

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

MARK ONE

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES
EXCHANGE ACT OF 1934
FOR THE FISCAL YEAR ENDED DECEMBER 31, 1996, OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934 (NO FEE REQUIRED)

FOR THE TRANSITION PERIOD COMMISSION FILE NUMBER: 0-20720
FROM _____ TO _____ .

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

DELAWARE 77-0160744
(STATE OR OTHER JURISDICTION OF (I.R.S. EMPLOYER
INCORPORATION OR ORGANIZATION) IDENTIFICATION NO.)

9393 TOWNE CENTRE DRIVE 92121
SAN DIEGO, CA (ZIP CODE)
(ADDRESS OF PRINCIPAL EXECUTIVE OFFICES)

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

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:
NONE

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:
COMMON STOCK, \$.001 PAR VALUE
(TITLE OF CLASS)

Indicate by check mark whether the registrant: (1) has filed all reports
required to be filed by Section 13 or 15(d) of the Securities Exchange Act of
1934 during the preceding 12 months (or for such shorter period that the
registrant was required to file such reports), and (2) has been subject to such
filing requirements for the past 90 days. Yes X No ___

Indicate by check mark if disclosure of delinquent filers pursuant to
Item 405 of Regulation S-K is not contained herein, and will not be contained,
to the best of registrant's knowledge, in definitive proxy or information
statements incorporated by reference in Part III of this Form 10-K or any
amendment to this Form 10-K. []

The aggregate market value of the Registrant's voting stock held by
non-affiliates as of February 28, 1997 was \$341,654,552. For purposes of this
calculation, shares of Common Stock held by directors, officers and 5%
stockholders known to Registrant have been deemed to be owned by affiliates.

As of February 28, 1997 the registrant had 32,017,640 shares of Common
Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement to be filed not later than 120 days
after December 31, 1996, in connection with the Registrant's 1997 Annual Meeting
of Stockholders, referred to herein as the "Proxy Statement", are incorporated
by reference into Part III of this Form 10-K.

PART I

ITEM 1. BUSINESS

The discussion of the Company's business contained in this Annual
Report on Form 10-K may contain certain projections, estimates and other
forward-looking statements that involve a number of risks and uncertainties,
including those discussed below at "Risks and Uncertainties." While this outlook
represents management's current judgment on the future direction of the
business, such risks and uncertainties could cause actual results to differ
materially from any future performance suggested below. The Company undertakes
no obligation to release publicly the results of any revisions to these

forward-looking statements to reflect events or circumstances arising after the date hereof.

OVERVIEW

Ligand Pharmaceuticals Incorporated ("Ligand" or the "Company"), a Delaware corporation, is a biopharmaceutical company and a leader 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, 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 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 new research and development company, Allergan Ligand Retinoid Therapeutics, Inc. ("ALRT") with Allergan, Inc. ("Allergan") and substantial collaborations with SmithKline Beecham Corporation ("SmithKline Beecham"), American Home Products ("AHP"), Abbott Laboratories ("Abbott"), Glaxo-Wellcome plc (formerly Glaxo, Inc.) ("Glaxo"), and Sankyo Company, Ltd. ("Sankyo"). Ligand has initiated human clinical trials for five products: the retinoids Oral Panretin(TM) (ALRT1057), Topical Panretin (ALRT1057) and Oral ALRT 1550 on behalf of ALRT, and a combination of Oral Targretin(TM) (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 Inc ("Pfizer"). One is a preclinical 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 been leaders in advancing the understanding of the activities of hormones and hormone-related drugs and have made major 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.

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. The most advanced of these products are as follows:

PROGRAM	PRODUCT	DISEASE INDICATION	DEVELOPMENT PHASE (1)
Retinoids	Topical Panretin(TM) (ALRT1057)(2)	Kaposi's Sarcoma ("KS")	III
	Oral Panretin(TM) (ALRT1057)(2)	Acute Promyelocytic Leukemia ("APL"), Cancers including KS, other cancers, eye disease	III
		Psoriasis	IIB
		Proliferative vitreoretinopathy	II
	ALRT1550 Oral(2)	Cancers	I/IIA
	Topical Targretin(TM) (LGD1069)	Skin lymphoma, other malignancies of skin	III
	Oral Targretin(TM) (LGD1069)	Cutaneous T cell lymphoma	II/III
		Lung cancer	II/III
		Cancers, including, kidney, head and neck, KS	IIB
		Metabolic diseases (diabetes)	II(3)
		Skin disease	Preclinical
Sex steroids	Droloxifene(4)	Breast cancer	III
	Droloxifene(4)	Osteoporosis	II
	CP336,156(5)	Osteoporosis	Preclinical (IND or foreign equivalent 4Q 96)
Inflammation	Galardin(TM)(6)	Eye injury	II/III completed
			II(8)
Oncology	Proleukin(7)	Kidney cancer	Marketed in Canada
	PHOTOFRIN(7)	Bladder cancer, esophageal cancer	Marketed in Canada

(1) "Development Phase" refers to the current stage of development of the most advanced indication. See "Business - Product Development Program" for a more detailed description of the stages of development for these compounds.

(2) All rights currently owned by Allergan Ligand Retinoid Therapeutics, Inc., an off-balance sheet financing entity. See "Business - Strategic Alliances - Allergan, Inc."

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

(4) Droloxifene is a compound owned by Pfizer Inc ("Pfizer"). 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 milestone payments if Pfizer continues development and royalties if Pfizer commercializes the product. See "Business - Strategic Alliances - Pfizer Inc."

(5) 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 intends to file an IND or foreign equivalent for CP336,156 in the fourth quarter of 1996. Ligand is awaiting confirmation from Pfizer. See "Business - Strategic Alliances - Pfizer Inc" and "Risks and Uncertainties - Uncertainties Related to Clinical Trials."

- (6) Ligand is seeking a partner to further the development and commercialization of Galardin for ophthalmic use. See "Business - Product Development Program - Inflammatory Disease."
- (7) In-licensed product.
- (8) Phase II trials ongoing in Japan. .

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 pivotal Phase III trials for Topical Panretin (ALRT1057) in KS. Ligand intends to file a New Drug Application ("NDA") for this compound in 1997 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 pivotal Phase III clinical trials in this indication with Topical Targretin (LGD1069) and pivotal Phase II/III trials in this indication with 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. See "Risk and Uncertainties - Uncertainties Related to Clinical Trials."

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To date, Ligand has entered into collaborations with seven corporate partners which include, in addition to ALRT: SmithKline Beecham Corporation (for hematopoietic growth factor mimetics for use in oncology and treatment of anemia), the Wyeth-Ayerst Laboratories division of American Home Products Corporation (for women's health, e.g., hormone replacement therapy, osteoporosis, fertility control), Abbott Laboratories (for inflammatory diseases, utilizing selected IR- and STAT-based approaches), Sankyo Company Limited (for inflammatory diseases, utilizing selected Glycomed technologies), Glaxo-Wellcome plc (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, Ligand's research activities have been supported by commitments from its partners of up to \$87.9 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 \$86.50 million has been received through December 31, 1996, and the remaining \$10.0 million is subject to Ligand attaining certain milestones.

In October 1996, the Company completed a public offering of 3,162,500 shares of common stock, par value \$0.001 per share (the "Common Stock"), at a price of \$12.00 per share for aggregate net proceeds of approximately \$35.3 million. The Company expects to use the net proceeds from the offering for general corporate purposes, including product research and development programs, preclinical testing and clinical trials, the acquisition and in-licensing of products and complementary technologies, capital expenditures and working capital.

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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 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 a combination of Oral Targretin (LGD1069) and Topical Targretin (LGD1069), which are Ligand's first products. 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 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 of Biological Studies ("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(R) (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 College of Medicine ("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(R) 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 and for a portion of the collaboration with Abbott, seeking interferon antagonists for the treatment of inflammation.

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.

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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 Retinoid X Receptors ("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 (peroxisome proliferator-activated receptors) 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.

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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 collaborations with Abbott using its STAT/JAK technology to discover small molecule antagonists of interferons for the treatment of inflammation and 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 metalloproteinase 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 ophthalmic 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

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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 six 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); two are based on a combination of disease indications and transcription factor targets (cardiovascular and 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:

<TABLE>
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PROGRAM	DEVELOPMENT		MARKETING RIGHTS
	DISEASE INDICATION	PHASE(1)	
<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, kidney cancer, non-Hodgkin's lymphoma, KS	Phase IIB	ALRT
	Psoriasis	Phase II	ALRT
	Proliferative vitreo-retinopathy	Phase II	ALRT
Oral ALRT1550(3)	Cancer	Phase I/IIA	ALRT
ALRT1109 & analogues(3)	Skin diseases and cancer	Preclinical	ALRT
ALRT1455 & analogues(3)	Leukemia, lymphoma, breast cancer	Preclinical	ALRT
ALRT268 & analogues(3)	Cancer, skin and metabolic diseases (type II diabetes)	Preclinical	ALRT

LIGAND RETINOIDS

Topical Targretin(LGD1069)	Cutaneous T-cell lymphoma and other malignancies of skin	Phase III	Ligand worldwide
	Skin disease	Preclinical	Ligand worldwide
Oral Targretin(LGD1069)	Cutaneous T-cell lymphoma	Phase II/III	Ligand worldwide
	Lung cancer	Phase II/III	Ligand worldwide
	Cancers, including, kidney, head and neck, KS	Phase IIB	Ligand worldwide
	Skin and metabolic diseases (type II diabetes)	Phase II	Ligand worldwide

SEX STEROIDS

Droloxifene(5)	Breast cancer	Phase III	Pfizer
	Osteoporosis	Phase II	Pfizer
Estrogen agonist (CP336,156)(6)	Osteoporosis	Preclinical (IND or foreign equivalent 4Q 96)	Pfizer
Progesterone antagonists (LG1447 series)	Cancer, endometriosis, uterine fibroids	Lead compounds selected	AHP/Ligand(7)
Progesterone agonists (LG2527/2716 series)	Breast cancer, hormone replacement therapy	Lead compounds selected	AHP/Ligand(7)
Estrogen agonists	Osteoporosis	Lead compounds selected	AHP/Ligand(7)
Tissue selective estrogen or progesterone agonists and antagonists	Gynecological disease, cardiovascular disease, hormone replacement therapy	Lead compounds selected	AHP/Ligand(7)
Androgen antagonists (LG2293 series)	Prostate cancer, skin disease	Lead compounds selected	Ligand worldwide

