. In the research phase of a collaboration with Pfizer, an advanced clinical compound in breast cancer and osteoporosis was evaluated and potentially attractive ER modulators were identified as development candidates and backup candidates. In a collaboration with AHP, several advanced sex hormone receptor modulators are progressing

in preclinical evaluation. Ligand has filed a patent application on fundamental advances made in understanding sex steroid receptor function with significant drug discovery implications.

Progesterone Receptor Antagonists and Agonists. The objective of this program is to develop novel PR antagonists, partial agonists and agonists for chronic therapies. As part of this program, Ligand is also pursuing PR agonists and partial agonists with related chemical structures for use in hormone replacement therapy, breast cancer, contraception and other applications in women's health.

Exploratory clinical research indicates that PR antagonists may have utility in a variety of chronic diseases, including endometriosis and cancer. Although PR antagonists currently are used clinically for acute indications, their use in chronic diseases is likely to be limited by their cross-reaction with the glucocorticoid receptor, which is anticipated to produce adverse side effects with chronic administration. Ligand believes that more selective PR antagonists will be useful in the treatment of many hormone responsive diseases, including gynecological and malignant disorders, such as breast and uterine cancer, uterine fibroids (benign smooth muscle tumors) and endometriosis. Because of the very close structural similarity of the IRs for progesterone and glucocorticoids, it has proven difficult to find noncross-reactive compounds. This has been made more difficult because medicinal chemists have been largely constrained to steroid structures as lead compounds.

Ligand believes that it has an excellent opportunity, based on its proprietary tools and approaches, to develop a specific PR antagonist that does not cross-react with the IR for glucocorticoids. Ligand has discovered several nonsteroidal lead compounds that are PR antagonists. Ligand has also discovered closely related compounds that are full agonists of the PR, which may be useful in breast cancer, contraception and hormone replacement therapy. These lead compounds were detected in Ligand's natural product and defined chemical screening programs using the co-transfection assay and the cloned human PR. Medicinal chemistry efforts at Ligand based on one of these non-steroidal antiprogestin leads have yielded potent, selective compounds with demonstrable antiprogestin pharmacological effects both in vitro in human breast cancer cells and in vivo in rodents.

In January 1996, AHP exercised its option to include compounds that Ligand had discovered that modulate PRs and to expand the collaboration to encompass the treatment or prevention of osteoporosis through the ER. Ligand's proprietary PR modulators added to the collaboration include three series: LG1447 PR antagonists, and LG2527 and LG2716 PR agonists. In May 1996, AHP expanded the collaboration further to include four advanced chemical compound series from the WyethAyerst internal ER-osteoporosis program. See "Tissue Selective Estrogen and Progesterone Agonists."

Estrogen Agonists. Osteoporosis is a disease characterized by significant loss of bone mass. The disease, which predominantly affects post-menopausal women, leads to a greater susceptibility to traumatic bone fractures and can lead to curved spine ("dowager's hump") or hip fractures in elderly women. The disease is ordinarily treated by giving women therapeutic doses of estrogen or other steroidal analogues of estrogen. Estrogen therapy is a suboptimal treatment of the disease because of significant side effects, including an increased risk of developing uterine cancer. Estrogen therapy is not well tolerated, and over 60% of women abandon the therapy within the first year. Nevertheless, the market for estrogen therapy in the United States alone exceeds $850 million annually and is estimated by Ligand to approximate $1.4 billion worldwide.

The objective of the collaboration between Ligand and Pfizer was to discover and develop novel therapies for osteoporosis acting through IRs. The program focused on estrogen agonists that have greater tissue specificity for bone than current forms of estrogen replacement therapy. In November 1993, Ligand and Pfizer announced the successful completion of the research phase of their alliance with the identification of a development candidate and backups for the prevention and treatment of osteoporosis. In preclinical studies, the candidates from the program mimic the beneficial effects of estrogen on bone (stabilization of bone mineral density and skeletal integrity) and have an impact on serum lipids often associated with cardioprotection without increasing uterine or breast tissue proliferation. Ligand has been informed that Pfizer intended to file an IND in the U.S. for CP336,156 in June 1997. Ligand is awaiting confirmation from Pfizer.

Tissue Selective Estrogen and Progesterone Agonists. In addition to the effects of estrogens and progesterones on the reproductive system, estrogens exert a number of other influences in the body, including

beneficial effects on the cardiovascular and skeletal systems. After menopause, replacement of lost estrogens is effective but not well tolerated due to adverse side effects. Building on insights emerging from its research, Ligand believes that it has developed a novel approach to achieving tissue selective estrogen or progesterone agonist action. Ligand's approach is not dependent on the existence of receptor subtypes, although subtypes have been demonstrated for the ER and PR which may offer other drug discovery opportunities. Ligand has designed and implemented novel screens which Ligand believes will detect sex steroid receptor agonists with desirable pharmacological profiles. Ligand believes that these compounds will be useful in treating a variety of hormone-responsive diseases, such as endometriosis, uterine fibroids and cancers of the uterus and breast. Additionally, Ligand believes that the compounds emerging from this program can be used in reproductive medicine and hormone replacement therapy.

In September 1994, Ligand entered into a collaboration with AHP in the area of ER and PR modulators for use in women's health. The objective of this collaborative program is to discover and develop drugs which interact with the ER or PR to produce tissue-selective actions. An important additional aspect of this collaboration is Ligand's right to assay AHP's extensive chemical library for activity against a selected set of targets of Ligand's internal programs. Ligand may select up to 24 lead compounds for internal development to which Ligand has worldwide rights. AHP has agreed to provide up to $21.5 million in research funding to support up to 18 Ligand scientists during the term of the collaboration.

Androgen Receptor Agonists and Antagonists. The primary objective of this project is to develop novel AR agonists or antagonists for male hormone replacement therapy and the treatment of skin disorders, osteoporosis, prostate cancer and other diseases. The growth of most prostate cancers appears to be stimulated by or dependent upon androgens. The use of androgen antagonists has shown efficacy in the treatment of prostate cancer. Currently, the FDA has approved two androgen antagonists for use in the treatment of prostate cancer and a third is in clinical development. None of these are Ligand compounds. These agents appear to have significant side effects. Ligand believes that there is a substantial medical need for improved androgen modulators for use in the treatment of prostate cancer.

AR agonists and antagonists with an improved side effect profile may also provide utility in the treatment of benign prostatic hypertrophy, acne, hirsutism, male-pattern baldness and cachexia associated with chronic disease (e.g., cancer, auto-immune disorders and AIDS). Ligand has exclusively licensed patent applications for the cloned human AR and is employing it to identify novel AR agonists and antagonists. Ligand has identified non-steroidal lead compounds from its internal screening programs. An internally directed medicinal chemistry effort has produced potent, selective, patentable AR agonists and antagonists which show pharmacological activity in vivo in rodents. Compounds from these series are being optimized and will be further evaluated as potential preclinical candidates. Ligand intends to pursue the specialty applications emerging from these projects internally, but may seek a collaboration with a pharmaceutical company to exploit broader clinical applications.

CARDIOVASCULAR/METABOLIC DISEASE

Ligand scientists are exploring the role of certain orphan IRs in disorders affecting the cardiovascular system. Data suggest that these receptors regulate the expression of apolipoprotein A1 ("ApoA1"). ApoA1 is the major protein constituent of high-density lipoprotein ("HDL"), and recent data link increased levels of ApoA1 to prevention of atherosclerosis.

Another subfamily of orphan IRs, PPARs, have been implicated in lowering plasma levels of very low density lipoproteins and triglycerides. Data implicate PPARs in the mechanism of action of lipid lowering drugs such as Lopid(R). Ligand has discovered three subtypes of this PPAR class and defined novel aspects of their action. The subtype PPAR alpha appears to regulate the metabolism of certain lipids. PPAR alpha agonists may be useful to treat atherosclerosis and diabetes mellitus. PPAR gamma plays roles in fat cell differentiation and cellular responses to insulin. Modulators of PPAR gamma activity (e.g., the glitazone class of insulin sensitizers) may have utilities in the management of diabetes mellitus and/or obesity.

PPARs function in cells with RXRs as partner proteins. In addition to compounds that act directly on PPARs, which may have utility in various cardiovascular and metabolic disorders, certain retinoids able to

activate RXRs (e.g., Oral Targretin (LGD1069) and ALRT268) and indirectly activate PPARs may also have utilities in these disorders. Preclinical animal studies have demonstrated that Oral Targretin (LGD1069)has beneficial effects in animal models of diabetes.

Ligand has established sophisticated high throughput assays to screen for drug selectivity associated with structural classes of thyroid hormone receptors to identify compounds which could selectively mimic the thyroid hormone's cardioprotective lipid lowering effects without its impact on heart rate and nervous system activity.

In September 1992, Ligand entered into a collaboration with Glaxo to discover and develop drugs for the prevention or treatment of atherosclerosis and other disorders affecting the cardiovascular system. In collaboration with Glaxo, Ligand is working to discover drugs which produce beneficial alterations in lipid and lipoprotein metabolism in projects focused on (i) regulation of cholesterol biosynthesis and expression of a receptor which removes cholesterol from the blood stream, (ii) the IRs influencing circulating ADL levels, and (iii) PPARs, the subfamily of IRs activated by the clofibrate class of lipid lowering drugs, Lopid and Atromid-S. The collaboration with Glaxo has also identified a novel lead structure that activates selected PPAR subfamily members.

Ligand and Glaxo have screened compounds to identify potential lead compounds. A lead compound showing in vivo activity in rodents has been selected for lowering low-density lipoprotein ("LDL") cholesterol by up-regulating LDL receptor gene expression in liver cells. Once leads are identified, Glaxo has primary responsibility for pharmacology, medicinal chemistry to optimize the drug candidates, preclinical testing and for conducting clinical trials of the drug candidates for marketing approval by the FDA and certain other regulatory agencies. The collaborative research agreement was completed in September 1997.

In October 1997, the Company and Lilly announced that they intend to enter into a strategic alliance for the discovery and development of products based upon Ligand's IR technology. The collaboration will focus on products with broad application across metabolic diseases, including diabetes, obesity, dislipidemia, insulin resistance and cardiovascular diseases associated with insulin resistance and obesity.

INFLAMMATORY DISEASE

Ligand is utilizing three innovative approaches to discover drugs for the treatment of inflammation. One approach is being pursued in partnership with Abbott, one approach is being pursued internally and a third approach is being pursued in collaboration with Sankyo. These programs and approaches target diseases such as rheumatoid arthritis, asthma and reperfusion injury.

In collaboration with Abbott, Ligand is seeking novel small molecule anti-inflammatory drugs. The collaborative program includes several approaches to discovering modulators of glucocorticoid receptor activity that are better than currently known anti-inflammatory steroids such as hydrocortisone and dexamethasone. Internally, Ligand scientists are pursuing approaches to the discovery of blockers of the actions of the inflammation-promoting cytokines, interferon alpha and interferon gamma, through inhibition of their STAT-mediated signal transduction. A number of lead compounds have been identified and are currently being optimized for further drug development.

In collaboration with Sankyo, Glycomed scientists are synthesizing and testing compounds that block the adhesion of white blood cells to tissue. Some forms of inflammation are thought to be maintained by continued accumulation of white blood cells at sites of tissue injury. This accumulation is caused by adhesion of the white cells to the endothelial linings of blood vessels in the injured tissue. Research suggests the inflammatory process can be blocked by interfering with white blood cell adhesion, thus reducing tissue localization of the white cells. Inhibiting this process at its early stages by blocking the action of selectins (cell surface proteins mediating adhesion) may provide potent treatments for a variety of acute and chronic inflammatory diseases such as rheumatoid arthritis and asthma. Two lead compound series show improved potency over the natural adhesion ligands and a potential third lead series is currently under evaluation.

Galardin(TM) (GM6001). MMPIs are also potent inhibitors of a class of enzymes involved in the degradation of proteoglycans and collagen. Galardin, a metalloproteinase inhibitor, is a small, easily-

synthesizable molecule that has demonstrated effectiveness at very low concentrations in the prevention of corneal ulceration in animals following alkali injury to the eye. The MMPI Galardin was the first compound for which Glycomed filed an IND. Glycomed received Orphan Drug designation for Galardin in December 1991 and completed enrollment for the Phase II/III clinical trials in July 1994. The study, involving over 500 patients with corneal injury, produced the statistically significant finding that Galardin treatment reduced the number of patients in which perforation of the cornea developed in the period after injury. In contrast, the results of this Phase II/III study of Galardin in corneal injury did not demonstrate a statistically significant impact of Galardin, applied topically in the eye, on the rate of healing of corneal ulcers, the principal intended study endpoint. Perforation is caused by destruction of the full thickness of the cornea. It is one of the most serious complications associated with corneal ulcers and can lead to blindness. Corneal perforation is a significant risk for an estimated 120,000 of the patients with corneal ulcers in the United States each year. Sankyo has Galardin in Phase II trials in Japan and Ligand is seeking a partner to further the development and commercialization of Galardin for ophthalmic use. Composition of matter and use patents (in corneal ulceration) have been issued in the United States.

In February 1994, Glycomed signed a License Agreement with Sankyo for all ophthalmic indications in the Far East for Galardin and analogues, while Glycomed has retained rights in the rest of the world.

STATS

The recent discovery of the role of STATs and JAKs explains the mechanism through which many cytokines modulate gene expression and cellular function. The cytokines that produce cellular responses through the STAT/JAK pathway include the interferons, most of the interleukins, the hematopoietic growth factors, growth hormone and leptin.

Ligand's STAT/JAK signaling programs are focused on applications for inflammation, infection, transplant rejection, allergy and blood cell deficiencies induced in patients receiving chemotherapy. Ligand's first collaborative effort to utilize the STAT/JAK approach to drug discovery was with Abbott in the field of inflammation. Screening in this program led to the selection of a lead compound for interferon antagonist activity which Ligand is developing internally.

Ligand's second collaboration in the STAT/JAK area is with SmithKline Beecham to discover and characterize small molecule, orally bioavailable drugs to enhance the formation and development of blood cells (hematopoiesis). Working

together, Ligand and SmithKline Beecham scientists were able to validate a STAT/JAK-based high throughput screen for hematopoietic growth factors, thus achieving the first milestone of the collaboration in under nine months. Based on this and additional collaborative work, the research teams of SmithKline Beecham and Ligand are exploiting recent insights into the roles of JAKs and STATs in mediating hematopoietic growth factor signal transduction and blood cell formation. The Company's goal is to discover orally active compounds that effectively enhance blood cell formation in a variety of anemias and after cancer therapy. Several lead compounds have been identified. In January 1997, SmithKline Beecham and Ligand expanded the collaboration to include screens aimed at discovering small molecule mimics of thrombopoietin to stimulate blood platelet production.

Ligand's internal STATs research group is focused on the discovery of new leads with potential utility as cancer therapeutics and the development of high throughput screens for agonists and/or antagonists of therapeutically relevant cytokines that use the STAT/JAK pathway. Additional screening efforts have led to the selection of a lead compound for interferon activity in inflammation. Current efforts have allowed the Company to identify the components required for high throughput screening for IL-4 antagonists to treat allergy and asthma and IL-12 antagonists to treat transplant rejections and autoimmine diseases such as rheumatoid arthritis.

RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses were $27.2 million, $41.6 million, $59.5 million, $42.2 million and $51.4 million in fiscal 1994, 1995, 1996, and for the nine months ended September 30, 1996 and 1997, respectively, of which approximately 51%, 41%, 38%, 36% and 42%, respectively, was sponsored by the

Company and the remainder of which was funded pursuant to product development collaboration arrangements. See "Strategic Alliances."

IN-LICENSED PRODUCTS

PHOTOFRIN. In March 1995, Ligand acquired from QLT exclusive Canadian marketing rights to PHOTOFRIN, porfimer sodium, a laser-activated drug for use in photodynamic therapy for esophageal and superficial bladder cancer. In July 1995, Ligand, through its wholly-owned Canadian subsidiary Ligand Canada, began distribution of PHOTOFRIN. There are over 3,500 new cases of superficial bladder cancer and 1,200 new cases of esophageal cancer diagnosed each year in Canada. Ligand Canada also has rights to sell the product for any other approved indications in Canada. PHOTOFRIN has been approved in the United States in esophageal cancer, in the Netherlands for lung and esophageal cancers and in Japan for early-stage lung, esophageal, gastric and cervical cancers. In August 1997, QLT filed a supplemental new drug submission with the Canadian Health Protection Branch for PHOTOFRIN in renal cell carcinoma.

Proleukin. In September 1994, Ligand entered into an agreement with Cetus Oncology to exclusively market in Canada Proleukin, its recombinant human Interleukin-2 (aldesleukin) for the treatment of kidney cancer. In April 1995, Ligand Canada began distribution of Proleukin. It is also being tested with alpha interferon to determine if additional indications are feasible. There are nearly 5,000 new cases of kidney cancer reported in Canada each year. In August 1997, Chiron Corporation filed a supplemental new drug submission with the Canadian Health Protection Branch for Proleukin in malignant mellanoma.

The Company has initiated Phase IV trials in Canada with both Proleukin and PHOTOFRIN to further characterize the drugs clinically and facilitate broader acceptance of both products.

STRATEGIC ALLIANCES

Eli Lilly and Company. On October 20, 1997, the Company and Lilly announced that they intend to enter into a strategic alliance for the discovery and development of products based upon Ligand's IR technology. The collaboration will focus on products with broad applications across metabolic diseases, including diabetes, obesity, dislipidemia, insulin resistance and cardiovascular

diseases associated with insulin resistance and obesity. The transaction is subject to receipt of necessary regulatory approvals and is contingent upon Ligand 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. As a result, no assurance can be given that the transaction will close or that the strategic alliance will be consummated until all appropriate requirements have been met.

Under the proposed alliance:

- Lilly will receive worldwide, exclusive rights to Targretin (LGD1069) and other Ligand compounds and technology associated with the RXR receptor. Lilly will receive additional rights to use Ligand technology to develop an RXR compound in combination with a SERM in cancer. Ligand 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 Ligand's PPAR technology, along with rights to use PPAR research technology with the RXR technology. Lilly and Ligand 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 Ligand's HNF4 receptor and the obesity gene promoter technology.

- Ligand 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 Ligand. Should Ligand elect to obtain selected rights to the product, Lilly could receive milestones of up to $20 million in Ligand stock. In the event that Ligand 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, Ligand will sell an additional $20 million in equity to Lilly at a

20% premium to the then market price, and Ligand will qualify for certain additional royalties of up to 1.5% on net sales of Ligand's choice of Targretin (LGD1069), ALRT268 (LGD1268) or ALRT324 (LGD1324).

- Ligand will receive double-digit royalties on net sales of the most advanced products and single-digit royalties on net sales of earlier compounds. Ligand 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 Ligand upon the closing of the transaction and will, thereafter, pay to Ligand $12.5 million in upfront milestones.

SmithKline Beecham Corporation. In February 1995, Ligand entered into a collaborative agreement with SmithKline Beecham providing for a three-year research program (with an option to extend the program for two years at SmithKline Beecham's election) to utilize Ligand's proprietary STATs technology to discover and characterize small molecule, orally bioavailable drugs to control hematopoiesis (the formation and development of blood cells). Under the

terms of the agreement, SmithKline Beecham has been granted exclusive worldwide rights for products resulting from the collaboration in certain targeted areas. In exchange, SmithKline Beecham has agreed to provide Ligand up to $9.0 million in research funding and up to $12.5 million in equity investments. This amount includes an initial equity investment of $5.0 million in Common Stock. In November 1995, a second equity investment of $2.5 million in Ligand's Common Stock was provided to Ligand upon the achievement of certain milestones. A third equity investment of $2.5 million would be provided to Ligand upon SmithKline Beecham's election to expand the scope of research as defined. This election was exercised by SmithKline Beecham in January 1997 to include screens aimed at discovering small molecule mimics of thrombopoietin. The final installment of $2.5 million was provided in October 1997 as a convertible note as a result of SmithKline Beecham's election to extend the collaboration. SmithKline Beecham will make additional milestone payments to Ligand as compounds progress in clinical development and will also make royalty payments on product sales. Ligand has the right to select up to three compounds related to hematopoietic targets for development as anti-cancer products other than those compounds selected for development by SmithKline Beecham. SmithKline Beecham has the option to co-promote these products with Ligand in North America and to develop and market them outside North America. SmithKline Beecham can terminate the research program upon 60 days notice in the event of any breach by Ligand or upon six months notice at any time after August 1996. As of September 30, 1997, SmithKline Beecham had funded approximately $6.9 million of the total of $9.0 million in potential research funding under the agreement.

American Home Products Corporation. In September 1994, Ligand entered into a collaborative research agreement with AHP providing for a three-year research program (with an option to extend the program for two years at AHP's election) to discover and develop drugs which interact with estrogen or progesterone receptors for use in hormone replacement therapy, anti-cancer therapy, gynecological diseases, central nervous system disorders associated with menopause and fertility control. AHP has been granted exclusive worldwide rights to all products discovered in the collaboration that are agonists or antagonists to the PRs and ERs for application in the fields of women's health and cancer therapy. Under the agreement, AHP agreed to provide up to $21.5 million in research funding and up to $25.0 million in equity and convertible notes, in addition to milestone and royalty payments to Ligand for such products. An important additional aspect of this collaboration is Ligand's right to assay AHP's extensive chemical library for activity against a selected set of targets of Ligand's internal programs. Ligand may select up to 24 lead compounds for internal development to which Ligand has worldwide rights. AHP made a $5.0 million equity investment in Ligand and provided $10.0 million to Ligand in the form of a convertible note. In the second quarter of 1995, Ligand had achieved certain milestones which qualified the Company to receive the second installment of a $5.0 million convertible note which the Company elected to receive in December 1996. A final convertible note installment of $5.0 million will be provided if AHP exercises its option to extend the period of collaboration from three to five years. The first two notes issued to AHP are convertible into the Company's Common Stock at $10.01 per share and the final note is convertible at $10.88 per share. The conversion prices are subject to adjustment if certain dilutive events occur to outstanding Common Stock. In August 1996, February 1997 and again in July

1997, the Company converted $3.8 million, $3.8 million and $2.5 million, respectively of the convertible notes outstanding into 374,626, 374,626 and 249,749 shares of Common Stock at a $10.01 conversion price.

In January 1996, AHP exercised its option to include compounds discovered by Ligand that modulate PRs and to expand the collaboration to encompass the treatment or prevention of osteoporosis through the ER. In connection with the exercise of the option, the Company received $2.5 million in additional research revenue and funding commitments. Ligand's proprietary PR modulators added to the collaboration include three series: LG1447 PR antagonists, LG2527 and LG2716 PR agonists. In May 1996, AHP expanded the collaboration to include four advanced chemical compound series from its internal ER-osteoporosis program. As of September 30, 1997, AHP had funded approximately $15.9 million of the total of $21.5 million in potential research funding under the agreement.

Abbott Laboratories. In July 1994, Ligand entered into a collaborative research agreement with Abbott providing for a five-year research program to discover and develop small molecule compounds for the prevention or treatment of inflammatory diseases. Under the agreement, research funding provided by Abbott may total up to approximately $16.0 million. Abbott has also committed significant internal resources to the collaboration. Abbott was granted exclusive worldwide rights for all products discovered in the collaboration for use in inflammation. Ligand was granted exclusive worldwide rights for all anti-cancer products discovered in the collaboration. Abbott will make milestone and royalty payments on products targeted at inflammation resulting from the collaboration, while Ligand will make milestone and royalty payments on products targeted at anti-cancer resulting from the collaboration. Each party will be responsible for the development, registration and commercialization of the products in its respective field. Abbott made an initial $5.0 million equity investment in Ligand and purchased an additional $5.0 million of equity in August 1995. Abbott can terminate the research program at any time upon 90 days notice in the event of any breach by Ligand or upon four months notice at any time. As of September 30, 1997, Abbott had funded approximately $7.7 million of the total of $16.0 million in potential research funding under the agreement.

Sankyo Company Limited. As part of the Glycomed acquisition, the Company acquired a collaborative research agreement with Sankyo which Glycomed had entered into in June 1994 providing for a three-year research program. Under the agreement, Sankyo reimburses a portion of the Company's research expenses related to the collaboration up to an aggregate of $8.9 million. The agreement also provides that upon being presented with a target compound arising from the research collaboration with the Company, Sankyo will notify the Company whether it wishes to pursue development of the compound. If Sankyo exercises its option to develop the compound, the Company and Sankyo will negotiate in good faith the terms and conditions for an option and license agreement and Sankyo will make additional milestone payments. In connection with the collaborative research agreement, in September 1995, Sankyo purchased $1.5 million of the Company's Common Stock. Sankyo can terminate the research program at any time upon 30 days notice in the event of any breach by Glycomed. In June 1997, the collaborative research agreement was extended through October 1997. No further extension of the research agreement is anticipated. As of September 30, 1997, Sankyo had funded approximately $8.8 million, of which $6.5 million has been funded since the Merger, of the total of $8.9 million in potential research funding under the agreement.

Glaxo-Wellcome plc. In September 1992, Ligand entered into a five-year collaborative research agreement with Glaxo to develop drugs for the prevention or treatment of cardiovascular disease. The collaboration significantly enhances Ligand's pharmacological, medicinal chemistry and clinical development resources related to cardiovascular disease. Glaxo has committed significant internal resources to the collaboration and will fund one-half of Ligand's research expenses to support 18 Ligand scientists assigned to the collaboration. Ligand and Glaxo will screen compounds to identify potential lead compounds. Once leads have been identified, Glaxo will have primary responsibility for pharmacology, medicinal chemistry to optimize the drug candidates and preclinical testing. Glaxo also has responsibility for conducting clinical trials of the drug candidates for marketing approval by the FDA and certain other regulatory agencies. Ligand will receive milestone payments as compounds progress through the development cycle and a royalty on any commercialized products. Ligand has retained the right to develop and commercialize products arising from the collaboration in markets not exploited by Glaxo or where Glaxo is not developing a product for the same indication. Glaxo has made a total of $10.0 million in equity investments in Ligand. Glaxo can terminate the

research program at any time upon 180 days notice in the event of any breach by Ligand. In connection with the agreement, Glaxo purchased $7.5 million of the Company's Common Stock. Glaxo also purchased $2.5 million of the Company's Common Stock as part of the Company's initial public offering. As of September 30, 1997, Glaxo had funded approximately $9.2 million of the total of $10.0 million in potential research funding under the agreement. The collaborative research agreement was completed in September 1997.

Allergan, Inc. In June 1992, Ligand and Allergan formed the Joint Venture, owned 50 percent by each party, to discover, develop and commercialize retinoid drugs. In December 1994, the Company and Allergan formed ALRT to continue the research and development activities previously conducted by the Joint Venture. In June 1995, the Company and ALRT completed the ALRT Offering and cash contributions by Allergan and Ligand 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 Common Stock of the Company. Immediately prior to the consummation of the ALRT Offering, Allergan Pharmaceuticals (Ireland) Ltd., Inc. ("Allergan Ireland") made a $6.0 million investment in the Company's Common Stock. As part of the ALRT Offering, all rights held by the Joint Venture were licensed to ALRT. The Company, Allergan and ALRT entered into certain other various agreements in connection with the funding of ALRT, including, a Technology License Agreement, a Research and Development Agreement, a Commercialization Agreement, Services and Administrative Agreements, an option to acquire certain assets related to Oral and Topical Panretin (ALRT1057) (the "ALRT1057 Option") and the Stock Purchase Option, pursuant to which Ligand and Allergan perform development work on certain retinoid compounds. ALRT can terminate the Research and Development Agreement at any time after a breach by Ligand or Allergan, subject to the right of the nonbreaching party to assume the obligations of the breaching party within 20 days of receipt of notice of the breach. Pursuant to the Stock Purchase Option Ligand is entitled to purchase all ALRT callable common stock at prices ranging from $71.4 million to $120.7 million at any time between June 1997 and June 2000. If Ligand exercises the Stock Purchase Option, Allergan has an option to purchase an undivided 50% interest in all of the assets of ALRT at prices ranging from $8.9 million to $15.0 million. Since 1992, Allergan Ireland, a wholly owned subsidiary of Allergan, has made $30.0 million in equity investments in Ligand. As of September 30, 1997, ALRT had provided approximately $50.0 million in research funding to Ligand under the Research and Development Agreement.

On September 24, 1997, Ligand and Allergan announced that they had exercised their respective Stock Purchase Option and Asset Purchase Option at the original price provided by the agreements. Ligand's notice of exercise price of the Stock Purchase Option including 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 the aggregate Asset Purchase Option Exercise Price of $8.9 million, 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 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.

Ligand 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 Ligand'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, Ligand and Allergan would have had equal, co-exclusive development, commercialization and sublicense rights in the compounds and assets developed by ALRT. Ligand would have owned all of the outstanding Callable Common Stock of ALRT and Allergan would have acquired (i) a co-exclusive (with ALRT) right to ALRT technology as of the date of the acquisition and (ii) 50% of all tangible assets related to ALRT's activities in the retinoid program. See "Certain Transactions -- Relationship Among Allergan Ligand Retinoid Therapeutics, Inc., Ligand and Allergan -- Stock Purchase Option" and "-- Asset Purchase Agreement." Under the restructured arrangement, however, Ligand 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 RXR selective compounds). In addition, Ligand and Allergan have participated in the Lottery for each of the approximately 2,000 retinoid compounds existing in the ALRT compound library as of the closing date, with each party to acquire exclusive, worldwide development, commercialization and sublicense rights to the compounds which they select.

The purpose of the Lottery is to divide between Ligand and ALRT on the one hand and Allergan on the other all compounds developed by ALRT and existing as of the closing of the Stock Purchase Option. Allergan and Ligand shared all information regarding ALRT compounds and developed a list of such compounds organized into the following categories: RXR compounds, RAR alpha selective compounds, RAR antagonist compounds, RAR beta selective compounds, RAR panagonist compounds, RAR/RXR panagonist compounds and other compounds. Allergan initially selected two ALRT compounds from the RXR category, followed by Ligand and Allergan alternative selections (with Ligand selecting first) of the remaining ALRT compounds in the RXR category on a single compound for single compound basis. Allergan then had the initial selection of one ALRT compound from each of the RAR alpha selective and RAR antagonist category. Ligand then had the right to select two ALRT compounds in each of the RAR alpha selective and RAR antagonist categories and thereafter, Allergan and Ligand alternated selecting single ALRT compounds in each of these categories. Ligand then had the right to select the next category of ALRT compounds to be subject to the Lottery and had the first selection of a single ALRT compound in such category; Allergan then had the right to select two ALRT compounds in such category and thereafter, Ligand and Allergan alternated selecting single ALRT compounds in such category. The process described in the immediately preceding sentence continued with each of Ligand and Allergan alternating selection of a category of ALRT compounds (with Allergan selecting first). The party selecting the category selected the first compound in the category, the other party selected the second and third compounds in the category and the parties thereafter alternated single selections.

Ligand 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. Ligand will also pay to Allergan a royalty based on Ligand's net sales of Targretin for uses other than oncology and dermatology indications; in the event that Ligand licenses commercialization rights to Targretin to a third party, Ligand will pay to Allergan a percentage of royalties payable to Ligand with respect to sales of Targretin other than in oncology and dermatology indications. Under the restructured arrangement, on the closing of the exercise of the Stock Purchase Option and the Asset Purchase Option Ligand will pay Allergan a non-refundable cash payment in the amount of $4.5 million.

Pfizer Inc. In May 1991, Ligand entered into a five-year collaborative research and development and license agreement with Pfizer to develop better alternative therapies for osteoporosis. Pfizer agreed to provide up to $3.0 million per year in research funding to Ligand in addition to committing significant internal resources. In November 1993, Ligand and Pfizer announced the successful completion of the research phase of their alliance with the identification of a development candidate and backups for the prevention and treatment of osteoporosis. In preclinical studies, the candidates from the program mimic the beneficial effects of estrogen on bone and have an impact on blood serum lipids often associated with cardiac benefits without increasing uterine or breast tissue proliferation. Under the terms of the collaboration, Pfizer has primary responsibility for pharmacology, medicinal chemistry to optimize the drug candidates, preclinical testing, and clinical trials of drug candidates for marketing approval by the FDA and certain other regulatory agencies. Ligand has granted Pfizer exclusive worldwide rights to manufacture and market any compounds jointly developed for osteoporosis. Ligand is to

receive up to $7.5 million in milestone payments as development objectives are achieved, in addition to royalties on sales of successful drugs that emerge from the alliance. As

of December 31, 1993, Pfizer had made a total of $7.5 million of equity investments in Ligand and had funded approximately $9.4 million in research funding.

In December 1994, Ligand filed suit against Pfizer in the Superior Court of California in San Diego County for breach of contract and for a declaration of future rights as they relate to droloxifene, a compound upon which Ligand performed work at Pfizer's request during the collaboration between Pfizer and Ligand to develop drugs in the field of osteoporosis. Droloxifene is an estrogen antagonist/partial agonist with potential indications in the treatment of osteoporosis and breast cancer as well as other applications. Ligand and Pfizer entered into a settlement agreement with respect to the lawsuit in April 1996. Under the terms of the settlement agreement, Ligand is entitled to receive milestone payments if Pfizer continues development and royalties if Pfizer commercializes droloxifene. At the option of either party, milestone and royalty payments owed Ligand can be satisfied by Pfizer transferring to Ligand shares of Common Stock at an exchange ratio of $12.375 per share. To date, Ligand has received approximately $1.3 million in milestone payments from Pfizer as a result of the continued development of droloxifene. These milestones were paid in the form of an aggregate of 101,011 shares of Common Stock, which were subsequently retired from treasury stock in September 1996. According to announcements by Pfizer, droloxifene has entered Phase II clinical trials for osteoporosis and Phase III clinical trials for breast cancer. Ligand has been informed by Pfizer that CP336,156 was to complete Phase I trials in Europe and an IND was planned in the U.S. for June 1997.

The Salk Institute of Biological Studies. In October 1988, Ligand established an exclusive relationship with The Salk Institute which is one of the research centers in the area of IR technology. Dr. Ronald Evans, who cloned and characterized the first IR in 1985 and who invented the co-transfection assay used by Ligand, is a professor in the Gene Expression Laboratory of The Salk Institute and an Investigator of the Howard Hughes Medical Institute. Under the agreement, Ligand has an exclusive, worldwide license to the intracellular receptor technology developed by Dr. Evans' laboratory at The Salk Institute. Subject to compliance with the terms of the agreement, the term of the license extends for the life of the patents covering such developments.

Under the agreement, Ligand made an initial payment to The Salk Institute and issued shares of Common Stock as partial consideration for the license. Ligand is also obligated to make certain royalty payments based on sales of certain products developed using the licensed technology, as well as certain minimum annual royalty payments.

Ligand also entered into exclusive consulting agreements with Dr. Evans that continue through July 1998. Under these agreements, Dr. Evans has purchased Common Stock and has been granted options to purchase Common Stock. As a consultant, Dr. Evans meets on a regular basis with Company personnel to review ongoing research and to assist Ligand in defining the technical objectives of future research. Dr. Evans is also involved in identifying new developments made in other leading academic laboratories which relate to Ligand's research interests. Dr. Evans serves as Chairman of Ligand's Scientific Advisory Board.