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<TABLE>

<S>	<C>	<C>	<C>	
Androgen agonists	Male hormone replacement therapy, osteoporosis	identified	Lead compounds	Ligand worldwide

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<TABLE>
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PROGRAM	DEVELOPMENT		MARKETING RIGHTS
	DISEASE INDICATION	PHASE(1)	
<S>	<C>	<C>	<C>
CARDIOVASCULAR/METABOLIC DISEASE			
Lipid regulators - LDL lowering	Atherosclerosis selected	Lead compounds	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(7)
Interferon antagonists	Rheumatoid arthritis, inflammatory bowel disease, asthma, dermatitis	Lead compounds selected	Abbott/Ligand(7)
GLYCOMED INFLAMMATORY DISEASE			

Galaradin(TM) MMP1(GM6001) Matrix metalloproteinase inhibitor ("MMP1")(8)	Ophthalmic inflammation completed Phase II(9)	Phase II/III East (ophthalmic indications)	Ligand; Sankyo in Far
GM1998 Cell adhesion inhibitors	Acute and chronic inflammation selected	Lead compounds East	Ligand; Sankyo in Far
GM1925, GM2296, GM1380 & analogues Cell adhesion inhibitors	Acute and chronic inflammation selected	Lead compounds East	Ligand; Sankyo in Far
GM1892 Endothelial protective agent	Reperfusion injury	Lead compounds selected	Ligand worldwide
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 selected	Lead compounds	Ligand worldwide
Hematopoietic growth factors	Oncological uses, anemia selected	Lead compounds Beecham/Ligand(7)	SmithKline
Other cytokine agonists and antagonists	Cancer, immunology, growth control	Research	Ligand worldwide
IN-LICENSED			
PHOTOFRIN(TM)	Esophageal cancer, superficial bladder cancer	Market (Canada only)	Ligand

</TABLE>

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<TABLE>

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Proleukin(TM)	<C> Kidney cancer <C>	<C> Market (Canada only)	Ligand
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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 STAT 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 are engaged by ALRT to discover and develop retinoid-related drugs. If Ligand and Allergan repurchase ALRT1057 and the rest of the assets in ALRT, Ligand and Allergan will share profits from commercialized products resulting from their activities, if any.

(3) All rights currently owned by ALRT.

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

(5) 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."

(6) 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 intends to file an IND or foreign equivalent for CP336,156 in the fourth quarter of 1996. 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."

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

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

(9) 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 (pre-malignant) 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 RR's that have been identified to date can be grouped in two

subfamilies: Retinoic Acid Receptors ("RARs") and RXRs (Retinoid X Receptors). 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. 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 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.

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 non-peptide 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. The Company intends to file an NDA for Topical Panretin (ALRT1057) on behalf of ALRT for treating KS in 1997 in the event that Phase III trials demonstrate sufficient safety and efficacy.

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Oral Panretin (ALRT1057). In completed Phase I/IIA human clinical trials, Oral Panretin (ALRT1057) was well tolerated at doses as high as 140 mg/m²/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 addition, a Phase III trial with Oral Panretin (ALRT1057) at a dose

of 140 mg/m²/day in APL was initiated in the fourth quarter of 1996. In a Phase I/IIA trial, six out of 15 patients with APL treated with Oral Panretin (ALRT1057) had complete remissions, of which three had relapsed from previous ATRA treatment and/or chemotherapy and three were newly diagnosed. Cell culture based analysis of leukemia cells from some of the patients in this study indicated that resistance to ATRA was not overcome by Oral Panretin (ALRT1057). 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, a serious complication of retinal detachment which can lead to blindness, in the United States in the third quarter of 1996, all on behalf of ALRT. 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.

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) ALRT1109 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 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 December 1996, Topical Targretin (LGD1069) induced responses in 41% of 27 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). 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/m²/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 also expected to begin in 1997. 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.

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.

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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 non-steroidal 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 Wyeth-Ayerst 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 or foreign equivalent for CP336,156 in the fourth quarter of 1996. 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,

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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, Peroxisome Proliferator Activated Receptors ("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 ALRT620) 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

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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.

INFLAMMATORY DISEASE

Ligand is utilizing three innovative approaches to discover drugs for the treatment of inflammation. Two approaches are being pursued in partnership with Abbott 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 (i) several approaches to discovering modulators of glucocorticoid receptor activity that are better than currently known anti-inflammatory steroids such as hydrocortisone and dexamethasone and (ii) 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). MMPs 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.

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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 is with Abbott in the field of inflammation. Ongoing screening in this program has led to the selection of a lead compound for interferon antagonist activity.

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. 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 autoimmune diseases such as rheumatoid arthritis.

RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses were \$59.5 million, \$41.6 million and \$27.2 million in fiscal 1996, 1995 and 1994, respectively, of which approximately 38%, 41% and 51%, 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(R)

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.

Proleukin(R)

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.

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

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

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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 will be provided at SmithKline Beecham's option as a convertible note or an equity investment if SmithKline Beecham elects to further expand the scope of research as defined or elects 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 December 31, 1996, SmithKline Beecham had funded approximately \$4.5 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 July 1996 and again in January 1997, the Company elected to convert \$3.8 million of the convertible notes outstanding into 374,626 shares of Common Stock for a total of 749,252 shares at the \$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 December 31, 1996, AHP had funded approximately \$12.6 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

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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 December 31, 1996, Abbott had funded approximately \$6.3 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 \$8.0 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. As of December 31, 1996, Sankyo had funded approximately \$6.7 million, of which \$4.4 million has been funded since the Merger, of the total of \$8.0 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 December 31, 1996, Glaxo had funded approximately \$7.8 million of the total of \$10.0 million in potential research funding under the agreement.

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 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 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 an option to acquire all the outstanding shares of ALRT callable common stock (the "ALRT 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. The ALRT1057 Option is exercisable at prices ranging from \$21.4 million to \$36.2 million (of which \$18.7 million to \$31.7 million is payable by Ligand) at any time beginning June 1997 and ending the earlier of 90 days after regulatory approval for the commercial sale of Oral Panretin (ALRT1057) or Topical Panretin (ALRT1057) and June 2000. The ALRT1057 Option must be exercised by both Ligand and Allergan. As a result, Ligand can exercise the ALRT1057 Option only if Ligand and Allergan each conclude that the exercise of the ALRT1057 Option is in both of their best interests. In addition, pursuant to the ALRT 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

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 December 31, 1996, ALRT had provided approximately \$30.6 million in research funding to Ligand under the Research and Development Agreement. Based on the current level of product development expenditures, ALRT has announced that it could use substantially all of the funds available for research and development in late 1997 or early 1998, which would trigger the ALRT Stock Purchase Option. The Company has made no determination concerning the exercise of either the ALRT1057 option or the ALRT Stock Purchase Option.

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.

The Salk Institute of Biological Studies. In October 1988, Ligand established an exclusive relationship with The Salk Institute which is one of the leading 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 leading center of IR technology. Dr. Bert W. O'Malley is a professor and the Chairman of the Center for Reproductive Biology at Baylor and

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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 March 1997. 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 1996. 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

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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.

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(R) in Canada. In accordance with the agreement, Ligand initially hired three sales representatives to market Proleukin(R) in Canada.

In March 1995, Ligand was also appointed by QLT as the sole distributor, within Canada of PHOTOFRIN(R), 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(R) 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

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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 a New Drug Application ("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

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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.

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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 December 31, 1996, Ligand had 329 full-time employees, of whom 249 were involved directly in scientific research and development activities. Of these employees, approximately 85 hold Ph.D. or M.D. degrees.

RISKS AND UNCERTAINTIES

In addition to the other business information contained herein, the following are among the factors that should also be considered carefully in evaluating Ligand and its wholly-subsiaries Glycomed Inc. and Ligand (Canada) Inc. ("Ligand" or "the Company") and its business.

EARLY STAGE OF PRODUCT DEVELOPMENT; TECHNOLOGICAL UNCERTAINTY. Ligand was founded in 1987 and has not generated any revenues from the sale of products developed by Ligand or its collaborative partners. To achieve profitable operations, the Company, alone or with others, must successfully develop, clinically test, market and sell its products. Any products resulting from the Company's 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 December 31, 1996, Ligand had an accumulated deficit of approximately \$177.6 million. To date, substantially all of Ligand's revenues have consisted of amounts received under collaborative arrangements. The Company expects to incur additional losses at least over the next several years and expects losses to increase as the Company's research and development efforts and clinical trials progress.

The discovery and development of products will require the commitment of substantial resources to conduct research, preclinical testing and clinical trials, to establish pilot scale and commercial scale manufacturing processes and facilities, and to establish and develop quality control, regulatory, marketing, sales and administrative capabilities. The future capital requirements of the Company will depend on many factors, including the pace of scientific progress in its research and development programs, the magnitude of these programs, the scope and results of preclinical testing and clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims, competing technological and market developments, the ability to establish additional collaborations, changes in existing collaborations, the cost of manufacturing scale-up and the effectiveness of the Company's commercialization activities. To date, Ligand has not generated any revenue from the sales of products developed by Ligand or its collaborative partners. There can be no assurance that Ligand independently or through its collaborations will successfully develop, manufacture or market any products or ever achieve or sustain revenues or profitability from the commercialization of such products. Moreover, even if profitability is achieved, the level of that profitability cannot be accurately predicted. Ligand expects that operating results will fluctuate from quarter to quarter as a result of differences in the timing of expenses incurred and the revenues received from collaborative arrangements and other sources. Some of these fluctuations may be significant. The Company believes that its available cash, cash equivalents, marketable securities and existing sources of funding will be adequate to satisfy its anticipated capital requirements through 1998, assuming the Company does not exercise for cash its options to acquire either the assets related to Oral Panretin (ALRT1057) and Topical Panretin (ALRT1057) or the outstanding callable common stock of ALRT. Based on the current level of product development expenditures, ALRT has announced it could use substantially all of the funds available for research and development in late 1997 or early 1998, which would trigger the ALRT Stock Purchase Option. The Company has made no determination concerning the exercise of either the ALRT1057 Option or the ALRT 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

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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.