Baylor College of Medicine. In January 1990, Ligand established an exclusive relationship with Baylor, which is a center of IR technology. Dr. Bert W. O'Malley is a professor and the Chairman of the Center for Reproductive Biology at Baylor and leads IR research at that institution. Important features of Ligand's co-transfection assay were developed in Dr. O'Malley's laboratory and are exclusively licensed by Ligand. Ligand has entered into a series of agreements with Baylor under which it has an exclusive, worldwide license to IR technology developed at Baylor and to future improvements made in Dr. O'Malley's laboratory through September 1999. Subject to compliance with the terms of the agreements, the term of the license may extend for the life of the patents covering such developments.

Ligand works closely with Dr. O'Malley and Baylor in scientific IR research, particularly in the area of sex steroids and orphan IRs. Under the agreement, Ligand is obligated to make payments to Baylor College of Medicine in

support of research done in Dr. O'Malley's laboratory for the period from April 1992 through March 1997. Ligand is also obligated to make certain royalty payments based on the sales of products developed using the licensed technology. Ligand also entered into an exclusive consulting agreement with Dr. O'Malley through September 1997. Discussions are under way to extend such agreement; there can be no assurance such an extension will be negotiated. Dr. O'Malley is a member of Ligand's Scientific Advisory

Board. Dr. O'Malley has purchased Common Stock and has been granted options to purchase Common Stock.

Rockefeller University. In September 1992, Ligand entered into a worldwide, exclusive license agreement with Rockefeller University and exclusive consulting agreements with Dr. James Darnell of Rockefeller University and Dr. David Levy of NYU to develop and commercialize certain technology involving STATs to control gene expression. Dr. Darnell is one of the leading investigators of the control of gene expression by STATs. Rockefeller University will receive (i) payments upon the transfer of the technology to Ligand and upon the first four anniversary dates of the agreement, (ii) a royalty on any commercialized products and (iii) subject to a vesting schedule, shares of Common Stock and warrants to purchase shares of Common Stock. In consideration of related technology assigned by NYU to Rockefeller University and covered by the license agreement with Ligand, NYU received, subject to a vesting schedule, shares of Common Stock and warrants to purchase shares of Common Stock. Subject to a vesting schedule tied to their consulting agreements, Dr. Darnell and Dr. Levy received shares of Common Stock. In addition, in October 1994 Ligand granted Dr. Darnell options to purchase shares of Common Stock.

In addition to the collaborations discussed above, the Company also has a number of other consulting, licensing, development and academic agreements by which it strives to advance its technology.

PATENTS AND PROPRIETARY RIGHTS

Ligand believes that patents and other proprietary rights are important to its business. Ligand's policy is to file patent applications to protect technology, inventions and improvements to its inventions that are considered important to the development of its business. Ligand also relies upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain its competitive position.

To date, Ligand has filed or participated as licensee in the filing of 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. In addition, Ligand is the exclusive licensee to rights covered by 150 patents issued or allowed worldwide to The Salk Institute, Baylor and other licensors. Subject to compliance with the terms of the respective agreements, Ligand's rights under its license with The Salk Institute, and other exclusive licensors, extend for the life of the patents covering such developments.

The patent positions of pharmaceutical and biotechnology firms, including Ligand, are uncertain and involve complex legal and factual questions for which important legal principles are largely unresolved. In addition, the coverage claimed in a patent application can be significantly reduced before or after a patent is issued. The situation is also affected by the fact that the patent law of the United States is changed from time to time. For example, during 1995, the patent term was changed from 17 years from patent grant to 20 years from the filing date of the application for patent. Since a patent has no effect until granted, and because the time during which a patent application spends before the Patent Office cannot be predicted, the actual term of a patent cannot be known until it is granted and that term may be substantially less than the 17 years allowed under former law. Also during 1995, certain advantages of U.S. inventors over foreign inventors were eliminated from the patent law. There are currently pending before the Congress other changes to the patent law which may adversely affect pharmaceutical and biotechnology firms. The extent to which the changes made in 1995 and changes which might occur if pending legislation is adopted would affect the operations of Ligand cannot be ascertained. There can be no assurance that any patent applications will result in the issuance of patents or, if any patents are issued, that they will provide significant proprietary protection or, instead, will be circumvented or invalidated. Since

under current law patent applications in the United States are maintained in secrecy until foreign counterparts, if any, publish or patents issue and since publication of discoveries in the scientific or patent literature often lag behind actual discoveries, Ligand cannot be certain that it or any licensor was the first creator of inventions covered by pending patent applications or that it or such licensor was the first to file patent applications for such inventions. Moreover, Ligand might have to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine priority of invention, which could result in substantial cost to Ligand, even if the eventual outcome were

favorable to Ligand. 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.

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 technologies, applications or patents may conflict with Ligand's technologies or patent applications. 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 these patents at a reasonable cost or be able to develop or obtain alternative technology.

Ligand also relies upon trade secret protection for its confidential and proprietary information. There can be no assurance that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to Ligand's trade secrets or disclose such technology or that Ligand can meaningfully protect its trade secrets.

It is Ligand's policy to require its employees, consultants, members of the 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. These agreements provide that all confidential information developed or made known during the course of the relationship with Ligand is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements provide that all inventions resulting from work performed for Ligand, utilizing property of Ligand or relating to Ligand's business and conceived or completed by the individual during employment shall be the exclusive property of Ligand to the extent permitted by applicable law. There can be no assurance, however, that these agreements will provide meaningful protection of Ligand's trade secrets or adequate remedies in the event of unauthorized use or disclosure of such information.

SALES AND MARKETING

The creation of infrastructure to commercialize products is a difficult, expensive and time-consuming process. Ligand currently has no sales and only limited marketing capability outside Canada. 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 distributions 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.

In September 1994, Ligand was appointed by Cetus Oncology as the sole distributor of Proleukin(R), an oncology product, within Canada for a five-year period beginning on the date of the first sale of Proleukin(R) by Ligand in Canada. Ligand paid Cetus Oncology $250,000 upon execution of the agreement and made an additional milestone payment of $250,000 to Cetus Oncology upon the receipt of government approval for the sale of Proleukin in Canada. In accordance with the agreement, Ligand initially hired three sales representatives to market Proleukin in Canada.

In March 1995, Ligand was also appointed by QLT as the sole distributor, within Canada of PHOTOFRIN, a product for the treatment of esophageal and superficial bladder cancer. The agreement covers an initial 10 year period beginning on the date of the first sale of PHOTOFRIN by Ligand in Canada. Ligand paid QLT $180,800 upon execution of the agreement with future payments based on sales volume.

MANUFACTURING

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 current Good Manufacturing Practices ("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.

GOVERNMENT REGULATION

The manufacturing and marketing of Ligand's products and its ongoing research and development activities are subject to regulation for safety and efficacy by numerous governmental authorities in the United States and other countries. In the United States, pharmaceuticals are subject to rigorous regulation by federal and various state authorities, including FDA. The Federal Food, Drug, and Cosmetic Act and the Public Health Service Act govern the testing, manufacture, safety, efficacy, labeling, storage, record keeping, approval, advertising and promotion of Ligand's products. There are often comparable regulations which apply at the state level. Product development and approval within this regulatory framework takes a number of years and involves the expenditure of substantial resources.

The steps required before a pharmaceutical agent may be marketed in the United States include (i) preclinical laboratory and animal tests, (ii) the submission to the FDA of an IND, which must become effective before human clinical trials may commence, (iii) adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug, (iv) the submission of an NDA to the FDA and (v) the FDA approval of the NDA prior to any commercial sale or shipment of the drug. A company must pay a one time user fee for NDA submissions, and annually pay user fees for each approved product and manufacturing establishment. In addition to obtaining FDA approval for each product, each domestic drug manufacturing establishment must be registered with the FDA and in California, with the Food and Drug Branch of California. Domestic manufacturing establishments are subject to preapproved inspections by the FDA prior to marketing approval and then to biennial inspections and must comply with cGMP. To supply products for use in the United States, foreign manufacturing establishments must comply with cGMP and are subject to periodic inspection by the FDA or by regulatory authorities in such countries under reciprocal agreements with the FDA.

Preclinical tests include laboratory evaluation of product chemistry and animal studies to assess the safety and efficacy of the product and its formulation. The results of the preclinical tests are submitted to the FDA as part of an IND, and unless the FDA objects, the IND will become effective 30 days following its receipt by the FDA.

Clinical trials involve the administration of the pharmaceutical product to healthy volunteers or to patients identified as having the condition for which the pharmaceutical is being tested. The pharmaceutical is administered under the supervision of a qualified principal investigator. Clinical trials are conducted in accordance with protocols previously submitted to the FDA as part of the IND

that detail the objectives of the study, the parameters used to monitor safety and the efficacy criteria that are being evaluated. Each clinical study is conducted under the auspices of an Institutional Review Board ("IRB") at the institution at which the study is conducted. The IRB considers, among other things, ethical factors, the safety of the human subjects and the possible liability risk for the institution.

Clinical trials are typically conducted in three sequential phases that may overlap. In Phase I, the initial introduction of the pharmaceutical into healthy human volunteers, the emphasis is on testing for safety (adverse effects), dosage tolerance, metabolism, distribution, excretion and clinical pharmacology. Phase II involves studies in a limited patient population to determine the efficacy of the pharmaceutical for specific targeted indications, to determine dosage tolerance and optimal dosage and to identify possible adverse side effects and safety risks. Once a compound is found to be effective and to have an acceptable safety profile in

Phase II evaluations, Phase III trials are undertaken to evaluate clinical efficacy further and to further test for safety within an expanded patient population at multiple clinical study sites. The FDA reviews both the clinical plans and the results of the trials and may discontinue the trials at any time if there are significant safety issues.

The results of the preclinical and clinical trials are submitted to the FDA in the form of an NDA for marketing approval. The testing and approval process is likely to require substantial time and effort and there can be no assurance that any approval will be granted on a timely basis, if at all. The approval process is affected by a number of factors, including the severity of the disease, the availability of alternative treatments and the risks and benefits demonstrated in clinical trials. Additional animal studies or clinical trials may be requested during the FDA review process and may delay marketing approval. After FDA approval for the initial indications, further clinical trials would be necessary to gain approval for the use of the product for any additional indications. The FDA may also require post-marketing testing to monitor for adverse effects, which can involve significant expense.

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 corporate 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 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.

For both currently marketed and future products, failure to comply with applicable regulatory requirements after obtaining regulatory approval can, among other things, result in the suspension of regulatory approval, as well as possible civil and criminal sanctions. In addition, changes in existing

regulations could have a material adverse effect on Ligand.

A drug that receives Orphan Drug designation by the FDA and is the first product to receive FDA marketing approval for its product claim is currently entitled to a seven-year exclusive marketing period in the United States for that product claim. A drug that is considered by the FDA to be different than a particular Orphan Drug, however, is not barred from sale in the United States during such seven-year exclusive marketing period. The FDA has approved an application by Ligand on behalf of ALRT to have Oral Panretin (ALRT1057) designated an "Orphan Drug" for the treatment of APL. Ligand is preparing additional applications for Orphan Drug designations in other indications. Congress is currently considering significant changes to the Orphan Drug Act, including a reduction in the exclusive marketing period from seven years to four years, with the possibility of a three-year extension for certain drugs.

For marketing outside the United States before FDA approval to market, the Company must submit an export permit application to the FDA. The Company also will be subject to foreign regulatory requirements governing human clinical trials and marketing approval for drugs. The requirements relating to the conduct of

clinical trials, product licensing, pricing and reimbursement vary widely from country to country and there can be no assurance that the Company or any of its partners will meet and sustain any such requirements.

COMPETITION

Some of the drugs which Ligand is developing will be competing 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. A number of pharmaceutical and biotechnology companies are pursuing IR-related or STAT-related approaches to drug discovery and development. Furthermore, academic institutions, government agencies, and other public and private organizations conducting research may seek patent protection with respect to potentially competing products or technologies and may establish collaborative arrangements with competitors of Ligand.

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. These companies 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 pharmaceuticals could render these pharmaceuticals noncompetitive or obsolete.

Ligand's products under development are expected to address 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 its future corporate partners can develop products, complete the clinical trials and regulatory approval processes, and supply commercial quantities of the products to the market are expected to be important competitive factors. 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 for the often substantial period between technological conception and commercial sales.

PRODUCT LIABILITY AND INSURANCE

Ligand's business exposes it to potential product liability risks which are inherent in the testing, manufacturing and marketing of human therapeutic products. 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.

HUMAN RESOURCES

As of October 31, 1997, Ligand had 368 full-time employees, of whom 278 were involved directly in scientific research and development activities. Of these employees, approximately 80 hold Ph.D. or M.D. degrees.

FACILITIES

Ligand currently leases and occupies six facilities: four in San Diego, California, and two in Alameda, California.

In San Diego, the Company leased an approximately 42,000 square foot laboratory and administrative office space pursuant to a lease that continues through September 1997 and contains a renewal option of five years. In July 1994, the Company entered into a 20 year lease related to the construction of a new laboratory facility. This 52,800 square foot facility was completed and occupied in August 1995. The third facility in San Diego is for administrative office space pursuant to a sublease of approximately 10,000 square feet which continues through December 1997. The fourth facility in San Diego is a lease of approximately 7,500 square feet of laboratory space which continues through February 1999.

In Alameda, Glycomed leases two buildings totaling approximately 56,000 square feet, for laboratory and administrative office usage. The leases expired in October 1997 and contained a renewal option of five years. As of December 1996, Glycomed had sub-let approximately 25,800 square feet in one of these buildings. The Company recently announced the closure of the Alameda facility housing Glycomed at the expiration of the leases.

The Company believes these facilities will be adequate to meet the Company's near-term space requirements. At the end of 1997, two of the Company's San Diego lease agreements for office and research facilities expire. The Company plans to occupy a build-to-suit facility prior to the termination of those leases. In March 1997, the Company entered into a long-term lease related to the build-to-suit facility.

LITIGATION

From time to time the Company is a party to other litigation arising in the normal course of business. As of the date of the filing, the Company is not a party to any litigation which would have a material effect on its financial position or business operations taken as a whole.

MANAGEMENT

The directors and executive officers of the Company as of October 15, 1997 are as follows:

<TABLE>
<CAPTION>

NAME	AGE	POSITION
<S>	<C>	<C>
David E. Robinson.....	48	Chairman of the Board, President, Chief Executive Officer and Director

Lloyd E. Flanders, Ph.D.	57	Senior Vice President, Pre-Clinical Development and R&D Project Management
Paul V. Maier	49	Senior Vice President, Chief Financial Officer and Treasurer
Andres Negro-Vilar, M.D., Ph.D.	57	Senior Vice President, Research and Chief Scientific Officer
William A. Pettit	48	Senior Vice President, Human Resources and Administration
Steven D. Reich, M.D.	52	Senior Vice President, Clinical Research
William L. Respess, J.D., Ph.D.	58	Senior Vice President, General Counsel, Government Affairs and Secretary
Russell L. Allen	51	Vice President, Corporate Development and Strategic Planning
Susan E. Atkins	50	Vice President, Investor Relations and Corporate Communications
George M. Gill, M.D.	64	Vice President, Medical Affairs
Howard T. Holden, Ph.D.	52	Vice President, Regulatory Affairs and Compliance
Henry F. Blissenbach	55	Director
Alexander D. Cross, Ph.D.	65	Director
John Groom	59	Director
Irving S. Johnson, Ph.D.	72	Director
Carl C. Peck, M.D.	55	Director

</TABLE>

BUSINESS EXPERIENCE OF DIRECTORS AND EXECUTIVE OFFICERS

DAVID E. ROBINSON has served as President and Chief Executive Officer and a Director of Ligand since 1991. Since May 1996, Mr. Robinson has also served as Chairman of the Company. Prior to joining Ligand, he was Chief Operating Officer at Erbamont, a pharmaceutical company. Prior to that, Mr. Robinson was President of Adria Laboratories, Erbamont's North American Subsidiary. He also was employed in various executive positions for more than 10 years by Abbott Laboratories, most recently as Regional Director of Abbott Europe. Mr. Robinson received his B.A. in political science and history from MacQuaire University and his M.B.A. from the University of South Wales, Australia. Mr. Robinson is a Director of the Cancer Center Foundation of the University of California at San Diego and the California Healthcare Institute (CHI), as well as Neurocrine Biosciences Inc. and several private health care companies.

LLOYD E. FLANDERS, PH.D. joined Ligand in September 1992 as Vice President, R&D Planning, Administration, Project Management, became Vice President, Pre-Clinical Development and R&D Administration in August 1993 and became Senior Vice President, Pre-Clinical Development and R&D Project Management in March 1995. Prior to joining Ligand, Dr. Flanders was Vice President, New Product Development -- Cardiovascular Projects at Parke-David Research Division of the Warner-Lambert Company where he also previously served as Director, Research Planning and Administrative Services. From 1971 to 1985, he served in various positions with G.D. Searle and Company, including Director, Department of Project Management. Dr. Flanders received a Ph.D. in comparative biochemistry and biophysics from University of California, Davis, an M.B.A. from Lake Forest College and a B.S. in biology from DePauw University.

PAUL V. MAIER joined Ligand in October 1992 as Vice President and Chief Financial Officer and became Senior Vice President and Chief Financial Officer in November 1996. Prior to joining Ligand, Mr. Maier

served as Vice President, Finance at DFS West, a division of DFS Group, L.P., a private multinational retailer. From February 1990 to October 1990, Mr. Maier served as Vice President and Treasurer of ICN Pharmaceuticals, Inc. Mr. Maier held various positions in finance and administration at SPI Pharmaceuticals, Inc., a publicly held subsidiary of ICN Pharmaceuticals Group, from 1984 to 1988, including Vice President, Finance from February 1984 to February 1987. Mr. Maier received an M.B.A. from Harvard Graduate School of Business and a B.S. from Pennsylvania State University.

ANDRES NEGRO-VILAR, M.D., PH.D. joined Ligand in September 1996 as Senior Vice President, Research, and Chief Scientific Officer. Prior to joining Ligand, Dr. Negro-Vilar was Vice President of Research and Head of the Women's Health Research Institute for Wyeth-Ayerst Laboratories, a division of American Home Products, from 1993 to 1996. From 1983 to 1993, Dr. Negro-Vilar served at the National Institute of Environmental Health Sciences of the National Institutes

of Health as the Director Clinical Programs and Chief of the Laboratory of Molecular and Integrative Neurosciences. Dr. Negro-Vilar received a Ph.D. in physiology from the University of Sao Paulo, Brazil, an M.D. from the University of Buenos Aires, Argentina, and a B.S. in science from Belgrano College.

WILLIAM A. PETTIT joined Ligand in November 1996 as Senior Vice President, Human Resources and Administration. Prior to joining Ligand, Mr. Pettit was Senior Vice President, Human Resources at Pharmacia and Upjohn, Inc. where he was employed from 1986 to 1996. From 1984 to 1986, Mr. Pettit served as Corporate Director, Human Resources at Browning Ferris Industries. From 1975 to 1984, Mr. Pettit served in various positions at Bristol-Myers Company (now Bristol-Myers Squibb Company) including Director, Human Resources. Mr. Pettit received a B.A. in English from Amherst College.

STEVEN D. REICH, M.D. joined Ligand in December 1995 as the Senior Vice President, Clinical Research. Prior to joining Ligand, Dr. Reich was at the clinical contract research organization PAREXEL International Corporation, form 1987 to 1995, where he served as Senior Vice President, Medical Affairs responsible for worldwide medical and clinical affairs services including clinical trials management, medical consulting and medical writing. From 1986 to 1987, Dr. Reich served as worldwide Medical Research Director of Biogen, Inc. ("Biogen"), and held various positions at Biogen from 1983 to 1986. Earlier in his career Dr. Reich served as Associate Director of Clinical Cancer Research for Bristol Laboratories (1978-1979). He is a Board certified Medical Oncologist and has held academic positions as a clinical pharmacologist at Northwestern University, SUNY-Upstate Medical School, and University of Massachusetts Medical Center. Dr. Reich received an M.D. from the New Jersey College of Medicine and an A.B. from Princeton University.

WILLIAM L. RESPESS, J.D., PH.D. joined Ligand in December 1988 as Vice President and General Counsel, became Senior Vice President and General Counsel in August 1993 and assumed responsibility for Government Affairs in March 1995. Prior to joining Ligand, Dr. Respess was Vice President and General Counsel at Gen-Probe, Inc., a biotechnology company, from 1987 to 1988. From 1983 to 1986, he served as Vice President and General Counsel at Hybritech, Inc., a biotechnology company. From 1974 to 1983, he was an attorney with the patent law firm of Lyon & Lyon of Los Angeles, serving as Partner from 1980 to 1983. Dr. Respess received a J.D. from George Washington University, a Ph.D. in organic chemistry from the Massachusetts Institute of Technology and a B.S. in chemistry from the Virginia Military Institute.

RUSSELL L. ALLEN joined Ligand in February 1997 as Vice President, Corporate Development and Strategic Planning. Prior to joining Ligand, Mr. Allen was General Manager, Central America, Sanofi Winthrop Inc. and previously served as Vice President, Business Development Strategic Analysis at Sterling Winthrop Inc. where he was employed from 1985 to 1996. From 1980 to 1985, Mr. Allen served in various positions at Bristol-Myers Company (now Bristol-Myers Squibb Company) and from 1973 to 1980, held various positions at Procter & Gamble. Mr. Allen received an M.B.A. from Harvard Graduate School of Business and a B.A. from Amherst College.

SUSAN E. ATKINS joined Ligand in June 1993 as Vice President, Investor Relations and Corporate Communications. Prior to joining Ligand, Ms. Atkins served as Vice President of Public Affairs at Rorer Group Inc. (now Rhone-Poulenc Rorer), an international pharmaceutical firm from 1986 to 1988. From 1985 to 1986, Ms. Atkins served as Director of Corporate Communications at Genentech, Inc. ("Genentech").

Ms. Atkins received an M.B.A. from Pepperdine University and received both an M.A. in mass communications and B.A. in journalism from the University of Oklahoma.

GEORGE M. GILL, M.D. joined Ligand in September 1992 as Vice President, Clinical Research and became Vice President, Medical Affairs in January 1996. Prior to joining Ligand, Dr. Gill was Senior Director, Clinical Research at ICI Pharmaceutical Research and Development where he also served as Director of Clinical Research, Clinical and Medical Affairs from 1990 to 1992. From 1984 to 1990, Dr. Gill served in various positions at Bristol-Myers Company (now Bristol-Myers Squibb Company), including Vice President, Worldwide Regulatory Affairs. Dr. Gill received an M.D. from the University of Pennsylvania and a B.S. in chemistry from Dickinson College and is board certified in pediatrics.

HOWARD T. HOLDEN, PH.D. joined Ligand in September 1992 as Vice President, Regulatory Affairs and Compliance. Prior to joining Ligand, Dr. Holden was Senior Director, Worldwide Regulatory Affairs at Parke-Davis Pharmaceutical Research Division of the Warner-Lambert Company. From 1986 to 1988, Dr. Holden served as Director, Regulatory affairs and Compliance at Centocor Inc. a pharmaceutical company. Dr. Holden received a Ph.D. in microbiology from the University of Miami and a B.A. in zoology from Drew University.

HENRY F. BLISSENBACH has served as a Director since May 1995 and currently serves as a member of Ligand's Compensation Committee. Dr. Blissenbach joined Diversified Pharmaceutical Services, a subsidiary company of SmithKline Beecham, in August 1986 and served as President until March 1997. Dr. Blissenbach was recently named Chief Pharmacy Officer for SmithKline Beecham's Health Care Services. He earned his Doctor of Pharmacy (Pharm.D.) degree at the University of Minnesota, College of Pharmacy. He has held an academic appointment in the College of Pharmacy, University of Minnesota, since 1981. He has vast experience in managed health care, and has served in numerous advisory capacities with pharmaceutical manufacturers and managed care entities over the past many years. Dr. Blissenbach currently serves on the Board of Directors for Chronimed, Inc.

ALEXANDER D. CROSS, PH.D. has served as a Director since March 1991 and currently serves as a member of Ligand's Audit Committee. Dr. Cross has been an independent consultant in the fields of pharmaceuticals and biotechnology since January 1986. Dr. Cross was President and Chief Executive Officer of Zoecon Corporation, a biotechnology company, from April 1983 to December 1985, and Executive Vice President and Chief Operating Officer from 1979 to 1983. Dr. Cross currently serves as Chairman of the Board of Directors and Chief Executive Officer for Cytopharm, Inc. He is a member of the Boards of Directors of Myelos Neurosciences and Failure Group, Inc.

JOHN GROOM has served as a Director since May 1995 and currently serves as a member of Ligand's Audit Committee and Compensation Committees. Mr. Groom has served as President and Chief Operating Officer of Elan Corporation, plc ("Elan") since January 1997, having previously served from July 1996 to January 1997 as Chief Operating Officer and a director on the Board of Directors of Elan. Previously, he was President, Chief Executive Officer, and a director on the Board of Directors of Athena Neurosciences, Inc. from 1987 until its acquisition by Elan in July 1996. From 1960 until 1985, Mr. Groom was employed by Smith Kline & French Laboratories ("SK&F"), the pharmaceutical division of the then SmithKline Beechman Corporation. He held a number of positions at SK&F including President of SK&F International, Vice President, Europe, and Managing Director, United Kingdom. Mr. Groom has also served as Chairman of the International Section of the Pharmaceutical Manufacturers Association. Mr. Groom also serves as a director on the Board of Directors of IDEC Pharmaceuticals Corporation and the California Healthcare Institute and is a public trustee on the Board of Trustees of the American Academy of Neurology Education and Research Foundation. Mr. Groom is Fellow of the Association of Certified Accountants (UK).

IRVING S. JOHNSON, PH.D. has served as a Director since March 1989. Dr. Johnson is currently an independent consultant in biomedical research. From 1953 until his retirement in November 1988, Dr. Johnson held various positions with Lilly, a pharmaceutical company, including Vice President of Research from 1973 until 1988. He has published almost 90 scientific articles, contributed to over 30 books and has served on numerous editorial boards, society committees and advisory committees of the National Academy of Sciences and the National Institutes of Health including the Recombinant DNA Advisory

Committee (RAC), and was the recipient of the First Annual Congressional Award in Science and Technology. Dr. Johnson is a member of the Board of Directors of Agouron Pharmaceuticals, Inc. and Allelix Biopharmaceuticals. He served on the Board of Directors of Glycomed, Inc. (1990 to 1991) until its merger with Ligand and on the Board of Directors of Athena Neurosciences (1989 to 1996) until its merger with Elan. He currently serves on the Scientific Advisory Boards of both Ligand and Elan.

CARL C. PECK, M.D. has served as a Director since May 1997. Dr. Peck is currently Professor of Pharmacology and Medicine and Director of the Center for Drug Development Science at Georgetown University Medical Center. Dr. Peck was Boerhaave Professor of Clinical Drug Research at Leiden University from November

1993 to July 1995. From October 1987 to November 1993, Dr. Peck was Director, Center for Drug Evaluation and Research of the Food and Drug Administration. He has held many academic positions prior to October 1987, including Professor of Medicine and Pharmacology, Uniformed Services University, from 1982 to October 1987. He is author of more than 100 original research papers, chapters and books with regard to his area of expertise.

Member of the Board of Directors currently hold office and serve until the next annual meeting of the stockholders of the Company or until their respective successors have been elected. The Board of Directors is currently comprised of seven directors. All executive officers are appointed annually by and serve at the discretion of the Board of Directors. Certain of the executive officers are employed by the Company pursuant to employment arrangements. See "-- Employment Contracts and Change of Control Arrangements."

COMMITTEES OF THE BOARD OF DIRECTORS

The Company has an Audit Committee and a Compensation Committee of the Board of Directors. The Company does not have a Nominating Committee or a committee that performs the functions of a Nominating Committee. The Audit Committee was established in March 1992 and is primarily responsible for reviewing the financial reporting process and the Company's internal accounting controls, and approving the services performed by, and the independence of, the Company's auditors. This Committee currently consists of Dr. Cross and Mr. Groom. The Compensation Committee was established in March 1992 and reviews and approves the Company's compensation policy. This committee currently consists of Messrs. Henry F. Blissenbach and John Groom.

EXECUTIVE COMPENSATION AND OTHER INFORMATION

Summary of Cash and Certain Other Compensation

The following table provides certain summary information concerning the compensation earned by the Company's Named Executive Officers for services rendered in all capacities to the Company for the fiscal years ended December 31, 1996, 1995 and 1994:

SUMMARY COMPENSATION TABLE

<TABLE>
<CAPTION>

					LONG-TERM COMPENSATION AWARDS(3)	
		ANNUAL COMPENSATION				
NAME AND PRINCIPAL POSITION	YEAR	SALARY($)(1)	BONUS($)	OTHER ANNUAL COMPENSATION($)(2)	SECURITIES UNDERLYING OPTIONS/ SARS(#)	
<S>	<C>	<C>	<C>	<C>	<C>	
David E. Robinson.....	1996	486,295	80,000	68,292	100,000	
Chairman of the Board	1995	457,393	75,000	62,576	68,082	
President and CEO	1994	439,167	70,000	95,946	55,208	
William L. Respess.....	1996	268,625	124,000 (4)	3,465	6,750	
Senior Vice President,	1995	254,625	--	3,465	36,400	
General Counsel, Government Affairs and Secretary	1994	223,646	--	433	105,951	
Lloyd E. Flanders.....	1996	231,693	24,000	20,664	48,750	
Senior Vice President, Pre-Clinical	1995	213,963	27,000	29,348	21,400	
Development and R&D Project Management	1994	192,340	--	32,627	64,680	
Steven D. Reich(5).....	1996	227,500	22,500	38,510	--	
Senior Vice President,	1995	18,958	--	40,939	90,000	
Clinical Research	1994	--	--	--	--	
Paul V. Maier.....	1996	212,627	22,500	17,379	58,563	
Senior Vice President,	1995	201,449	14,250	18,090	5,700	
Chief Financial Officer and Treasurer	1994	190,398	14,250	34,230	43,572	

</TABLE>

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(1) Compensation deferred at the election of the executive, pursuant to the Ligand Pharmaceuticals 401(k) Plan, is included in the year earned.

(2) For 1996: Mr. Robinson, includes $10,876 relocation reimbursements and $55,230 loan forgiveness; for Dr. Flanders, includes $17,394 loan forgiveness; for Mr. Maier, includes $16,596 loan forgiveness; and for Dr. Reich, includes $25,358 relocation reimbursements and $12,000 housing allowance. For 1995: Mr. Robinson, includes $57,980 loan forgiveness; for Dr. Flanders, includes $8,250 housing allowance and $18,172 loan forgiveness; for Mr. Maier, includes $17,394 loan forgiveness; and for Dr. Reich, includes $35,000 sign-on bonus and $4,843 for relocation reimbursements. For 1994: Mr. Robinson, includes $11,000 housing allowance, $19,800 relocation reimbursements and $60,640 loan forgiveness; for Dr. Flanders, includes $12,000 housing allowance and $20,163 loan forgiveness; and for Mr. Maier, includes $15,082 relocation reimbursement and $18,460 loan forgiveness. See "-- Employment Contracts and Change of Control Arrangements."

(3) As of the last day of the 1996 fiscal year, the Named Executive Officers held the following aggregate restricted stock shares, including shares granted prior to fiscal 1994 (valued at market at December 31, 1996):

<TABLE>
<CAPTION>

	TOTAL # OF SHARES	GRANT DATE	VALUE($)
<S>	<C>	<C>	<C>
David E. Robinson.....	240,700	11/01/91	3,580,413
William L. Respess.....	121,326	*	1,804,724
Lloyd E. Flanders.....	0	--	0
Steven D. Reich.....	0	--	0
Paul V. Maier.....	0	--	0

</TABLE>

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* Various grant dates ranging from 5-01-88 through 5-17-91.

The shares of restricted stock are fully vested for the Named Executive Officers. See "-- Employment Contracts, Termination of Employment and Change of Control Arrangements."

(4) Includes $100,000 extraordinary one-time bonus based on the successful management of litigation.

(5) Dr. Reich joined Ligand in December 1995.

STOCK OPTIONS AND STOCK APPRECIATION RIGHTS

The following table contains information concerning the grant of stock options and tandem limited stock appreciation rights ("SARs") under the Company's 1992 Stock Option/Stock Issuance Plan to the Named Executive Officers:

OPTION/SAR GRANTS IN LAST FISCAL YEAR
INDIVIDUAL GRANTS

<TABLE>
<CAPTION>

					POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TEAM	
NAME	NUMBER OF SECURITIES UNDERLYING OPTIONS/SARS GRANTED (#)(1)(2)	% OF TOTAL OPTIONS/SARS GRANTED TO EMPLOYEES IN FISCAL YEAR	EXERCISE OR BASE PRICE ($/SH)(3)	EXPIRATION DATE	5%($)(4)	10%($)(4)
<S>	<C>	<C>	<C>	<C>	<C>	<C>

David E. Robinson.....	100,000	10.27	13.31	04/25/06	837,216	2,121,670
William L. Respess.....	6,750	0.69	13.31	04/25/06	56,512	143,213
Lloyd E. Flanders.....	48,750	5.01	12.13	12/05/06	371,736	942,051
Steven D. Reich.....	0	N/A	N/A	N/A	N/A	N/A
Paul V. Maier.....	3,563	0.37	13.31	04/25/06	29,830	75,595
	55,000	5.65	12.13	12/05/06	19,394	1,062,827

(1) Options listed under Column (A) below are exercisable as to 25 percent of the aggregate shares granted on each of the first, second, third and fourth anniversaries of the grant date, so long as employment with the Company continues. Options listed under Column (B) below were granted in 1996 and are

100 percent exercisable on January 1, 1997. The grant dates of the options listed in the above table are as follows:

	(A)		(B)	
NAME	OPTIONS GRANTED(#)	GRANT DATE	OPTIONS GRANTED(#)	GRANT DATE
David E. Robinson.....	100,000	04/25/96	0	--
William L. Respess.....	0	--	6,750	04/25/96
Lloyd E. Flanders.....	48,750	12/5/96	0	--
Steven D. Reich.....	0	--	0	--
Paul V. Maier.....	55,000	12/5/96	3,563	04/25/96

The options granted to each of the individuals listed above apart from Mr. Robinson are subject to acceleration upon a change of control. The options granted to Mr. Robinson are subject to acceleration upon a change of control in the circumstances described below under "-- Employment Contracts, Termination of Employment and Change of Control Arrangements." Each option has a maximum term of 10 years, subject to earlier termination in the event of the optionee's cessation of service with the Company.

(2) The Plan Administrator may grant tandem stock appreciation rights in connection with option grants which require the holder to elect between the exercise of the underlying option for shares of Common Stock and the surrender of such option for a distribution from the Company, payable in cash or shares of Common Stock, based upon the appreciated value of the option shares. To date the Plan Administrator has not granted any tandem stock appreciation rights to the Company's executive officers.