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, AHP, Abbott, Sankyo, Glaxo, ALRT (which collaboration continues the work previously undertaken with Allergan, Inc. 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 cardiovascular disease, cancer and skin disease, osteoporosis, hematopoiesis, women's health disorders, and inflammation, 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 collaboration 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 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

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scope of the patents, if any, that Ligand may be able to obtain or result in the denial of Ligand's patent applications. In addition, if patents that cover Ligand's activities are issued to other companies, there can be no assurance that Ligand would be able to obtain licenses to such patents at a reasonable cost, if at all, or be able to develop or obtain alternative technology. The Company has from time to time had, continues to have and may have in the future discussions with its current and potential collaborators regarding the scope and validity of the Company's patent and other proprietary rights to its technologies, including the Company's co-transfection assay. If a collaborator or other party were successful in having substantial patent rights of the Company determined to be invalid, it could adversely affect the ability of the Company to retain existing collaborations beyond their expiration or, where contractually permitted, encourage their termination. Such a determination could also adversely affect the Company's ability to enter into new collaborations. If any disputes should arise in the future with respect to the rights in any technology developed with a collaborator or with respect to other matters involving the collaboration, there could be delays in the achievement of milestones or receipt of milestone payments or research revenues, or interruptions or termination of collaborative research, development and commercialization of certain potential products, and litigation or arbitration could result. Any of the foregoing matters could be time consuming and expensive and could have a material adverse effect on the Company.

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

The commercial success of Ligand will also depend in part on Ligand's not infringing patents issued to competitors and not breaching technology licenses that cover technology used in Ligand's products. It is uncertain whether any third-party patents will require Ligand to develop alternative technology or to alter its products or processes, obtain licenses or cease certain activities. If any such licenses are required, there can be no assurance

that Ligand will be able to obtain such licenses on commercially favorable terms, if at all. Failure by Ligand to obtain a license to any technology that it may require to commercialize its products could have a material adverse effect on Ligand. Litigation, which could result in substantial cost to Ligand, may also be necessary to enforce any patents issued or licensed to Ligand or to determine the scope and validity of third-party proprietary rights. There can be no assurance that Ligand's patents or those of its licensors, if issued, would be held valid by a court or that a competitor's technology or product would be found to infringe such patents. If any of its competitors have filed patent applications in the United States which claim technology also invented by Ligand, Ligand may be required to participate in interference proceedings declared by the U.S. Patent and Trademark Office ("PTO") in order to determine priority of invention and, thus, the right to a patent for the technology, which could result in substantial cost to Ligand to determine its rights.

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

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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 of 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 PANRETIN (ALRT 1057) OPTION AND ALRT STOCK PURCHASE OPTION.

As part of the ALRT Offering all of the technologies previously developed by the Joint Venture were contributed to ALRT, an off-balance sheet entity. In exchange for Ligand's and Allergan's contributions of cash and technology, they each received the ALRT1057 Option. The ALRT1057 Option is exercisable at prices ranging from \$21.4 million to \$36.2 million (of which \$18.7 million to \$31.7 million is payable by Ligand) at any time beginning June 1997 and ending the earlier of 90 days after regulatory approval for the commercial sale of Oral or Topical Panretin (ALRT1057) and June 2000. The ALRT1057 Option must be exercised by both Ligand and Allergan. As a result, Ligand can exercise the ALRT1057 Option only if Ligand and Allergan each conclude that the exercise of the ALRT1057 Option is in both of their best interests. In addition, Ligand received the ALRT Stock Purchase Option. The ALRT Stock Purchase Option is exercisable at prices ranging from \$71.4 million to \$120.7 million at any time between June 1997 and June 2000. If Ligand exercises the ALRT 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. The purchase prices for

the ALRT1057 Option and the ALRT Stock Purchase Option may be paid by Ligand and Allergan in shares of Common Stock, Allergan common stock, cash or any combination thereof. If Ligand exercises the ALRT1057 Option or the ALRT Stock Purchase Option, it will be required to make a substantial cash payment or to issue shares of Common Stock, or both. Any cash payment would reduce Ligand's capital resources. The Company may not have sufficient capital resources to exercise the ALRT1057 Option or the ALRT Stock Purchase Option for cash, which will require the Company to issue shares of Common Stock to exercise either of such options. Any payment in shares of Common Stock would result in a decrease in the percentage ownership of the Company held by Ligand's stockholders at that time. The exercise of the ALRT1057 Option may result in, and the exercise of the ALRT Stock Purchase Option will likely require, the recording of a significant charge to the Company's earnings. Based on the current level of product development expenditures, ALRT has announced it could use substantially all of the funds available for research and development in late 1997 or early 1998, which would trigger the ALRT Stock Purchase Option.

In addition, continuation of development and commercialization of Oral and Topical Panretin (ALRT1057) and other products under development by ALRT may require substantial additional expenditures by Ligand. If Ligand does not exercise the ALRT1057 Option or ALRT Stock Purchase Option prior to expiration, the Company may lose valuable rights, including rights to Oral and Topical Panretin (ALRT1057) and other ALRT assets. Ligand and Allergan also have the option to provide funding for the development of ALRT products in certain circumstances. In the event that such funding is not provided and other funds available to ALRT are less than \$10.0 million, the contractual relationship among ALRT, Allergan and Ligand may be terminated by ALRT. In such an event, ALRT would retain its rights to the products currently under development by ALRT, which could have a material adverse effect on Ligand. As of the date of this filing, Ligand has no plans to provide additional funding to ALRT and has made no determination concerning the exercise of either the ALRT1057 Option or the ALRT Stock Purchase Option. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Strategic Alliances - Allergan, Inc."

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.

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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 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. 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 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 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

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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 Common Stock to date, and Ligand does not anticipate paying cash dividends in the foreseeable future.

EFFECT OF SHAREHOLDER RIGHTS PLAN AND CERTAIN ANTI-TAKEOVER PROVISIONS.

In September 1996, the Company's Board of Directors adopted a preferred shares rights plan (the "Shareholder Rights Plan") which provides for a dividend distribution of one preferred share purchase right (a "Right") on each outstanding share of the Common Stock. Each Right entitles stockholders to buy 1/1000th of a share of Ligand Series A Participating Preferred Stock at an exercise price of \$100, subject to adjustment. The Rights will become exercisable following the tenth day after a person or group announces acquisition of 20% or more of the 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 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. 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.

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ITEM 2. PROPERTIES

Ligand currently leases and occupies five facilities: three 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.

In Alameda, Glycomed leases two buildings totaling approximately 56,000 square feet, for laboratory and administrative office usage. The leases expire in October 1997 and contain 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 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 15 year lease, with a 5 year extension option, related to the build-to-suit facility.

ITEM 3. LEGAL PROCEEDINGS

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.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

There were no matters submitted to a vote of security holders in the fourth quarter ended December 31, 1996.

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PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS

(a) MARKET INFORMATION

The 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 Common Stock on the Nasdaq National Market for the periods indicated.

<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	15 11/16	11 1/4

</TABLE>

(b) HOLDERS

As of February 28, 1997, there were approximately 1,107 holders of record of the Common Stock.

(c) DIVIDENDS

The Company has never declared or paid any 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.

ITEM 6. 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, 1996 and 1995, are derived from the audited financial statements that have been examined by Ernst & Young LLP, independent auditors, which are included elsewhere in this filing and are qualified by reference to such financial statements. The statements of operations data for the years ended December 31, 1993 and 1992, and the balance sheet data at December 31, 1994, 1993 and 1992, are derived from audited financial statements not included in this filing. 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 filing.

<TABLE>
<CAPTION>

	YEARS ENDED DECEMBER 31,				
	1996	1995	1994	1993	1992
	(IN THOUSANDS, EXCEPT NET LOSS PER SHARE DATA)				
<S>	<C>	<C>	<C>	<C>	<C>
CONSOLIDATED STATEMENT OF OPERATIONS DATA:					
Revenues:					
Collaborative research and development					
Related parties	\$ 18,641	\$ 11,972	\$ 8,342	\$ 9,974	\$ 2,128
Unrelated parties	17,994	12,424	4,893	6,138	3,417
Other	207	120	74	150	338
Total revenues	36,842	24,516	13,309	16,262	5,883
Costs and expenses:					
Research and development	59,494	41,636	27,205	24,301	14,220
Selling, general and administrative ...	10,205	8,181	6,957	6,192	4,144
Write-off of acquired in-process technology	--	19,564	--	--	--
ALRT contribution	--	17,500	--	--	--
Total operating expenses ...	69,699	86,881	34,162	30,493	18,364
Loss from operations	(32,857)	(62,365)	(20,853)	(14,231)	(12,481)
Interest income	3,704	3,603	1,298	2,005	523
Interest expense	(8,160)	(5,410)	(679)	(353)	(325)
Equity in operations of Joint Venture	--	--	(6,845)	(6,879)	(1,724)
Net loss	\$ (37,313)	\$ (64,172)	\$ (27,079)	\$ (19,458)	\$ (14,007)
Net loss per share	\$ (1.30)	\$ (2.70)	\$ (1.57)	\$ (1.19)	\$ (3.96)
Shares used in computing net loss per share					
	28,780,914	23,791,542	17,240,535	16,356,656	3,537,494

</TABLE>

<TABLE>
<CAPTION>

DECEMBER 31,

	1996	1995	1994	1993	1992	

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

</TABLE>

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This annual report on Form 10-K may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed in Item 1 above at "Risks and Uncertainties." While this outlook represents management's current judgment on the future direction of the business, such risks and uncertainties could cause actual results to differ materially from any future performance suggested below. The Company undertakes no obligation to release publicly the results of any revisions to these forward-looking statements to reflect events or circumstances arising after the date hereof.

OVERVIEW

Since January 1989, the Company has devoted substantially all of its resources to its intracellular receptor and Signal Transducers and Activators of Transcription 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, 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 December 31, 1996, the Company's accumulated deficit was approximately \$177.6 million. In October 1996, the Company completed a public offering of 3,162,500 shares of common stock at \$12.00 per share, for net proceeds of approximately \$35.3 million.