(3) The exercise price may be paid in cash, in shares of Common Stock valued at fair market value on the exercise date or through a cashless exercise procedure involving a same-day sale of the purchased shares. The Company may also finance the option exercise by loaning the optionee sufficient funds to pay the exercise price for the purchased shares and the federal and state tax liability incurred in connection with such exercise. The optionee may be permitted, subject to the approval of the Plan Administrator, to apply a portion of the shares purchased under the option (or to deliver existing shares of Common Stock) in satisfaction of such tax liability. The Plan Administrator also has the authority to reprice outstanding options through the cancellation of those options and the grant of replacement options with a exercise price equal to the lower fair market value of the option shares on the regrant date.

(4) There is no assurance provided to any executive officer or any other holder of the Company's securities that the actual stock price appreciation over the 10-year option term will be at the assumed 5% and 10% levels or at any other defined level. Unless the market price of the Common Stock does in fact appreciate over the option term, no value will be realized from the option grants made to the executive officers.

Option/SAR Exercises and Holdings

The following table provides information, with respect to the Named Executive Officers, concerning the exercise of options and/or SARs during the last fiscal year and unexercised options and SARs held as of the end of the fiscal year:

AGGREGATED OPTION/SAR EXERCISES IN LAST FISCAL YEAR AND FY-END OPTION/SAR VALUES

<TABLE>
<CAPTION>

			NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS/SARS AT DECEMBER 31, 1996		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS/SARS AT DECEMBER 31, 1996	
NAME	SHARES ACQUIRED ON EXERCISE (#)	VALUE REALIZED ($)	EXERCISABLE (#)	UNEXERCISABLE (#)	EXERCISABLE ($)(1)	UNEXERCISABLE ($)(1)
<S>	<C>	<C>	<C>	<C>	<C>	<C>
David E. Robinson.....	--	--	152,088	125,327	960,345	423,220
William L. Respess.....	--	--	129,819	40,932	815,226	233,563
Lloyd E. Flanders.....	--	--	149,579	77,264	912,092	308,806
Steven D. Reich.....	--	--	22,500	67,500	143,438	430,313
Paul V. Maier.....	--	--	116,433	72,590	691,330	253,324

</TABLE>

(1) Value of unexercised, in the money, options at December 31, 1996 was determined by taking (a) the fair market value at December 31, 1996 less (b) the option exercise price times the number of shares.

EMPLOYMENT CONTRACTS, TERMINATION OF EMPLOYMENT AND CHANGE OF CONTROL ARRANGEMENTS

In May 1996, Ligand entered into an employment agreement with David E. Robinson pursuant to which Mr. Robinson is employed as President and Chief Executive Officer and which is the successor employment agreement to an agreement entered into in October 1991. The current employment term ends on May 1, 1999 and is automatically renewed for successive, additional three year terms, unless terminated by Ligand or Mr. Robinson. During the employment term, Mr. Robinson will receive a base salary of $490,000 subject to increase by Ligand's Board of Directors. Mr. Robinson's base salary, as of December 31, 1996, was $490,000 per annum. In addition, the Board may award Mr. Robinson a bonus payment of up to $100,000 annually. In 1991, Ligand loaned Mr. Robinson $200,000 which, with the accrued interest, was forgiven in equal annual installments over four years so long as Mr. Robinson was employed by Ligand. At September 30, 1997, no principal or interest remained outstanding. In the event of termination of employment by Ligand without cause, or in the event of resignation of employment by Mr. Robinson for specified reasons, Ligand is obligated to pay Mr. Robinson 24 months base salary. Mr. Robinson may terminate this employment agreement in connection with, among other things, a change in control of the Company, at which time all of his outstanding stock options shall immediately vest so as to be immediately exercisable by him at his election; provided, however, that in the event that the Company has agreed to a merger that is intended to be treated as a pooling of interests for accounting purposes and Mr. Robinson terminates this agreement prior to May 1, 1997, then such outstanding stock options shall not become exercisable on an accelerated basis if the Company's independent auditors determine that accelerated vesting of such options would preclude the treatment of such merger as a pooling of interests.

In September 1992, Ligand entered into an employment agreement with Lloyd E. Flanders pursuant to which Dr. Flanders is employed as Senior Vice President, Pre-Clinical Development and R&D Project Management. Dr. Flanders' base salary, as of December 31, 1996, was $231,693 per annum. In connection with the agreement, Ligand loaned Dr. Flanders $75,000 which, with the accrued interest, will be forgiven in equal annual installments over five years, so long as Dr. Flanders is employed by Ligand. The note will be due in the event Dr. Flanders

resigns or is terminated by Ligand, except that if Dr. Flanders is terminated without cause, the loan will be forgiven. At September 30, 1997, $15,266 principal and interest remained outstanding. Dr. Flanders was granted options to purchase 92,013 shares of Ligand Common Stock at an average price of $8.87 per share which shares vest over four years. Vesting of the shares will be accelerated if he is terminated

without cause. If Dr. Flanders is terminated without cause, Ligand has agreed to pay him 12 months base salary.

In December 1996, Ligand entered into an employment agreement with Steven D. Reich, M.D. pursuant to which Dr. Reich is employed as Senior Vice President, Clinical Research. Dr. Reich's base salary as of December 31, 1996 was $227,500 per annum. In connection with the agreement, Ligand loaned Dr. Reich $100,000 which, with the accrued interest, will be forgiven in equal annual installments over five years, so long as Dr. Reich is employed by Ligand. At September 30, 1997, $82,120 principal and interest remained outstanding. In connection with the agreement, Dr. Reich was granted an option to purchase 90,000 shares of Ligand Common Stock at an average price of $8.50 per share. If Dr. Reich is terminated without cause, Ligand has agreed to pay him six months base salary.

In September 1992, Ligand entered into an employment agreement with Paul V. Maier pursuant to which Mr. Maier is employed as Senior Vice President and Chief Financial Officer. Mr. Maier's base salary, as of December 31, 1996, was $216,794 per annum. In connection with the agreement, Ligand loaned Mr. Maier $75,000 which, with the accrued interest, will be forgiven in equal annual installments over five years, so long as Mr. Maier is employed by Ligand. At September 30, 1997, $15,732 principal and interest remained outstanding. In connection with the agreement, Mr. Maier was granted an option to purchase 81,188 shares of Ligand Common Stock, which shares vest over four years, at an average price of $8.87 per share. If Mr. Maier is terminated without cause, Ligand has agreed to pay him six months base salary.

Ligand has entered into agreements with its employees, including each of the Named Executive Officers apart from Mr. Robinson, holding outstanding options under the Plan, pursuant to which such options will automatically accelerate in the event that such individual's employment is terminated in connection with a change in control of Ligand. The change in control events under these agreements include transactions in addition to those in effect for Plan purposes. These agreements assure such individuals that either their outstanding options under the Plan will be assumed by the successor entity in connection with such a change in control or that such options shall become fully exercisable immediately prior to the effective date of the change in control so that such individuals will have the opportunity to receive the appreciated value of their outstanding options despite the change in control. Mr. Robinson's outstanding options are subject to acceleration upon a change of control in the circumstances set forth in his employment agreement with Ligand effective May 1996, as described above.

DIRECTOR COMPENSATION

Certain non-employee outside Directors are paid fees for serving on the Board of Directors, plus reimbursement of expenses incurred in connection with such service. All Directors are elected annually and hold office until the next annual meeting of the stockholders and until their successors are duly elected and qualified. Officers serve at the discretion of the Board of Directors. Certain directors have commitments from Ligand pursuant to which they are paid consulting fees for each Board meeting as well as for certain other activities. See "Certain Relationships and Related Transactions." Each individual who first becomes a non-employee Board member at or after this Annual Meeting, whether through election by the stockholders or appointment by the Board, will automatically be granted, at the time of such initial election or appointment, a non-statutory stock option to purchase 16,237 shares of Common Stock. In addition, each non-employee Board member who is re-elected will automatically be granted a non-statutory stock option to purchase 8,118 shares of Common Stock. Each automatic grant will have an exercise price per share equal to the fair

market value of the Common Stock on the grant date. The option will become exercisable beginning one year after the grant date. The option will have a term of 10 years measured from the grant date, subject to earlier termination upon the optionee's cessation of Board service.

1992 STOCK OPTION/STOCK ISSUANCE PLAN

Ligand's 1992 Stock Option/Stock Issuance Plan (the "Plan") was originally adopted by the Board and was approved by the stockholders in 1992. Certain amendments to the Plan were subsequently approved by the Board and by the stockholders, the most recent occurring in 1997.

The following is a summary of all the material terms and provisions of the Plan. The summary, however, does not purport to be a complete description of all the provisions of the Plan. Copies of the actual plan document may be obtained by any stockholder upon written request to the Secretary of Ligand at the corporate offices in San Diego, California.

Plan Structure

The Plan is divided into three separate parts: (a) the Discretionary Grant Program, under which employees and consultants of Ligand and its wholly-owned subsidiaries (other than non-employee Board members) may, at the discretion of the Plan Administrator, be granted options to purchase shares of Common Stock at an exercise price not less than 85% of the fair market value of each such share on the grant date. The granted options may be either incentive stock options which are designed to meet the requirements of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), or nonstatutory options not intended to satisfy such requirements; (b) the Automatic Grant Program, under which an option grant will be made to each individual upon first joining the Board of Directors as a nonemployee member and subsequent annual automatic option grants will be made to each individual who is re-elected as a nonemployee director of Ligand; and (c) the Stock Issuance Program, under which eligible individuals will be allowed to effect immediate purchases of Common Stock at the fair market value of each such share, or at discounts of up to 15% from the fair market value of any such share, including shares which may be issued in consideration for past or future services without any cash payment required of the participant.

As of October 31, 1997, approximately 360 officers and employees of Ligand and its wholly-owned subsidiaries were eligible to participate in the Discretionary Grant Program and the Stock Issuance Program. There are currently five nonemployee directors who are eligible to receive automatic grants under the Automatic Grant Program.

Plan Administration

Option grants under the Discretionary Grant Program and stock issuances under the Stock Issuance Program are to be made by a committee of two or more nonemployee Board members (the "Plan Administrator") appointed by the Board. Members of the committee will be ineligible to participate in the Plan or in any stock option, stock issuance or other stock plan of Ligand, except to the extent such individuals become entitled to a special option grant under the Automatic Grant Program. The selected committee members will serve for such period of time as the Board may determine and will be subject to removal by the Board at any time.

The Committee will have the sole and exclusive authority, subject to the provisions of the Plan, to determine the eligible individuals who are to receive options under the Discretionary Grant Program or the Stock Issuance Program, the number of shares to be covered by each granted option or issuance, the date or dates on which the option is to become exercisable and the maximum term for which the option is to remain outstanding. The Committee will also have the authority to determine whether the granted option is to be an incentive stock option ("Incentive Option") under the Federal tax laws and to establish rules and regulations for proper plan administration. Options grants under the Automatic Grant Program will be made in strict compliance with the express provisions of that program, and the Committee will not have any discretionary authority with respect to those option grants.

Issuable Shares

Shares of Common Stock will be available for issuance under the Plan. The maximum number of shares of Common Stock reserved for issuance over the 10-year term of the Plan, measured from the Effective Date of the Plan, will not exceed 7,303,457 shares. The share reserve available for issuance under the Plan will be subject to periodic adjustment for changes in the Common Stock occasioned by stock splits, stock dividends, recapitalizations, conversions or other changes affecting the outstanding Common Stock as a class without Ligand's receipt of consideration. To the extent any of the incorporated options are subsequently exercised, the

number of shares issued under those options will reduce, on a share-for-share basis, the number of shares available for issuance under the Plan.

Should an option expire or terminate for any reason prior to exercise in full (including options canceled in accordance with the cancellation-regrant provisions described below), the shares subject to the portion of the option not so exercised will be available for subsequent option grants or share issuances under the Plan. Shares subject to any option surrendered or canceled in accordance with the stock appreciation right provisions of the Plan and all shares issued under the Plan, whether or not such shares are subsequently reacquired by Ligand pursuant to its repurchase rights under the Plan, will reduce on a share-for-share basis the number of shares of Common Stock available for subsequent grants.

No more than 1,000,000 shares may be granted to any one optionee over the lifetime of the Plan.

Terms of Discretionary Grant Program

Option Price and Term. The option price per share for incentive stock options will not be less than 100% of the fair market value of each share of Common Stock issuable under the option on the grant date of such option. The option price per share for nonstatutory stock options may not be less than 85% of the fair market value per share of each share of Common Stock issuable under the option on the grant date of such option. No option will have a term in excess of 10 years measured from the grant date.

Valuation. For purposes of establishing the option exercise price for Common Stock, the "Fair Market Value" per share of the stock on any relevant date will be the closing selling price per share on such date, as quoted on the Nasdaq National Market. If there is no reported selling price for such date, then the closing selling price for the last previous date for which such quotation exists will be determinative of Fair Market Value.

Vesting of Options. The vesting schedule for each granted option will be determined by the Plan Administrator and will be set forth in the instrument evidencing such grant. The granted option may be (i) immediately exercisable for vested shares, (ii) immediately exercisable for unvested shares subject to Ligand's repurchase rights or (iii) exercisable in installments for vested shares over the optionee's period of service. At a minimum, options must vest at a rate of at least 20% each year and must be fully vested at the end of five years.

Payment. Upon exercise of the option, the option price for the purchased shares will become immediately payable in cash or in shares of common stock valued at fair market value on the date of exercise. The option may also be exercised through a cashless exercise procedure pursuant to which the optionee provides irrevocable written instructions to a designated brokerage firm to effect the immediate sale of the purchased shares and remit to Ligand, out of the sale proceeds, an amount equal to the aggregate option price payable for the purchased shares plus all applicable withholding taxes.

Financial Assistance. The Plan Administrator may assist any optionee (including an officer) in the exercise of one or more outstanding options under the Plan by (i) authorizing a loan from Ligand or (ii) permitting the optionee to pay the option price in installments over a period of years. The terms and conditions of any such loan or installment payment will be established by the Plan Administrator in its sole discretion, but in no event will the maximum

credit extended to the optionee exceed the aggregate option price for the purchased shares plus any Federal or State tax liability incurred in connection with the option exercise.

Termination of Service. Should the optionee cease to remain in Ligand's service while holding one or more options under the Plan, then those options will not remain exercisable beyond the limited post-service period designated by the Plan Administrator at the time of the option grant, subject to certain minimum post-service periods. Under no circumstances, however, may any option be exercised after the specified expiration date of the option term. Each such option will, during such limited period, be exercisable only to the extent of the number of shares for which the option is exercisable on the date of the optionee's cessation of service.

Should the optionee die while holding one or more outstanding options, then the personal representative of the optionee's estate or the person or persons to whom each such option is transferred pursuant to the

optionee's will or in accordance with the laws of inheritance will have the right to exercise such option for any or all of the shares for which the option is exercisable on the date of the optionee's cessation of service, less any option shares subsequently purchased by the optionee prior to death. Such right will lapse, and the option will terminate, upon the earlier of (i) the end of the limited post-service period designated by the Plan Administrator at the time of the option grant or (ii) the specified expiration date of the option term.

The Plan Administrator will have complete discretion to extend the period following the optionee's termination of service during which his or her outstanding options may be exercised and/or to accelerate the exercisability of such options in whole or in part. Such discretion may be exercised at any time while the options remain outstanding, whether before or after the optionee's actual cessation of service.

Stockholder Rights and Option Assignability. No optionee is to have any stockholder rights with respect to the option shares until such optionee has exercised the option, paid the option price for the purchased shares and been issued a stock certificate for such shares. Options are not assignable or transferable other than by will or by the laws of inheritance following the optionee's death, and the option may, during the optionee's lifetime, be exercised only by the optionee.

Special Acceleration Agreements. In addition to the acceleration provisions of the Plan, Ligand has entered into agreements with its employees, including each of the Named Executive Officers apart from David E. Robinson, holding outstanding options under the Plan, pursuant to which such options will automatically accelerate in the event that such individual's employment is terminated in connection with a change in control of Ligand. The change in control events under these agreements include transactions in addition to those in effect for Plan purposes. These agreements assure such individuals that either their outstanding options under the Plan will be assumed by the successor entity in connection with such a change in control or that such options shall become fully exercisable immediately prior to the effective date of the change in control so that such individuals will have the opportunity to receive the appreciated value of their outstanding options despite the change in control. Mr. Robinson has entered into an employment agreement with Ligand that provides for the immediate acceleration, except under certain limited circumstances, of Mr. Robinson's outstanding options in the event that he elects to terminate this agreement in connection with certain events, including, without limitation, a change in control. See "-- Employment Contracts, Termination of Employment and Change of Control Arrangements."

The acceleration of options in the event of a Corporate Transaction or Change in Control may be seen as an anti-takeover provision and may have the effect of discouraging a merger proposal, a takeover attempt or other efforts to gain control of Ligand.

Stock Appreciation Rights. At the discretion of the Plan Administrator, options may be granted with stock appreciation rights. The stock appreciation rights which are authorized for issuance under the Plan are tandem rights which require the option holder to elect between the exercise of the underlying option for shares of common stock and the surrender of such option for an appreciation

distribution.

These tandem stock appreciation rights provide the holders with the right to receive an appreciation distribution from Ligand equal in amount to the excess of (i) the fair market value (on the date of exercise) of the shares of common stock for which the underlying option is at the time exercisable over (ii) the aggregate exercise price payable for such shares. Such appreciation distribution may, at the discretion of the Plan Administrator, be made in cash or in common stock.

Cancellation/Regrant. The Plan Administrator will have the authority to effect, on one or more separate occasions, the cancellation of outstanding options under the Discretionary Grant Program which have exercise prices in excess of the then current market price of the common stock and to issue replacement options with an exercise price based on the lower market price of the common stock at the time of grant.

Terms of Automatic Grant Program

Each individual who first becomes a nonemployee Board member, whether through election by the stockholders or appointment by the Ligand Board, and who was not otherwise in the prior employ of Ligand will automatically be granted, at the time of such initial election or appointment, a non-statutory stock option

to purchase 16,237 shares of Common Stock. Further, at each annual Stockholders Meeting, each individual who is at that time reelected as a non-employee Board member will automatically be granted a non-statutory stock option under the new Automatic Grant Program to purchase an additional 8,118 shares of Common Stock. There is no limit on the number of such 8,118-share option grants the non-employee Ligand Board member may receive over his or her period of Board service.

Each such option grant will be subject to the following terms and conditions: (i) the option price per share will be equal to 100% of the Fair Market Value per share of Common Stock on the grant date; (ii) each option is to have a term of 10 years measured from the grant date; (iii) each automatic grant will become exercisable in full one year from the automatic grant date; (iv) the option will remain exercisable for a three-month period following the optionee's cessation of Ligand Board membership for any reason other than death. Should the optionee die while any option is still exercisable, then such option will remain exercisable for a 36-month period following such optionee's death and may be exercised by the personal representative of the optionee's estate or the person to whom the grant is transferred by the optionee's will or the laws of inheritance. In no event, however, may the option be exercised after the expiration date of the maximum option term. During the applicable exercise period, the option may not be exercised for more than the number of shares (if any) for which it was exercisable at the time of the optionee's cessation of membership on the Ligand Board. To the extent the option was not exercisable for one or more option shares at the time of the optionee's cessation of membership on the Ligand Board, the option will immediately terminate and cease to be outstanding with respect to those shares; (v) the remaining terms and conditions of the option will in general conform to the terms described above for option grants made under the Discretionary Grant Program and will be incorporated into the option agreement evidencing the automatic grant; (vi) the terms and provisions of the Automatic Grant Program and the outstanding options thereunder may not be amended or modified at intervals more frequently than once every six months, except as otherwise required to comply with applicable Federal tax laws and regulations.

Terms of Stock Issuance Program

Issue Price. The purchase price per share will not be less than 85% of the fair market value of any share of Common Stock being issued on the date the Plan Administrator authorizes the issuance.

Vesting of Shares. The vesting schedule for each share issued will be determined by the Plan Administrator and set forth in the issuance agreement. The shares may be fully and immediately vested upon issuance or may vest in one or more installments, subject to Ligand's repurchase right, over the participant's period of service. At a minimum, shares must vest at a rate of at

lest 20% per year and must be fully vested at the end of five years.

Stockholder Rights. The recipient of the share issuance will have full stockholder rights, including voting and dividend rights, with respect to the issued shares, whether or not the shares are vested. However, the recipient may not sell, transfer or assign any unvested shares issued under the Plan, except for certain limited family transfers.

Repurchase Rights. Should the recipient of unvested shares cease to remain in Ligand's service before vesting in such shares, then those unvested shares are to be immediately surrendered to Ligand for cancellation, and the recipient will have no further stockholder rights with respect to those shares. To the extent the surrendered shares were previously issued to the recipient for consideration paid in cash or promissory note, Ligand will refund the cash consideration paid for the surrendered shares and cancel the principal balance of the note to the extent attributable to such surrendered shares.

Payment. Upon issuance of the shares, the issue price for the purchased shares will become immediately payable in cash, in shares of Common Stock valued at fair market value on the date of issuance, or by promissory note payable to Ligand's order. The promissory note may, at the discretion of the Plan Administrator, be subject to cancellation over the participant's period of service. Shares may also be issued for past or future services, without any cash or other payment required of the participant.

Changes in Capitalization

In the event any change is made to the Common Stock issuable under the Plan by reason of any recapitalization, stock dividend, stock split, combination of shares, exchange of shares, or other change in corporate structure effected without Ligand's receipt of consideration, appropriate adjustments will be made to (i) the maximum number and/or class of securities issuable under the Plan, (ii) the number and/or class of securities and price per share in effect under each outstanding option (including all discretionary and automatic option grants under the Plan and all option grants incorporated from the 1988 Stock Option Plan), and (iii) the number and/or class of securities per nonemployee member of the Ligand Board for which the special option grants will subsequently be made under the Automatic Grant Program.

Each outstanding option which is assumed or is otherwise to continue in effect after a Corporate Transaction will be appropriately adjusted to apply and pertain to the number and class of securities which would have been issuable, in connection with such Corporate Transaction, to an actual holder of the same number of shares of Common Stock as are subject to such option immediately prior to such Corporate Transaction. Appropriate adjustments will also be made to the option price payable per share and to number and class of securities available for issuance under the Plan.

Option grants under the Plan will not affect the right of Ligand to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

Special Tax Withholding Election

The Plan Administrator may provide one or more participants in the Plan with the election to have Ligand withhold, from the shares of Common Stock otherwise issuable upon the exercise of nonqualified options or the vesting of unvested shares, a portion of those shares in satisfaction of the tax liability incurred in connection with their acquisition or vesting. Any election so made will be subject to the approval of the Plan Administrator, and no shares will be accepted in satisfaction of such tax liability except to the extent the Plan Administrator approves the election. Alternatively, one or more participants may be granted the right, subject to Plan Administrator approval, to deliver existing shares of Common Stock in satisfaction of such tax liability. The withheld or delivered shares will be valued at their then current fair market value.

Amendment and Termination

The Board of Directors may amend or modify the Plan in any or all respects

whatsoever, subject, however, to the limitation on plan amendments to the Automatic Grant Program. However, no such amendment may adversely affect the rights of existing optionees without their consent and unless otherwise necessary to comply with applicable tax laws and regulations. In addition, the Board may not (i) materially increase the maximum number of shares issuable under the Plan or the number of shares for which automatic grants may be made to nonemployee Board members, except in the event of certain changes to Ligand's capital structure as indicated above, (ii) materially modify the eligibility requirements for option grants or (iii) otherwise materially increase the benefits accruing to participants under the Plan without the approval of Ligand's stockholders.

The Board may terminate the Plan at any time, and the Plan will in all events terminate on the tenth anniversary of the Effective Date. Each stock option outstanding at the time of such termination will remain in force in accordance with the provisions of the instruments evidencing such grant.

Federal Tax Consequences

Options granted under the Plan may be either incentive stock options which satisfy the requirements of Section 422 of the Code or nonqualified options which are not intended to meet such requirements. The Federal income tax treatment for the two types of options differs as described below:

Incentive Options. No taxable income is recognized by the optionee at the time of the option grant, and no taxable income is generally recognized at the time the option is exercised (other than for alternative

minimum tax purposes as discussed below). The optionee will, however, recognize taxable income in the year in which the purchased shares are sold or otherwise made the subject of disposition.

For Federal tax purposes, dispositions are divided into two categories: (i) qualifying and (ii) disqualifying. The optionee will make a qualifying disposition of the purchased shares if the sale or other disposition of such shares is made after the optionee has held the shares for more than two years after the grant date of the option and more than one year after the exercise date. If the optionee fails to satisfy either of these two holding periods prior to the sale or other disposition of the purchased shares, then a disqualifying disposition will result.

Upon a qualifying disposition of the shares, the optionee will recognize long-term capital gain in an amount equal to the excess of (i) the amount realized upon the sale or other disposition of the purchased shares over (ii) the exercise price paid for such shares. If there is a disqualifying disposition of the shares, then the excess of (i) the fair market value of those shares on the date the option was exercised over (ii) the exercise price paid for the shares will be taxable as ordinary income. Any additional gain recognized upon the disposition will be a capital gain.

If the optionee makes a disqualifying disposition of the purchased shares, then Ligand will be entitled to an income tax deduction, for the taxable year in which such disposition occurs, equal to the excess of (i) the fair market value of such shares on the date the option was exercised over (ii) the exercise price paid for the shares. In no other instance will Ligand be allowed a deduction with respect to the optionee's disposition of the purchased shares.

While taxable income is generally not recognized upon the exercise of an incentive option, the excess of (i) the value of the shares purchased as of the date of service over (ii) the exercise price paid for such shares is included as "alternative minimum taxable income" for purposes of calculating alternative minimum tax.

Nonqualified Options. No taxable income is recognized by an optionee upon the grant of a nonqualified option. The optionee will in general recognize ordinary income, in the year in which the option is exercised, equal to the excess of the fair market value of the purchased shares on the date of exercise over the exercise price paid for the shares, and the optionee will be required to satisfy the tax withholding requirements applicable to such income.

Special provisions of the Code apply to the acquisition of Common Stock

under a nonqualified option, if the purchased shares are subject to repurchase by Ligand. These special provisions may be summarized as follows:

A. If the shares acquired upon exercise of the nonqualified option are subject to repurchase by Ligand at the original exercise price in the event of the optionee's termination of service prior to vesting in such shares, the optionee will not recognize any taxable income at the time of exercise but will have to report as ordinary income, as and when Ligand's repurchase right lapses, an amount equal to the excess of (i) the fair market value of the shares on the date Ligand's repurchase right lapses with respect to such shares over (ii) the exercise price paid for the shares.

B. The optionee may, however, elect under Section 83(b) of the Code to include as ordinary income in the year of exercise of the nonqualified option an amount equal to the excess of (i) the fair market value of the purchased shares on the date of exercise (determined as if the shares were not subject to Ligand's repurchase right) over (ii) the exercise price paid for such shares. If the Section 83(b) election is made, the optionee will not recognize any additional income as and when Ligand's repurchase right lapses.

Ligand will be entitled to a business expense deduction equal to the amount of ordinary income recognized by the optionee with respect to the exercised nonqualified option. The deduction will in general be allowed for the taxable year of Ligand in which such ordinary income is recognized by the optionee.

Stock Appreciation Rights. An optionee who is granted a stock appreciation right will recognize ordinary income in the year of exercise equal to the amount of the appreciation distribution. Ligand will be entitled to a

business expense deduction equal to the appreciation distribution for the taxable year of Ligand in which the ordinary income is recognized by the optionee.

Direct Stock Issuances. The tax consequences of individuals who receive direct stock issuances under the Plan will be substantially the same as the treatment described above for the exercise of nonqualified stock options.

Accounting Treatment

Option grants with exercise prices less than the fair market value of the option shares on the grant date and direct stock issuances at purchase prices less than the fair market value of the issued shares will result in a compensation expense to Ligand's earnings equal to the difference between such exercise or purchase prices and the fair market value of the shares on the option grant date or (for direct stock issuances) the fair market value on the issue date. Such expense will be accrued by Ligand over the period the optionee or share recipient vests in the option shares or directly-issued shares. Option grants and direct stock issuances at 100% of fair market value will not result in any charge to Ligand's earnings. In October 1994, the Financial Accounting Standards Board issued SFAS 123, "Accounting for Stock-Based Compensation," effective for fiscal years beginning after December 15, 1995. SFAS 123 establishes the use of the fair value based method of accounting for stock-based compensation arrangements, under which compensation cost is determined using the fair value of stock-based compensation determined as of the grant date, and is recognized over the periods in which the related services are rendered. The statement also permits companies to elect to continue using the current implicit value accounting method specified in APBO No. 25 to account for stock-based compensation. The Company has decided to retain the current implicit value based method, and disclosed the pro forma effect of using the fair value based method to account for its stock-based compensation.

Should one or more optionees be granted stock appreciation rights which have no conditions upon exercisability other than a service or employment requirement, then such rights will result in a compensation expense to be charged against Ligand's earnings. Accordingly, at the end of each fiscal quarter, the amount (if any) by which the fair market value of the shares of Common Stock subject to such outstanding stock appreciation rights has increased from the prior quarter-end will be accrued as compensation expense, to the extent such amount is in excess of the aggregate exercise price in effect for such rights.

1992 EMPLOYEE STOCK PURCHASE PLAN

Ligand's 1992 Employee Stock Purchase Plan (the "Purchase Plan") was initially adopted by the Board and was approved by the stockholders in 1992. Certain amendments to the Plan were subsequently approved by the Board and by the stockholders, the most recent occurring in 1997.

The following is a summary of all the material terms and provisions of the Purchase Plan. This summary, however, does not purport to be a complete description of the Purchase Plan. Copies of the actual plan document may be obtained by any stockholder upon written request to the Secretary of Ligand at the corporate offices in San Diego, California.

Share Reserve and Plan Administration

The maximum number of shares that may be sold to participants over the term of the Purchase Plan may not exceed 206,500 shares of Common Stock. As of October 31, 1997, 184,267 shares of Common Stock had been issued under the Purchase Plan and 22,233 shares will be available for future issuance. Appropriate adjustments will be made to (i) the class and maximum number of securities purchasable under the Purchase Plan, (ii) the class and maximum number of securities purchasable per participant during any one purchase period and (iii) the class and number of securities and the price per share in effect under each outstanding purchase right in order to preserve participant rights should any change be made to the outstanding Common Stock by reason of any stock dividend, stock split, combination of shares or other similar change affecting the outstanding Common Stock as a class without Ligand's receipt of consideration.

The Purchase Plan is administered by the Compensation Committee of the Board of Directors. The committee as Plan Administrator has full authority to adopt administrative rules and procedures and to interpret the provisions of the Purchase Plan and any outstanding purchase rights.

Eligibility

Each individual customarily employed by Ligand or a participating subsidiary for more than 20 hours per week and more than five months per calendar year is eligible to participate in the Purchase Plan upon completion of five months of continuous service. As of October 31, 1997, approximately 300 employees (including eleven officers of Ligand) were eligible to participate under the Purchase Plan.

Plan Operation

Shares of Common Stock will be made available to participants through a series of offering periods coincidental with the calendar year, and accordingly commencing on the first business day in January. The participant will be granted a separate purchase right for each offering period in which he or she participates. The purchase right will be granted on the first day of the offering period and will be automatically exercised in successive quarterly installments on the last business day of March, June, September and December during the offering period.

Each participant may, through authorized payroll deductions, contribute up to 10% of base pay (in one percent multiples) during each offering period. However, no participant may purchase more than 1,330 shares of Common Stock during any one offering period nor more than $25,000 worth of Common Stock (based upon the value of the Common Stock at the time the offering period begins) for each calendar year the purchase right remains outstanding.

The purchase price will be equal to the lesser of (i) 85% of the fair market value per share of Common Stock on the last business day immediately preceding the start date of the offering period or (ii) 85% of the fair market value per share of Common Stock on each quarterly date the purchase right is exercised during that offering period.

The fair market value of the Common Stock on any relevant date will be the closing selling price per share on such date as reported on the Nasdaq National Market. As of October 31, 1997 the fair market value per share of Common Stock was $14.625, based on the closing selling price per share on such date on the Nasdaq National Market.

No participant will have any stockholder rights with respect to the shares covered by his or her outstanding purchase right until the shares are actually purchased on his or her behalf. No purchase right will be assignable or transferable except by will or by the laws of descent and distribution following the participant's death. Accordingly, during the participant's lifetime, the purchase right will be exercisable only by the participant.

In the event all or substantially all of the assets or outstanding capital stock of Ligand is sold by means of a sale, merger or other reorganization in which Ligand will not be the surviving corporation, all outstanding purchase rights will automatically be exercised immediately prior to the effective date of such transaction.

The purchase right of a participant will cease to accrue automatically in the event the participant ceases to be an employee of Ligand, and any payroll deductions collected from such individual during the fiscal quarter in which such termination occurs will, at such participant's election, either (i) be refunded to the participant or (ii) held for the purchase of shares on the quarterly purchase date immediately following the cessation of employment. A participant may also terminate his or her outstanding purchase right at any time prior to the last five business days of a quarterly period and receive a refund of all payroll deductions not yet applied to the purchase of Common Stock on his or her behalf.

Amendment and Termination

The Purchase Plan will terminate upon the earlier of (i) December 31, 2002 or (ii) the date on which all shares available for issuance thereunder are sold pursuant to exercised purchase rights. However, Ligand has specifically reserved the right, exercisable in the sole discretion of the Plan Administrator, to terminate all outstanding purchase rights under the Purchase Plan immediately following any quarterly purchase date. If such right is exercised by Ligand, then the Purchase Plan will terminate in its entirety, and no further purchase rights will be granted or exercised thereunder.

The Board may amend or modify the provisions of the Purchase Plan at any time. However, the Board may not, without stockholder approval, (i) materially increase the number of shares issuable under the Purchase Plan or the maximum number of shares which any one participant may purchase during a single offering period, (ii) alter the purchase price formula so as to reduce the purchase price, (iii) materially increase the benefits accruing to participants or (iv) materially modify the requirements for eligibility to participate in the Purchase Plan.

Federal Tax Consequences

The Purchase Plan is intended to be a qualified employee stock purchase plan under Section 422 of the Code. Accordingly, the Participant will not recognize any taxable income at the time one or more shares of Common Stock are purchased on his/her behalf on any quarterly purchase date under the Purchase Plan.

Accounting Treatment

Option grants with exercise prices less than the fair market value of the option shares on the grant date and direct stock issuances at purchase prices less than the fair market value of the issued shares will result in a compensation expense to Ligand's earnings equal to the difference between such exercise or purchase prices and the fair market value of the shares on the option grant date or (for direct stock issuances) the fair market value on the issue date. Such expense will be accrued by Ligand over the period the optionee or share recipient vests in the option shares or directly-issued shares. Option

grants and direct stock issuances at 100% of fair market value will not result in any charge to Ligand's earnings. In October 1994, the Financial Accounting Standards Board issued SFAS 123, "Accounting for Stock-Based Compensation," effective for fiscal years beginning after December 15, 1995. SFAS 123 establishes the use of the fair value based method of accounting for stock-based compensation arrangements, under which compensation cost is determined using the fair value of stock-based compensation determined as of the grant date, and is recognized over the periods in which the related services are rendered. The statement also permits companies to elect to continue using the current implicit value accounting method specified in APBO No. 25 to account for stock-based compensation. The Company has decided to retain the current implicit value based method, and disclosed the pro forma effect of using the fair value based method to account for its stock-based compensation.