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. Each outstanding share of Glycomed common stock was converted into 0.5301 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 approximately \$19.6 million. The results of operations of Glycomed are included in the Company's consolidated results of operations from the date of the Merger.

In December 1994, the Company and Allergan, Inc. ("Allergan") formed Allergan Ligand Retinoid Therapeutics, Inc. ("ALRT") to continue the research and development activities previously conducted by the Allergan Ligand Joint Venture (the "Joint Venture"). In June 1995, the Company and ALRT completed a public offering of 3,250,000 units (the "Units") with aggregate proceeds of \$32.5 million (the "ALRT Offering") and cash contributions by Allergan and the Company of \$50.0 million and \$17.5 million, respectively, providing for net proceeds of \$94.3 million for retinoid product research and development. Each Unit consisted of one share of ALRT's callable common stock and two warrants, each warrant entitling the holder to purchase one share of the common stock of the Company. Immediately prior to the consummation of the ALRT Offering on June

3, 1995, Allergan Pharmaceuticals (Ireland) Ltd., Inc. made a \$6.0 million investment in the Company's common stock. 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 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. For the years ended 1996 and 1995, \$2.1 million and \$1.3 million, respectively, of the revenue 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 (ALRT 1057) (the "ALRT 1057 Option") and an option to acquire all the outstanding shares of ALRT callable common stock (the "ALRT Stock Purchase Option").

RESULTS OF OPERATIONS

Year Ended December 31, 1996 ("1996"), Compared with 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 revenues from ALRT, milestone revenues from Pfizer Inc. ("Pfizer"), increased revenues under an expanded and amended research and development agreement entered into in January 1996 (which began in September 1994) with Wyeth-Ayerst Laboratories, the pharmaceutical division of American Home Products Corporation ("AHP"), and a full year effect of

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the collaborative research agreement with Sankyo Company, Ltd. ("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 Laboratories ("Abbott") of \$2.5 million, (v) SmithKline Beecham Corporation ("SmithKline Beecham") of \$2.4 million, (vi) Glaxo-Wellcome plc ("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 primarily due to expansion of the Company's clinical, development and 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 Glycomed's Convertible Subordinated Debentures ("Debentures"), accretion of debt discount under the Debentures and capital lease obligations used to finance equipment.

One-time charges of \$19.6 million and \$17.5 million were incurred in 1995 due to the Merger and the ALRT Offering, respectively.

Year Ended December 31, 1995 ("1995"), Compared with 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 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 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 December 1996, the Company has raised \$158.5 million from sales of equity securities: \$43.0 million from the Company's initial public offering in November 1992 (of which \$7.5 million was provided by the Company's collaborators), \$35.3 million from a secondary public offering of 3,162,500 shares of common stock at a price of \$12.00 per share in October 1996 and an aggregate of \$79.8 million from private placements (of which \$64.0 million was provided by the Company's collaborators, \$11.4

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million was provided through venture capital financing and \$4.4 million was provided by other investors and the exercise of options and warrants).

In July 1996 and again in January 1997, the Company elected to convert \$3.8 million of the convertible notes outstanding to AHP into 374,626 shares of the Company's Common Stock, for a total of 749,252 shares, at the \$10.01 conversion price. 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 from AHP, which the Company elected to receive in December 1996. In February 1997, a third installment equity investment of \$2.5 million was provided to the Company by SmithKline Beecham as a result of their election to expand the scope of research as defined.

As of December 31, 1996, the Company had acquired an aggregate of \$18.9 million in laboratory and office equipment, and \$3.8 million in tenant 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 20 year lease related to the construction of a new laboratory facility, which was completed and occupied in August 1995. 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 15 year lease, with a 5 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 10 year period. In February 1997, the Company signed a master lease agreement to finance future capital equipment up to \$1.5 million, and the Company intends to obtain additional financing for 1997 capital equipment.

Working capital increased to \$71.7 million as of December 31, 1996, from \$57.3 million at the end of 1995. The increase in working capital resulted from an increase in cash from the additional public offering completed in October 1996, collaborative research agreements and convertible notes from collaborators, offset by an increase in clinical, research development program expenses, the inclusion of the cost of Glycomed's operations for a full year in 1996, the related increase in selling, general and administrative expenses as described above, semi-annual interest payments due on the Debentures and interest paid on the convertible note. For the same reasons, cash and cash equivalents, short-term investments, and restricted cash increased to \$84.2 million at December 31, 1996 from \$76.9 million at December 31, 1995. 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 1998, assuming the Company does not exercise either the ALRT1057 Option or the ALRT Stock Purchase Option. Based on the current level of product development expenditures, ALRT could use substantially all of the funds available for research and development in late 1997 or early 1998, which would trigger the ALRT Stock Purchase Option. The Company has made no determination concerning the exercise of either the ALRT1057 Option or the ALRT Stock Purchase Option. 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.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The consolidated financial statements and supplementary data of the Company required by this item are set forth at the pages indicated in Item 14 (a)(1).

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

42 PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The sections labeled "Election of Directors", "Executive Officers" and "Section 16(a) Beneficial Ownership Reporting Compliance" appearing in the Company's Proxy Statement to be delivered to stockholders in connection with the 1997 Annual Meeting of Stockholders are incorporated herein by reference (the "Proxy Statement").

ITEM 11. EXECUTIVE COMPENSATION

The section labeled "Executive Compensation and Other Information" appearing in the Proxy Statement is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The sections labeled "Principal Stockholders" and "Security Ownership of Directors and Management" appearing in the Proxy Statement are incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The sections labeled "Executive Compensation and Other Information" and "Certain Relationships and Related Transactions" appearing in the Proxy Statement are incorporated herein by reference.

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PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

(a) (1) Financial Statements

The financial statements required by this item are submitted in a separate section beginning on Page F-1 of this report.

<TABLE>

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Consolidated Financial Statements of Ligand Pharmaceuticals Incorporated

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Report of Ernst & Young LLP, Independent Auditors F-1

Consolidated Balance Sheets at December 31, 1996 and 1995 F-2

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(b) Reports on Form 8-K.

There were no reports on Form 8-K filed by the Registrant during the fourth quarter of the fiscal year ended December 31, 1996.

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(c) Exhibits.

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.
- #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.
- +*10.28 Employment Agreement, dated October 4, 1991, between the Company and David E. Robinson, as amended by the First Amendment to Employment Agreement, dated October 5, 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).

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).

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Exhibit

No. Description

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- *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.
- +*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.

Exhibit No.	Description
&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.
&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) (Exhibited 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).
- 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).

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Exhibit
No.

Description

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- 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.
- 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.
- 10.150 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)
- +10.155 Letter Agreement, dated November 4, 1996, between the Company and William Pettit.
- +10.156 Letter Agreement, dated February 6, 1997, between the Company and Russell L. Allen.
- 10.157 Master Lease Agreement, signed February 13, 1997, between the Company and Lease Management Services.
- 10.158 Lease, dated March 7, 1997, between the Company and Nexus Equity VI LLC.
- 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.
- 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.
- 21.1 Subsidiaries of Registrant
- 23.1 Consent of Ernst & Young LLP, Independent Auditors.
- 24.1 Power of Attorney (See signature page)
- 27.1 Financial Data Schedule

- * 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.
- + Management contract or compensation plan or arrangement.
- % 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.
- (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.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

LIGAND PHARMACEUTICALS INCORPORATED

Date: 3/27/97 By: /s/ David E. Robinson

David E. Robinson, President and Chief Executive Officer

POWER OF ATTORNEY

Know all men by these presents, that each person whose signature appears below constitutes and appoints David E. Robinson or Paul V. Maier, his or her attorney-in-fact, with power of substitution in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that the attorney-in-fact or his or her substitute or substitutes may do or cause to be done by virtue hereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES EXCHANGE ACT OF 1934, THIS REPORT HAS BEEN SIGNED BELOW BY THE FOLLOWING PERSONS ON BEHALF OF THE REGISTRANT AND IN THE CAPACITIES AND ON THE DATES INDICATED.

Signature	Title	Date
-----	----	----
/s/ David E. Robinson ----- (David E. Robinson)	Chairman of the Board, President, Chief Executive Officer and Director (Principal Executive Officer)	3/27/97
/s/ Paul V. Maier ----- (Paul V. Maier)	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	3/27/97

/s/ Henry F. Blissenbach Director 3/27/97

(Henry F. Blissenbach)

/s/ Alexander D. Cross Director 3/27/97

(Alexander D. Cross)

/s/ John Groom Director 3/27/97

(John Groom)

/s/ Irving S. Johnson Director 3/27/97

(Irving S. Johnson)

/s/ William C. Shepherd Director 3/27/97

(William C. Shepherd)

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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, 1996 and 1995, 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, 1996 and 1995, 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>
<CAPTION>

	DECEMBER 31,	
	1996	1995
	<C>	<C>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 34,830	\$ 15,963
Short-term investments	45,822	54,182
Receivable from a related party	3,087	2,286
Other current assets	1,706	577
	-----	-----
Total current assets	85,445	73,008
Restricted short-term investments	3,527	6,759
Property and equipment, net	11,680	12,272
Notes receivable from officers and employees		534
Other assets	954	1,070
	-----	-----
	\$ 102,140	\$ 93,594
	=====	=====
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 4,137	\$ 3,940
Accrued liabilities	4,870	6,705
Deferred revenue	2,151	2,608
Current portion of obligations under capital leases		2,607
	-----	-----
Total current liabilities	13,765	15,659
Long-term obligations under capital leases		8,711
Convertible subordinated debentures		33,953
Convertible note	11,250	10,000
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, 31,799,617 shares and 27,800,597 shares issued at December 31, 1996 and 1995, respectively	32	28
Paid-in capital	214,887	173,452
Warrant subscription receivable	(2,453)	(4,524)
Adjustment for unrealized gains (losses) on available-for-sale securities	(78)	217
Accumulated deficit	(177,594)	(140,281)
Deferred compensation and consulting		(322)
	-----	-----
	34,472	28,073
Less treasury stock, at cost (1,114 shares and 4,986 shares in 1996 and 1995, respectively)		(11)
	-----	-----
Total stockholders' equity	34,461	28,071
	-----	-----
	\$ 102,140	\$ 93,594
	=====	=====

</TABLE>

See accompanying notes.