CERTAIN TRANSACTIONS

RELATIONSHIP AMONG ALLERGAN LIGAND RETINOID THERAPEUTICS, INC., LIGAND AND ALLERGAN

William C. Shepherd is a Director of ALRT and is also the President, Chief Executive Officer and a Director of Allergan. Mr. Shepherd resigned from the Board of Directors of Ligand effective October 3, 1997. David E. Robinson is a Director of ALRT and is also the President, Chief Executive Officer and a Director of Ligand. In December 1994, Ligand and Allergan formed ALRT to continue the research and development activities previously conducted by the Joint Venture. In June 1995, Ligand and ALRT completed the ALRT Offering. Each Unit consisted of one share of Callable Common Stock and two warrants, each warrant entitling the holder to purchase one share of the Common Stock of Ligand. Immediately prior to the consummation of the Offering, Allergan (Ireland) made a $6.0 million investment in Common Stock, Ligand then contributed $17.5 million in cash and Allergan contributed $50.0 million in cash to ALRT. Ligand's contribution resulted in a one-time charge to operations. Ligand also recorded a warrant subscription receivable and corresponding increase in paid-in capital of $5.85 million (6,500,000 warrants valued at $.90

per warrant) pursuant to the ALRT Offering. In conjunction with the consummation of the ALRT Offering, the existing Joint Venture was dissolved and all rights held by the Joint Venture were licensed to ALRT.

In connection with the ALRT Offering, ALRT, Ligand and Allergan entered into the following agreements:

Technology License Agreement. ALRT, Ligand and Allergan entered into a technology license agreement (the "Technology License Agreement") under which Allergan and Ligand granted ALRT a worldwide, exclusive (even as to Allergan and Ligand) right and license, terminable only as set forth therein, to use the retinoid technologies developed by Allergan and Ligand (both separately and through the Allergan Ligand Joint Venture formed in June 1992 to develop drugs based on retinoids) in research, development and commercialization of ALRT products (the "Products"). The licenses granted by Allergan and Ligand are subject in each case to certain exceptions that allow Allergan and Ligand to pursue limited research activities, to pursue development and commercialization of the 1057 products (following exercise of the 1057 Purchase Option, as defined below), to pursue development and commercialization of, with respect to Ligand, LGD 1069 and, with respect to Allergan, tazarotene (AGN 190168), to pursue development and commercialization of Acquired Products (as defined below) and to pursue development and commercialization of Independent Products (as defined below) (collectively, the "Permitted Activities"). See "-- Development Agreement" and "-- 1057 Purchase Option." In consideration of the license grants and in recognition of Allergan's and Ligand's expertise which they developed over a period of years through the Joint Venture and otherwise, ALRT agreed to pay to Allergan and Ligand a royalty, to be divided equally between them, of 3% of net sales of Products during the life of applicable patents or, in certain circumstances, for 10 years.

Development Agreement. ALRT, Ligand and Allergan also entered into a research and development agreement (the "Development Agreement") under which Ligand and Allergan perform research and development for ALRT on retinoid compounds and products in accordance with annual budgets and development plans jointly proposed by Ligand and Allergan. The budgets and research and development plans are subject to approval and acceptance by ALRT's Board of

Directors, including members of the Board of Directors affiliated with Ligand and Allergan. Although ALRT believes that, in general, the terms of the Development Agreement are consistent with customary practices in the pharmaceutical industry, the Development Agreement was not negotiated on an arm's-length basis.

Payments to Ligand and Allergan under the Development Agreement for research and development of potential products are made out of Available Funds (as defined below) for the full amount of all Development Costs (as defined in the Development Agreement) incurred by Ligand and Allergan in performing these activities plus 10%, up to the maximum amount of funds available to ALRT, which includes substantially all of the net proceeds raised in the Offering, plus the Contributions, the Additional Contributions (as defined below), if any, and, if designated by ALRT, any licensing or marketing income earned by ALRT, plus interest earned on such funds, less amounts paid pursuant to the Services Agreement (as defined below) and the Technology License Agreement, Development Agreement and Commercialization Agreement (the "Major Agreements") and less $1 million to be retained by ALRT as working capital (the "Available Funds"). Any funds received by ALRT from Allergan and Ligand upon exercise of the 1057 Purchase Option will be excluded from Available Funds. Development Costs will be charged in a manner consistent with industry practices. Development Costs paid by ALRT to Ligand under the Development Agreement totaled $18.6 million during 1996. Each of Ligand and Allergan has agreed, subject to customary business constraints and limitations, to provide appropriate scientific and technical personnel, necessary laboratories and equipment and administration of research and development operations. Under the Development Agreement, however, neither Ligand nor Allergan is required to allocate any specified amount of time or resources to perform its obligations thereunder.

Prior to June 3, 1998, if Ligand and Allergan receive quarterly financial statements of ALRT which show Available Funds of less than $10 million (the "Statement Date"), Ligand and Allergan, at their option, may jointly provide, on a quarterly basis, cash advances (the "Quarterly Contributions") to ALRT, in an amount which the Board of Directors of ALRT determines will be sufficient to permit ALRT to continue its research and development of Products for the quarter following the date of such financial statements. Additionally, prior to June 3, 1999, Ligand and Allergan, at their option, may jointly provide, on a one-time basis, a cash

advance of $10 million or more (such amount, together with the Quarterly Contributions, the "Additional Contributions") to ALRT for use in research, development and commercialization of Products. Any advances provided by Allergan and Ligand may be made pursuant to loans on terms reasonably acceptable to a majority of the independent directors of ALRT.

If ALRT determines not to proceed with or to discontinue development of a program compound after such compound has entered clinical trials, or after sufficient data to file an Investigational New Drug Application ("IND") on such compound has been gathered (an "Independent Product"), then Allergan and Ligand, either jointly or alone, are entitled to develop and commercialize such compound using their own funds, so long as (i) the Board of Directors of ALRT has first made a reasonable determination that continued work on such compound would not materially conflict or interfere with the interests of the ALRT retinoid program or impair a party's ability to perform its obligations under the Major Agreements and (ii) at least $1 million per year is committed to development of such compound during each of the first two years of development of such compound. ALRT will receive a royalty equal to 6% of net sales of any Independent Product. ALRT has retained the right to reacquire any Independent Product prior to the earlier of the commencement of Phase III clinical trials for such product or the exercise or expiration of the Stock Purchase Option, exercisable by reimbursing Ligand and/or Allergan, as the case may be, for all research, development and commercialization costs expended on such product, together with an amount representing interest (in an amount which will provide an internal rate of return of 25% to the developing party on such reimbursed costs). Additionally, with respect to any Independent Product which ALRT reacquires, ALRT will pay a royalty equal to 4% of net sales to the developing party. In addition, any retinoid product licensed or acquired by Ligand or Allergan (an "Acquired Product") may be commercialized by Ligand or Allergan separate from ALRT, as the case may be, so long as such product was being commercially sold or is a product for which an application to market has been filed in the United States or other major market country at the time of its

licensing or acquisition.

Commercialization Agreement. ALRT, Ligand and Allergan also entered into a commercialization agreement (the "Commercialization Agreement") which provides for the marketing, manufacture and sale by Ligand and/or Allergan of the Products developed under the Development Agreement which have received regulatory approval for commercial sale. The developed compounds will be marketed in a manner determined by Ligand and Allergan, except that generally in marketing such compounds (i) Allergan will have the worldwide exclusive right to market drugs for eye and skin indications (other than cancer indications), (ii) Ligand will have the exclusive right to market drugs to oncologists in North America for use in eye and skin cancer, (iii) Allergan will have the exclusive right to market drugs to dermatologists and eye specialists in North America for use in eye and skin cancer, (iv) Ligand will have the exclusive right to market drugs for cancer indications in North America (other than eye and skin cancer), and (v) Allergan will have the exclusive right to market drugs for cancer indications outside of North America. Additional marketing responsibilities for compounds for indications other than those set forth above will be allocated between Ligand and Allergan in accordance with a determination by ALRT, following a recommendation by Ligand and Allergan, as to which company is best suited to carry out the work. Ligand, Allergan or other third parties will manufacture Products based on a determination by ALRT, following a recommendation by Ligand and Allergan, of relative quality and cost effectiveness, except with respect to drugs for eye and skin indications which will be manufactured by Allergan. Products manufactured and marketed by Ligand and/or Allergan will be done so at cost plus a margin to be negotiated, with all remaining profit being retained by ALRT. If the Stock Purchase Option expires unexercised, the obligations of Ligand and Allergan to manufacture and market products for ALRT will continue until terminated on 12-months' advance written notice from ALRT, Ligand or Allergan, as the case may be.

Stock Purchase Option. Ligand and, in the event not exercised by Ligand, Allergan, has an irrevocable option to purchase all, but not less than all, of the Callable Common Stock outstanding at the time such option is exercised. Subject to acceleration of the exercise of the Stock Purchase Option as described below, the Stock Purchase Option is exercisable at any time beginning on the earlier of (i) June 3, 1997, and (ii) the Statement Date, and ending on the date (the "Stock Purchase Option Expiration Date") which is the earliest to occur of (a) June 3, 2000, (b) the 90th day after the Statement Date, and (c) subject to the inability of the

non-breaching party to perform the breaching party's obligations under the Major Agreements, the date ALRT terminates a Major Agreement due to an event of default by either Allergan or Ligand. The Stock Purchase Option is not exercisable prior to June 3, 1998 unless the Available Funds are less than $60 million at the date of exercise. If Ligand exercises the Stock Purchase Option, Ligand must provide notice (the "Stock Purchase Option Exercise Notice") to ALRT, each holder of record of Callable Common Stock and any other holder of shares of Special Common Stock on or before 20 days prior to the Stock Purchase Option Expiration Date (the "Ligand Expiration Date"). See "-- Special Stock." If no such notice is given by Ligand, and Allergan exercises the Stock Purchase Option, Allergan will provide notice to ALRT after the Ligand Expiration Date and on or before the Stock Purchase Option Expiration Date.

If the Stock Purchase Option is exercised, the purchase price per share (the "Stock Purchase Option Exercise Price") for the period before June 3, 1998 and the last quarter of each of the fourth and fifth years from June 3, 1995 will be as follows:

<TABLE>
<CAPTION>

STOCK PURCHASE OPTION	
IF THE STOCK PURCHASE OPTION IS EXERCISED	EXERCISE PRICE PER SHARE
<S>	<C>
Before June 3, 1998.....	$21.97
During the last quarter of the fourth year.....	$28.56
During the last quarter of the fifth year.....	$37.13

</TABLE>

The Stock Purchase Option Exercise Price is adjusted on a straight-line

basis at quarterly intervals beginning on June 3, 1998, through the Stock Purchase Option Expiration Date. The Stock Purchase Option Exercise Price was determined based on a number of factors and was not determined on an arms'-length basis. Subject to certain limitations, the Stock Purchase Option Exercise Price may be paid (i) by Ligand, in its sole discretion, in cash, in shares of Ligand Common Stock, in shares of Allergan Common Stock or in any combination thereof, or (ii) by Allergan, in its sole discretion, in cash, in shares of Ligand Common Stock, in shares of Allergan Common Stock, or in any combination thereof.

Under its Certificate of Incorporation, ALRT is prohibited, until the expiration of the Stock Purchase Option, from taking or permitting certain actions inconsistent with Ligand's and Allergan's rights under the Stock Purchase Option. For example, until the expiration of the Stock Purchase Option, ALRT is not able, among other things, without the consent of each of Ligand and Allergan to pay any dividends, issue additional shares of capital stock, borrow money in excess of $1 million in the aggregate outstanding at any one time, merge, liquidate or sell all or substantially all of its assets or amend its Certificate of Incorporation to change the Stock Purchase Option. See "-- Special Stock."

Asset Purchase Agreement. ALRT, Ligand and Allergan also entered into the Asset Purchase Agreement whereby, if Ligand exercises the Stock Purchase Option, Allergan has the right to acquire certain assets from ALRT. Upon exercise of the Asset Purchase Option, Allergan will acquire (i) a co-exclusive (with ALRT) right to ALRT technology as of the date of the acquisition, (ii) 50% of all tangible assets related to ALRT's activities in the retinoid program, (iii) 50% of any remaining Available Funds, and (iv) the consideration, cash, Allergan Common Stock and/or Ligand Common Stock, paid by Allergan to ALRT in connection with the exercise, if any, by Ligand and Allergan of the 1057 Purchase Option, subject to Allergan's assumption of 50% of the liabilities of ALRT. The Asset Purchase Option is exercisable upon notice given prior to the record date for the exercise of the Stock Purchase Option and will close concurrently with the Stock Purchase Option.

If the Asset Purchase Option is exercised, the exercise price for the Asset Purchase Option (the "Asset Purchase Exercise Price"), which will be paid 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, for the period before June 3, 1998 and the last quarter of each of the fourth and fifth years from June 3, 1995, will be as follows:

<TABLE>
<CAPTION>

IF THE ASSET PURCHASE OPTION IS EXERCISED	AGGREGATE ASSET PURCHASE EXERCISE PRICE
	(IN MILLIONS)
<S>	<C>
Before June 3, 1998	$ 8.9
During the last quarter of the fourth year	$11.5
During the last quarter of the fifth year	$15.0

</TABLE>

The Asset Purchase Exercise Price is adjusted on a straight-line basis at quarterly intervals beginning on June 3, 1998, through the Stock Purchase Option Expiration Date. The Asset Purchase Exercise Price was determined based on a number of factors and was not determined on an arms'-length basis. The Asset Purchase Exercise Price may be paid by Allergan, in its sole discretion, in cash, in shares of Allergan Common Stock, in shares of Ligand Common Stock, or in any combination of the foregoing. Ligand may cause any such cash or stock to be distributed as a credit against the Stock Purchase Option Exercise Price.

1057 Purchase Option. ALRT, Ligand and Allergan also entered into an agreement (the "1057 Purchase Option Agreement") pursuant to which ALRT has granted to Ligand and Allergan an option (the "1057 Purchase Option") to acquire the Compound 1057 Program Assets (as defined below). Ligand and Allergan,

jointly, may exercise the 1057 Purchase Option beginning on the earlier of (i) June 3, 1997 and (ii) the receipt of regulatory approval for commercial sale of any Compound 1057 Product in the United States or in certain other major countries and ending on the earlier of (a) 90 days after receipt of such regulatory approval and (b) June 3, 2000. Additionally, the 1057 Purchase Option will terminate on the date the Stock Purchase Option terminates as to both Allergan and Ligand, whether by exercise or otherwise.

If the 1057 Purchase Option is exercised, the purchase price (the "1057 Purchase Option Exercise Price") for the period before June 3, 1998 and the last quarter of each of the fourth and fifth years from June 3, 1995 will be as follows:

<TABLE>
<CAPTION>

IF THE 1057 PURCHASE OPTION IS EXERCISED	AGGREGATE 1057 PURCHASE OPTION EXERCISE PRICE
	(IN MILLIONS)
<S>	<C>
Before June 3, 1998	$21.4
During the last quarter of the fourth year	$27.8
During the last quarter of the fifth year	$36.2

</TABLE>

The 1057 Purchase Option Exercise Price is adjusted on a straight-line basis at quarterly intervals beginning on June 3, 1998, through the termination of the 1057 Purchase Option. The 1057 Purchase Option Exercise Price was determined based on a number of factors and was not determined on an arms'-length basis. Subject to certain limitations, the 1057 Purchase Option Exercise Price may be paid in cash, in shares of Ligand Common Stock, in shares of Allergan Common Stock or in any combination thereof. ALRT may not distribute or otherwise expend any proceeds received upon the exercise of the 1057 Purchase Option until the earlier of the closing of the Stock Purchase Option or the date the Stock Purchase Option terminates or expires unexercised.

Services Agreement. ALRT also entered into a services agreement with Ligand and Allergan (the "Services Agreement") under which Ligand and Allergan provide management and administrative services to ALRT at 110% of direct and indirect costs for services performed internally by Ligand and Allergan and on a cost reimbursement basis for services performed by third parties for Ligand and Allergan on ALRT's behalf.

The Services Agreement terminates on the earlier of (i) the closing of the exercise of the Stock Purchase Option or (ii) 12 months after expiration or termination of the Stock Purchase Option (other than by exercise).

Special Stock. As part of the Offering, ALRT issued 200 shares of Special Common Stock, 50% of which are held by Ligand and 50% of which are held by Allergan. The holders of shares of Special Common Stock are not entitled to vote, except: (i) as required by law and (ii) the holders of Special Common Stock, voting as a separate class, are entitled to elect two directors of ALRT. When entitled to vote, each holder of Special Common Stock has one vote for each share standing in his or her name.

The holders of shares of Special Common Stock do not have the right to any profits of ALRT as a result of the ownership of such shares. In the event of the liquidation, dissolution or winding up of ALRT, holders of the Callable Common Stock have a priority over the holders of the Special Common Stock with respect to return of capital, and the holders of the shares of Special Common Stock will not otherwise be entitled to participate in any way in the profits or assets of ALRT. ALRT does not presently intend to issue any additional shares of Special Common Stock.

Until the Stock Purchase Option is exercised or terminates unexercised, ALRT cannot without the affirmative vote of the holders of a majority of the issued and outstanding shares of Special Common Stock, voting separately and as

a class: (i) issue any additional shares of capital stock through a stock split, sale, reorganization or otherwise, (ii) alter, change or amend the rights, powers, preferences and restrictions of the Special Common Stock, (iii) alter or change the provisions of ALRT's Certificate of Incorporation relating to ALRT's capital stock and the Stock Purchase Option, (iv) merge, consolidate or reorganize ALRT with or into any other corporation, (v) sell, liquidate or otherwise dispose of all or substantially all of the assets of ALRT, (vi) borrow an aggregate of in excess of $1 million outstanding at any one time; (vii) declare or pay dividends or make any other distributions to stockholders; or (viii) adopt, amend or repeal the Bylaws of ALRT. Thus, each of Ligand and Allergan, as a result of their ownership of 50% of the outstanding shares of Special Common Stock, could preclude the holders of a majority of the outstanding Callable Common Stock and the Board of Directors of ALRT from taking any of the foregoing actions during such period.

ALRT may, from time to time on and after the termination of the Stock Purchase Option, redeem all of the outstanding shares of Special Common Stock by paying in cash $1.00 per share on each redeemed share. No other preemptive rights, conversion rights, redemption rights or sinking fund provisions are applicable to the Special Common Stock.

OTHER RELATIONSHIPS AND TRANSACTIONS

Certain holders of Ligand Common Stock (and Ligand Common Stock issuable upon exercise of warrants) are entitled to certain registration rights with respect to such stock.

Russell L. Allen, Vice President, Corporate Development and Strategic Planning entered into an Employment Agreement with Ligand in February 1997. In connection therewith, Ligand provided a relocation loan to Mr. Allen for $75,000 and granted an option to purchase 75,000 shares of Ligand Common Stock at an average price of $13.00 per share. The loan, with accrued interest at 6.74% per annum, will be forgiven in equal installments over five years, so long as Mr. Allen is employed by Ligand. At September 30, 1997, $76,685 principal and interest remained outstanding.

Susan E. Atkins, Vice President, Investor Relations and Corporate Communications, entered into an Employment Agreement with Ligand in June 1993. In connection therewith, Ligand provided a relocation loan to Ms. Atkins for $62,000 and granted an option to purchase 43,300 shares of Ligand Common Stock at an average price of $7.89 per share. The loan, with accrued interest at 5.35% per annum, will be forgiven in equal installments over five years, so long as Ms. Atkins is employed by Ligand. At September 30, 1997, $12,455 principal and interest remained outstanding.

George M. Gill, M.D., Vice President, Medical Affairs, entered into an Employment Agreement with Ligand in August 1992. In connection therewith, Ligand provided a relocation loan to Dr. Gill for $85,000 and was granted options to purchase 108,250 shares of Ligand Common Stock at an average price of $8.87 per

share. The loan, with accrued interest at 5.32% per annum, will be forgiven in equal installments over four years, so long as Dr. Gill is employed by Ligand. At September 30, 1997, $17,829 principal and interest remained outstanding.

Howard T. Holden, Ph.D., Vice President, Regulatory Affairs, Compliance, entered into an Employment Agreement with Ligand in August 1992. In connection therewith, Ligand provided a relocation loan to Dr. Holden for $75,000 and granted options to purchase 81,188 shares of Ligand Common Stock at an average price of $8.87 per share. The loan, with accrued interest at 5.32% per annum, will be forgiven in equal installments over five years, so long as Dr. Holden is employed by Ligand. At September 30, 1997, $15,131 principal and interest remained outstanding.

Andres Negro-Vilar, M.D., Ph.D., Senior Vice President, Research and Chief Scientific Officer entered into an Employment Agreement with Ligand in September 1996. In connection therewith, Ligand provided a relocation loan to Dr. Negro-Vilar for $150,000 and was granted an option to purchase 100,000 shares of Ligand Common Stock at an average price of $12.13 per share. The loan, with accrued interest at 6.60% per annum, will be forgiven in equal installments over five years, so long as Dr. Negro-Vilar is employed by Ligand. At September 30, 1997, $159,075 principal and interest remained outstanding.

William A. Pettit, Senior Vice President, Human Resources and Administration entered into an Employment Agreement with Ligand in November 1996. In connection therewith, Ligand provided a relocation loan to Mr. Pettit for $75,000 and granted an option to purchase 75,000 shares of Ligand Common Stock at an average price of $12.13 per share. The loan, with accrued interest at 6.39% per annum, will be forgiven in equal installments over five years, so long as Mr. Pettit is employed by Ligand. At September 30, 1997, $75,799 principal and interest remained outstanding.

Pursuant to a commitment with Dr. Alexander D. Cross, Ligand will pay consulting fees to Dr. Cross at a rate of $2,000 for each Board meeting attended and $500 for each Board meeting in which Dr. Cross participates by telephone. Ligand will also reimburse Dr. Cross for all reasonable and necessary travel and other incidental expenses. Pursuant to a prior consulting agreement, in March 1991 Dr. Cross purchased 6,766 shares of Ligand Common Stock for $625 subject to the terms and conditions of Ligand's Restricted Stock Purchase Agreement.

Pursuant to a commitment with Dr. Irving Johnson, Ligand will pay consulting fees to Dr. Johnson at a rate of $2,000 for each Board meeting attended, $500 for each board meeting in which Dr. Johnson participates by telephone and $1,000 for each day of service beyond four days as a member of the SAB. Ligand will also reimburse Dr. Johnson for all reasonable and necessary travel and other incidental expenses. Pursuant to a prior agreement for consulting services and for services on Ligand's SAB, in May 1989 Dr. Johnson purchased 18,042 shares of Ligand Common Stock for $334 subject to the terms and conditions of Ligand's Restricted Stock Purchase Agreement.

Ligand believes that the foregoing transactions were in the best interests of Ligand and its stockholders.

Ligand will not currently extend or guarantee loans to officers, directors or affiliates of Ligand unless such loans are approved by a majority of the disinterested, outside directors of Ligand and may reasonably be expected to benefit Ligand. As of September 30, 1997, there were outstanding loans with an aggregate balance (principal and interest) of $470,091 to certain of Ligand's officers and directors. In addition, all future transactions between Ligand and its officers, directors or principal stockholders will be on terms no less favorable to Ligand than could be obtained from unaffiliated parties, as determined by a majority of Ligand's disinterested directors.

Ligand's Bylaws provide that Ligand will indemnify its directors and executive officers and may indemnify its other officers, employees and other agents to the fullest extent permitted by the Delaware General Corporation Law (the "Delaware Law"). Ligand is also empowered under its Bylaws to enter into indemnification contracts with its directors and officers and to purchase insurance on behalf of any person whom it is required or permitted to indemnify. Pursuant to this provision, Ligand has entered into indemnity agreements with each of its directors and officers.

In addition, Ligand's Certificate of Incorporation provides that to the fullest extent permitted by Delaware Law, Ligand's directors will not be liable for monetary damages for breach of the directors' fiduciary duty of care to Ligand and its stockholders. This provision in the Certificate of Incorporation does not eliminate the duty of care, and in appropriate circumstances equitable remedies such as an injunction or other forms of nonmonetary relief would remain available under Delaware Law. Each director will continue to be subject to

liability for breach of the director's duty of loyalty to Ligand, for acts or omissions not in good faith or involving intentional misconduct or knowing violations of law, for acts or omissions that the director believes to be contrary to the best interests of Ligand or its stockholders, for any transaction from which the director derived an improper personal benefit, for acts or omissions involving a reckless disregard for the director's duty to Ligand or its stockholders when the director was aware or should have been aware of a risk of serious injury to Ligand or its stockholders, for acts or omissions that constitute an unexcused pattern of inattention that amounts to an abdication of the director's duty to Ligand or its stockholders, for improper transactions between the director and Ligand, and for improper distributions to stockholders and loans to directors and officers. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or state or federal environmental laws.

There is no pending material litigation or proceeding involving a director, officer, employee, or other agent of Ligand as to which indemnification is being sought, nor is Ligand aware of any pending or threatened material litigation that may result in claims for indemnification by any director, officer, employee, or other agent.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information regarding the ownership of the Common Stock as of October 31, 1997, and as adjusted to reflect the issuance of the shares of the Common Stock offered hereby by the Company, by (i) all those known by the Company to be beneficial owners of more than five percent of its outstanding Common Stock, (ii) each director and the five most highly compensated executive officers of the Company and (iii) all executive officers and directors of the Company as a group.

<TABLE>
<CAPTION>

	NUMBER OF SHARES BENEFICIALLY OWNED(1)		PERCENTAGE OF OUTSTANDING SHARES(2)	
BENEFICIAL OWNER	PRIOR TO OFFERING	AFTER OFFERING	PRIOR TO OFFERING	AFTER OFFERING
<S>	<C>	<C>	<C>	<C>
Allergan Pharmaceuticals (Ireland) Ltd., Inc.(3)	3,411,873	3,411,873	10.3%	9.5%
David E. Robinson	461,519(4)	466,363(5)	1.4	1.3
Henry F. Blissenbach(6)	24,355	24,355	*	*
Alexander D. Cross	38,862(7)	39,575(8)	*	*
John Groom(9)	24,355	24,355	*	*
Irving S. Johnson	47,275(10)	47,284(11)	*	*
Carl C. Peck	0	0	*	*
William L. Respess	314,192(12)	321,930(13)	*	*
Paul V. Maier	153,018(14)	156,137(15)	*	*
Lloyd E. Flanders(16)	178,409	178,409	*	*
Steven D. Reich(17)	45,000	45,000	*	*
All directors and executive officers as a group (16 persons)	1,698,262(18)	1,716,036(19)	5.0	4.6

</TABLE>

- ---

* Less than 1%

(1) Except as indicated in the footnotes to this table, the persons named in the table have sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by them, subject to community property laws, where applicable. Except as indicated herein, share ownership in each case includes shares issuable upon exercise of certain outstanding options and warrants as described in the footnotes below. Share ownership prior to the Offering does not include Shares issuable in

connection with the exercise of the Stock Purchase Option by Ligand since the number of Shares to be issued is not determinable until the close of this Offering. However, such Shares are specifically accounted for under the heading "Share Ownership After the Offering" and the respective footnotes below.

(2) Percentage of ownership is based on 32,994,999 shares of Common Stock prior to Offering, 36,102,595 shares of Common Stock outstanding after Offering, and except as noted in footnote (1) above, is calculated pursuant to Rule 13d-3(d)(1) under the Exchange Act.

(3) Allergan Ireland's address is Castlebar Road, Westport, County Mayo, Ireland.

(4) Includes 210,685 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days and 10,134 shares of Common Stock issuable upon the exercise of Warrants.

(5) Includes the shares specified in footnote (4) above and 4,844 Shares issued in connection with the Company's purchase of 5,067 shares of Callable Common Stock held by Mr. Robinson.

(6) Includes 24,355 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days.

(7) Includes 24,355 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days and 1,492 shares of Common Stock issuable upon the exercise of Warrants.

(8) Includes the shares specified in footnote (7) above and 713 Shares issued in connection with the Company's purchase of 746 shares of Callable Common Stock held by Dr. Cross.

(9) Includes 24,355 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days.

(10) Includes 24,355 shares of Common Stock issuable upon exercise of options that are exercisable within 60 days and 20 shares of Common Stock issuable upon the exercise of Warrants.

(11) Includes the shares specified in footnote (10) above and 9 Shares issued in connection with the Company's purchase of 10 shares of Callable Common Stock held by Dr. Johnson.

(12) Includes 176,680 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days and 16,186 shares of Common Stock issuable upon the exercise of Warrants.

(13) Includes the shares specified in footnote (14) above and 7,738 Shares issued by the Company in connection with the purchase of 8,093 shares of Callable Common Stock held by Dr. Respess.

(14) Includes 140,466 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days and 6,526 shares of Common Stock issuable upon the exercise of Warrants.

(15) Includes the shares specified in footnote (16) above and 3,119 Shares issued by the Company in connection with the purchase of 3,263 shares of Callable Common Stock held by Mr. Maier. 1,535 of such shares were held by Mr. Maier's spouse, and 153 of such shares were held by Mr. Maier's spouse with Mr. Maier as Tenants in Common.

(16) Includes 178,409 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days.

(17) Includes 45,000 shares of Common Stock issuable upon the exercise of options that are exercisable within 60 days.

(18) Includes 1,282,610 shares of Common Stock issuable upon the exercise of options and warrants held by certain officers and directors of Ligand that are exercisable within 60 days.

(19) Includes the shares specified in footnote (20) above and 17,774 Shares issued by the Company in connection with the purchase of an aggregate of 18,594 shares of Callable Common Stock held by certain officers and directors of Ligand.

DESCRIPTION OF CAPITAL STOCK

The authorized capital stock of Ligand consists of 80,000,000 shares of Common Stock, $0.001 par value per share, and 5,000,000 shares of Preferred Stock, $0.001 par value per share ("Preferred Stock").

COMMON STOCK

The holders of Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders. Subject to preferences that may be applicable to any outstanding Preferred Stock, holders of Common Stock are entitled to receive ratably such dividends as may be declared by the Board of Directors of Ligand out of funds legally available. See "Price Range of Common Stock" and "Dividend Policy." In the event of liquidation, dissolution or winding up of Ligand, holders of Common Stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding Preferred Stock. Holders of Common Stock have no preemptive rights and no right to cumulate votes in the election of directors. There are no redemption or sinking fund provisions applicable to the Common Stock. All outstanding shares of Common Stock are fully paid and nonassessable.

At September 30, 1997, there were 32,977,938 shares of Common Stock outstanding and held of record by approximately 1,000 stockholders.

PREFERRED STOCK

The Board of Directors of Ligand has the authority to issue the Preferred Stock in one or more series and to fix the designation, powers, preferences, rights, qualifications, limitations and restrictions of the shares of each such series, including the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), liquidation preferences and the number of shares constituting any such series, without any further vote or action by the stockholders. The rights and preferences of Preferred Stock may in all respects be superior and prior to the rights of the Common Stock. The issuance of the Preferred Stock could decrease the amount of earnings and assets available for distribution to holders of

Common Stock or adversely affect the rights and powers, including voting rights, of the holders of the Common Stock and could have the effect of delaying, deferring or preventing a change in control of Ligand.

In connection with the adoption of the Shareholder Rights Plan, the Company's Board of Directors designated 80,000 shares of Series A Participating Preferred Stock, none of which are outstanding as of the date of this Prospectus.

WARRANTS TO PURCHASE COMMON STOCK

At September 30, 1997, there were outstanding warrants to purchase 6,615,719 shares of Common Stock, at exercise prices ranging from $1.80 to $14.00 per share, of which warrants to purchase 6,499,350 shares of Common Stock were issued in connection with the ALRT Offering at an exercise price of $7.12 per share. Each warrant contains provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon exercise of the warrant under certain circumstances, including stock dividends, stock splits, reorganizations, reclassifications or consolidations. Holders of certain of the warrants are entitled to certain registration rights with respect to the Common Stock issued or issuable upon exercise thereof. See "-- Registration Rights."

REGISTRATION RIGHTS

As of September 30, 1997, pursuant to the Amended Registration Rights Agreement, dated as of June 24, 1994, the First Addendum to Amended Registration Rights Agreement, dated as of July 6, 1994, the Second Addendum to Amended Registration Rights Agreement, dated as of September 2, 1994, the Third Addendum to Amended Registration Rights Agreement, dated as of February 3, 1995, the Fourth Addendum to Amended Registration Rights Agreement, dated as of May 18, 1995, the Fifth Addendum to Amended Registration Rights Agreement, dated as of June 24, 1994 and effective as of September 11, 1995, the Sixth Addendum to Amended Registration Rights Agreement, dated as of June 24, 1994 and effective as of

August 31, 1995, the Seventh Addendum to Amended Registration Rights Agreement, dated as of November 10, 1995 and the Eighth Addendum to Amended Registration Rights Agreement, dated as of February 10, 1997 (collectively, the "Registration Rights Agreement"), the holders of 7,229,193 shares of Common Stock, warrants to purchase 116,369 shares of Common Stock and 499,500 shares of Common Stock issuable upon conversion of $5,000,000 in principal amount of outstanding convertible promissory notes (collectively, the "Holders") are entitled to certain rights with respect to the registration of the outstanding shares of Common Stock and the shares of Common Stock issuable upon exercise of such warrants or conversion of such notes (the "Registrable Securities"). Under the Registration Rights Agreement, subject to certain exceptions, each Holder of Registrable Securities may cause Ligand to register such Holder's Registrable Securities on Form S-3 ("Form S-3 Registration") provided the Registrable Securities the Holder proposes to sell have an aggregate market value of at least $500,000. Ligand is not obligated to effect more than two Form S-3 Registrations within any 12-month period. In the case where a Form S-3 Registration is not available to Ligand, a Holder may cause Ligand, subject to certain exceptions, to use its best efforts to register the Holder's Registrable Securities for public resale ("Public Resale Registration"), subject to the underwriter's marketing limitation, if any; provided however, that the shares of Registrable Securities the Holder proposes to sell must have an anticipated aggregate offering price of more than $1,500,000 net of underwriting discounts and commissions. Ligand is not obligated to effect more than one Public Resale Registration within any six month period. In addition, whenever Ligand proposes to register any of its securities under the Securities Act (a "Company Registration"), or any Holder of Registrable Securities causes Ligand to register its shares, whether in a S-3 Registration or in a Public Resale Registration, all Holders of Registrable Securities are entitled to notice of such registration and to include their Registrable Securities in such registration, subject to certain restrictions, including any proposed underwriter's right to limit the number of shares included in such registration. Ligand is required to bear all registration expenses in connection with the

first S-3 Registration and Public Resale Registration requested by a Holder and all Company Registrations. All selling expenses related to securities registered by the Holders are required to be paid by the Holders on a pro rata basis. Ligand is required to indemnify certain of the Holders of such Registrable Securities and the underwriters for such Holders, if any, under certain circumstances.

Under certain conditions, registration rights may be transferred to a transferee of Registrable Securities who, after such transfer, holds at least 50,000 shares of the Registrable Securities. Registration rights granted under the Registration Rights Agreement may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of Ligand and the Holders of a majority of the Registrable Securities then outstanding.

Registration rights granted to each Holder under the Registration Rights Agreement, subject to certain exceptions, terminate on the earlier of December 31, 1999 or the date after which all shares of Registrable Securities held by such Holder may be immediately sold under Rule 144(k) promulgated pursuant to the Securities Act.

DELAWARE LAW, THE SHAREHOLDER RIGHTS PLAN AND CERTAIN CHARTER PROVISIONS

Ligand is subject to the provisions of Section 203 of the Delaware General Corporate Law, an anti-takeover law. In general, the statute prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. For purposes of Section 203, a "business combination" includes a merger, asset sale, or other transaction resulting in a financial benefit to the interested stockholder, and an "interested stockholder" is a person who, together with affiliates and associates, owns (or within three years prior, did own) 15% or more of the corporation's voting stock.

The holders of Common Stock are currently entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders other than the election of directors and are not entitled to demand cumulative voting. The absence of cumulative voting may have the effect of limiting the ability of minority stockholders to effect changes in the Board of Directors and, as a result, may have the effect of deterring hostile takeovers or delaying or preventing changes in control or management of Ligand.

In September 1996, the Company's Board of Directors adopted the Shareholder Rights Plan which provides for a dividend distribution of one 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 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 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 Common Stock and September 13, 2006.

Ligand's Certificate of Incorporation contains the Fair Price 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 (an "Interested Stockholder"), except in cases where a majority of the Continuing Directors (as defined below) approve the transaction or certain minimum price criteria and other procedural requirements are met. A "Continuing Director" is a director originally elected upon incorporation of Ligand or a director who is not an Interested Stockholder or affiliated with an Interested Stockholder or whose nomination or election to the Board of Directors of Ligand is recommended or approved by a majority of the Continuing Directors. The minimum price criteria are recommended or approved by a majority of the Continuing Directors. The minimum price criteria generally require that, in a transaction in which stockholders are to receive payments, holders of Common Stock must receive a value equal to the highest price paid by the Interested Stockholder for Common

Stock during the prior two years, and that such payment be made in cash or in the type of consideration paid by the Interested Stockholder for the greatest portion of its shares. Ligand's Board of Directors believes that the Fair Price Provision helps assure that all of Ligand's stockholders will be treated similarly if certain kinds of business combinations are effected. However, the Fair Price Provision may make it more difficult to accomplish certain transactions that are opposed by the incumbent Board of Directors and that could be beneficial to stockholders.

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 a consent in writing. In addition, Ligand's Bylaws provide that special meetings of the stockholders may be called by the president and shall be called by the president or secretary at the written request of a majority of the Board of Directors, or at the written request of stockholders owning at least 10% of Ligand's capital stock. The Bylaws also provide that the authorized number of directors may be changed by resolution of the Board of Directors or by the stockholders at the annual meeting of the stockholders. These provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of Ligand.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the Common Stock is Chase Mellon Shareholder Services L.L.C.

PLAN OF DISTRIBUTION

The Shares offered hereunder will be issued by the Company directly to the stockholders of ALRT.

LEGAL MATTERS

The validity of the Common Stock offered hereby will be passed upon for the Company by Brobeck, Phleger & Harrison LLP, San Diego, California.

EXPERTS

The consolidated financial statements of Ligand Pharmaceuticals Incorporated at December 31, 1995 and 1996, and for each of the three years in the period ended December 31, 1996, and the financial statements of the Allergan Ligand Joint Venture at December 31, 1994 and for the year then ended and from July 1, 1992 (inception) through December 31, 1994, appearing in this Prospectus and Registration Statement, have been audited by Ernst & Young LLP, independent auditors, as set forth in their reports thereon, appearing elsewhere herein, and are included in reliance upon such reports given upon the authority of such firm as experts in accounting and auditing.

The financial statements of Allergan Ligand Retinoid Therapeutics, Inc. at December 31, 1995 and 1996, and for the periods then ended, appearing in this Prospectus and Registration Statement, have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon, appearing elsewhere herein, and are included in reliance upon such report given upon the authority of such firm as experts in accounting and auditing.

ADDITIONAL INFORMATION

The Company has filed with the Commission a Registration Statement on Form S-1 (the "Registration Statement") under the Securities Act of 1933, as amended, with respect to the Common Stock offered hereby. This Prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company and the Common Stock offered hereby, reference is made to the Registration Statement and to the exhibits and schedules thereto. Statements contained in this Prospectus regarding the contents of any contract or other document are not necessarily complete, and in each instance reference is made to the copy of such contract or document filed as an exhibit to the Registration Statement or the documents incorporated into the Prospectus by reference, each

such statement being qualified in all respects by such reference. The Registration Statement, including the exhibits and schedules thereto, may be inspected without charge at the principal office of the Commission, 450 Fifth Street, N.W., Washington, D.C. 20549, and copies of all or any part thereof may be obtained from such office upon payment of the prescribed fees. In addition, the Commission maintains a World Wide Web site on the Internet at http://www.sec.gov that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Commission. The Common Stock is traded on the Nasdaq National Market, and copies of such materials can also be inspected at the offices of the National Association of Securities Dealers, Inc., 1735 K Street, N.W., Washington, D.C. 20006.

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REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders

Ligand Pharmaceuticals Incorporated

We have audited the accompanying consolidated balance sheets of Ligand Pharmaceuticals Incorporated as of December 31, 1995 and 1996, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1996. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Ligand Pharmaceuticals Incorporated at December 31, 1995 and 1996, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1996, in conformity with generally accepted accounting principles.

ERNST & YOUNG LLP

San Diego, California
January 29, 1997

LIGAND PHARMACEUTICALS INCORPORATED

CONSOLIDATED BALANCE SHEETS
(IN THOUSANDS, EXCEPT SHARE DATA)

<TABLE>
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	DECEMBER 31,		SEPTEMBER 30,
	1995	1996	1997
			(UNAUDITED)
<S>	<C>	<C>	<C>
ASSETS			
Current assets:			
Cash and cash equivalents	$ 15,963	$ 34,830	$ 13,437
Short-term investments	54,182	45,822	37,121
Receivable from a related party	2,286	3,087	3,146
Other current assets	577	1,706	1,102
Total current assets	73,008	85,445	54,806
Restricted short-term investments	6,759	3,527	3,056
Property and equipment, net	12,272	11,680	14,991
Notes receivable from officers and employees	485	534	553
Other assets	1,070	954	4,533
	$ 93,594	$ 102,140	$ 77,939
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	$ 3,940	$ 4,137	$ 3,601
Accrued liabilities	6,705	4,870	4,732
Deferred revenue	2,608	2,151	909
Current portion of obligations under capital leases	2,406	2,607	2,917
Total current liabilities	15,659	13,765	12,159
Long-term obligations under capital leases	8,585	8,711	8,711
Convertible subordinated debentures	31,279	33,953	35,959

Convertible note	10,000	11,250	5,000
Commitments			
Stockholders' equity :			
Convertible preferred stock, $0.001 par value, 5,000,000 shares authorized; none issued	--	--	--
Common stock, $0.001 par value; 80,000,000 shares authorized, 27,800,597 shares, 31,799,617 shares and 32,977,938 shares issued at December 31, 1995 and 1996 and September 30, 1997, respectively	28	32	33
Paid-in capital	173,452	214,887	226,719
Warrant subscription receivable	(4,524)	(2,453)	(924)
Adjustment for unrealized gains (losses) on available-for-sale securities	217	(78)	4
Accumulated deficit	(140,281)	(177,594)	(209,711)
Deferred compensation and consulting	(819)	(322)	--
	28,073	34,472	16,121
Less treasury stock, at cost (4,986 shares, 1,114 shares and 1,114 shares in 1995, 1996 and September 30, 1997, respectively)	(2)	(11)	(11)
Total stockholders' equity	28,071	34,461	16,110
	$ 93,594	$ 102,140	$ 77,939

</TABLE>

See accompanying notes.

LIGAND PHARMACEUTICALS INCORPORATED

CONSOLIDATED STATEMENTS OF OPERATIONS
(IN THOUSANDS, EXCEPT SHARE DATA)

<TABLE>
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	YEARS ENDED DECEMBER 31,			NINE MONTHS ENDED SEPTEMBER 30,	
	1994	1995	1996	1996	1997
				(UNAUDITED)	
<S>	<C>	<C>	<C>	<C>	<C>
Revenues:					
Collaborative research and development:					
Related parties	$ 8,342	$ 11,972	$ 18,641	$ 12,784	$ 18,923
Unrelated parties	4,893	12,424	17,994	14,407	10,652
Other	74	120	207	161	325
	13,309	24,516	36,842	27,352	29,900
Costs and expenses:					
Research and development	27,205	41,636	59,494	42,174	51,353
Selling, general and administrative	6,957	8,181	10,205	7,278	7,379
Write-off of acquired in-process technology	--	19,564	--	--	--
ALRT contribution	--	17,500	--	--	--
Total operating expenses	34,162	86,881	69,699	49,452	58,732
Loss from operations	(20,853)	(62,365)	(32,857)	(22,100)	(28,832)
Interest income	1,298	3,603	3,704	2,729	2,800
Interest expense	(679)	(5,410)	(8,160)	(6,162)	(6,085)
Equity in operations of joint venture	(6,845)	--	--	--	--
Net loss	$ (27,079)	$ (64,172)	$ (37,313)	$ (25,533)	$ (32,117)

Net loss per share.....	$ (1.57)	$ (2.70)	$ (1.30)	$ (.91)	$ (.99)
Shares used in computing net loss per share.....	17,240,535	23,791,542	28,780,914	28,073,231	32,484,344

</TABLE>

See accompanying notes.

LIGAND PHARMACEUTICALS INCORPORATED

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(IN THOUSANDS, EXCEPT SHARE DATA)

<TABLE>
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	CLASS A COMMON STOCK		CLASS B COMMON STOCK		PAID-IN CAPITAL	SUBSCRIPTION RECEIVABLE	ADJUSTMENT FOR UNREALIZED GAINS (LOSSES) ON WARRANT FOR-SALE SECURITIES	ACCUMULATED DEFICIT
	SHARES	AMOUNT	SHARES	AMOUNT			AVAILABLE-	
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Balance at December 31, 1993.....	6,872,156	$ 7	7,622,275	$ 8	$ 94,148	$ --	$ --	$ (49,030)
Issuance of Common Stock....	885,463	1	14,156	--	10,538	--	--	--
Amortization of deferred compensation and consulting fees.....	--	--	--	--	--	--	--	--
Cumulative effect of adjustment for unrealized losses on available-for-sale securities.....	--	--	--	--	--	--	(112)	--
Adjustment for unrealized losses on available-for-sale securities.....	--	--	--	--	--	--	(615)	--
Purchase of treasury stock.....	--	--	--	--	--	--	--	--
Conversion of Class A Common Stock to Class B Common Stock.....	(7,757,619)	(8)	10,317,633	10	(2)	--	--	--
Net loss.....	--	--	--	--	--	--	--	(27,079)
Balance at December 31, 1994.....	--	--	17,954,064	18	104,684	--	(727)	(76,109)
Issuance of Common Stock....	--	--	2,903,622	3	20,966	--	--	--
Issuance of Common Stock for merger net of transaction costs of $1,235,000.....	--	--	6,942,911	7	41,952	--	--	--
Amortization of deferred compensation and consulting fees.....	--	--	--	--	--	--	--	--

<CAPTION>

	DEFERRED COMPENSATION AND CONSULTING FEES	TREASURY STOCK SHARES	TREASURY STOCK AMOUNT	TOTAL STOCKHOLDERS' EQUITY
<S>	<C>	<C>	<C>	<C>
Balance at December 31, 1993.....	$ (2,198)	(3,784)	$ (1)	$ 42,934
Issuance of Common Stock....	--	--	--	10,539
Amortization of deferred compensation and				

consulting fees.....	668	--	--	668			
Cumulative effect of adjustment for unrealized losses on available-for-sale securities.....	--	--	--	(112)			
Adjustment for unrealized losses on available-for-sale securities.....	--	--	--	(615)			
Purchase of treasury stock.....	--	(1,168)	(1)	(1)			
Conversion of Class A Common Stock to Class B Common Stock.....	--	--	--				
Net loss.....	--	--	--	(27,079)			
Balance at December 31, 1994.....	(1,530)	(4,952)	(2)	26,334			
Issuance of Common Stock....	--	--	--	20,969			
Issuance of Common Stock for merger net of transaction costs of $1,235,000.....	--	--	--	41,959			
Amortization of deferred compensation and consulting fees.....	711	--	--	711			

</TABLE>

LIGAND PHARMACEUTICALS INCORPORATED

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(IN THOUSANDS, EXCEPT SHARE DATA)

<TABLE>
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	CLASS A COMMON STOCK		CLASS B COMMON STOCK		PAID-IN CAPITAL	SUBSCRIPTION RECEIVABLE	ADJUSTMENT FOR UNREALIZED GAINS (LOSSES) ON AVAILABLE-FOR-SALE SECURITIES
	SHARES	AMOUNT	SHARES	AMOUNT			
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Adjustment for unrealized gains (losses) on available-for-sale securities.....	--	--	--	--	--	--	944
Purchase of treasury stock.....	--	--	--	--	--	--	--
Warrant subscription receivable...	--	--	--	--	5,850	(5,850)	--
Cash received from ALRT and applied to warrant subscription receivable.....	--	--	--	--	--	1,326	--
Net loss.....	--	--	--	--	--	--	--
Balance at December 31, 1995.....	--	--	27,800,597	28	173,452	(4,524)	217
Issuance of common stock.....	--	--	3,999,020	4	41,082	--	--
Amortization of deferred compensation and consulting fees.....	--	--	--	--	--	--	--
Adjustment for unrealized gains (losses) on available-for-sale securities.....	--	--	--	--	--	--	(295)
Receipt of common stock for milestone revenue.....	--	--	--	--	--	--	--
Retirement of shares.....	--	--	--	--	--	--	--
Purchase of treasury shares.....	--	--	--	--	--	--	--
Issuance of common stock held in treasury.....	--	--	--	--	--	--	--
Option term extension.....	--	--	--	--	353	--	--
Amortization of warrant subscription.....	--	--	--	--	--	2,071	--

Net loss.....	--	--	--	--	--	--	--	
Balance at December 31, 1996.....	--	--	31,799,617	32	214,887	(2,453)	(78)	
Issuance of common stock (unaudited).....	--	--	1,178,321	1	11,832	--	--	
Amortization of deferred compensation and consulting fees (unaudited).....	--	--	--	--	--	--	--	
Adjustment for unrealized gains (losses) on available-for-sale securities (unaudited).....	--	--	--	--	--	--	82	
Amortization of warrant subscription (unaudited).....	--	--	--	--	--	1,529	--	
Net loss (unaudited).....	--	--	--	--	--	--	--	
Balance at September 30, 1997 (unaudited).....	--	$ --	32,977,938	$ 33	$226,719	$ (924)	$ 4	

<CAPTION>

	ACCUMULATED DEFICIT	DEFERRED COMPENSATION AND CONSULTING FEES	TREASURY STOCK SHARES	TREASURY STOCK AMOUNT	TOTAL STOCKHOLDERS' EQUITY
<S>	<C>	<C>	<C>	<C>	<C>
Adjustment for unrealized gains (losses) on available-for-sale securities.....	--	--	--	--	944
Purchase of treasury stock.....	--	--	(34)	--	--
Warrant subscription receivable...	--	--	--	--	--
Cash received from ALRT and applied to warrant subscription receivable.....	--	--	--	--	1,326
Net loss.....	(64,172)	--	--	--	(64,172)
Balance at December 31, 1995.....	(140,281)	(819)	(4,986)	(2)	28,071
Issuance of common stock.....	--	--	--	--	41,086
Amortization of deferred compensation and consulting fees.....	--	497	--	--	497
Adjustment for unrealized gains (losses) on available-for-sale securities.....	--	--	--	--	(295)
Receipt of common stock for milestone revenue.....	--	--	(101,011)	(1,320)	(1,320)
Retirement of shares.....	--	--	101,011	1,320	1,320
Purchase of treasury shares.....	--	--	(3,164)	(23)	(23)
Issuance of common stock held in treasury.....	--	--	7,036	14	14
Option term extension.....	--	--	--	--	353
Amortization of warrant subscription.....	--	--	--	--	2,071
Net loss.....	(37,313)	--	--	--	(37,313)
Balance at December 31, 1996.....	(177,594)	(322)	(1,114)	(11)	34,461
Issuance of common stock (unaudited).....	--	--	--	--	11,833
Amortization of deferred compensation and consulting fees (unaudited).....	--	322	--	--	322
Adjustment for unrealized gains (losses) on available-for-sale securities (unaudited).....	--	--	--	--	82
Amortization of warrant subscription (unaudited).....	--	--	--	--	1,529
Net loss (unaudited).....	(32,117)	--	--	--	(32,117)
Balance at September 30, 1997 (unaudited).....	$(209,711)	$ --	(1,114)	$ (11)	$ 16,110

</TABLE>

LIGAND PHARMACEUTICALS INCORPORATED

CONSOLIDATED STATEMENTS OF CASH FLOWS

(IN THOUSANDS)

<TABLE>
<CAPTION>

	YEARS ENDED DECEMBER 31,			NINE MONTHS ENDED SEPTEMBER 30,	
	1994	1995	1996	1996	1997
				(UNAUDITED)	
<S>	<C>	<C>	<C>	<C>	<C>
OPERATING ACTIVITIES					
Net loss	$(27,079)	$(64,172)	$(37,313)	$(25,533)	$(32,117)
Adjustments to reconcile net loss to net cash used by operating activities:					
Depreciation and amortization	1,536	2,687	3,879	2,907	3,037
Equity in operations of joint venture	6,845	--	--	--	--
Amortization of notes receivable from officers and employees	265	339	235	174	185
Amortization of warrant subscription receivable	--	1,326	2,071	1,420	1,529
Write-off of acquired in-process technology	--	19,564	--	--	--
Research and development and consulting fees paid through issuance of stock	242	--	--	--	--
Amortization of deferred compensation and consulting fees	669	711	497	378	322
Accretion of debt discount	--	1,654	2,674	2,006	2,006
Company stock received for milestone revenue	--	--	(1,320)	(1,320)	--
Gain on sale of property and equipment				--	(69)
Change in operating assets and liabilities, net of Glycomed merger:					
Other current assets	(905)	1,626	(1,129)	(1,830)	696
Receivable from a related party	1,432	(1,128)	(801)	(384)	(59)
Accounts payable and accrued liabilities	2,020	380	(1,638)	(4,707)	(674)
Deferred revenue	666	465	(457)	(122)	(1,242)
Net cash used in operating activities	(14,309)	(36,548)	(33,302)	(27,011)	(26,386)
INVESTING ACTIVITIES					
Purchases of short-term investments	(18,336)	(17,684)	(53,123)	(37,486)	(18,584)
Proceeds from short-term investments	27,546	37,205	61,188	52,508	27,367
Purchase of property and equipment	(587)	(175)	(399)	(511)	(3,727)
Proceeds from sale of property and equipment					32
Increase in note receivable from officers and employees	(20)	(135)	(350)	(180)	(220)
Payment of notes receivable from officers and employees	--	--	66	63	16
Increases in deposits and other assets	(540)	(33)	(2)	(2)	(3,668)
Decreases in deposits and other assets	125	60	118	88	89
Investment in joint venture	(7,125)	(822)	--	--	--
Net cash acquired in Glycomed acquisition	--	10,225	--	--	--
Net cash provided by (used in) investing activities	1,063	28,641	7,498	14,480	1,305
FINANCING ACTIVITIES					
Principal payments on obligations under capital leases	(1,064)	(1,448)	(2,561)	(1,726)	(2,366)
Net change in restricted short-term investment	--	(2,043)	3,232	3,233	471
Net proceeds from the issuance of convertible note	10,000	--	5,000	--	--
Net proceeds from sale of common stock	10,296	19,733	39,000	2,075	5,583
Net cash provided by financing activities	19,232	16,242	44,671	3,582	3,688
Net increase (decrease) in cash and cash equivalents	5,986	8,335	18,867	(8,949)	(21,393)
Cash and cash equivalents at beginning of period	1,642	7,628	15,963	15,963	34,830
Cash and cash equivalents at end of period	$ 7,628	$ 15,963	$ 34,830	$ 7,014	$ 13,437
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:					
Interest paid	$ 421	$ 3,178	$ 5,559	$ 5,292	$ 5,142
SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:					
Additions to obligations under capital leases	$ 1,162	$ 8,415	$ 2,888	$ 1,928	$ 2,676
Warrant subscription receivable issued with ALRT offering	$ --	$ 5,850	$ --	$ --	$ --

Conversion of note to common stock	$ --	$ --	$ 3,750	$ 3,750	$ 6,250
Retirement of treasury stock	$ --	$ --	$ 1,320	$ 1,320	$ --

</TABLE>

See accompanying notes.

LIGAND PHARMACEUTICALS INCORPORATED

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(INFORMATION AS OF SEPTEMBER 30, 1997 AND FOR THE NINE MONTHS ENDED SEPTEMBER 30, 1996 AND 1997 IS UNAUDITED)

1. ORGANIZATION

Ligand Pharmaceuticals Incorporated, a Delaware corporation, (the "Company") is a biopharmaceutical company primarily committed to the discovery and development of new drugs that regulate hormone activated intracellular receptors and Signal Transducers and Activators of Transcription. The Company includes its wholly-owned subsidiaries, Glycomed Incorporated ("Glycomed"), and Ligand Pharmaceuticals (Canada) Incorporated.

The Company's potential products are in various stages of development. Substantially all of the Company's revenues to date have been derived from its research and development agreements with major pharmaceutical collaborators. Prior to generating product revenues, the Company must complete the development of its products, including several years of human clinical testing, and receive regulatory approvals prior to selling these products in the human health care market. No assurance can be given that the Company's products will be successfully developed, regulatory approvals will be granted, or patient and physician acceptance of these products will be achieved. There can be no assurance that Ligand will successfully commercialize, manufacture or market its products or ever achieve or sustain product revenues or profitability.

The Company faces those risks associated with companies whose products are in various stages of development. These risks include, among others, the Company's need for additional financing to complete its research and development programs and commercialize its technologies. The Company expects to incur substantial additional research and development expenses, including continued increases in personnel and costs related to preclinical testing, clinical trials and sales and marketing expenses related to the product sales in Ligand Pharmaceuticals (Canada) Incorporated. The Company intends to seek additional funding sources of capital and liquidity through collaborative arrangements, collaborative research or through public or private financing. No assurance can be given that such financing will be available to the Company when required or under favorable terms.

The Company believes that patents and other proprietary rights are important to its business. The Company's policy is to file patent applications to protect technology, inventions and improvements to its inventions that are considered important to the development of its business. The patent positions of pharmaceutical and biotechnology firms, including the Company, are uncertain and involve complex legal and factual questions for which important legal principles are largely unresolved.

2. SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and

assumptions that affect the amounts reported in the financial statements and disclosures made in the accompanying notes to the consolidated financial statements. Actual results could differ from those estimates.

Interim Financial Information

The financial statements at September 30, 1997 and the nine months ended September 30, 1996 and 1997 are unaudited. These financial statements reflect all adjustments, consisting only of normal recurring adjustments which, in the opinion of management, are necessary to fairly present the financial position as of September 30, 1997, and the results of operations for the nine months ended September 30, 1996 and 1997. The results of operations for the nine months ended September 30, 1997 are not necessarily indicative of the results to be expected for the year ending December 31, 1997.

Cash, Cash Equivalents and Short-term Investments

Cash and cash equivalents consist primarily of cash, certificates of deposits, treasury securities and repurchase agreements with original maturities at the date of acquisition of less than three months.

The Company invests its excess cash principally in United States government debt securities, investment grade corporate debt securities and certificates of deposit. The Company has established guidelines relative to diversification and maturities that maintain safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates.

Net Loss Per Share

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

Research and Development Revenues and Expenses

Collaborative research and development revenues are recorded as earned based on the performance criteria of each contract. Payments received which have not met the appropriate criteria are recorded as deferred revenue. Research and development costs are expensed as incurred.

For the years ended December 31, 1994, 1995 and 1996, and for the nine months ended September 30, 1996 and 1997, costs and expenses related to collaborative research and development agreements were $13.2 million, $24.4 million, $36.6 million, $27.2 million and $29.6 million, respectively.

Property and Equipment

Property and equipment is stated at cost and consists of the following (in thousands):

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1995	1996
<S>	<C>	<C>
Equipment and leasehold improvements.....	$ 19,387	$22,674

Less accumulated depreciation and amortization.....	(7,115)	(10,994)
Net property and equipment.....	$ 12,272	$11,680

</TABLE>

Depreciation of equipment and leasehold improvements is computed using the straight-line method over the estimated useful lives of the assets which range from three to fifteen years. Assets acquired pursuant to capital lease arrangements and leasehold improvements are amortized over their estimated useful lives or their related lease term, whichever is shorter.

Stock Compensation

In October 1994, the Financial Accounting Standards Board issued SFAS 123, "Accounting for Stock-Based Compensation", effective for fiscal years beginning after December 15, 1995. SFAS 123 establishes the

use of the fair value based method of accounting for stock-based compensation arrangements, under which compensation cost is determined using the fair value of stock-based compensation determined as of the grant date, and is recognized over the periods in which the related services are rendered. The statement also permits companies to elect to continue using the current implicit value accounting method specified in Accounting Principles Board (APB) Opinion No. 25 to account for stock-based compensation. The Company has decided to retain the current implicit value based method, and has disclosed the pro forma effect of using the fair value based method to account for its stock-based compensation (see Note 8).

Long-Lived Assets

In March 1995, the FASB issued Statement No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of", which requires impairment losses to be recorded on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount. Statement 121 also addresses the accounting for long-lived assets that are expected to be disposed of. The Company adopted Statement 121 in the first quarter of 1996 and such adoption has had no effect on the Company's financial position and results of operations.

3. INVESTMENTS

Investments are recorded at estimated fair market value at December 31, 1995 and 1996, and consist principally of United States government debt securities, investment grade corporate debt securities and certificates of deposit with maturities at the date of acquisition of three months or longer. The Company has classified all of its investments as available-for-sale securities. The following table summarizes the various investment categories at (in thousands):

<TABLE>
<CAPTION>

	DECEMBER 31, 1995		
	COST	GROSS UNREALIZED GAINS (LOSSES)	ESTIMATED FAIR VALUE
<S>	<C>	<C>	<C>
Available-for-Sale:			
U.S. Government Securities.....	$37,073	$209	$ 37,282

Corporate Obligations	14,055	13	14,068
Certificates of Deposit	2,837	(5)	2,832
	53,965	217	54,182
Certificates of Deposit -- restricted	4,058	--	4,058
U.S. Government Securities -- restricted	2,701	--	2,701
Equity securities	440	--	440
	$61,164	$217	$ 61,381

</TABLE>

<TABLE>
<CAPTION>

	DECEMBER 31, 1996		
	COST	GROSS UNREALIZED GAINS (LOSSES)	ESTIMATED FAIR VALUE
<S>	<C>	<C>	<C>
Available-for-Sale:			
U.S. Government Securities	$18,541	$(52)	$ 18,489
Corporate Obligations	22,005	(16)	21,989
Certificates of Deposit	5,354	(10)	5,344
	45,900	(78)	45,822
Certificates of Deposit- restricted	3,527	--	3,527
Equity securities	440	--	440
	$49,867	$(78)	$ 49,789

</TABLE>

The realized gains (losses) on sales of available-for-sale securities for the years ended December 31, 1995 and 1996 have not been material.

The amortized cost and estimated fair value of debt and marketable securities at December 31, 1995 and 1996, by contractual maturity, are shown below (in thousands). Expected maturities will differ from contractual maturities because the issuers of the securities may have the right to prepay obligations without prepayment penalties.

<TABLE>
<CAPTION>

	DECEMBER 31, 1995		DECEMBER 31, 1996	
	COST	ESTIMATED FAIR VALUE	COST	ESTIMATED FAIR VALUE
<S>	<C>	<C>	<C>	<C>
Due in one year or less	$57,509	$ 57,692	$15,941	$ 15,938
Due after one year through three years	3,119	3,156	33,388	33,315
Due after three years	96	93	98	96
	60,724	60,941	49,427	49,349
Equity securities	440	440	440	440
	$61,164	$ 61,381	$49,867	$ 49,789

</TABLE>

4. MERGER WITH GLYCOMED

In May 1995, Glycomed, Incorporated ("Glycomed") was merged into a wholly-owned subsidiary of the Company ("the Merger"). Glycomed is a biopharmaceutical company conducting research and development of pharmaceuticals based on biological activities of complex carbohydrates. The results of operations of Glycomed are included in the Company's consolidated results of operations with effect from the date of the Merger. Each outstanding share of Glycomed Common Stock was converted into .5301 shares of the Company's Common Stock, resulting in the issuance of 6,942,911 shares of the Company's Common Stock to Glycomed shareholders. The Merger was accounted for using the purchase method of accounting. The excess of the purchase price over the fair value of the net assets acquired was allocated to in-process technology and was written off, resulting in a one time non-cash charge to results of operations of $19.6 million.

Details of the merger are as follows (in thousands):

<TABLE>

<S>	<C>
Total consideration:	
Common stock	$43,193
Convertible debentures assumed	29,625
Other liabilities assumed	6,897
	79,715
Less:	
Fair value of assets acquired, including cash, restricted cash and short-term investments of $46,698	49,926
Write-off of in-process technology	19,564
Net cash acquired	$10,225

</TABLE>

The common stock issued as consideration was valued at the market price on the date the transaction was consummated.

The following unaudited pro forma data reflects the Company's 1995 results of operations as if the Glycomed acquisition occurred on January 1, 1995 (in thousands, except per share data):

<TABLE>

<S>	<C>
Revenues	$ 25,711
Net loss	(51,690)
Loss per share	$ (1.96)

</TABLE>

5. ACCRUED LIABILITIES

Accrued liabilities are comprised of the following (in thousands):

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1995	1996
	------	------

<S>	<C>	<C>
Accrued legal	$1,463	$ 463
Accrued interest	2,292	2,116
Accrued compensation	1,100	925
Other	1,850	1,366
	$6,705	$4,870

</TABLE>

6. CONVERTIBLE SUBORDINATED DEBENTURES

In conjunction with the Glycomed acquisition, the Company adjusted the carrying value of the Glycomed 7 1/2% Convertible Subordinated Debentures due 2003 (the "Debentures") issued by Glycomed in 1992 in the original amount of $50 million to $29.6 million, which was their fair market value at the date of the Merger. The Company has entered into a supplemental indenture which provides for conversion of the Debentures into the Company's Common Stock at $26.52 per share. The Debentures pay interest semi-annually at 7.5% per annum and are due in 2003. The difference between the face value and the fair market value at the acquisition date will be accreted up to the face value over the remaining term of the Debentures and will be charged to interest expense. In accordance with terms of the indenture, a trustee held U.S. Government Securities of approximately $2.7 million in escrow until January 1, 1996 for future interest payments. This amount is included in restricted short-term investments at December 31, 1995.

7. COMMITMENTS

Leases and Equipment Notes Payable

The Company has entered into capital lease and equipment note payable agreements which require monthly payments through December 2002. Equipment under these agreements at December 31, 1996 and 1995 was $19.0 million and $16.1 million, respectively. At December 31, 1995 and 1996, accumulated amortization was $6.9 million and $9.7 million, respectively.

The Company has also entered into operating lease agreements for office and research facilities with varying terms through August 2015. The agreements also provide for increases in annual rentals based on changes in the Consumer Price Index or fixed percentage increases varying from three to six percent. One of these leases requires an irrevocable standby letter of credit of $1.3 million to secure the performance of the Company's lease obligations.

Rent expense for the years ended December 31, 1994, 1995 and 1996 was $1.7 million, $2.5 million and $3.1 million, respectively.

At December 31, 1996, annual minimum rental payments due under the Company's leases and equipment notes payable are as follows (in thousands):

<TABLE>
<CAPTION>

	OBLIGATIONS UNDER CAPITAL LEASES AND EQUIPMENT NOTES PAYABLE	OPERATING LEASES
<S>	<C>	<C>
1997	$ 3,515	$ 2,778

1998	2,930	1,582
1999	2,613	1,430
2000	2,583	1,433
2001	1,491	1,476
Thereafter	624	22,742
Total minimum lease payments	13,756	$31,441
Less amounts representing interest	2,438	
Present value of minimum lease payments	11,318	
Less current portion	2,607	
	$ 8,711	

</TABLE>

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 a build-to-suit facility. In March 1997, the Company entered into a fifteen-year lease, with a five year extension option, related to the build-to-suit facility, and loaned the construction partnership $3.7 million which will be paid back with interest over a ten year period.

Royalty Agreements

The Company has entered into royalty agreements requiring payments ranging from 2% to 10% of net sales and 10% to 30% of license and other income for certain products developed by the Company. Currently, the Company is making minimum royalty payments under three agreements, which increase annually to a maximum of $235,000 per year and aggregate $1.2 million through 2001. Royalty expense under the agreements for the years ended December 31, 1994, 1995 and 1996 and for the nine months ended September 30, 1996 and 1997 were $160,000, $195,000, $261,000, $135,000 and $207,000, respectively.

No royalty payments have been received by the Company.

8. STOCKHOLDERS' EQUITY

Public Offering

In October 1996, the Company completed a public offering of 3,162,500 shares of common stock at a price of $12.00 per share, for net proceeds of approximately $35.3 million.

Warrants

At December 31, 1996 and September 30, 1997, the Company had outstanding warrants to purchase 6,635,965 shares and 6,615,719 shares, respectively of the Company's Common Stock, of which 6,499,350 warrants relate to the ALRT transaction (see Note 9). The ALRT warrants have an exercise price

of $7.12 per share, the additional warrants have exercise prices ranging from $1.80 to $14.00 per share and expire at various dates through September 30, 2001.

Stock Plans

The Company's 1992 Stock Option/Stock Issuance Plan incorporates all outstanding stock options and unvested share issuances under a prior plan. In May of years 1993 through 1997 inclusive, this Plan was amended to increase the aggregate shares available for grant or issuance to 7,303,457 shares of common stock. The large majority of the options granted have 10 year terms and vest and become fully exercisable at the end of 4 years of continued employment. In addition to this Plan, on the date of the Merger, all outstanding in-the-money stock options from Glycomed's stock option plan were converted into options to purchase 470,008 shares of the Company's Common Stock based on the Exchange Ratio in effect. The Company's employee stock purchase plan also provides for the sale of up to 206,500 shares of the Company's Common Stock.