Consolidated Statements of Operations

(in thousands, except share data)

<TABLE>

<CAPTION>

	YEARS ENDED DECEMBER 31,		
	1996	1995	1994
<S>	<C>	<C>	<C>
Revenues:			
Collaborative research and development:			
Related parties	\$ 18,641	\$ 11,972	\$ 8,342
Unrelated parties	17,994	12,424	4,893
Other	207	120	74
	<u>36,842</u>	<u>24,516</u>	<u>13,309</u>
Costs and expenses:			
Research and development	59,494	41,636	27,205
Selling, general and administrative	10,205	8,181	6,957
Write-off of acquired in-process technology	--	19,564	--
ALRT contribution	--	--	17,500
	<u>69,699</u>	<u>86,881</u>	<u>34,162</u>
Loss from operations	(32,857)	(62,365)	(20,853)
Interest income	3,704	3,603	1,298
Interest expense	(8,160)	(5,410)	(679)
Equity in operations of joint venture	--	--	(6,845)
Net loss	<u>\$ (37,313)</u>	<u>\$ (64,172)</u>	<u>\$ (27,079)</u>
Net loss per share	<u>\$ (1.30)</u>	<u>\$ (2.70)</u>	<u>\$ (1.57)</u>
Shares used in computing loss per share	<u>28,780,914</u>	<u>23,791,542</u>	<u>17,240,535</u>

</TABLE>

See accompanying notes.

F-3

Ligand Pharmaceuticals Incorporated

Consolidated Statements of Stockholders' Equity

For the three years ended December 31, 1996

(in thousands, except share data)

<TABLE>

<CAPTION>

	Class A		Class B		Adjustment for unrealized gains			
	Shares	Amount	Shares	Amount	Paid-in capital	Subscription receivable	Warrant available for-sale securities	
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Balance at December 31, 1993	6,872,156	\$ 7	7,622,275	\$ 8	\$ 94,148	\$ --	\$ --	\$ --
Issuance of Common Stock	885,463	1	14,156	--	10,538	--	--	--

Amortization of deferred compensation and consulting fee	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
Balance at December 31, 1994	--	--	17,954,064	18	104,684	--	--	(727)
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 deferred compensation and consulting fees	--	--	--	--	--	--	--	--

</TABLE>

<TABLE>

<CAPTION>

	Class A		Class B		Adjustment for unrealized gains (losses) on			
	Common stock		Common stock		Paid-in	Warrant subscription	available for-sale securities	
	Shares	Amount	Shares	Amount				
	<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)

</TABLE>

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Ligand Pharmaceuticals Incorporated

Consolidated Statements of Stockholders' Equity

For the three years ended December 31, 1996

(in thousands, except share data)

<TABLE>
<CAPTION>

	Deferred compensation		Treasury stock		Total stockholders' equity	
	Accumulated deficit	and consulting fees	Shares	Amount		
<S>	<C>	<C>	<C>	<C>	<C>	
Balance at December 31, 1993		\$(49,030)	\$(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		--	--	--	--	
Conversion of Class A Common Stock to Class B Common Stock		--	(1,168)	(1)	(1)	
Net loss		(27,079)	--	--	(27,079)	
Balance at December 31, 1994		(76,109)	(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 deferred compensation and consulting fees		711	--	--	711	

</TABLE>

<TABLE>
<CAPTION>

	Deferred compensation		Treasury stock		Total stockholders' equity	
	Accumulated deficit	and consulting fees	Shares	Amount		
<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)	

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
	=====	=====	=====	=====	=====	=====

</TABLE>

F-5
Ligand Pharmaceuticals Incorporated
Consolidated Statements of Cash Flows
(in thousands)

<TABLE>
<CAPTION>

	YEARS ENDED DECEMBER 31,		
	1996	1995	1994
	-----	-----	-----
	<C>	<C>	<C>
OPERATING ACTIVITIES			
Net loss	\$(37,313)	\$(64,172)	\$(27,079)
Adjustments to reconcile net loss to net cash used by operating activities:			
Depreciation and amortization	3,879	2,687	1,536
Equity in operations of joint venture	--	--	6,845
Amortization of notes receivable from officers and employees	235	339	265
Amortization of warrant subscription receivable	2,071	1,326	--
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	497	711	669
Accretion of debt discount	2,674	1,654	--
Company stock received for milestone revenue	--	(1,320)	--
Change in operating assets and liabilities, net of Glycomed merger:			
Other current assets	(1,129)	1,626	(905)
Receivable from a related party	(801)	(1,128)	1,432
Accounts payable and accrued liabilities	(1,638)	380	2,020
Deferred revenue	(457)	465	666
	-----	-----	-----
Net cash used in operating activities	(33,302)	(36,548)	(14,309)
INVESTING ACTIVITIES			
Purchases of short-term investments	(53,123)	(17,684)	(18,336)
Proceeds from short-term investments	61,188	37,205	27,546
Purchase of property and equipment	(399)	(175)	(587)
Increase in note receivable from officers and employees	--	(350)	(135)
Payment of notes receivable from officers and employees	66	--	--
Increases in deposits and other assets	(2)	(33)	(540)
Decreases in deposits and other assets	118	60	125
Investment in joint venture	--	(822)	(7,125)
Net cash acquired in Glycomed acquisition	--	10,225	--
	-----	-----	-----
Net cash provided by investing activities	7,498	28,641	1,063
FINANCING ACTIVITIES			
Principal payments on obligations under capital leases	(2,561)	(1,448)	(1,064)
Net change in restricted short-term investment	3,232	(2,043)	--
Net proceeds from the issuance of convertible note	5,000	--	10,000
Net proceeds from sale of common stock	39,000	19,733	10,296
	-----	-----	-----
Net cash provided by financing activities	44,671	16,242	19,232
	-----	-----	-----
Net increase in cash and cash equivalents	18,867	8,335	5,986

Cash and cash equivalents at beginning of period	15,963	7,628	1,642
	-----	-----	-----
Cash and cash equivalents at end of period	\$ 34,830	\$ 15,963	\$ 7,628
	=====	=====	=====

SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:

Interest paid	\$ 5,559	\$ 3,178	\$ 421
---------------	----------	----------	--------

SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND

FINANCING ACTIVITIES:

Additions to obligations under capital leases	\$ 2,888	\$ 8,415	\$ 1,162
Warrant subscription receivable issued with ALRT offering	\$ --	\$ 5,850	\$ --
Conversion of note to common stock	\$ 3,750	\$ --	\$ --
Retirement of treasury stock	\$ 1,320	\$ --	\$ --

</TABLE>

See accompanying notes.

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements

December 31, 1996

1. THE COMPANY

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.

Notes to Consolidated Financial Statements(continued)

December 31, 1996

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.

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.

Notes to Consolidated Financial Statements(continued)

December 31, 1996

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

For the years ended December 31, 1996, 1995 and 1994, costs and expenses related to collaborative research and development agreements were \$36.6 million, \$24.4 million and \$13.2 million, respectively.

Property and Equipment

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

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1996	1995
	-----	-----
	<C>	<C>
Equipment and leasehold improvements	\$ 22,674	\$ 19,387
Less accumulated depreciation and amortization	(10,994)	(7,115)
	-----	-----
Net property and equipment	\$ 11,680	\$ 12,272
	=====	=====

</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).

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

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, 1996 and 1995, 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, 1996			
COST	GROSS UNREALIZED		ESTIMATED FAIR VALUE
	GAINS (LOSSES)		
<C>	<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>

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

3. INVESTMENTS (CONTINUED)

<TABLE>
<CAPTION>

DECEMBER 31, 1995			
COST	GROSS UNREALIZED		ESTIMATED FAIR VALUE
	GAINS (LOSSES)		
<C>	<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>

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

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

</TABLE>

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

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
	=====

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):

Revenues	\$ 25,711
Net loss	(51,690)

Loss per share
</TABLE>

\$ (1.96)

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

5. ACCRUED LIABILITIES

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

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1996	1995
	-----	-----
<S>	<C>	<C>
Accrued legal	\$ 463	\$1,463
Accrued interest	2,116	2,292
Accrued compensation	925	1,100
Other	1,366	1,850
	-----	-----
	\$4,870	\$6,705
	=====	=====

</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, 1996 and 1995, accumulated amortization was \$9.7 million and \$6.9 million, respectively.

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

7. COMMITMENTS (CONTINUED)

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, 1996, 1995 and 1994 was \$3.1 million, \$2.5 million and \$1.7 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
		=====
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, 1996, 1995 and 1994 were \$261,000, \$195,000 and \$160,000, 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, the Company had outstanding warrants to purchase 6,635,965 shares of the Company's Common Stock, of which 6,500,000 warrants relate to the ALRT transaction (see Note 9). The 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 1996 inclusive, this Plan was amended to increase the aggregate shares available for grant or issuance to 6,428,457 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. The Company's employee stock purchase plan also provides for the sale of up to 166,500 shares of the Company's Common Stock.

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

8. STOCKHOLDERS' EQUITY (CONTINUED)

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>

<CAPTION>

	1996	1995
	----	----
<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>

<CAPTION>

	1996	1995
	-----	-----
<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.

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

8. STOCKHOLDERS' EQUITY (CONTINUED)

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

<TABLE>

<CAPTION>

<S>	SHARES	WEIGHTED AVERAGE		EXERCISE PRICE
		PRICE RANGE	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
<hr/>			
Balance at December 31, 1996	3,796,882	\$.68 - \$16.38	\$9.55
<hr/>			
Options exercisable at December 31, 1996	2,038,930	\$.68 - \$16.38	
<hr/>			

</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	WEIGHTED AVERAGE REMAINING LIFE IN OUTSTANDING	WEIGHTED AVERAGE YEARS	WEIGHTED AVERAGE EXERCISE PRICE
<hr/>	<hr/>	<hr/>	<hr/>	
<S>	<C>	<C>	<C>	
Glycomed Plan:				
\$.68 - \$.79	19,846	3.21	\$0.73	
\$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	
	<hr/>	<hr/>	<hr/>	
	3,796,882		\$9.55	
	<hr/>	<hr/>	<hr/>	

</TABLE>

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

8. STOCKHOLDERS' EQUITY (CONTINUED)

At December 31, 1996, 447,589 shares 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, 1996, 1995 and 1994 was \$497,000, \$711,000 and \$669,000, 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, 1996 and 1995 was \$2.4 million and \$2.1 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 in the Company's Common Stock at the inception of the agreement. In November 1995, a second equity investment of \$2.5 million in the

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

9. COLLABORATIVE RESEARCH AGREEMENTS (CONTINUED)

Company's Common Stock 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 by SmithKline Beecham in January 1997. The final installment of \$2.5 million will be provided at SmithKline Beecham's option as a convertible note or an equity investment if SmithKline Beecham elects to further expand the scope of research as defined.