Pro forma information regarding net income and earnings per share is required by Statement 123, and has been determined as if the Company had accounted for its employee stock options under the fair value method of that Statement. The fair value for these options was estimated at the dates of grant using a Black-Scholes option pricing model with the following weighted-average assumptions for 1996 and 1995:

<TABLE>

<S>	<C>	<C>
Risk free interest rates	5.3%-6.6%	5.7%-7.6%
Dividend yields	--	--
Volatility	44.40%	44.40%
Weighted average expected life	5 or 7 years	5 or 7 years

</TABLE>

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which 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.

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 earnings per share information):

<TABLE>

<S>	<C>	<C>
Net loss as reported	$(37,313)	$(64,172)
Net loss pro forma	(39,210)	(65,082)
Net loss per share as reported	(1.30)	(2.70)
Net loss per share pro forma	(1.36)	(2.74)

</TABLE>

The pro forma effect on net loss for 1996 and 1995 is not representative of the pro forma effect on net loss in future years because it does not take into consideration pro forma compensation expense related to grants made prior to 1995.

Following is a summary of the Company's stock option plans activity and related information:

<TABLE>

<CAPTION>

	SHARES	PRICE RANGE	WEIGHTED AVERAGE EXERCISE PRICE
<S>	<C>	<C>	<C>
Balance at December 31, 1993	1,409,977	$ .22-$ 9.60	$ 8.05
Granted	1,046,217	8.62- 11.59	9.69
Exercised	(1,782)	7.70- 7.90	4.52
Cancelled	(35,508)	.22- 10.55	8.52
Balance at December 31, 1994	2,418,904	.22- 11.59	8.75
Merger options granted	470,008	.68- 6.37	3.37
Granted	1,077,540	4.68- 10.00	7.36
Exercised	(215,530)	.29- 7.97	4.10
Cancelled	(146,816)	3.89- 11.59	7.57
Balance at December 31, 1995	3,604,106	.29- 11.59	7.33
Granted	974,015	10.31- 16.38	12.85
Exercised	(498,456)	.22- 12.75	5.61
Cancelled	(282,783)	3.89- 13.31	7.91
Balance at December 31, 1996	3,796,882	.68- 16.38	9.55
Granted	699,697	9.50- 13.00	11.91
Exercised	(351,470)	.68- 14.50	8.86
Cancelled	(144,005)	3.89- 14.50	11.41
Balance at September 30, 1997	4,001,104	$.68-$16.38	$ 9.99
Options exercisable at September 30, 1997	2,279,123	$.68-$16.38	

</TABLE>

Of the total options granted from 1994 through 1996, 3,509,018 were granted at a price equal to the fair value of the options at the time of grant, and 58,762 were granted at a price below the fair value of the options at the time of grant.

Following is a further breakdown of the options outstanding as of December 31, 1996:

<TABLE>
<CAPTION>

RANGE OF EXERCISE PRICES	OPTIONS OUTSTANDING	WEIGHTED AVERAGE REMAINING LIFE IN YEARS	WEIGHTED AVERAGE EXERCISE PRICE
<S>	<C>	<C>	<C>
Glycomed Plan:			
$ .68-$ .79	19,846	3.21	$ .73
$ 3.77-$ 5.31	61,357	7.75	$ 4.07
Ligand Plan:			
$ 4.51-$ 6.75	420,541	8.23	$ 6.08
$ 7.14-$10.67	2,241,982	6.17	$ 8.90
$11.26-$16.38	1,053,156	9.40	$12.82
	3,796,882		$ 9.55

</TABLE>

At December 31, 1996 and September 30, 1997, 447,589 and 767,063 shares, respectively were available under all plans for future grants of stock options or sale of stock.

For certain shares issued under these plans and certain other issuances of stock, the Company has recognized as compensation and consulting fees expense the excess of the deemed value for accounting purposes over the aggregate issue price for such shares. The compensation expense is amortized ratably over the vesting period of each share.

Amortization of deferred compensation and consulting fees for the years ended December 31, 1994, 1995 and 1996 and for the nine months ended 1996 and 1997 was $669,000, $711,000, $497,000, $378,000 and $322,000, respectively.

Shareholder's Rights Plan

In September 1996, the Company's Board of Directors adopted a preferred 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 an acquisition of 20% or more of the 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 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 common stock and September 13, 2006.

9. COLLABORATIVE RESEARCH AGREEMENTS

SmithKline Beecham Corporation

In February 1995, the Company entered into a research collaboration with SmithKline Beecham Corporation ("SmithKline Beecham") to discover and characterize small molecule drugs to control hematopoiesis. Revenues under the agreement are recognized ratably over the term of the agreement. The revenue recognized under the agreement for the years ended December 31, 1995, 1996 and for the nine months ended September 30, 1996 and 1997 was $2.1 million, $2.4 million, $1.8 million and $2.5 million, respectively. SmithKline Beecham has agreed to provide the Company up to $21.5 million in research funding and equity investments. SmithKline Beecham made an investment of $5.0 million by purchasing 674,127 shares of the Company's Common Stock at $7.41 per share at the inception of the agreement. In November 1995, a second equity investment of $2.5 million by purchasing 260,200 shares of the Company's Common Stock at $9.60 per share, was provided to the Company upon the achievement of certain milestones. A third installment of equity investment of $2.5 million would be provided to the Company upon SmithKline Beecham's election to expand the scope of research as defined. This election was exercised in January 1997 when SmithKline Beecham purchased 164,474 shares of the Company's Common Stock at $15.20 per share. The final installment of $2.5 million was provided in October 1997 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.

American Home Products Corporation

In September 1994, the Company entered into a collaborative research agreement with the Wyeth-Ayerst division of American Home Products ("AHP") to discover and develop drugs which interact with the estrogen or progesterone receptors. AHP agreed to support up to $19.0 million of the Company's research

activities, to invest $5.0 million by purchasing 574,513 shares of the Company's Common Stock at $8.70 per share, and to provide, in three installments, up to $20.0 million in convertible notes over the life of the agreement.

In January 1996, the Company and AHP expanded and amended the research and development collaboration. The Company received $1.5 million in additional research revenue from AHP, AHP expanded the research funding by $1.0 million in years two and three of the agreement, the contract-specified milestone payments increased, AHP granted rights to the Company to cause the conversion of the convertible note into Ligand Common Stock, and the parties agreed to extend the period for Ligand to draw down the second convertible note installment until December 1996.

Revenues under the agreement are recognized ratably over the term of the agreement. The revenue recognized under the agreement for the years ended December 31, 1994, 1995, 1996 and for the nine months ended September 30, 1996 and 1997 was $1.7 million, $4.0 million, $6.9 million, $5.6 million and $3.4 million, respectively. The $5.0 million equity investment plus the initial $10.0 million convertible note was provided to the Company upon inception of the agreement. In the second quarter of 1995, the Company achieved certain milestones which qualified the Company to receive the second installment of a $5.0 million convertible note, which the Company elected to receive in December 1996. The final convertible note installment of $5.0 million will be provided if the collaboration agreement is extended from three to five years. The first two notes are convertible into the Company's Common Stock at $10.01 per share and the final note is convertible at $10.88 per share. The conversion prices are subject to adjustment if certain dilutive events occur to the Company's outstanding Common Stock. In August 1996, March 1997 and again in July 1997 the Company converted $3.8 million, $3.8 million and $2.5 million, respectively of the convertible notes outstanding into 374,626, 374,626 and 249,749 shares of Common Stock, at the $10.01 conversion price. The notes bear interest at 7.75% payable semi-annually and are due September 1999 unless converted into the Company's Common Stock. If conversion has not occurred by September 1999, the Company may extend the due date of the notes to September 2001.

Abbott Laboratories

In July 1994, the Company entered into a collaborative research agreement with Abbott Laboratories ("Abbott") to discover and develop drugs for the prevention or treatment of inflammatory diseases. Abbott agreed to support up to $16.0 million of the Company's research activities over a five-year period in connection with the agreement.

Revenues under the agreement are recognized ratably over the term of the agreement and for the years ended December 31, 1994, 1995 and 1996 and for the nine months ended September 30, 1996 and 1997 revenues were $1.2 million, $2.6 million, $2.5 million, $2.0 million and $1.4 million, respectively. Abbott made an equity investment of $5.0 million by purchasing 571,305 shares of the Company's Common Stock at $8.75 per share at the inception of the agreement, and in August 1995 Abbott made another equity investment of $5.0 million by purchasing 516,129 shares of the Company's Common Stock at $9.68 per share, which was stipulated in the July 1994 agreement.

Sankyo Company, Limited

As part of the Glycomed acquisition, the Company acquired a collaborative research agreement with Sankyo Company, Limited ("Sankyo") which Glycomed had entered into in June 1994. Under the agreement, Sankyo reimburses a portion of the Company's research expenses related to the collaboration up to an aggregate

of $8.9 million. Revenues under the agreement are recognized ratably over the term of the agreement. The revenue recognized under the agreement since the date of Merger through December 31,

1995 and for the year ended December 31, 1996 and for the nine months ended September 30, 1996 and 1997 was $1.7 million, $2.7 million, $2.1 million and $2.1 million, respectively. The agreement also provides that upon being presented by the Company with a target compound arising from the research collaboration, Sankyo shall notify the Company whether it wishes to pursue development of the compound. If Sankyo exercises its option to develop the compound, the Company and Sankyo shall negotiate in good faith the terms and conditions for an option and license agreement within 180 days of Sankyo's exercise. Sankyo shall pay the Company an initial payment of $1.0 million within 30 days after execution of each option and license agreement as a license fee. Sankyo shall make additional payments of license fees as follows: $1.0 million within 30 days after Sankyo decides to initiate Phase II clinical trials of the approved compound in Japan; $1.0 million within 30 days after the filing of an NDA for the approved compound in Japan; and $2.0 million within 30 days after the date of approval of an NDA for the approved compound in Japan.

In connection with the collaborative research agreement, in September 1995, Sankyo purchased 189,274 shares of the Company's Common Stock at $7.92 per share for net proceeds of $1.5 million.

In June 1997, the collaborative research agreement was extended through October 1997.

Glaxo-Wellcome plc

In September 1992, the Company entered into a five-year collaborative research agreement with Glaxo-Wellcome plc ("Glaxo") to develop drugs for the treatment of cardiovascular disease. Under the agreement, Glaxo reimburses a portion of the Company's research expenses related to the collaboration up to a maximum of approximately $2.0 million annually. Revenues under the agreement are recognized ratably over the term of the agreement. The revenue recognized under the agreement for the years ended December 31, 1994, 1995 and 1996 and for the nine months ended September 30, 1996 and 1997 was $2.0 million, $2.1 million, $2.1 million, $1.6 million and $1.3 million, respectively. In connection with the agreement, Glaxo purchased 662,755 shares of Common Stock at $11.31 per share for net proceeds of $7.5 million. Glaxo also purchased 315,465 shares of Common Stock at $7.92 per share as part of the Company's initial public offering for net proceeds of $2.5 million.

Allergan Ligand Retinoid Therapeutics, Inc.

On June 30, 1992, the Company entered into agreements with Allergan, Inc. ("Allergan") whereby Allergan-Ligand Joint Venture ("the Joint Venture") was established to discover, develop and commercialize retinoid drugs. In connection with the establishment of the Joint Venture, the Company sold 1,353,125 shares of Common Stock for $11.08 per share for net proceeds of approximately $15.0 million and warrants to purchase an additional 433,000 shares of the Company's Common Stock to Allergan Pharmaceuticals (Ireland) Ltd., Inc. which was exercised in November 1993. Allergan also purchased 630,929 shares of Common Stock, at $7.92 per share for $5.0 million as part of the Company's initial public offering, in November 1992.

From inception through December 31, 1994, the Company and Allergan invested

$14.6 million each to provide funding for the Joint Venture's operations. The following is the summarized balance sheet of the

Joint Venture as of December 31, 1994, and the summarized statements of operations for the year ended December 31, 1994, and for the period from July 1, 1992 (inception) through December 31, 1994:

ALLERGAN LIGAND JOINT VENTURE BALANCE SHEET

<TABLE>
<CAPTION>

	DECEMBER 31, 1994
<S>	<C>
ASSETS	
Cash and cash equivalents	$ 70,356
Interest receivable and other current assets	--
Property and equipment, net	2,284
	$ 72,640
LIABILITIES AND PARTNERS' DEFICIT	
Accounts payable to Ligand	$ 1,158,400
Accounts payable to Allergan	522,362
Other accounts payable and accrued expenses	36,388
Partners' deficit:	
The Company	(822,255)
Allergan	(822,255)
	$ 72,640

</TABLE>

ALLERGAN LIGAND JOINT VENTURE STATEMENTS OF OPERATIONS

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31, 1994	JULY 1, 1992 (INCEPTION) THROUGH DECEMBER 31, 1994
<S>	<C>	<C>
Interest income	$ 4,552	$ 174,867
Contract research expense	13,694,032	31,069,375
Net Loss	$(13,689,480)	$ (30,894,508)

</TABLE>

In December 1994, the Company and Allergan formed Allergan Ligand Retinoid Therapeutics, Inc. ("ALRT") to continue the research and development activities previously conducted by 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 Ligand 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 1995 and 1996 and for the first nine months of 1996 and 1997, $1.3 million, $2.1 million, $1.4 million and $1.5 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 Ligand 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 Ligand 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.

Pfizer Inc

In 1991, the Company entered into a collaborative research and development and license agreement with Pfizer Inc ("Pfizer") to perform services related to the joint development of pharmaceuticals for the treatment of osteoporosis. In November 1993, Ligand and Pfizer announced the successful completion of the research phase of their alliance with the identification of a development candidate and backups for the prevention and treatment of osteoporosis. Due to the early success in meeting research-stage objectives for drug candidates, the two companies phased out the ongoing research collaboration by July 1, 1994.

In connection with the collaborative research agreement, Pfizer purchased 1,353,125 shares of the Company's Common Stock for $5.54 per share for net proceeds of $7.5 million.

In December 1994, the Company filed suit against Pfizer in the Superior Court of California in San Diego County for breach of contract and for a declaration of future rights as they relate to droloxifene, a compound upon which the Company performed work at Pfizer's request during a collaboration between Pfizer and the Company to develop drugs in the field of osteoporosis. Droloxifene is an estrogen antagonist/partial agonist with potential indications in the treatment of osteoporosis and breast cancer as well as other applications. The Company and Pfizer entered into a settlement agreement with respect to the lawsuit in April 1996. Under the terms of the settlement agreement, the Company is entitled to receive milestone payments if Pfizer continues development and royalties if Pfizer commercializes droloxifene. At the option of either party, milestone and royalty payments owed the Company can be satisfied by Pfizer transferring to the Company shares of Common Stock at an exchange ratio of $12.375 per share. To date, the Company has received approximately $1.3 million in milestone payments from Pfizer as a result of the continued development of droloxifene. These milestones were paid in the form of an aggregate of 101,011 shares of Common Stock, which were subsequently retired from treasury stock in September 1996. According to recent announcements by Pfizer, droloxifene has entered Phase II clinical trials for osteoporosis and Phase III clinical trials for breast cancer.

10. LICENSE AGREEMENT

In September 1992, the Company acquired certain licenses and technology rights from Rockefeller University and New York University in exchange for an initial cash payment, shares of Common Stock and warrants to purchase Common Stock of the Company. Under the terms of the agreements, the Company acquired worldwide licensing rights to certain transcription technology developed by Rockefeller University. The agreements also provide for certain additional payments if certain milestones are achieved. In connection with these agreements, the Company entered into consulting agreements whereby two scientists received shares of Common Stock from the Company's restricted stock plan. These shares were issued at par value and resulted in deferred consulting fees of $2.2 million which are being recognized over the five-year vesting period.

11. NOTES RECEIVABLE FROM OFFICERS AND EMPLOYEES

The Company has advanced funds to certain officers and employees in connection with various employment agreements. The agreements provide for forgiveness of the advances over four and five-year periods. If an individual terminates the relationship with the Company, the unforgiven portion of the advances and any accrued interest are due and payable upon termination. The notes are secured by shares of the

Company's Common Stock owned by the individual or second trust deeds on the personal residences of the respective employees.

12. INCOME TAXES

At December 31, 1996, the Company had consolidated federal and combined California income tax net operating loss carryforwards of approximately $173 million and $21 million, respectively. The difference between the federal and California tax loss carryforwards is primarily attributable to the capitalization of research and development expenses for California income tax purposes and the fifty percent limitation on California loss carryforwards.

The federal tax loss carryforward will begin to expire in 2002, unless previously utilized. The California tax loss carryforwards began expiring in 1996 (approximately $465,000 expired in 1996). The Company also had consolidated federal and combined California research tax credit carryforwards of approximately $6.2 million and $3.1 million respectively, which will begin to expire in 2002 unless previously utilized.

Pursuant to Internal Revenue Code Sections 382 and 383, use of a portion of net operating loss and credit carryforwards will be limited because of cumulative changes in ownership of more than 50% which occurred within three year periods during 1989, 1992 and 1996. However, the Company does not believe the limitations will have a material impact upon the future utilization of these carryforwards. In addition, use of Glycomed's preacquisition tax net operating and credit carryforwards will also be limited because the acquisition by the Company represents a change in ownership of more than 50%. Such tax net operating losses and credit carryforwards have been reduced, including the related deferred tax assets.

Significant components of the Company's deferred tax assets as of December 31, 1995 and 1996 are shown below (in thousands). A valuation allowance has been recognized to fully offset the deferred tax assets as of December 31, 1995 and 1996 as realization of such assets is uncertain.

<TABLE>
<CAPTION>

	1995	1996

(IN THOUSANDS)		
<S>	<C>	<C>
Deferred tax liability:		
Acquired subordinated debt	$ 7,676	$ 6,579
Deferred tax assets:		
Net operating loss carryforwards	53,191	62,615
Research and development credits	5,284	8,260
Capitalized research and development	7,556	8,655
Other -- net	3,651	5,100
Total deferred tax assets	69,682	84,630
Valuation allowance for deferred tax assets	(62,006)	(78,051)
Net deferred tax assets	7,676	6,579
Net deferred taxes	$ --	$ --

</TABLE>

Approximately $1.7 million of the valuation allowance for deferred tax assets relates to benefits of stock option deductions which, when recognized will be allocated directly to paid-in capital.

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Shareholders
Allergan Ligand Retinoid Therapeutics, Inc.

We have audited the accompanying balance sheets of Allergan Ligand Retinoid Therapeutics, Inc. as of December 31, 1995 and 1996, the related statements of operations for the period June 3, 1995 (date operations commenced) to December 31, 1995 and the year ended December 31, 1996, and the statements of stockholders' equity, and cash flows for the period December 16, 1994 (date of incorporation) to December 31, 1995 and the year ended December 31, 1996 . These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statements presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Allergan Ligand Retinoid Therapeutics, Inc. at December 31, 1995 and 1996, and the results of its operations for the period June 3, 1995 (date operations commenced) to December 31, 1995 and the year ended December 31, 1996, and its cash flows for the period June 3, 1995 (date operations commenced) to December 31, 1995 and the year ended December 31, 1996, in conformity with generally accepted accounting principles.

ERNST & YOUNG LLP

Orange County, California
March 25, 1997

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

BALANCE SHEETS

ASSETS

<TABLE>
<CAPTION>

	DECEMBER 31,

	1995	1996
<S>	<C>	<C>
Current assets:		
Cash and cash equivalents	$79,792,554	$29,897,327
Marketable securities	--	20,394,182
Interest receivable and other current assets	335,001	720,009
Total current assets	$80,127,555	$51,011,518
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable to Allergan, Inc	$ 1,038,409	$ 812,710
Accounts payable to Ligand Pharmaceuticals Incorporated	1,847,825	3,076,478
Accrued offering costs	434,759	--
Other accounts payable and accrued liabilities	330,611	260,733
Total current liabilities	3,651,604	4,149,921
Stockholders' equity:		
Callable Common Stock, $.001 par value, 3,250,000 shares authorized, issued and outstanding	3,250	3,250
Special Common Stock, $1 par value, 1,000 shares authorized, 200 shares issued and outstanding	200	200
Additional paid-in capital	94,256,046	94,256,046
Unrealized holding loss on marketable securities	--	(169,753)
Accumulated deficit	(17,783,545)	(47,228,146)
Total stockholders' equity	76,475,951	46,861,597
	$80,127,555	$51,011,518

See accompanying notes.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

STATEMENTS OF OPERATIONS

	JUNE 3, 1995 (DATE OPERATIONS COMMENCED) TO DECEMBER 31, 1995	YEAR ENDED DECEMBER 31, 1996
<S>	<C>	<C>
Interest income	$ 2,863,989	$ 3,626,713
Costs and expenses:		
Research and development expenses	19,495,346	31,726,438
General and administrative expenses	1,152,188	1,344,876
Total costs and expenses	20,647,534	33,071,314
Net loss	$ (17,783,545)	$(29,444,601)
Net loss per callable common share	$(5.47)	$(9.06)
Weighted average callable common shares outstanding	3,250,000	3,250,000

See accompanying notes.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

STATEMENTS OF STOCKHOLDERS' EQUITY

DECEMBER 16, 1994 (DATE OF INCORPORATION) TO DECEMBER 31, 1996

<TABLE>
<CAPTION>

	CALLABLE COMMON STOCK		SPECIAL COMMON STOCK		ADDITIONAL PAID-IN	UNREALIZED HOLDING LOSS ON MARKETABLE	ACCUMULATED	TOTAL STOCKHOLDERS'
	SHARES	AMOUNT	SHARES	AMOUNT	CAPITAL	SECURITIES	DEFICIT	EQUITY
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Shares issued upon incorporation -- December 16, 1994 (date of incorporation).....	--	$ --	200	$200	$ --	$ --	$ --	$ 200
Balance at December 31, 1994.....	--	--	200	200	--	--	--	200
Issuance of callable common stock in initial public offering, net of offering costs of $5,740,704.....	3,250,000	3,250	--	--	26,756,046	--	--	26,759,296
Contribution from Allergan, Inc.....	--	--	--	--	50,000,000	--	--	50,000,000
Contribution from Ligand Pharmaceuticals Incorporated.....	--	--	--	--	17,500,000	--	--	17,500,000
Net loss.....	--	--	--	--	--	--	(17,783,545)	(17,783,545)
Balance at December 31, 1995.....	3,250,000	3,250	200	200	94,256,046	--	(17,783,545)	76,475,951
Net loss.....	--	--	--	--	--	--	(29,444,601)	(29,444,601)
Unrealized holding loss on marketable securities...	--	--	--	--	--	(169,753)	--	(169,753)
Balance at December 31, 1996.....	3,250,000	$3,250	200	$200	$94,256,046	$(169,753)	$(47,228,146)	$ 46,861,597

</TABLE>

See accompanying notes.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

STATEMENTS OF CASH FLOWS
DECEMBER 16, 1994 (DATE OF INCORPORATION) TO DECEMBER 31, 1996

<TABLE>
<CAPTION>

	DECEMBER 16, 1994 (DATE OF INCORPORATION) TO DECEMBER 31, 1995	YEAR ENDED DECEMBER 31, 1996
<S>	<C>	<C>
Operating activities:		
Net loss.....	$(17,783,545)	$(29,444,601)
Adjustments to reconcile net loss to net cash used in operating activities:		
Changes in operating assets and liabilities:		
Interest receivable and other current assets.....	(335,001)	(385,008)
Accounts payable to Allergan, Inc.....	1,038,409	(225,699)
Accounts payable to Ligand Pharmaceuticals Incorporated....	1,847,825	1,228,653
Accrued offering costs.....	434,759	(434,759)
Other accounts payable and accrued liabilities.....	330,611	(69,878)
Net cash used in operating activities.....	(14,466,942)	(29,331,292)
Investing activities:		

Purchase of marketable securities.....	--	(20,563,935)
Financing activities:		
Proceeds from issuance of callable common stock in initial public offering, net.....	26,759,296	--
Proceeds from issuance of special common stock.....	200	--
Contribution from Allergan, Inc.....	50,000,000	--
Contribution from Ligand Pharmaceuticals Incorporated.....	17,500,000	--
Net cash provided by financing activities.....	94,259,496	--
Net increase (decrease) in cash and cash equivalents.....	79,792,554	(49,895,227)
Cash and cash equivalents at beginning of period.....	--	79,792,554
Cash and cash equivalents at end of period.....	$ 79,792,554	$ 29,897,327

</TABLE>

See accompanying notes.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 1996

1. ORGANIZATION AND BUSINESS OPERATIONS

Business

Allergan Ligand Retinoid Therapeutics, Inc. (the Company) was incorporated in Delaware in 1994 and commenced operations on June 3, 1995 to continue the efforts of the Allergan Ligand Joint Venture (Joint Venture), established by Allergan, Inc. (Allergan) and Ligand Pharmaceuticals Incorporated (Ligand) in June 1992, to discover, develop and commercialize drugs based on retinoids (the Products).

On June 3, 1995, the Company and Ligand completed a public offering (the Offering) of 3.25 million units, each unit consisting of one share of the Company's callable common stock and two warrants, each to purchase one share of Ligand common stock. The Offering raised net proceeds for the Company of $26.8 million. At the completion of the Offering, Ligand contributed $17.5 million in cash, as well as warrants in exchange for (i) a right to acquire all of the Callable Common Stock at specified future dates and amounts and (ii) a right to acquire all rights to the Panretin (ALRT1057) products, jointly with Allergan, currently under development by the Company. At the same time, Allergan contributed $50.0 million in cash to the Company in exchange for (i) the right to acquire one-half of all technologies and other assets in the event Ligand exercises its right to acquire all of the Callable Common Stock, (ii) a similar right to acquire all of the Callable Common Stock if Ligand does not exercise its right and (iii) a right to acquire all rights to the Panretin (ALRT1057) products, jointly with Ligand.

ALRT's Board of Directors recently approved a research and development plan for the year ending December 31, 1997 which represents an acceleration in spending on ALRT's retinoid programs. The accelerated spending is the result of more rapid discovery and development of a significantly larger library of viable retinoid compounds than anticipated at the time of formation of ALRT. ALRT anticipates the acceleration in spending could result in the use of substantially all of the funds available for research and development remaining in ALRT in late 1997 or early 1998. Ligand and Allergan have certain purchase options over the Callable Common Stock and the assets of ALRT which could be triggered by the use of substantially all of ALRT's funds. There can be no assurance that Ligand or Allergan will exercise these options.

2. SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

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

Concentrations of Business Risk

The Company conducts research and development for the purpose of identifying and developing retinoid drugs for therapeutic uses and is subject to intense competition and technological changes in the biotechnology industry. The Company is also dependent upon Allergan and Ligand who are primarily responsible for research, development, marketing and manufacturing on behalf of the Company.

Cash and Cash Equivalents

Cash and cash equivalents consists of demand deposits and bank certificates of deposit carried at cost which approximates fair value.

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Marketable Securities

Marketable securities consist of United States Treasury Bills and debt instruments of financial institutions and corporations with strong credit ratings. The Company determines the fair value of marketable securities based upon quoted market values. At December 31, 1996, the fair value of marketable securities was $169,753 less than cost. Such reduction in value was recorded as a charge in stockholders' equity as the marketable securities are available for sale.

Concentration of Credit Risks

The Company invests its excess cash in certificates of deposit and marketable securities. The Company has established guidelines with respect to diversification and maturities designed to maintain safety and liquidity.

Research and Development Expenses

The Company contracts with Allergan and Ligand to conduct research, development and initial clinical testing. The costs of such work are expensed as incurred.

Income Taxes

The Company utilizes the liability method of accounting for income taxes. Under the liability method, deferred taxes are determined based on the differences between the financial statement and tax bases of assets and liabilities using enacted tax rates.

Net Loss Per Callable Common Share

Net loss per callable common share is calculated by dividing the net loss by the number of callable common shares outstanding, which was 3,250,000 at all times during the period from commencement of operations following the closing of the initial public offering on June 3, 1995 to December 31, 1996.

3. RELATIONSHIP WITH ALLERGAN AND LIGAND

Technology License Agreement

Under a technology license agreement (the License), the Company has an exclusive license to use the retinoid technologies developed first by Allergan and Ligand and subsequently by the Joint Venture. The License granted is subject to certain exceptions that allow Allergan and Ligand to pursue limited research activities and development and commercialization of certain products. In consideration for the License, the Company will pay to Allergan and Ligand a royalty aggregating 3% of net sales of Products under the License during the life of applicable patents or, in certain circumstances, for 10 years.

Research and Development Agreement

The Company entered into a research and development agreement (the Development Agreement) under which Allergan and Ligand perform research and development for the Company on retinoid compounds and products in accordance with annual budgets and development plans jointly proposed by Allergan and Ligand and approved by the Company's Board of Directors. Under the Development Agreement, the Company has agreed to reimburse Allergan and Ligand for their internal costs plus 10% and the cost of services performed

3. RELATIONSHIP WITH ALLERGAN AND LIGAND (CONTINUED)

by third parties. Total amounts charged to the Company during 1995 and 1996 by Allergan and Ligand under the Development Agreement were (in millions):

<TABLE>
<CAPTION>

	1995	1996
<S>	<C>	<C>
Allergan	$ 6.6	$10.6
Ligand	12.7	21.8

</TABLE>

If the Company discontinues development of compounds meeting certain criteria, Allergan and Ligand are entitled to develop and commercialize such compounds using their own funds. The Company is entitled to receive a royalty equal to 6% of net sales of any such independently developed products. The Company also has the right to reacquire any such product prior to the earlier of the commencement of Phase III clinical trials for such product or the exercise or expiration of the Stock Purchase Option, for an amount equal to costs incurred by Allergan and/or Ligand plus interest at 25% per year. Additionally, with respect to any reacquired product, the Company will pay a royalty equal to 4% of net sales to the developing party.

COMMERCIALIZATION AGREEMENT

The Company also entered into a commercialization agreement (the Commercialization Agreement) which provides for the marketing, manufacture and sale by Allergan and/or Ligand of the Products developed under the Development Agreement which have received regulatory approval for commercial sale.

SERVICES AGREEMENT

The Company also entered into a services agreement (the Services Agreement) under which Allergan and Ligand provide management and administrative services to the Company at 110% of direct and indirect costs for services performed internally by Allergan and Ligand and on a cost reimbursement basis for services performed by third parties. Total amounts charged to the Company during 1995 and 1996 by Allergan and Ligand for these services under the Services Agreement were (in millions):

<TABLE>
<CAPTION>

	1995	1996
<S>	<C>	<C>
Allergan	$0.1	$0.1
Ligand	0.1	0.1

</TABLE>

PANRETIN (ALRT1057) PURCHASE OPTION

The Company has granted Allergan and Ligand an option (the Panretin (ALRT1057) Purchase Option) to acquire the Company's Panretin (ALRT1057) Products. Unless the Panretin (ALRT1057) Purchase Option has been terminated as to either Allergan or Ligand as a result of default under the agreement (in which case the Panretin (ALRT1057) Purchase Option will only be exercisable by the party for which such option has not been terminated), Allergan and Ligand,

jointly, may exercise the Panretin (ALRT1057) Purchase Option beginning on the earlier of (i) June 3, 1997 or (ii) the receipt of regulatory approval for commercial sale of any Panretin (ALRT1057) Product in the United States or in certain other major countries and ending on the earlier of (a) 90 days after receipt of such regulatory approval or (b) June 3, 2000. Additionally, the Panretin (ALRT1057) Purchase Option will terminate on the date the Stock Purchase Option is exercised or expires.

The Panretin (ALRT1057) Purchase Option exercise price is $21.4 million prior to June 3, 1998 and increases in equal amounts on a quarterly basis to $27.8 million on March 3, 1999 and to $36.2 million on March 3, 2000. The exercise price may be paid in cash, shares of Allergan or Ligand, or any combination thereof.

3. RELATIONSHIP WITH ALLERGAN AND LIGAND (CONTINUED)

The Company may not distribute or otherwise expend any proceeds received upon the exercise of the Panretin (ALRT1057) Purchase Option until the earlier of the exercise or expiration of the Stock Purchase Option.

4. STOCKHOLDERS' EQUITY

Stock Purchase Option

The Company's Callable Common Stock is subject to a Stock Purchase Option agreement pursuant to which Ligand and, in the event not exercised by Ligand, Allergan may purchase all, but not less than all, of the Callable Common Stock outstanding at specified prices, subject to adjustment. The option becomes exercisable on the earlier of (i) June 3, 1997 or (ii) the quarter in which the Company's available funds, as defined, decline below $10 million and expires on the earlier of (a) June 3, 2000 or (b) 90 days subsequent to such a decline in cash. The option is not exercisable prior to June 3, 1998 unless the available funds are less than $60 million at the date of exercise.

The Stock Purchase Option exercise price is $21.97 per share prior to June 3, 1998 and increases in equal amounts on a quarterly basis to $28.56 per share on March 3, 1999 and to $37.13 per share on March 3, 2000. The exercise price may be paid in cash, shares of Allergan or Ligand, or any combination thereof.

The Company may not, until the expiration of the Stock Purchase Option, pay any dividends, issue additional shares of capital stock, borrow money in excess of $1 million, merge, liquidate or sell all or substantially all of its assets.

WARRANTS

Each unit sold by the Company in its initial public offering includes two warrants, each warrant giving the holder the right to purchase one share of Ligand common stock at a price of $7.12 per share. The warrants are exercisable at any time from June 3, 1997 through June 2, 2000, subject to certain acceleration provisions including the exercise or expiration of the Stock Purchase Option. The warrants will trade with the Company's Callable Common Stock as units until they become exerciseable on June 3, 1997. After such date, the warrants will separate from the Company's common stock and become independently tradable.

Special Stock

The Company has issued 200 shares of Special Stock to Allergan and Ligand. The Special Stock does not entitle Allergan and Ligand to vote, except in certain circumstances, or have the right to any profits of the Company. The Special Stock, however, entitles Allergan and Ligand to elect two directors to the Company's Board.