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 purchase \$5.0 million of the Company's Common Stock, 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, 1996, 1995 and 1994 was \$6.9 million, \$4.0 million and \$1.7 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 July 1996 and again in January 1997, the Company elected to convert \$3.8 million of the convertible

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

9. COLLABORATIVE RESEARCH AGREEMENTS (CONTINUED)

notes outstanding into 374,626 shares of Common Stock, for a total of 749,252 shares, 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, 1996, 1995 and 1994 revenues were \$2.5 million, \$2.6 million and \$1.2 million, respectively. Abbott made an equity investment of \$5.0 million by purchasing shares of the Company's Common Stock at the inception of the agreement, and in August 1995 Abbott made another equity investment of \$5.0 million in the Company's Common Stock, 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 \$8.0 million. Revenues under the agreement are recognized ratably over the term of the agreement. The revenue recognized under the agreement in 1996 and since the date of Merger through December 31, 1995 was \$2.7 million and \$1.7 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

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

9. COLLABORATIVE RESEARCH AGREEMENTS (CONTINUED)

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 \$1.5 million of the Company's Common Stock.

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, 1996, 1995 and 1994 was \$2.1 million, \$2.1 million and \$2.0 million, respectively. 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.

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 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 in the Company's Common Stock. 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

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

9. COLLABORATIVE RESEARCH AGREEMENTS (CONTINUED)

of \$5.9 million (6,500,000 warrants valued at \$.90 per warrant) pursuant to the ALRT Offering. Since June 3, 1995, cash received from ALRT pursuant to a Research and Development Agreement was prorated between contract revenue and the warrant subscription receivable based on their respective values. In 1996 and 1995, \$2.1 million and \$1.3 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 \$7.5 million of the Company's Common Stock.

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,

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

9. COLLABORATIVE RESEARCH AGREEMENTS (CONTINUED)

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

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Ligand Pharmaceuticals Incorporated

Notes to Consolidated Financial Statements(continued)

December 31, 1996

12. INCOME TAXES (CONTINUED)

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

<TABLE>

<CAPTION>

	1996	1995
	-----	-----
	(in thousands)	
<S>	<C>	<C>
Deferred tax liability:		
Acquired subordinated debt	\$ 6,579	\$ 7,676
Deferred tax assets:		
Net operating loss carryforwards	62,615	53,191
Research and development credits	8,260	5,284
Capitalized research and development	8,655	7,556
Other - net	5,100	3,651
	-----	-----
Total deferred tax assets	84,630	69,682
Valuation allowance for deferred tax assets	(78,051)	(62,006)
	-----	-----
Net deferred tax assets	6,579	7,676
	-----	-----
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.

EXHIBIT 10.150

[USL CAPITAL LOGO] MASTER LEASE AGREEMENT [FORD FINANCIAL LOGO]

<TABLE>

<S>

<C>

LESSOR: USL CAPITAL CORPORATION	LESSEE: Ligand Pharmaceuticals, Inc.
ADDRESS: 733 Front Street	ADDRESS: 9360 Towne Center Drive
San Francisco, California 94111	San Diego, CA 92121

</TABLE>

TERMS AND CONDITIONS OF LEASE

The undersigned Lessee hereby requests Lessor to purchase the personal property described in any Equipment Schedule hereunder (herein called "Equipment") from supplier listed in any Equipment Schedule hereunder (herein called "Vendor" and/or "Manufacturer", as applicable) and to lease the Equipment to Lessee on the terms and conditions of the lease set forth below.

Lessor hereby leases to Lessee, and Lessee hereby leases from Lessor, the Equipment upon the following terms and conditions:

1. NO WARRANTIES BY LESSOR. Lessee has selected the Equipment and may have entered into certain purchase, licensing, or maintenance agreements with the Vendor and/or Manufacturer (herein referred to as an "Acquisition Agreement") covering the Equipment as further described in Paragraph 26 hereof. If Lessee has entered into any Acquisition Agreement, each agreement shall provide for certain rights and obligations of the parties thereto with respect to the Equipment, and Lessee shall perform all of the obligations set forth in each Acquisition Agreement as if this lease did not exist. LESSOR MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING THE CONDITION OF THE EQUIPMENT, ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE, AND, AS TO LESSOR, LESSEE LEASES THE EQUIPMENT "AS IS." LESSOR SHALL HAVE NO LIABILITY FOR ANY LOSS, DAMAGE OR EXPENSE OF ANY KIND WHATSOEVER RELATING THERETO, INCLUDING WITHOUT LIMITATION ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER.

2. CLAIMS AGAINST VENDOR AND/OR MANUFACTURER. If the Equipment is not properly installed, does not operate as represented or warranted by Vendor and/or Manufacturer, or is unsatisfactory for any reason, Lessee shall make any claim on account thereof solely against Vendor and/or Manufacturer pursuant to the Acquisition Agreement, if any, and shall, nevertheless, pay Lessor all rent payable under this lease. All warranties from Vendor and/or Manufacturer are, to the extent they are assignable, hereby assigned to Lessee for the term of the lease or until an Event of Default occurs hereunder, for Lessee's exercise at Lessee's expense. Lessee may directly inquire with Vendor and/or Manufacturer to receive an accurate and complete statement of such warranties, including any disclaimers or limitations of such warranties or of any remedies with respect thereto.

3. VENDOR NOT AN AGENT. Lessee understands and agrees that neither Vendor, nor any sales representative or other agent of Vendor, is an agent of Lessor. Sales representatives or agents of Vendor, and persons that are not employed by Lessor (including brokers and agents) are not authorized to waive or alter any term or condition of this lease, and no representation as to the Equipment or any other matter by Vendor or any other person that is not employed by Lessor (including brokers and agents) shall in any way affect Lessee's duty to pay the rent and perform its other obligations as set forth in this lease.

4. NON-CANCELLABLE LEASE. This lease and any Equipment Schedule hereto cannot be cancelled or terminated except as expressly provided herein. Lessee agrees that its obligation to pay all rent and other sums payable hereunder and the rights of Lessor in and to such rent are absolute and unconditional and are not subject to any abatement, reduction, setoff, defense, counterclaim or recoupment due or alleged to be due to, or by reason of, any past, present or future claims which Lessee may have against Lessor, any assignee, any Manufacturer or Vendor, or against any person for any reason whatsoever.

5. ORDERING EQUIPMENT, Lessee shall arrange for delivery of the Equipment so that it can be accepted in accordance with Paragraph 6 hereof within 90 days after the date on which Lessor accepts Lessee's offer to enter into this lease with respect to any Equipment Schedule or by such other date as may be set forth in an Equipment Schedule or Commitment Letter issued by Lessor as the Commitment Expiration Date. Unless otherwise specified on the Equipment Schedule, Lessee

shall be responsible for all transportation, packing, installation, testing and other charges in connection with the delivery, installation and use of the Equipment. Lessee hereby authorizes Lessor to insert in any Equipment Schedule hereunder the serial numbers and other identification data of Equipment when determined by Lessor.

6. ACCEPTANCE. Lessee acknowledges that for purposes of receiving or accepting the Equipment from Vendor, Lessee is acting on Lessor's behalf. Upon delivery of the Equipment to Lessee and Lessee's inspection thereof, Lessee shall furnish Lessor a written statement (a) acknowledging receipt of the Equipment in good condition and repair and (b) accepting it as satisfactory in all respects for the purposes of this lease (the "Certificate of Acceptance"). The date of receipt and acceptance of the Equipment covered by an Equipment Schedule (or any later date that Lessor chooses) shall be the Rent Commencement Date therefor. Lessor is authorized to fill in on any Equipment Schedule hereunder the Rent Commencement Date in accordance with the foregoing.

7. TERMINATION BY LESSOR. If, by the Commitment Expiration Date, the Equipment described in any Equipment Schedule has not been delivered to Lessee and accepted by Lessee as provided in Paragraph 6 hereof, or if other conditions of Lessor's Commitment Letter, if any, have not been met, then Lessor may, at its option, terminate this lease and its obligations hereunder with respect to such Equipment Schedule at any time after the expiration of such 90 days or any date after the Commitment Expiration Date, as applicable. Lessor shall give Lessee written notice whether or not it elects to exercise such option within 10 days after Lessor's receipt of Lessee's written request for such notice.

8. TERM. The term of this lease commences upon the Rent Commencement Date, as provided in Paragraph 9 below. The term shall continue until all of Lessee's obligations are fulfilled hereunder. The Initial Term with respect to any Equipment Schedule begins on the Rent Commencement Date for such Equipment Schedule (as defined in Paragraph 6) and expires after the later of (i) the number of periods for which the rent payments are due, or (ii) the date Lessee fulfills all Lessee's obligations hereunder.

9. RENTAL. Lessee shall pay the rent payments as stated on each Equipment Schedule, the first of which shall be due on the Rent Commencement Date for said Equipment Schedule, and subsequent payments shall be due on the same day of each calendar period as indicated on the Equipment Schedule for the balance of the Initial Term. Rent payments shall be due whether or not Lessee has received any notice that such payments are due. All rent payments shall be paid to Lessor at its address set forth on the Equipment Schedule or as otherwise directed by Lessor in writing.