5. INCOME TAXES

Valuation allowances of $7.6 million at December 31, 1995 and $21 million at December 31, 1996 have been recognized as offsets to the deferred tax assets as realization of such assets is uncertain. Significant components of the Company's deferred tax assets as of December 31, 1995 and 1996 are (in thousands):

<TABLE>
<CAPTION>

	DECEMBER 31, 1995	DECEMBER 31, 1996
<S>	<C>	<C>
Deferred tax assets:		
Net operating loss carryforwards	$ 6,777	$ 16,076
Research and development credits	327	2,440
Capitalized costs and other	482	2,470
Total deferred tax assets	7,586	20,986
Valuation allowance for deferred tax assets	(7,586)	(20,986)
Net deferred tax assets	$ --	$ --

</TABLE>

At December 31, 1996, the Company had federal and California net operating loss carryforwards of approximately $45.5 million and $2.4 million, respectively. The federal and California tax loss carryforwards will expire in 2010 and 2003, respectively, unless previously utilized. The Company also has federal and California research and development tax credit carryforwards totaling $1.5 million and $1.3 million, respectively, which will begin to expire in 2010 unless previously utilized.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

CONDENSED BALANCE SHEET
(IN THOUSANDS, EXCEPT SHARE DATA)

ASSETS

<TABLE>
<CAPTION>

	SEPTEMBER 30, 1997 (UNAUDITED)
<S>	<C>
Current assets:	
Cash and cash equivalents	$ 21,969
Other current assets	148
Total current assets	$ 22,117
LIABILITIES AND STOCKHOLDERS' EQUITY	
Current liabilities:	
Payable to Allergan, Inc. and Ligand Pharmaceuticals Incorporated	$ 3,911
Accounts payable and accrued liabilities	389
Total current liabilities	4,300
Stockholders' equity:	
Callable Common stock, $.001 par value; 3,250,000 shares authorized, issued and outstanding	3
Additional paid-in capital	94,256
Accumulated deficit	(76,442)

Total stockholders' equity	17,817
	$ 22,117

</TABLE>

See accompanying notes.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

STATEMENTS OF OPERATIONS
(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

<TABLE>
<CAPTION>

	NINE MONTHS ENDED SEPTEMBER 30,	
	1996	1997
	(UNAUDITED)	
<S>	<C>	<C>
Interest income	$ 3,014	$ 1,323
Costs and expenses:		
Research and development expenses	22,089	29,426
General and administrative expenses	1,192	1,111
Total costs and expenses	23,281	30,537
Net loss	$(20,267)	$(29,214)
Net loss per callable common share	$ (6.24)	$ (8.99)
Weighted average callable common shares outstanding	3,250	3,250

</TABLE>

See accompanying notes.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

STATEMENTS OF CASH FLOWS
(IN THOUSANDS)

<TABLE>
<CAPTION>

	NINE MONTHS ENDED SEPTEMBER 30,	
	1996	1997
	(UNAUDITED)	
<S>	<C>	<C>
OPERATING ACTIVITIES:		
Net loss	$(20,267)	$(29,214)
Changes in operating assets and liabilities:		
Other assets	(547)	572
Payable to Allergan, Inc. and Ligand Pharmaceuticals Incorporated	1,101	22
Accounts payable and accrued liabilities	(563)	128
Net cash used in operating activities	(20,276)	(28,492)

INVESTING ACTIVITIES:		
Sale(purchase) of marketable securities.....	(20,564)	20,564
Net decrease in cash and equivalents.....	(40,840)	(7,928)
Cash and equivalents at beginning of period.....	79,793	29,897
Cash and equivalents at end of period.....	$ 38,953	$ 21,969

</TABLE>

See accompanying notes.

ALLERGAN LIGAND RETINOID THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 1977 (UNAUDITED)

1. Allergan Ligand Retinoid Therapeutics, Inc. (the Company) was incorporated in Delaware in 1994 and commenced operations on June 3, 1995 to continue the efforts of the Allergan Ligand Joint Venture (Joint Venture), established by Allergan, Inc. (Allergan) and Ligand Pharmaceuticals Incorporated (Ligand) in June 1992, to discover, develop and commercialize drugs based on retinoids.

On June 3, 1995, the Company and Ligand completed a public offering (the Offering) of 3.25 million units (the Units), each Unit consisting of one share of the Company's callable common stock (Callable Common Stock) and two warrants (the Warrants), each to purchase one share of Ligand common stock. The Offering raised net proceeds for the Company of $26.8 million. At the completion of the Offering, Ligand contributed $17.5 million in cash, as well as warrants in exchange for (i) a right to acquire all of the Callable Common Stock at specified future dates and amounts and (ii) a right to acquire all rights to the Panretin (ALRT1057) product, jointly with Allergan, currently under development by the Company. At the same time, Allergan contributed $50.0 million in cash to the Company in exchange for (i) the right to acquire one-half of technologies and other assets in the event Ligand exercises its right to acquire all of the Callable Common Stock, (ii) a similar right to acquire all of the Callable Common Stock if Ligand does not exercise its right and (iii) a right to acquire all rights to the Panretin (ALRT1057) product, jointly with Ligand.

On June 3, 1997, the Units separated and the Callable Common Stock and Warrants currently trade separately.

During the nine month period ended September 30, 1997 there were no changes in the number of issued and outstanding shares of Callable Common Stock or Special Common Stock.

ALRT's Board of Directors approved a research and development plan for the year ending December 31, 1997 which represents an acceleration in spending on ALRT's retinoid programs. The accelerated spending is the result of more rapid discovery and development of a significantly larger library of viable retinoid compounds than anticipated at the time of formation of ALRT. ALRT anticipates the acceleration in spending could result in the use of substantially all of the funds available for research and development remaining in ALRT in late 1997 or early 1998.

On September 24, 1997, Ligand and Allergan announced that they had exercised their respective options to purchase the Callable Common Stock and certain assets of ALRT. Ligand'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 (in the aggregate, "Stock Purchase Option Exercise Price"), the original exercise price designated for the exercise of the Stock Purchase Option at any time prior to June 3, 1998. Ligand has filed a

registration statement with the Securities and Exchange Commission registering the issuance of up to $46,410,000 in Ligand Common Stock as partial payment of the Stock Purchase Option Exercise Price. Ligand has reserved 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 its notice of exercise.

Allergan's notice of exercise of its Asset Purchase Option included an aggregate asset purchase price of $8.9 million (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 Option Exercise Price will be paid in cash to ALRT concurrently with the payment to holders of 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 record date for the purchase of the Callable Common Stock is October 14, 1997, and the scheduled closing date was November 3, 1997, pending an effective registration statement.

2. In the opinion of management, the accompanying unaudited financial statements contain all adjustments (consisting only of normal recurring accruals) necessary to present fairly the financial information

contained therein. These statements do not include all disclosures required by generally accepted accounting principles. The results of operations for the nine months ended September 30, 1997 are not necessarily indicative of the results to be expected for the year ending December 31, 1997. Net loss per callable common share is computed by dividing the net loss by the number of callable common shares outstanding, which was 3,250,000 at all times during the periods reported.

3. The Company invests its excess cash in money market funds and debt instruments of financial institutions and corporations with strong credit ratings. The Company has established guidelines with respect to the diversification and maturities in order to maintain safety and liquidity.

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. The Company's investments are classified as available-for-sale and are carried at fair value, with unrealized gains and losses reported as a separate component of stockholders' equity. The investments are adjusted for amortization of premiums and discounts to maturity and such amortization is included in interest income.

The following unaudited pro forma condensed consolidated balance sheet as of September 30, 1997 and the unaudited pro forma condensed consolidated statements of operations for the year ended December 31, 1996 and the nine months ended September 30, 1997 give effect to (i) Ligand's exercise of the Stock Purchase Option for $71.4 million, (ii) Allergan's exercise of the Asset

Purchase Option for $8.9 million and (iii) Ligand's payment to Allergan of $4.5 million as an up-front payment under the Amended and Restated Technology Cross License Agreement among Ligand, Allergan and ALRT (the "Technology Cross License Agreement") which will occur immediately upon consummation of the closing of Ligand's exercise of the Stock Purchase Option ("the ALRT Buyback"), as of September 30, 1997 for the condensed consolidated balance sheet and as of January 1, 1996 for the condensed consolidated statements of operations.

The pro forma condensed consolidated financial statements are based on historical financial statements of Ligand and ALRT, giving effect to the proposed ALRT Buyback applying the purchase method of accounting and the assumptions and adjustments as discussed in the accompanying notes to the pro forma condensed consolidated financial statements. These pro forma condensed consolidated financial statements have been prepared by the management of Ligand based upon the consolidated financial statements of Ligand and ALRT as of September 30, 1997 (unaudited) and for the year ended December 31, 1996 and the nine months ended September 30, 1997 (unaudited). The unaudited pro forma condensed consolidated financial statements should be read in conjunction with the historical financial statements and notes thereto and narrative sections included elsewhere herein. The pro forma condensed consolidated financial statements are not necessarily indicative of what actual results of operations would have been for the periods had the transaction occurred on the dates indicated, do not purport to indicate the results of future operations, including any allocation of ALRT expenses between Ligand and Allergan.

LIGAND PHARMACEUTICALS INCORPORATED

PRO FORMA CONDENSED CONSOLIDATED BALANCE SHEET

SEPTEMBER 30, 1997

(IN THOUSANDS)
(UNAUDITED)

ASSETS

<TABLE>
<CAPTION>

	LIGAND	ALLERGAN LIGAND RETINOID THERAPEUTICS, INC. (ALRT)	ALRT BUYBACK PRO FORMA ADJUSTMENTS (NOTE B)	PRO FORMA AS ADJUSTED
<S>	<C>	<C>	<C>	<C>
Current Assets:				
Cash, cash equivalents and short-term investments	$ 50,558	$ 21,969	$ (24,993)(a) 8,900(b) (10,985)(f) (4,500)(c)	$ 40,949
Other current assets	4,248	148	(74)(f)	4,322
Total current assets	54,806	22,117	(31,652)	45,271
Restricted long-term investments	3,056	--	--	3,056
Property, plant and equipment, net	14,991	--	--	14,991
Other non-current assets	5,086	--	--	5,086
	$ 77,939	$ 22,117	$ (31,652)	$ 68,404
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current Liabilities:				
Accounts payable and other liabilities	$ 8,333	$ 4,300	$ (2,150)(f)	$ 10,483
Deferred revenue	909	--	--	909
Current portion of obligations under capital leases	2,917	--	--	2,917

Total current liabilities.....	12,159	4,300	(2,150)	14,309
Long-term obligations under capital leases.....	8,711	--	--	8,711
Convertible subordinated debentures.....	35,959	--	--	35,959
Convertible note.....	5,000	--	--	5,000
	61,829	4,300	(2,150)	63,979
Stockholders' equity:				
Paid-in capital.....	226,741	94,259	(94,259)(g)	278,367
			51,626(g)	
Warrant subscription receivable.....	(924)	--	924(d)	--
Adjustment for unrealized losses on available for sales securities.....	4	--	--(g)	4
Accumulated deficit.....	(209,711)	(76,442)	76,442(g)	(273,946)
			(924)(d)	
			(63,311)(e)	
Total stockholders' equity.....	16,110	17,817	(29,502)	4,425
	$ 77,939	$ 22,117	$ (31,652)	$ 68,404

See accompanying notes to Pro Forma Condensed Consolidated Financial Statements.

LIGAND PHARMACEUTICALS INCORPORATED

PRO FORMA CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS(1)
FOR THE YEAR ENDED DECEMBER 31, 1996
(IN THOUSANDS, EXCEPT PER SHARE DATA)
(UNAUDITED)

	LIGAND	ALLERGAN LIGAND RETINOID THERAPEUTICS, INC. (ALRT)	ALRT BUYBACK PRO FORMA ADJUSTMENTS (NOTE C)	PRO FORMA AS ADJUSTED
Revenues:				
Collaborative research and development:				
Related parties.....	$ 18,641	$ --	$ (18,641)(a)	$ --
Unrelated parties.....	17,994	--	--	17,994
Other.....	207	--	--	207
Total Revenues.....	36,842	--	(18,641)	18,201
Costs and expenses:				
Research and development.....	59,494	31,727	(31,727)(b)	59,494
Selling, general and administrative....	10,205	1,345	(1,345)(b)	10,205
Total costs and expenses.....	69,699	33,072	(33,072)	69,699
Loss from operations.....	(32,857)	(33,072)	14,431	(51,498)
Other income (expenses), net.....	(4,456)	3,627	(1,737)(c)	(2,566)
Net loss.....	$(37,313)	$(29,445)	$ 12,694	$ (54,064)
Net loss per share.....	$ (1.30)			$ (1.70)
Shares used in computing loss per share.....	28,781			31,889

- ----------

(1) Due to their non-recurring nature, the above pro forma condensed consolidated statement of operations does not reflect $63.3 million in-process technology charge to be recorded by Ligand in conjunction with the ALRT Buyback for the estimated fair value of the in-process technology of ALRT and the $4.5 million up-front payment under the Technology Cross License Agreement.

See accompanying notes to Pro Forma Condensed Consolidated Financial Statements.

LIGAND PHARMACEUTICALS INCORPORATED

PRO FORMA CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS(1)

FOR THE NINE MONTHS ENDED SEPTEMBER 30, 1997

(IN THOUSANDS, EXCEPT PER SHARE DATA)
(UNAUDITED)

<TABLE>
<CAPTION>

	LIGAND	ALLERGAN LIGAND RETINOID THERAPEUTICS, INC. (ALRT)	ALRT BUYBACK PRO FORMA ADJUSTMENTS (NOTE C)	PRO FORMA AS ADJUSTED
<S>	<C>	<C>	<C>	<C>
Revenues:				
Collaborative research and development:				
Related parties	$ 18,923	$ --	$ (18,923)(a)	$ --
Unrelated parties	10,652	--	--	10,652
Other	325	--	--	325
Total Revenues	29,900	--	(18,923)	10,977
Costs and expenses:				
Research and development	51,353	29,426	(29,426)(b)	51,353
Selling, general and administrative	7,379	1,111	(1,111)(b)	7,379
Total costs and expenses	58,732	30,537	(30,537)	58,732
Loss from operations	(28,832)	(30,537)	11,614	(47,755)
Other income (expense), net	(3,285)	1,323	(1,303)(c)	(3,265)
Net loss	$ (32,117)	$(29,214)	$ 10,311	$ (51,020)
Net loss per share	$ (0.99)			$ (1.43)
Shares used in computing loss per share	32,484			35,592

</TABLE>

- ----------

(1) Due to their non-recurring nature, the above pro forma condensed consolidated statement of operations does not reflect $63.3 million in-process technology charge to be recorded by Ligand in conjunction with the ALRT Buyback for the estimated fair value of the in-process technology of ALRT and the $4.5 million up-front payment under the Technology Cross License Agreement.

See accompanying notes to Pro Forma Condensed Consolidated Financial Statements.

LIGAND PHARMACEUTICALS INCORPORATED

NOTES TO PRO FORMA CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

NOTE A

As of September 24, 1997 Ligand notified ALRT that it intends to exercise its Stock Purchase Option for $71.4 million for all of the outstanding ALRT Callable Common Stock for approximately $25 million in cash and $46.4 million of Ligand Common Stock (estimated to be 3,107,596 shares at an estimated price of $14.934375 per share) except for fractional shares which will be acquired for cash. The number of shares were determined based on the terms of the Stock Purchase Agreement, which allows for a portion of the Stock Purchase Option to be paid in Ligand Common Stock based upon the average of the closing price for the 20 trading days immediately preceding the day before the closing date of the Stock Purchase Option. The price per share for valuing the equity consideration of the shares issued was determined in accordance with EITF 95-19, which requires that the market price of the shares be based on the average market price over a reasonable period before and after the companies involved reached an agreement and announced the transaction. Ligand has the ability to increase the amount of cash paid in connection with the Stock Purchase Option. In conjunction with the closing of the ALRT Buyback, Allergan will exercise its Asset Purchase Option for $8.9 million in cash to acquire an undivided one-half interest in the assets and technologies of ALRT. Ligand and Allergan agreed to restructure the terms and conditions of the research, development and commercialization and sub-license rights for the ALRT compounds in the period following the closing of the exercise of Ligand's Stock Purchase Option and Allergan's Asset Purchase Option. A component of the restructured terms and conditions will result in a cash payment of $4.5 million from Ligand to Allergan as an up front payment under the Technology Cross License Agreement. Ligand has initially assigned the estimated aggregate excess of cost over fair value of net assets acquired, aggregating $63.3 million, to in-process technology and does not expect that other tangible or intangible assets will be identified. Ligand will record the charge to operations for the amount of the in-process technology immediately following the closing of the ALRT Buyback. This charge has not been reflected in the pro forma condensed consolidated statements of operations.

NOTE B

The pro forma condensed consolidated balance sheet includes the adjustments necessary as if the ALRT Buyback had occurred on September 30, 1997 to reflect the (i) allocation of the cost of the acquisition to the fair value of net assets acquired, (ii) Ligand's Stock Purchase Option consideration in cash and issuance of Ligand Common Stock, (iii) Allergan's Asset Purchase Option, (iv) Ligand's up front cash payment under the Technology Cross License Agreement as discussed in Note A, and elimination of ALRT's equity accounts.

These adjustments are summarized as follows:

<TABLE>
<S> <C> <C>
(a) Cash consideration for Ligand's exercise of Stock Purchase Option..... $(24,993)
(b) Proceeds of Allergan's exercise of the Asset Purchase Option..... 8,900
(c) Ligand up front cash payment to Allergan under the Technology Cross License Agreement..... (4,500)
(d) Elimination of net carrying amount of Warrant Subscription Receivable..... (924)
(e) Estimated charge to operations for in-process technology..... (63,311)
(f) Allergan's acquisition of 50% of Available Funds and tangible assets and assumed liabilities..... 8,909
(g) Issuance of Ligand Common Stock as discussed in Note A and elimination of ALRT's equity accounts, including an adjustment to reduce the carrying value

of the ALRT investments to fair market value, as required by generally accepted accounting principles. The value for the estimated shares of Ligand Common Stock issued is computed as follows: Estimated as 3,107,596 shares at an estimated price of $16.6125 per share.
</TABLE>

NOTE C

The pro forma condensed consolidated statement of operations includes the adjustments necessary to reflect the ALRT Buyback as if it had occurred on January 1, 1996.

The pro forma adjustments are summarized as follows:

For the period ended December 31, 1996:

<TABLE>
<S> <C> <C>
(a) Elimination of related parties revenue recognition of R&D activities conducted by Ligand on behalf of ALRT..... $(18,641)
(b) Elimination of operating expenses related to R&D and administrative activities conducted by either Ligand or Allergan on behalf of ALRT..... (33,072)
(c) Elimination of interest income as a result of the disbursements and distributions of cash in the ALRT acquisition based on an average rate of return of 5.50%..... (1,737)
</TABLE>

For the nine months ended September 30, 1997:

<TABLE>
<S> <C> <C>
(a) Elimination of related parties revenue recognition of R&D activities conducted by Ligand on behalf of ALRT..... $(18,923)
(b) Elimination of operating expenses related to R&D and administrative activities conducted by either Ligand or Allergan on behalf of ALRT..... (30,537)
(c) Elimination of interest income as a result of the disbursements and distributions of cash in the ALRT acquisition based on an average rate of return of 5.50%..... (1,303)
</TABLE>

The net loss per share and the shares used in computing the net loss per share for the nine months ended September 30, 1997 are based upon the historical weighted average common shares outstanding for the respective periods adjusted to reflect as of January 1, 1997, the issuance of an estimated 3,107,596 shares of Ligand Common Stock as described in Note A.

NOTE D

The issuance of the shares by Ligand will not result in a limitation on the use of its net operating loss carryforwards pursuant to the Internal Revenue Code Sections 382 and 383.

The purchase of the ALRT shares by Ligand will result in an ownership change pursuant to Internal Revenue Code Sections 382 and 383 and the utilization of net operating loss carryforwards of ALRT will be limited to approximately $4 million per year. Total net operating loss carryforwards of

ALRT are estimated to be approximately $76 million.

REPORT OF ERNST & YOUNG, LLP INDEPENDENT AUDITORS

The Partners
Allergan Ligand Joint Venture

We have audited the accompanying balance sheets of Allergan Ligand Joint Venture (A Development Stage Joint Venture) as of December 31, 1994, and the related statements of operations, partners' deficit and cash flows for the year ended December 31, 1994 and for the period from July 1, 1992 (inception) through December 31, 1994, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Joint Venture's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 1 to the financial statements, immediately prior to the consummation of the proposed offering of callable common stock of Allergan Ligand Retinoid Therapeutics, Inc. ("ALRT") and warrants to purchase common stock of Ligand, the Joint Venture will be dissolved and all rights currently held by the Joint Venture will be granted to ALRT. If the proposed offering is not completed, the partners have also agreed to fund additional development expenses of the Joint Venture.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Allergan Ligand Joint Venture (A development Stage Joint Venture) at December 31, 1994, and the results of its operations and its cash flows for the year ended December 31, 1994 and for the period from July 1, 1992 (inception) through December 31, 1994, in conformity with generally accepted accounting principles.

ERNST & YOUNG LLP

San Diego, California
January 20, 1995

ALLERGAN LIGAND JOINT VENTURE
(A DEVELOPMENT STAGE JOINT VENTURE)

BALANCE SHEET

<TABLE>
<CAPTION>

	DECEMBER 31, 1994
<S>	<C>
ASSETS	
Current assets:	
Cash and cash equivalents	$ 70,356
Interest receivable and other current assets	--
Total current assets	70,356
Equipment, net of accumulated depreciation of $1,141 at December 31, 1994	2,284
	$ 72,640

LIABILITIES AND PARTNERS' DEFICIT

Current liabilities:	
Amounts payable to the partners	$ 1,680,762
Other accrued liabilities	36,388
Total current liabilities	1,717,150
Partners' deficit:	
Capital contributions	29,250,000
Deficit accumulated during the development stage	(30,894,510)
Total partners' deficit	(1,644,510)
	$ 72,640

See accompanying note.

ALLERGAN LIGAND JOINT VENTURE
(A DEVELOPMENT STAGE JOINT VENTURE)

STATEMENTS OF OPERATIONS

	YEAR ENDED DECEMBER 31, 1994	JULY 1, 1992 (INCEPTION) THROUGH DECEMBER 31, 1994
Interest income	$ 4,552	$ 174,867
Research and development expenses:		
Allergan, Inc.	4,643,786	9,789,086
Ligand Pharmaceuticals Incorporated	8,344,423	20,431,397
	12,988,209	30,220,483
General and administrative expenses	705,823	848,894
Total costs and expenses	13,694,032	31,069,377
Net loss	$(13,689,480)	$(30,894,510)

See accompanying note.

ALLERGAN LIGAND JOINT VENTURE
(A DEVELOPMENT STAGE JOINT VENTURE)

STATEMENT OF PARTNERS' DEFICIT

	LIGAND JVR, INC.	ALLERGAN RETINOID CORPORATION	TOTAL
Balance at December 31, 1993	$(1,102,515)	$(1,102,515)	$(2,205,030)
Capital contributions	7,125,000	7,125,000	14,250,000
Net loss	(6,844,740)	(6,844,740)	(13,689,480)
Balance at December 31, 1994	$ (822,255)	$ (822,255)	$(1,644,510)

See accompanying note.

ALLERGAN LIGAND JOINT VENTURE
(A DEVELOPMENT STAGE JOINT VENTURE)

STATEMENTS OF CASH FLOWS

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31, 1994	JULY 1, 1992 (INCEPTION) THROUGH DECEMBER 31, 1994
<S>	<C>	<C>
OPERATING ACTIVITIES		
Net loss	$(13,689,480)	$(30,894,510)
Adjustments to reconcile net loss to net cash used by operating activities:		
Depreciation	1,141	1,141
Changes in operating assets and liabilities:		
Interest receivable and other current assets	2,933	--
Amounts payable to partners and other accrued liabilities	(1,605,514)	1,717,150
Net cash provided by (used in) operating activities	(15,290,920)	(29,176,219)
INVESTING ACTIVITIES		
Purchase of equipment	--	(3,425)
Net cash used in investing activities	--	(3,425)
FINANCING ACTIVITIES		
Capital contributions to the joint venture	14,250,000	29,250,000
Net cash provided by financing activities	14,250,000	29,250,000
Net increase (decrease) in cash and cash equivalents	(1,040,920)	70,356
Cash and cash equivalents at beginning of period	1,111,276	--
Cash and cash equivalents at end of period	$ 70,356	$ 70,356

</TABLE>

See accompanying note.

ALLERGAN LIGAND JOINT VENTURE
(A DEVELOPMENT STAGE JOINT VENTURE)

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 1994

1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

Organization

Allergan Ligand Joint Venture (the "Joint Venture") was formed by Ligand JVR, Inc., a wholly owned subsidiary of Ligand Pharmaceuticals Incorporated ("Ligand") and Allergan Retinoid Corporation ("Allergan"), a wholly owned subsidiary of Allergan, Inc. Since inception in 1992, each partner has invested $14.6 million.

The Joint Venture was formed to develop, manufacture and market in the United States and world-wide certain products related to the diagnosis and treatment of eye and skin disorders. The Joint Venture has not commenced planned commercial operations and is considered to be in the development stage.

The Joint Venture has entered into a research and development agreement with Ligand and Allergan to perform research and development services related to

eye and skin problems. Similarly, the Joint Venture has entered into an agreement with Ligand and Allergan to assist in the regulatory approval process and to market developed products upon commencement of commercial operations. The Joint Venture reimburses both parties for actual costs incurred, as defined in the Joint Venture agreement.

The entity is treated as a Joint Venture for tax purposes. Accordingly, the Joint Venture's loss is included in the tax returns of the partners. Therefore, no provision for income taxes has been made in the accompanying financial statements.

From inception revenues and expenses have been shared equally by the partners.

In December 1994, Allergan and Ligand formed Allergan Ligand Retinoid Therapeutics, Inc. ("ALRT") to continue the research and development activity currently conducted by the Joint Venture. ALRT and Ligand have filed a registration statement with the Securities and Exchange Commission to sell up to $32.5 million of units consisting of ALRT Callable Common Stock and Warrants to acquire common stock of Ligand. Immediately prior to the consummation of this offering, Ligand will contribute from $17.5 million to $18.5 million depending upon the proceeds of the offering, and Allergan will contribute $50 million to ALRT and the Joint Venture will be dissolved and all rights currently held by the Joint Venture will be granted to ALRT. If the proposed offering is not completed, the partners have agreed to fund additional development expenses as approved by the Joint Venture's management committee.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and short-term investments with original maturities of less than three months.

Concentration of Credit Risk

The Joint Venture invests its excess cash in commercial paper. The Joint Venture has established guidelines relative to diversification and maturities that maintain safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates. The Joint Venture has not experienced any losses on its cash and cash equivalents.

Equipment

Equipment is stated at cost and is being depreciated over its estimated useful life which is five years.

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3,107,596 SHARES

LOGO

COMMON STOCK

PROSPECTUS

NOVEMBER 19, 1997

==========

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all expenses, other than underwriting discounts and commissions, payable by the Company in connection with the sale of the Common Stock being registered. All the amounts shown are estimates, except for the registration fee and the NASD filing fee.

<TABLE>
<S> <C>
Registration fee..... $ 14,064
Listing fee..... 17,500
Printing and engraving expenses..... 30,000
Legal fees and expenses..... 50,000
Accounting fees and expenses..... 25,000
Transfer Agent and Registrar fees..... 5,000
Miscellaneous expenses..... 3,436

Total..... $145,000
=======
</TABLE>

ITEM 14. INDEMNIFICATION OF OFFICERS AND DIRECTORS.

(a) Section 145 of the Delaware General Corporation Law permits indemnification of officers and directors of Ligand under certain conditions and subject to certain limitations. Section 145 of the Delaware General Corporation Law also provides that a corporation has the power to purchase and maintain insurance on behalf of its officers and directors against any liability asserted

against such person and incurred by him or her in such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liability under the provisions of Section 145 of the Delaware General Corporation Law.

(b) Article VII, Section 1 of the Bylaws of Ligand provides that Ligand shall indemnify its officers, directors, employees and agents to the full extent permitted by the General Corporation Law of Delaware. The rights to indemnity thereunder continue as to a person who has ceased to be a director, officer, employee or agent and inure to the benefit of the heirs, executors and administrators of the person. In addition, expenses incurred by a director or officer in defending any civil, criminal, administrative or investigative action, suit or proceeding by reason of the fact that he or she is or was a director or officer of Ligand (or was serving at Ligand's request as a director or officer of another corporation) shall be paid by Ligand in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by Ligand as authorized by the relevant section of the Delaware General Corporation Law.

(c) As permitted by Section 102(b)(7) of the Delaware General Corporation Law, Article V, Section (A)2 of Ligand's Certificate of Incorporation provides that a director of Ligand shall not be personally liable for monetary damages or breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to Ligand or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived any improper personal benefit.

(d) Article V, Section (A)1 of Ligand's Certificate of Incorporation provides that the liability of the directors of Ligand for monetary damages shall be eliminated to the fullest extent permissible under California law. Accordingly, to the extent California law applies, a director will not be liable for monetary damages for breach of duty to Ligand or its stockholders in any action brought by or in the right of Ligand. However, a director remains liable to the extent required by law (i) for acts or omissions that involve intentional misconduct or a knowing and culpable violation of law, (ii) for acts or omissions that a director believes to be contrary to the best interests of Ligand or its stockholders or that involve the absence of good faith on the part of the director, (iii) for any transaction from which a director derived an improper personal benefit, (iv) for acts or omissions that show a reckless disregard for the director's duty to Ligand or its stockholders in circumstances in which the

director was aware, or should have been aware, in the ordinary course of performing a director's duties, of a risk of serious injury to Ligand or its stockholders, (v) for acts or omissions that constitute an unexcused pattern of inattention that amounts to an abdication of the director's duty to Ligand or its stockholders, (vi) for any act or omission occurring prior to the date when the exculpation provision became effective and (vii) for any act or omission as an officer, notwithstanding that the officer is also a director or that his or her actions, if negligent or improper, have been ratified by the directors. The effect of the provisions in the Certificate of Incorporation is to eliminate the rights of Ligand and its stockholders (through stockholders' derivative suits on behalf of Ligand) to recover monetary damages against a director for breach of duty as a director, including breaches resulting from negligent behavior in the context of transactions involving a change of control of Ligand or otherwise, except in the situations described in clauses (i) through (vii) above. These provisions will not alter the liability of directors under federal securities laws.

(e) Pursuant to authorization provided under the Certificate of Incorporation, Ligand has entered into indemnification agreements with each of its present and certain of its former directors. Ligand has also entered into similar agreements with certain of Ligand's executive officers who are not directors. Generally, the indemnification agreements attempt to provide the maximum protection permitted by Delaware and California law as it may be amended from time to time. Moreover, the indemnification agreements provide for certain additional indemnification. Under such additional indemnification provisions,

however, an individual will not receive indemnification for judgments, settlements or expenses if he or she is found liable to Ligand (except to the extent the court determines he or she is fairly and reasonably entitled to indemnity for expenses), for settlements not approved by Ligand or for settlements and expenses if the settlement is not approved by the court. The indemnification agreements provide for Ligand to advance to the individual any and all reasonable expenses (including legal fees and expenses) incurred in investigating or defending any such action, suit or proceeding. In order to receive an advance of expenses, the individual must submit to Ligand copies of invoices presented to him or her for such expenses. Also, the individual must repay such advances upon a final judicial decision that he or she is not entitled to indemnification. Ligand's Bylaws contain a provision of similar effect relating to advancement of expenses to a director or officer, subject to an undertaking to repay if it is ultimately determined that indemnification is unavailable.

(f) There is directors and officers liability insurance now in effect which insures directors and officers of the Company.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

Since September 1, 1994, the Company has sold and issued the following unregistered securities:

(1) On September 6, 1994, the Company issued an aggregate of 431,965 shares of Common Stock of the Company to American Home Products Corporation for an aggregate consideration of $5,000,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus contained herein.

(2) On February 6, 1995, the Company issued an aggregate of 674,127 shares of Common Stock of the Company to SmithKline Beecham Corporation for an aggregate consideration of $5,000,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(3) On June 6, 1995, the Company issued an aggregate of 994,819 shares of Common Stock of the Company to Allergan Pharmaceuticals (Ireland) Ltd. Inc. for an aggregate consideration of $6,000,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(4) On August 31, 1995, the Company issued an aggregate of 516,129 shares of Common Stock of the Company to Abbott Laboratories for an aggregate consideration of $5,000,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(5) On September 11, 1995, the Company issued an aggregate of 189,274 shares of Common Stock of the Company to Sankyo Company Ltd. for an aggregate consideration of $1,500,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(6) On November 10, 1995, the Company issued an aggregate of 260,200 shares of Common Stock of the Company to SmithKline Beecham Corporation for an aggregate consideration of $2,500,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(7) On August 29, 1996, the Company issued an aggregate of 374,626 shares of Common Stock of the Company to American Home Products Corporation through the conversion of existing convertible notes with an aggregate value of $3,750,000. For additional information concerning this transaction, reference is made to the information contained under the

caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(8) On February 10, 1997, the Company issued an aggregate of 164,474 shares of Common Stock of the Company to SmithKline Beecham Corporation for an aggregate consideration of $2,500,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(9) On March 20, 1997, the Company issued an aggregate of 374,626 shares of Common Stock of the Company to American Home Products Corporation through the conversion of existing convertible notes with an aggregate value of $3,750,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

(10) On July 28, 1997, the Company issued an aggregate of 249,749 shares of Common Stock of the Company to American Home Products Corporation through the conversion of existing convertible notes with an aggregate value of $2,500,000. For additional information concerning this transaction, reference is made to the information contained under the caption "Business -- Strategic Alliances" in the form of the Prospectus included herein.

The sales and issuances of securities in the above transactions were deemed to be exempt under the Act by virtue of Section 4(2) thereof and/or Regulation D promulgated thereunder. The purchasers in each case represented their intention to acquire the securities for investment only and not with a view to the distribution thereof. Appropriate legends were affixed to the stock certificates issued in such transactions. Similar representations of investment intent were obtained and similar legends imposed in connection with any subsequent transfers of any such securities. The Company believes that all recipients had adequate success, through employment or other relationships, to information about the Company to make an informed investment decision.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(A) EXHIBITS.

<TABLE>
<CAPTION>

EXHIBIT NO.	DESCRIPTION
<C>	<S>
#2.1	Agreement of Merger, dated February 7, 1995 by and among Ligand Pharmaceuticals Incorporated, LG Acquisition Corp. and Glycomed Incorporated (other Exhibits omitted, but will be filed by the Company with the Commission upon request).
#2.2	Form of Plan of Merger.
#3.2	Amended and Restated Certificate of Incorporation of the Company.
&3.3	Bylaws of the Company, as amended.

</TABLE>

<TABLE>
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EXHIBIT NO.	DESCRIPTION
<C>	<S>
x3.4	Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of Ligand Pharmaceuticals Incorporated (Exhibit 3.1).
*4.1	Specimen stock certificate for shares of Common Stock of the Company.
+5.1	Opinion of Brobeck, Phleger & Harrison LLP with respect to the securities being registered.
#10.1	The Company's 1992 Stock Option/Stock Issuance Plan, as amended.
*10.2	Form of Stock Option Agreement.
*10.3	Form of Stock Issuance Agreement.

*10.4	The Company's Restricted Stock Purchase Plan, as amended.
*10.5	Form of the Company's Employee Restricted Stock Purchase Agreement.
*10.6	Form of Consultant Restricted Stock Purchase Agreement.
*10.7	The Company's 1988 Stock Option Plan, as amended.
*10.8	Form of Incentive Stock Option Agreement (Installment Vesting).
*10.9	Form of Non-Qualified Stock Option Agreement (Installment Vesting).
*10.10	Form of Consultant Non-Qualified Stock Option Agreement (Immediate Vesting).
*10.12	1992 Employee Stock Purchase Plan.
*10.13	Form of Stock Purchase Agreement.
*10.26	Lease, dated December 1, 1988, between the Company and Nippon Landic (U.S.A.), Inc., the assignee of Nexus/Gadco-UTC, as amended by an agreement dated December 1, 1988, First Amendment to Lease dated August 19, 1991, and Third Amendment to Lease dated August 22, 1991.
*10.29	Consulting Agreement, dated October 20, 1988, between the Company and Dr. Ronald M. Evans, as amended by Amendment to Consulting Agreement, dated August 1, 1991, and Second Amendment to Consulting Agreement, dated March 6, 1992.
*10.30	Form of Proprietary Information and Inventions Agreement.
*10.31	Research and License Agreement, dated March 9, 1992, between the Company and Baylor College of Medicine (with certain confidential portions omitted).
*10.32	License Agreement, dated January 27, 1992, between the Company and HSC Research and Development Limited Partnership and Mount Sinai Hospital (with certain confidential portions omitted).
*10.33	License Agreement, dated November 14, 1991, between the Company and Rockefeller University (with certain confidential portions omitted).
*10.34	License Agreement and Bailment, dated July 22, 1991, between the Company and the Regents of the University of California (with certain confidential portions omitted).
*10.35	Agreement, dated May 1, 1991, between the Company and Pfizer Inc (with certain confidential portions omitted).
*10.36	License Agreement, dated July 3, 1990, between the Company and the Brigham and Woman's Hospital, Inc. (with certain confidential portions omitted).
*10.37	Compound Evaluation Agreement, dated May 17, 1990, between the Company and SRI International (with certain confidential portions omitted).

</TABLE>

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<CAPTION>

EXHIBIT NO.	DESCRIPTION
<C>	<S>
*10.38	License Agreement, dated January 5, 1990, between the Company and the University of North Carolina at Chapel Hill (with certain confidential portions omitted).
*10.39	License Agreement, dated January 4, 1990, between the Company and Baylor College of Medicine (with certain confidential portions omitted).
*10.40	License Agreement, dated January 4, 1990, between the Company and Baylor College of Medicine (with certain confidential portions omitted).
*10.41	License Agreement, dated October 1, 1989, between the Company and Institut Pasteur (with certain confidential portions omitted).
*10.42	Sublicense Agreement, dated September 13, 1989, between the Company and AndroBio Corporation (with certain confidential portions omitted).
*10.43	License Agreement, dated June 23, 1989, between the Company and La Jolla Cancer Research Foundation (with certain confidential portions omitted).
*10.44	License Agreement, dated October 20, 1988, between the Company and The Salk Institute for Biological Studies, as amended by Amendment to License Agreement dated September 15, 1989, Second Amendment to License Agreement, dated December 1, 1989 and Third Amendment to License Agreement dated October 20, 1990 (with certain confidential portions omitted).
*10.45	Agreement dated June 12, 1989, between the Company and the Regents of the University of California.

*10.46	Form of Indemnification Agreement between the Company and each of its directors.
*10.47	Form of Indemnification Agreement between the Company and each of its officers.
*10.50	Consulting Agreement, dated October 1, 1991, between the Company and Dr. Bert W. O'Malley.
*10.53	Stock and Warrant Purchase Agreement, dated June 30, 1992 between the Company and Allergan, Inc. and Allergan Pharmaceuticals (Ireland) Ltd., Inc.
*10.58	Stock Purchase Agreement, dated September 9, 1992, between the Company and Glaxo, Inc.
*10.59	Research and Development Agreement, dated September 9, 1992, between the Company and Glaxo, Inc. (with certain confidential portions omitted).
*10.60	Stock Transfer Agreement, dated September 30, 1992, between the Company and the Rockefeller University.
*10.61	Stock Transfer Agreement, dated September 30, 1992, between the Company and New York University.
*10.62	License Agreement, dated September 30, 1992, between the Company and the Rockefeller University (with certain confidential portions omitted).
*10.63	Professional Services Agreement, dated September 30, 1992, between the Company and Dr. James E. Darnell.
*10.64	Letter Agreement, dated August 24, 1992, between the Company and Dr. Howard T. Holden.
*10.65	Letter Agreement, dated August 20, 1992, between the Company and Dr. George Gill.
*10.66	Letter Agreement, dated September 3, 1992, between the Company and Dr. Lloyd E. Flanders.

</TABLE>

<TABLE>
<CAPTION>

EXHIBIT NO.	DESCRIPTION
<C>	<S>
*10.67	Letter Agreement, dated September 11, 1992, between the Company and Mr. Paul Maier.
%*10.68	Master Equipment Lease, dated October 27, 1992 and related Master Equipment Lease Agreement Schedule between the Company and AT&T Commercial Finance Corporation.
!!10.69	Form of Automatic Grant Option Agreement.
**10.73	Supplementary Agreement, dated October 1, 1993, between the Company and Pfizer, Inc to Agreement, dated May 1, 1991.
***10.74	Loan and Security Agreement, dated November 11, 1993, between the Company and Household Commercial of California, Inc.
***10.75	Stock Purchase Agreement, dated July 6, 1994, between the Company and Abbott Laboratories (with certain confidential portions omitted).
!10.76	Amended Registration Rights Agreement, dated June 24, 1994, between the Company and the individuals listed on attached Schedule A, as amended (Exhibit 4.1).
!10.77	First Addendum to Amended Registration Rights Agreement, dated July 6, 1994, between the Company and Abbott Laboratories (Exhibit 4.2)
***10.78	Research, Development and License Agreement, dated July 6, 1994, between the Company and Abbott Laboratories (with certain confidential portions omitted) (Exhibit 10.75).
***10.79	Stock and Note Purchase Agreement, dated September 2, 1994, between the Company and American Home Products Corporation (with certain confidential portions omitted).
***10.80	Unsecured Convertible Promissory Note dated September 2, 1994, in the face amount of $10,000,000 executed by the Company in favor of American Home Products Corporation (with certain confidential portions omitted) (Exhibit 10.78).
***10.81	Second Addendum to Amended Registration Rights Agreement, dated September 2, 1994, between the Company and American Home Products Corporation.
***10.82	Research, Development and License Agreement, dated September 2, 1994, between the Company and American Home Products Corporation, as represented by its Wyeth-Ayerst Research Division (with certain confidential portions omitted) (Exhibit 10.77).

***10.83	Option Agreement, dated September 2, 1994, between the Company and American Home Products Corporation, as represented by its Wyeth-Ayerst Research Division (with certain confidential portions omitted) (Exhibit 10.80).
***10.84	Distribution and Marketing Agreement, dated September 16, 1994, between the Company and Cetus Oncology Corporation, a wholly owned subsidiary of the Chiron Corporation (with certain confidential portions omitted) (Exhibit 10.82).
&10.85	Technology License Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.86	Research and Development Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.87	Commercialization Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.

</TABLE>

<TABLE>
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EXHIBIT NO.	DESCRIPTION
<C>	<S>
&10.88	Administrative Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.89	Services Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.90	1057 Purchase Option Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.91	Asset Purchase Option Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.92	Joint Venture Dissolution Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.93	Indemnity Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.94	Tax Allocation Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.95	Stock Purchase Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Pharmaceuticals (Ireland), Ltd.
&10.97	Research, Development and License Agreement, dated December 29, 1994, between SmithKline Beecham Corporation and the Company (with certain confidential portions omitted).
&10.98	Stock and Note Purchase Agreement, dated February 2, 1995, between SmithKline Beecham Corporation, S.R. One Limited and the Company (with certain confidential portions omitted).
&10.99	Third Addendum to Amended Registration Rights Agreement, dated February 3, 1995, between S. R. One, Limited and the Company.
#10.100	PHOTOFRIN(R) Distribution Agreement, dated March 8, 1995, between the Company and Quadra Logic Technologies Inc. (with certain confidential portions omitted).
10.101(2)	Stock Rights Agreement, dated December 28, 1990, among Glycomed, Genentech, Inc. and specified shareholders (Exhibit 10.1).
10.119(2)	Option and Development Agreement, dated August 15, 1990, between Glycomed and Dr. Richard E. Galardy and Dr. Damian Grobelny with exhibit thereto (with certain confidential portions omitted) (Exhibit 10.20).
10.120(2)	Option and Development Agreement, dated November 27, 1989, between Glycomed and the President and Fellows of Harvard College with appendices thereto (with certain confidential portions omitted) (Exhibit 10.21).
10.121(2)	Option and Development Agreement, dated January 1, 1991, between Glycomed and UAB Research Foundation with exhibits thereto (with certain confidential portions omitted) (Exhibit 10.22).
10.122(2)	Joint Venture Agreement, dated December 18, 1990, among Glycomed, Glyko, Inc., Millipore Corporation, Astroscan, Ltd., Astromed, Ltd., Gwynn R. Williams and John Klock, M.D., with exhibits thereto (with certain confidential portions omitted) (Exhibit 10.23).

10.124(2) Master Lease Agreement, dated June 22, 1990, between Glycomed and Lease Management Services with Addendum and Security Deposit Pledge Agreement (Exhibit 10.25).
</TABLE>

<TABLE>
<CAPTION>

EXHIBIT NO.	DESCRIPTION
<C>	<S>
10.125(3)	Marina Village Office/R & D Industrial Gross Leases, dated August 5, 1988 and August 8, 1988, between Glycomed and Alameda Real Estate Investments, with Exhibits, Addendum and Amendment No. 1 thereto (Exhibit 10.26).
10.126(3)	Marina Village Office/R & D Industrial Gross Office Tech Leases, dated May 1, 1992, between Glycomed and Alameda Real Estate Investments, with exhibits and Addenda for the space at 860 Atlantic and 2061 Challenger (Exhibit 10.27).
10.127(3)	Research and License Agreement, dated April 29, 1992, between Glycomed and the Alberta Research Council with Appendix thereto (with certain confidential portions omitted) (Exhibit 10.28).
10.130(6)	Amendment to Research and License Agreement, dated July 12, 1993, between Glycomed and the Alberta Research Council (with certain confidential portions omitted) (Exhibit 10.32).
10.131(7)	Amendments to Research and License Agreement, dated October 22, 1993, December 16, 1993, and May 9, 1994 between Glycomed and the Alberta Research Council (with certain confidential portions omitted) (Exhibit 10.33).
10.132(7)	License Agreement, dated February 14, 1994 between Glycomed and Sankyo Company, Ltd., for the Far East marketing rights of ophthalmic indications of Galardin(TM) MPI and analogs (with certain confidential portions omitted) (Exhibit 10.34).
10.133(7)	Collaborative Technology Research and Development Agreement between Glycomed and Sankyo Company, Ltd., dated June 27, 1994 (with certain confidential portions omitted) (Exhibit 10.35).
10.136(8)	Amendment to Research and License Agreement, dated September 22, 1994 between Glycomed and Alberta Research Council (with certain confidential portions omitted) (Exhibit 10.38).
#10.137	First Supplemental Indenture among the Company, Glycomed and Chemical Trust Company of California, Trustee (Exhibit 10.133).
#10.138	Form of Dominion Warrant upon assumption by the Company (Exhibit 10.134).
#10.139	Form of Genentech Warrant upon assumption by the Company (Exhibit 10.135).
%%10.140	Promissory Notes, General Security Agreements and a Credit Terms and Conditions letter dated March 31, 1995, between the Company and Imperial Bank (Exhibit 10.101).
-10.141	Fourth Addendum to Amended Registration Rights Agreement, dated May 18, 1995, between the Company and Genentech, Inc.
-10.142	Stock Purchase Agreement, dated June 27, 1995, between the Company and Sankyo Company, Ltd.
-10.143	Fifth Addendum to Amended Registration Rights Agreement, dated September 11, 1995, between the Company and Sankyo Company Limited.
-10.144	Stock Purchase Agreement, dated August 28, 1995, between the Company and Abbott Laboratories.
-10.145	Sixth Addendum to Amended Registration Rights Agreement, dated August 31, 1995, between the Company and Abbott Laboratories.
-10.146	Amendment to Research and Development Agreement, dated January 16, 1996, between the Company and American Home Products Corporation, as amended.

</TABLE>

<TABLE>
<CAPTION>

EXHIBIT NO.	DESCRIPTION

<C> <S>

-10.147	Amendment to Stock Purchase Agreement, dated January 16, 1996, between the Company and American Home Products Corporation.
-10.148	Lease, dated July 6, 1994, between the Company and Chevron/Nexus partnership, First Amendment to lease dated July 6, 1994.
x10.149	Successor Employment Agreement, signed May 1, 1996, between the Company and David E. Robinson.
x10.150	Master Lease Agreement, signed May 30, 1996, between the Company and USL Capital Corporation.
x10.151	Settlement Agreement and Mutual Release of all Claims, signed April 20, 1996, between the Company and Pfizer, Inc. (with certain confidential portions omitted).
x10.152	Letter Amendment to Abbott Agreement, dated March 14, 1996, between the Company and Abbott Laboratories (with certain confidential portions omitted).
xx10.153	Letter Agreement, dated August 8, 1996, between the Company and Dr. Andres Negro-Vilar.
--10.154	Preferred Shares Rights Agreement, dated as of September 13, 1996, by and between Ligand Pharmaceuticals Incorporated and Wells Fargo Bank, N.A. (Exhibit 10.1).
(9)10.155	Letter Agreement, dated November 4, 1996, between the Company and William Pettit.
(9)10.156	Letter Agreement, dated February 6, 1997, between the Company and Russell L. Allen.
(9)10.157	Master Lease Agreement, signed February 13, 1997, between the Company and Lease Management Services.
(9)10.158	Lease, dated March 7, 1997, between the Company and Nexus Equity VI LLC.
(9)10.159	Eighth Addendum to amended registration rights agreement, dated June 24, 1994, as amended between Ligand Pharmaceuticals and S.R. One, Limited and is effective as of February 10, 1997.
(9)10.160	Seventh Addendum to amended registration rights agreement, dated June 24, 1994, as amended between Ligand Pharmaceuticals and S.R. One, Limited and is effective November 10, 1995.
(10)10.161	Settlement Agreement, License and Mutual General Release between Ligand Pharmaceuticals and SRI/LJCRF, dated August 23, 1995 (with certain confidential portions omitted).
(11)10.162	Limited Extension of Collaborative Technology Research, Option and Development Agreement between Ligand Pharmaceuticals and Sankyo Company Limited, dated June 24, 1997.
(11)10.163	Extension of Master Lease Agreement between Lease Management Services and Ligand Pharmaceuticals dated July 29, 1997.
(12)10.164	Third Amendment to Agreement, dated September 2, 1997, between the Company and American Home Products Corporation.
+21.1	Subsidiaries of Registrant
23.1	Consent of Ernst & Young LLP, Independent Auditors.
23.2	Consent of Ernst & Young, LLP, Independent Auditors.
+24.1	Power of Attorney.

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<S> <C>

* These exhibits were previously filed as part of, and are 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.

% These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1992.

** These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1993.

*** These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit (except as otherwise noted) filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1994.

! These exhibits were previously filed as part of, and are hereby incorporated by reference to, the exhibit filed with the Company's Form 8-K, filed on July 14, 1994.

!! This exhibit was previously filed as part of, and is hereby incorporated by reference to Exhibit 99.1 filed with the Company's Form S-8 (No. 33-85366), filed on

October 17, 1994.

& These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Registration Statement on Form S-1/S-3 (No. 33-87598 and 33-87600) filed on December 20, 1994, as amended.

These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Registration Statement on Form S-4 (No. 33-90160) filed on March 9, 1995, as amended.

%% This exhibit was previously filed as part of, and are 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, 1995.

- -- These exhibits were filed previously, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1995.

x These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Quarterly report on Form 10-Q for the period ended June 30, 1996.

xx This exhibit was previously filed as part of, and are 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, 1996.

(1) Filed as an exhibit to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 27, 1991 and incorporated herein by reference.

(2) Filed as an exhibit to Glycomed's Registration Statement on Form S-1 (No. 33-39961) filed on or amendments thereto and incorporated herein by reference.

(3) Filed as an exhibit to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 25, 1992 and incorporated herein by reference.

(4) Filed as an exhibit to Glycomed's Registration Statement on Form S-3 (No. 33-55042) filed on November 25, 1992 or amendments thereto and incorporated herein by reference.

(5) Filed as an exhibit to Glycomed's Registration Statement on Form S-8 (No. 33-68620) filed on September 13, 1993 and incorporated herein by reference.

(6) Filed as an exhibit to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 13, 1993 and incorporated herein by reference.

</TABLE>

<TABLE>
<S> <C>

(7) Filed as an amendment to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 27, 1994 and incorporated herein by reference.

(8) Filed as an exhibit to Glycomed's Quarterly Report on Form 10-Q (File No. 0-19161) filed on February 10, 1995 and incorporated herein by reference.

- --- These exhibits were previously filed as part of, and are hereby incorporated by reference, the same numbered exhibit filed with the Company's Registration Statement on Form S-3 (No. 333-12603) filed on September 25, 1996, as amended.

(9) 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, 1996.

(10) 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, 1997.

(11) 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 June 30, 1997.

(12) 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, 1997.

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+ Filed previously.

(b) FINANCIAL STATEMENT SCHEDULES INCLUDED SEPARATELY IN THE REGISTRATION STATEMENT.

None

All other schedules are omitted because they are not required, are not applicable or the information is included in the Consolidated Financial Statements or notes thereto.

ITEM 17. UNDERTAKINGS.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Company pursuant to the provisions described in Item 15, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted
from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement;

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) If the registrant is a foreign private issuer, to file a post-effective amendment to the registration statement to include any financial statements required by Rule 3-19 of Regulation S-X at the start of any delayed offering or throughout a continuous offering.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Company certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-1 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on the 17th day of November 1997.

LIGAND PHARMACEUTICALS INCORPORATED

By: /s/ DAVID E. ROBINSON

David E. Robinson
Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

<TABLE>
<CAPTION>

SIGNATURE	TITLE	DATE
<S>	<C>	<C>
/s/ DAVID E. ROBINSON (David E. Robinson)	Chairman, President, and Chief Executive Officer (Principal Executive Officer)	November 17, 1997
/s/ PAUL V. MAIER (Paul V. Maier)	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	November 17, 1997
* (Henry F. Blissenbach)	Director	November 17, 1997
* (Alexander D. Cross)	Director	November 17, 1997

*	Director	November 17, 1997
(John Groom)		
*	Director	November 17, 1997
(Irving S. Johnson)		
*	Director	November 17, 1997
(Carl C. Peck, M.D.)		

*By: /s/ DAVID E. ROBINSON
David E. Robinson, Attorney-in-Fact

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
#2.1	Agreement of Merger, dated February 7, 1995 by and among Ligand Pharmaceuticals Incorporated, LG Acquisition Corp. and Glycomed Incorporated (other Exhibits omitted, but will be filed by the Company with the Commission upon request).
#2.2	Form of Plan of Merger.
#3.2	Amended and Restated Certificate of Incorporation of the Company.
&3.3	Bylaws of the Company, as amended.
x3.4	Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of Ligand Pharmaceuticals Incorporated (Exhibit 3.1).
*4.1	Specimen stock certificate for shares of Common Stock of the Company.
+5.1	Opinion of Brobeck, Phleger & Harrison LLP with respect to the securities being registered.
#10.1	The Company's 1992 Stock Option/Stock Issuance Plan, as amended.
*10.2	Form of Stock Option Agreement.
*10.3	Form of Stock Issuance Agreement.
*10.4	The Company's Restricted Stock Purchase Plan, as amended.
*10.5	Form of the Company's Employee Restricted Stock Purchase Agreement.
*10.6	Form of Consultant Restricted Stock Purchase Agreement.
*10.7	The Company's 1988 Stock Option Plan, as amended.
*10.8	Form of Incentive Stock Option Agreement (Installment Vesting).
*10.9	Form of Non-Qualified Stock Option Agreement (Installment Vesting).
*10.10	Form of Consultant Non-Qualified Stock Option Agreement (Immediate Vesting).
*10.12	1992 Employee Stock Purchase Plan.
*10.13	Form of Stock Purchase Agreement.
*10.26	Lease, dated December 1, 1988, between the Company and Nippon Landic (U.S.A.), Inc., the assignee of Nexus/Gadco-UTC, as amended by an agreement dated December 1, 1988, First Amendment to Lease dated August 19, 1991, and Third Amendment to Lease dated August 22, 1991.
*10.29	Consulting Agreement, dated October 20, 1988, between the Company and Dr. Ronald M. Evans, as amended by Amendment to Consulting Agreement, dated August 1, 1991, and Second Amendment to Consulting Agreement, dated March 6, 1992.
*10.30	Form of Proprietary Information and Inventions Agreement.
*10.31	Research and License Agreement, dated March 9, 1992, between the Company and Baylor College of Medicine (with certain confidential portions omitted).
*10.32	License Agreement, dated January 27, 1992, between the Company and HSC Research and Development Limited Partnership and Mount Sinai Hospital (with certain confidential portions omitted).
*10.33	License Agreement, dated November 14, 1991, between the Company and Rockefeller University (with certain confidential portions omitted).
*10.34	License Agreement and Bailment, dated July 22, 1991, between the Company

and the Regents of the University of California (with certain confidential portions omitted).
</TABLE>

<TABLE>
<CAPTION>
EXHIBIT NO. DESCRIPTION

*10.35	Agreement, dated May 1, 1991, between the Company and Pfizer Inc (with certain confidential portions omitted).
*10.36	License Agreement, dated July 3, 1990, between the Company and the Brigham and Woman's Hospital, Inc. (with certain confidential portions omitted).
*10.37	Compound Evaluation Agreement, dated May 17, 1990, between the Company and SRI International (with certain confidential portions omitted).
*10.38	License Agreement, dated January 5, 1990, between the Company and the University of North Carolina at Chapel Hill (with certain confidential portions omitted).
*10.39	License Agreement, dated January 4, 1990, between the Company and Baylor College of Medicine (with certain confidential portions omitted).
*10.40	License Agreement, dated January 4, 1990, between the Company and Baylor College of Medicine (with certain confidential portions omitted).
*10.41	License Agreement, dated October 1, 1989, between the Company and Institut Pasteur (with certain confidential portions omitted).
*10.42	Sublicense Agreement, dated September 13, 1989, between the Company and AndroBio Corporation (with certain confidential portions omitted).
*10.43	License Agreement, dated June 23, 1989, between the Company and La Jolla Cancer Research Foundation (with certain confidential portions omitted).
*10.44	License Agreement, dated October 20, 1988, between the Company and The Salk Institute for Biological Studies, as amended by Amendment to License Agreement dated September 15, 1989, Second Amendment to License Agreement, dated December 1, 1989 and Third Amendment to License Agreement dated October 20, 1990 (with certain confidential portions omitted).
*10.45	Agreement dated June 12, 1989, between the Company and the Regents of the University of California.
*10.46	Form of Indemnification Agreement between the Company and each of its directors.
*10.47	Form of Indemnification Agreement between the Company and each of its officers.
*10.50	Consulting Agreement, dated October 1, 1991, between the Company and Dr. Bert W. O'Malley.
*10.53	Stock and Warrant Purchase Agreement, dated June 30, 1992 between the Company and Allergan, Inc. and Allergan Pharmaceuticals (Ireland) Ltd., Inc.
*10.58	Stock Purchase Agreement, dated September 9, 1992, between the Company and Glaxo, Inc.
*10.59	Research and Development Agreement, dated September 9, 1992, between the Company and Glaxo, Inc. (with certain confidential portions omitted).
*10.60	Stock Transfer Agreement, dated September 30, 1992, between the Company and the Rockefeller University.
*10.61	Stock Transfer Agreement, dated September 30, 1992, between the Company and New York University.
*10.62	License Agreement, dated September 30, 1992, between the Company and the Rockefeller University (with certain confidential portions omitted).
*10.63	Professional Services Agreement, dated September 30, 1992, between the Company and Dr. James E. Darnell.
*10.64	Letter Agreement, dated August 24, 1992, between the Company and Dr. Howard T. Holden.

</TABLE>

<TABLE>
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EXHIBIT NO. DESCRIPTION

*10.65	Letter Agreement, dated August 20, 1992, between the Company and Dr. George Gill.
*10.66	Letter Agreement, dated September 3, 1992, between the Company and Dr. Lloyd E. Flanders.
*10.67	Letter Agreement, dated September 11, 1992, between the Company and Mr. Paul Maier.

%*10.68 Master Equipment Lease, dated October 27, 1992 and related Master Equipment Lease Agreement Schedule between the Company and AT&T Commercial Finance Corporation.

!!10.69 Form of Automatic Grant Option Agreement.

**10.73 Supplementary Agreement, dated October 1, 1993, between the Company and Pfizer, Inc to Agreement, dated May 1, 1991.

***10.74 Loan and Security Agreement, dated November 11, 1993, between the Company and Household Commercial of California, Inc.

***10.75 Stock Purchase Agreement, dated July 6, 1994, between the Company and Abbott Laboratories (with certain confidential portions omitted).

!10.76 Amended Registration Rights Agreement, dated June 24, 1994, between the Company and the individuals listed on attached Schedule A, as amended (Exhibit 4.1).

!10.77 First Addendum to Amended Registration Rights Agreement, dated July 6, 1994, between the Company and Abbott Laboratories (Exhibit 4.2)

***10.78 Research, Development and License Agreement, dated July 6, 1994, between the Company and Abbott Laboratories (with certain confidential portions omitted) (Exhibit 10.75).

***10.79 Stock and Note Purchase Agreement, dated September 2, 1994, between the Company and American Home Products Corporation (with certain confidential portions omitted).

***10.80 Unsecured Convertible Promissory Note dated September 2, 1994, in the face amount of $10,000,000 executed by the Company in favor of American Home Products Corporation (with certain confidential portions omitted) (Exhibit 10.78).

***10.81 Second Addendum to Amended Registration Rights Agreement, dated September 2, 1994, between the Company and American Home Products Corporation.

***10.82 Research, Development and License Agreement, dated September 2, 1994, between the Company and American Home Products Corporation, as represented by its Wyeth-Ayerst Research Division (with certain confidential portions omitted) (Exhibit 10.77).

***10.83 Option Agreement, dated September 2, 1994, between the Company and American Home Products Corporation, as represented by its Wyeth-Ayerst Research Division (with certain confidential portions omitted) (Exhibit 10.80).

***10.84 Distribution and Marketing Agreement, dated September 16, 1994, between the Company and Cetus Oncology Corporation, a wholly owned subsidiary of the Chiron Corporation (with certain confidential portions omitted) (Exhibit 10.82).

&10.85 Technology License Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.

&10.86 Research and Development Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.

&10.87 Commercialization Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.

&10.88 Administrative Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.

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EXHIBIT NO.	DESCRIPTION
<C>	<S>
&10.89	Services Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.90	1057 Purchase Option Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.91	Asset Purchase Option Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.92	Joint Venture Dissolution Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.93	Indemnity Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.94	Tax Allocation Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
&10.95	Stock Purchase Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Pharmaceuticals (Ireland), Ltd.
&10.97	Research, Development and License Agreement, dated December 29, 1994, between SmithKline Beecham Corporation and the Company (with certain confidential portions omitted).
&10.98	Stock and Note Purchase Agreement, dated February 2, 1995, between SmithKline Beecham Corporation, S.R. One Limited and the Company (with

certain confidential portions omitted).

&10.99 Third Addendum to Amended Registration Rights Agreement, dated February 3, 1995, between S. R. One, Limited and the Company.

#10.100 PHOTOFRIN(R) Distribution Agreement, dated March 8, 1995, between the Company and Quadra Logic Technologies Inc. (with certain confidential portions omitted).

10.101(2) Stock Rights Agreement, dated December 28, 1990, among Glycomed, Genentech, Inc. and specified shareholders (Exhibit 10.1).

10.119(2) Option and Development Agreement, dated August 15, 1990, between Glycomed and Dr. Richard E. Galardy and Dr. Damian Grobelny with exhibit thereto (with certain confidential portions omitted) (Exhibit 10.20).

10.120(2) Option and Development Agreement, dated November 27, 1989, between Glycomed and the President and Fellows of Harvard College with appendices thereto (with certain confidential portions omitted) (Exhibit 10.21).

10.121(2) Option and Development Agreement, dated January 1, 1991, between Glycomed and UAB Research Foundation with exhibits thereto (with certain confidential portions omitted) (Exhibit 10.22).

10.122(2) Joint Venture Agreement, dated December 18, 1990, among Glycomed, Glyko, Inc., Millipore Corporation, Astroscan, Ltd., Astromed, Ltd., Gwynn R. Williams and John Klock, M.D., with exhibits thereto (with certain confidential portions omitted) (Exhibit 10.23).

10.124(2) Master Lease Agreement, dated June 22, 1990, between Glycomed and Lease Management Services with Addendum and Security Deposit Pledge Agreement (Exhibit 10.25).

10.125(3) Marina Village Office/R & D Industrial Gross Leases, dated August 5, 1988 and August 8, 1988, between Glycomed and Alameda Real Estate Investments, with Exhibits, Addendum and Amendment No. 1 thereto (Exhibit 10.26).

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10.127(3)	Research and License Agreement, dated April 29, 1992, between Glycomed and the Alberta Research Council with Appendix thereto (with certain confidential portions omitted) (Exhibit 10.28).
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Abbott Laboratories.

-10.145 Sixth Addendum to Amended Registration Rights Agreement, dated August 31, 1995, between the Company and Abbott Laboratories.

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-10.148 Lease, dated July 6, 1994, between the Company and Chevron/Nexus partnership, First Amendment to lease dated July 6, 1994.

x10.149 Successor Employment Agreement, signed May 1, 1996, between the Company and David E. Robinson.

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EXHIBIT NO.	DESCRIPTION
x10.150	Master Lease Agreement, signed May 30, 1996, between the Company and USL Capital Corporation.
x10.151	Settlement Agreement and Mutual Release of all Claims, signed April 20, 1996, between the Company and Pfizer, Inc. (with certain confidential portions omitted).
x10.152	Letter Amendment to Abbott Agreement, dated March 14, 1996, between the Company and Abbott Laboratories (with certain confidential portions omitted).
xx10.153	Letter Agreement, dated August 8, 1996, between the Company and Dr. Andres Negro-Vilar.
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(9)10.155	Letter Agreement, dated November 4, 1996, between the Company and William Pettit.
(9)10.156	Letter Agreement, dated February 6, 1997, between the Company and Russell L. Allen.
(9)10.157	Master Lease Agreement, signed February 13, 1997, between the Company and Lease Management Services.
(9)10.158	Lease, dated March 7, 1997, between the Company and Nexus Equity VI LLC.
(9)10.159	Eighth Addendum to amended registration rights agreement, dated June 24, 1994, as amended between Ligand Pharmaceuticals and S.R. One, Limited and is effective as of February 10, 1997.
(9)10.160	Seventh Addendum to amended registration rights agreement, dated June 24, 1994, as amended between Ligand Pharmaceuticals and S.R. One, Limited and is effective November 10, 1995.
(10)10.161	Settlement Agreement, License and Mutual General Release between Ligand Pharmaceuticals and SRI/LJCRF, dated August 23, 1995 (with certain confidential portions omitted).
(11)10.162	Limited Extension of Collaborative Technology Research, Option and Development Agreement between Ligand Pharmaceuticals and Sankyo Company Limited, dated June 24, 1997.
(11)10.163	Extension of Master Lease Agreement between Lease Management Services and Ligand Pharmaceuticals dated July 29, 1997.
(12)10.164	Third Amendment to Agreement, dated September 2, 1997, between the Company and American Home Products Corporation.
+21.1	Subsidiaries of Registrant
23.1	Consent of Ernst & Young LLP, Independent Auditors.
23.2	Consent of Ernst & Young LLP, Independent Auditors.
+24.1	Power of Attorney.

</TABLE>

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* These exhibits were previously filed as part of, and are 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.

% These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1992.

** These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1993.
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*** These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit (except as otherwise noted) filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1994.
! These exhibits were previously filed as part of, and are hereby incorporated by reference to, the exhibit filed with the Company's Form 8-K, filed on July 14, 1994.
!! This exhibit was previously filed as part of, and is hereby incorporated by reference to Exhibit 99.1 filed with the Company's Form S-8 (No. 33-85366), filed on October 17, 1994.
& These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Registration Statement on Form S-1/S-3 (No. 33-87598 and 33-87600) filed on December 20, 1994, as amended.
# These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Registration Statement on Form S-4 (No. 33-90160) filed on March 9, 1995, as amended.
%% This exhibit was previously filed as part of, and are 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, 1995.
- -- These exhibits were filed previously, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1995.
x These exhibits were previously filed as part of, and are hereby incorporated by reference to, the same numbered exhibit filed with the Company's Quarterly report on Form 10-Q for the period ended June 30, 1996.
xx This exhibit was previously filed as part of, and are 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, 1996.
(1) Filed as an exhibit to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 27, 1991 and incorporated herein by reference.
(2) Filed as an exhibit to Glycomed's Registration Statement on Form S-1 (No. 33-39961) filed on or amendments thereto and incorporated herein by reference.
(3) Filed as an exhibit to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 25, 1992 and incorporated herein by reference.
(4) Filed as an exhibit to Glycomed's Registration Statement on Form S-3 (No. 33-55042) filed on November 25, 1992 or amendments thereto and incorporated herein by reference.
(5) Filed as an exhibit to Glycomed's Registration Statement on Form S-8 (No. 33-68620) filed on September 13, 1993 and incorporated herein by reference.
(6) Filed as an exhibit to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 13, 1993 and incorporated herein by reference.
</TABLE>

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(7) Filed as an amendment to Glycomed's Annual Report on Form 10-K (File No. 0-19161) filed on September 27, 1994 and incorporated herein by reference.
(8) Filed as an exhibit to Glycomed's Quarterly Report on Form 10-Q (File No. 0-19161) filed on February 10, 1995 and incorporated herein by reference.
- --- These exhibits were previously filed as part of, and are hereby incorporated by reference, the same numbered exhibit filed with the Company's Registration Statement on Form S-3 (No. 333-12603) filed on September 25, 1996, as amended.
(9) 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, 1996.
(10) 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, 1997.
(11) 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 June 30, 1997.
(12) 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, 1997.
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EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the reference to our firm under the captions "Experts" and "Selected Consolidated Financial Data" and to the use of our report dated January 29, 1997 with respect to the Consolidated Financial Statements of Ligand Pharmaceuticals Incorporated and to the use of our report dated January 20, 1995 with respect to the financial statements of the Allergan Ligand Joint Venture, both included in Amendment No. 2 to the Registration Statement (Form S-1) and related Prospectus of Ligand Pharmaceuticals Incorporated for the registration of its common stock.

ERNST & YOUNG LLP

San Diego, California
November 17, 1997

EXHIBIT 23.2

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the reference to our firm under the captions "Experts" and to the use of our report dated March 25, 1997 with respect to the financial statements of Allergan Ligand Retinoid Therapeutics, Inc. in the Registration Statement (Form S-1) and related Prospectus of Ligand Pharmaceuticals Incorporated for the registration of its common stock.

ERNST & YOUNG LLP

San Diego, California
November 17, 1997