10. RENEWAL. If no default shall have occurred and be continuing, Lessee shall be entitled to renew the lease with respect to all, but not less than all, of the Equipment covered by an Equipment Schedule for a minimum 12 month period at an amount equal to the fair market rental value thereof, in use and operational, in the condition required by the lease, payable on a periodic basis, as mutually agreed by Lessor and Lessee ("Renewal Rent"). Lessee must give Lessor written notice of its intention to exercise said option, which notice must be received by Lessor at least 90 days before expiration of the Initial Term. The first installment of the Renewal Rent shall be due at expiration of the Initial Term of the lease. Should Lessee fail to comply with the provisions described above covering Renewal, upon expiration of the Initial Term, the term of the lease shall be automatically extended for a term of 3 months. Thereafter, the term of the lease will be extended for subsequent full month periods, on a month to month basis, until Lessee has given at least 90 days written notice terminating the lease. Such termination will take effect upon completion of all Lessee's obligations under the lease (including payment of all periodic rental payments due during such 90 day period, as provided in Paragraph 9 of the lease). At any time after the expiration of the Initial Term, if the lease has been automatically extended as set forth herein, Lessor reserves the right to terminate the lease by 30 days written notice to Lessee.

11. LOCATION; INSPECTION; LABELS. The Equipment shall be delivered to and shall not be removed without Lessor's prior written consent from the "Equipment Location" shown on the related Equipment Schedule, or if none is specified, Lessee's billing address shown on the Equipment Schedule. Lessor shall have the right to inspect the Equipment at any reasonable time. If Lessor supplies Lessee with labels stating that the Equipment is owned by Lessor. Lessee shall affix such labels to and keep them in a prominent place on the Equipment.

12. REPAIRS; USE; ALTERATIONS. Lessee, at its own cost and expense, shall keep the Equipment in good repair and working order, in the same condition as when

delivered to Lessee, reasonable wear and tear excepted, and in accordance with the manufacturer's recommended specifications; shall use the Equipment lawfully; shall not alter the Equipment without Lessor's prior written consent; shall use the Equipment in compliance with any existing Manufacturer's service and warranty requirements and any insurance policies applicable to the Equipment and shall furnish all parts and servicing required therefor. All parts, repairs, additions, alterations and attachments placed on or incorporated into the Equipment which cannot be removed without damage to the Equipment shall immediately become part of the Equipment and shall be the property of the Lessor. Lessee will obtain and maintain all permits, licenses and registrations necessary to lawfully operate the facility where the Equipment is located. Lessee shall comply with all applicable environmental and industrial hygiene laws, rules and regulations (including but not limited to federal, state, and local environmental protection, occupational, health and safety or similar laws, ordinances and restrictions). Lessee shall, not later than 5 days after the occurrence of any event, provide Lessor with copies of any report of such event that is required to be filed with governmental agencies regulating environmental claims. Lessee shall immediately notify Lessor in writing of any existing, pending or threatened investigation, inquiry, claim or action by any governmental authority in connection with any law, rule or regulation relating to industrial hygiene or environmental conditions that could affect the Equipment.

13. MAINTENANCE. If the Equipment is such that Lessee is not normally capable of maintaining it, Lessee, at its expense, shall enter into and maintain in full force and effect throughout the Initial Term, and any renewal term, Vendor and/or Manufacturer's standard maintenance contract, and shall comply with all its obligations thereunder. An alternate source of maintenance may be used with Lessor's prior written consent. Such consent shall be granted if, in Lessor's reasonable opinion, the Equipment will be maintained in an equivalent state of good repair, condition and working order.

14. SURRENDER. Provided that Lessee does not exercise the purchase option as set forth in Paragraph 28 hereof, upon the expiration of the Initial Term, or any renewal term, or upon demand by Lessor made pursuant to Paragraph 22 of the lease, Lessee, at its expense, shall return all, but not less than all, of the Equipment by delivering it to such place or on board such carrier, packed for shipping, as Lessor may specify. Lessee agrees that the Equipment, when returned, shall be in the same condition as when delivered to Lessee, reasonable wear and tear excepted, and in a condition which will permit Lessor to be eligible for Manufacturer's standard maintenance contract without incurring any expense to repair or rehabilitate such Equipment. Lessee shall be liable for reasonable and necessary expenses to place the Equipment in such condition. Lessee shall remain liable for the condition of the Equipment until it is received and accepted at the destination designated by Lessor as set forth above. If any items of Equipment are missing or damaged when returned, such occurrence shall be treated as an event of Loss or Damage with respect to such missing or damaged items and shall be subject to the terms specified in Paragraph 15 below. Lessee shall provide Lessor with a Letter of Maintainability from the Manufacturer of the Equipment, which letter shall state that the Equipment will be eligible for the Manufacturer's standard maintenance contract when sold or leased to a third party. Lessee shall give Lessor prior written notice that it is returning the Equipment as provided above, and such notice must be received by Lessor at least 90 days prior to such return. Should Lessee fail to comply with the provisions described above covering surrender, upon expiration of the Initial Term, the term of the lease shall be automatically extended for a term of 3 months. Thereafter, the term of the lease will be extended for subsequent full month periods, on a month to month basis, until Lessee has given at least 90 days written notice terminating the lease. Such termination will take effect upon completion of all Lessee's obligations under the lease (including payment of all periodic rental payments due during such 90 day period, as provided in Paragraph 9 of the lease).

15. LOSS OR DAMAGE. Lessee shall bear the entire risk of loss, theft, destruction of or damage to the Equipment or any item thereof (herein "Loss or Damage") from any cause whatsoever. No Loss or Damage shall relieve Lessee of the obligation to pay rent or of any other obligation under this lease. In the event of Loss or Damage, Lessee, at the option of Lessor, shall: (a) place the same in good condition and repair; (b) replace the same with like equipment acceptable to Lessor in good condition and repair with clear title thereto in Lessor; or (c) pay to Lessor the total of the following amounts: (i) the total rent and other amounts due and owing at the time of such payment, plus (ii) an amount calculated by Lessor which is the present value at 5% per annum simple interest discount of all rent and other amounts payable by Lessee with respect to said item from date of such payment to date of expiration of its Initial

Term, plus (iii) the "reversionary value" of the Equipment, which shall be determined by Lessor as the total cost of the Equipment less 60% of the total rent (net of sales/use taxes, if any) required to be paid pursuant to Paragraph 9. Upon Lessor's receipt of such payment, Lessee and/or Lessee's insurer shall be entitled to Lessor's interest in said item, for salvage purposes, in its then condition and location, "as-is", without any warranty, express or implied.

16. **INSURANCE.** Lessee shall provide, maintain and pay for (a) all risk property insurance against the loss or theft of or damage to the Equipment, for the full replacement value thereof, naming Lessor as a loss payee, and (b) commercial general liability insurance (and if Lessee is a doctor, hospital or other health care provider, medical malpractice insurance). All such policies shall name Lessor as an additional insured and shall have combined single limits in amounts acceptable to Lessor. All such insurance policies shall be endorsed to be primary and non-contributory to any policies maintained by Lessor. In addition, Lessee shall cause Lessor to be named as an additional insured on any excess or umbrella policies purchased by Lessee. A copy of each paid-up policy evidencing such insurance (appropriately authenticated by the insurer) or a certificate of the insurer providing such coverage proving that such policies have been issued, providing the coverage required hereunder shall be delivered to Lessor prior to the Rent Commencement Date. All insurance shall be placed with companies satisfactory to Lessor and shall contain the insurer's agreement to give 30 days written notice to Lessor before cancellation or any material change of any policy of insurance.

17. **TAXES.** Lessee shall reimburse to Lessor (or pay directly if, but only if, instructed by Lessor) all charges and taxes (local, state and federal) which may now or hereafter be imposed or levied upon the sale, purchase, ownership, leasing, possession or use of the Equipment, excluding, however, all income taxes levied on (a) any rental payments made to Lessor hereunder, (b) any payment made to Lessor in connection with Loss or Damage to the Equipment under Paragraph 15 hereof, or (c) any payment made to Lessor in connection with Lessee's exercise of its purchase option under Paragraph 28 hereof.

18. **LESSOR'S PAYMENT.** If Lessee fails to provide or maintain said insurance, to pay said taxes, charges and fees, or to discharge any levies, liens and encumbrances created by Lessee, Lessor shall have the right, but shall not be obligated, to obtain such insurance, pay such taxes, charges and fees, or effect such discharge. In that event, Lessee shall remit to Lessor the cost thereof with the next rent payment.

19. **INDEMNITY.** (a) **GENERAL INDEMNITY.** Lessee shall indemnify Lessor against and hold Lessor harmless from any and all claims, actions, damages, costs, expenses including reasonable attorneys' fees, obligations, liabilities and liens (including any of the foregoing arising or imposed under the doctrines of "strict liability" or "product liability" and including without limitation the cost of any fines, remedial action, damage to the environment and cleanup and the fees and costs of consultants and experts), arising out of the manufacture, purchase, lease, ownership, possession, operation, condition, return or use of the Equipment, or by operation of law, excluding however, any of the foregoing resulting from the sole negligence or willful misconduct of Lessor. Lessee agrees that upon written notice by Lessor of the assertion of such a claim, action, damage, obligation, liability or lien, Lessee shall assume full responsibility for the defense thereof. Lessee's choice of counsel shall be mutually acceptable to both Lessee and Lessor. This indemnity also extends to any environmental claims arising out of or relating to prior acts or omissions of any party whatsoever. The provisions of this paragraph shall survive termination of this lease with respect to events occurring prior to such termination. (b) **TAX INDEMNITY.** Lessee acknowledges that Lessor shall be entitled to all tax benefits of ownership with respect to the Equipment (the "Tax Benefits"), including but not limited to, (i) the accelerated cost recovery deductions determined in accordance with Section 168(b)(1) of the Internal Revenue Code of 1986 for the Equipment based on the original cost of the Equipment to Lessor (ii) deductions for interest on any indebtedness incurred by Lessor to finance the Equipment and (iii) sourcing of income and losses attributable to this lease to the United States. Lessee represents that the Equipment shall be depreciable for Federal tax purposes utilizing the MACRS Recovery Period as set forth in the Equipment Schedule, with such depreciation commencing as of the date of Equipment acceptance by Lessee as set forth on the Certificate of Acceptance. Lessee agrees to take no action inconsistent with the foregoing or any action which would result in the loss, disallowance or unavailability to Lessor of all or any part of the Tax Benefits. Lessee hereby indemnifies and holds harmless Lessor and its assigns from and against (i) the loss, disallowance, unavailability or recapture of all or any part of the Tax Benefits

resulting from any action, statement, misrepresentation or breach of warranty or covenant by Lessee of any nature whatsoever including but not limited to the breach of any representations, warranties or covenants contained in this paragraph, plus (ii) all interest, penalties, fines or additions to tax resulting from such loss, disallowance, unavailability or recapture, plus (iii) all taxes required to be paid by Lessor upon receipt of the indemnity set forth in this paragraph. Any payments made by Lessee to reimburse Lessor for lost Tax Benefits shall be calculated (i) on the assumption that Lessor is subject to the maximum Federal Corporate Income Tax with respect to each year and that all Tax Benefits are currently utilized, and (ii) without regard to whether Lessor or any members of a consolidated group of which Lessor is also a member is then subject to any increase in tax as a result of the loss of Tax Benefits. For the purposes of this paragraph, "Lessor" includes for all tax purposes the consolidated taxpayer group of which Lessor is a part. (c) PAYMENT. The amounts payable pursuant to this Paragraph 19 shall be payable upon demand of Lessor, accompanied by a statement describing in reasonable detail such claim, action, damage, cost, expense, fee, obligation, liability, lien or tax and setting forth the computation of the amount so payable, which computation shall be binding and conclusive upon Lessee, absent manifest error. The indemnities and assumptions of liabilities and obligations contained in this Paragraph 19 shall continue in full force and effect notwithstanding the expiration or other termination of this Lease.

20. ASSIGNMENT. Without Lessor's prior written consent, Lessee shall not assign, transfer, pledge, hypothecate or otherwise dispose of this lease, the Equipment, or any interest therein. Lessee's interest in this lease may not be assigned or transferred by operation of law without Lessor's prior written consent, which will not be unreasonably withheld. Without Lessor's prior written consent, Lessee shall not sublet or lend the Equipment or permit it to be used by anyone other than Lessee or Lessee's employees. Lessor may assign this lease in whole or in part without notice to Lessee. If Lessee is given notice of such assignment it agrees to acknowledge receipt thereof in writing. Each such assignee shall have all of the rights, but none of the obligations, of Lessor under this lease. Lessee shall not assert against assignee any defense, counterclaim or offset that Lessee may have against Lessor. Notwithstanding any such assignment, Lessor warrants that Lessee shall quietly enjoy use of the Equipment subject to the terms and conditions of this lease so long as Lessee is not in default hereunder. Subject to the foregoing, this lease inures to the benefit of and is binding upon the successors and assigns of the parties hereto.

21. DELINQUENT PAYMENTS. (a) Service Charge. Since it would be impractical or extremely difficult to fix Lessor's actual damages for collecting and accounting for a late payment, if any payment to Lessor required herein (including, but not limited to, rental, renewal, tax, purchase and other amounts) is not paid on or before its due date, Lessee shall pay to Lessor an amount equal to 5% of any such late payment. (b) Interest. Lessee shall also pay interest on any such late payment from the due date thereof until the date paid at the lesser of 18% per annum or the maximum rate allowed by law

22. DEFAULT; REMEDIES. Any of the following shall constitute an Event of Default: If a) Lessee fails to pay when due any rent or other amount required herein to be paid by Lessee, or b) Lessee makes an assignment for the benefit of creditors, whether voluntary or involuntary, or c) a petition is filed by or against Lessee under any bankruptcy, insolvency or similar legislation, or d) Lessee violates or fails to perform any provision of either this lease or any Acquisition Agreement, or violates or fails to perform any covenant or representation made by Lessee herein, or e) Lessee makes a bulk transfer of furniture, furnishings, fixtures or other equipment or inventory, or f) Lessee ceases doing business as a going concern or there is a change in the legal structure of ownership of Lessee, or a consolidation or merger of Lessee into or with another entity, which results, in the opinion of Lessor, in a material adverse change in Lessee's ability to perform its obligations under the lease, or g) any representation or warranty made by Lessee in this lease or in any other document or agreement furnished by Lessee to Lessor shall prove to have been false or misleading in any material respect when made or when deemed to have been made. An Event of Default with respect to any Equipment Schedule shall constitute an Event of Default for all Equipment Schedules. Lessee shall promptly notify Lessor of the occurrence of any Event of Default.

If an Event of Default occurs, Lessor shall have the right to exercise any one or more of the following remedies in order to protect the interests and reasonably expected profits and bargains of Lessor: a) Lessor may terminate this lease with respect to all or any part of the Equipment, b) Lessor may recover from Lessee all rent and other amounts then due and as they shall thereafter become due hereunder, c) Lessor may take possession of any or all items of

Equipment, wherever the same may be located, without demand or notice, without any court order or other process of law and without liability to Lessee for any damages occasioned by such taking of possession, and any such taking of possession shall not constitute a termination of this lease, d) Lessor may recover from Lessee, with respect to any and all items of Equipment, and with or without repossessing the Equipment the sum of (1) the total amount due and owing to Lessor at the time of such default, plus (2) an amount calculated by Lessor which is the present value at 5% per annum simple interest discount of all rent and other amounts payable by Lessee with respect to said item(s) from date of such payment to date of expiration of its Initial Term, plus (3) the "reversionary value" of the Equipment, which shall be determined by Lessor as the total cost of the Equipment less 60% of the total rent (net of sales/use taxes, if any) required to be paid pursuant to Paragraph 9; and which the parties agree is a reasonable estimate of such value; and upon the payment of all amounts described in clauses (1), (2) and (3) above, Lessee will become entitled to the Equipment AS IS, WHERE IS, without warranty whatsoever; provided, however, that if Lessor has repossessed or accepted the surrender of the Equipment, Lessor shall sell, lease or otherwise dispose of the Equipment in a commercially reasonable manner, with or without notice and on public or private bid, and apply the net proceeds thereof (after deducting all expenses, including attorneys' fees incurred in connection therewith), to the sum of (1), (2) and (3) above, and e) Lessor may pursue any other remedy available at law or in equity, including but not limited to seeking damages or specific performance and/or obtaining an injunction.

No right or remedy herein conferred upon or reserved to Lessor is exclusive of any right or remedy herein or by law or equity provided or permitted; but each shall be cumulative of every other right or remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise, and may be enforced concurrently therewith or from time to time, but Lessor shall not be entitled to recover a greater amount in damages than Lessor could have gained by receipt of Lessee's full, timely and complete performance of its obligations pursuant to the terms of this lease plus accrued delinquent payments under Paragraph 21.

23. LESSOR'S EXPENSE. Lessee shall pay Lessor all costs and expenses, including reasonable attorneys' fees and the fees of collection agencies, incurred by Lessor in enforcing any of the terms, conditions, or provisions hereof or in protecting Lessor's rights herein. Lessee's obligation hereunder includes all such costs and expenses expended by Lessor (a) prior to filing of an action, (b) in connection with an action which is dismissed, and (c) in the enforcement of any judgment. Lessee's obligation to pay Lessor's attorneys' fees incurred in enforcing any judgment is a separate obligation of Lessee, severable from Lessee's other obligations hereunder, which obligation will survive such judgment and will not be deemed to have been merged into such judgment.

24. OWNERSHIP; PERSONAL PROPERTY. The Equipment shall at all times remain the property of Lessor and Lessee shall have no right, title or interest therein or thereto except as expressly set forth in this lease and the Equipment shall at all times be and remain personal property notwithstanding that the Equipment or any part thereof may now be, or hereafter become, in any manner, affixed or attached to real property or any improvements thereon.

25. NOTICES. Service of all notices under this lease shall be sufficient if given personally or mailed to the respective party at its address set forth on any Equipment Schedule, or at such address as either party may provide in writing from time to time. Any such notice mailed to said address shall be effective when deposited in the United States mail, duly addressed and with postage prepaid.

26. ACQUISITION AGREEMENTS. If the Equipment is subject to any Acquisition Agreement, Lessee, as part of this lease, transfers and assigns to Lessor all of its rights, but none of its obligations (except for Lessee's obligation to pay for the Equipment conditioned upon Lessee's acceptance in accordance with Paragraph 6), in and to the Acquisition Agreement, including but not limited to the right to take title to the Equipment. Lessee shall indemnify and hold Lessor harmless in accordance with Paragraph 19 from any liability resulting from any Acquisition Agreement as well as liabilities resulting from any Acquisition Agreement Lessor is required to enter into on behalf of Lessee or with Lessee for purposes of this lease.

27. UPGRADES. Any existing lease between Lessor and Lessee subject to an "upgrade" program shall continue in full force and effect and shall be kept free of default by Lessee (even if the equipment covered by the existing lease is sold, traded-in, etc.) until any such existing lease is cancelled by Lessor

when, if applicable, the new Equipment is accepted by Lessee for all purposes of this lease.

28. PURCHASE OPTION. If no default shall have occurred and be continuing, Lessee shall be entitled, at its option upon written notice to Lessor, which notice must be received by Lessor at least 90 days prior to the end of either the Initial Term or any renewal term of any Equipment Schedule, to purchase all, but not less than all, of the Equipment covered by such Equipment Schedule from Lessor at the end of the Initial Term or any renewal term for such Equipment Schedule at a purchase price equal to the then fair market value of the Equipment in use and operational, in the condition required by the lease, as mutually agreed by Lessor and Lessee. On a date which is no later than the expiration date of the Initial Term or any renewal term, as applicable, Lessee shall pay to Lessor the purchase price for the Equipment covered by such Equipment Schedule (plus any taxes levied thereon) and Lessor shall sell the Equipment "as-is where-is" without any warranties expressed or implied.

29. RELATED EQUIPMENT SCHEDULES. In the event that any Equipment Schedule hereunder shall include Equipment that may become attached to, affixed to, or used in connection with Equipment covered under another Equipment Schedule hereunder ("Related Equipment Schedule"), Lessee acknowledges the following: (a) if Lessee elects to exercise a purchase option or renewal option under any Equipment Schedule, if provided; or (b) if Lessee elects to return the Equipment under any Equipment Schedule as described in Paragraph 14, then Lessor, at its discretion, may require the similar disposition of all Related Equipment Schedules as provided for by this lease.

30. MISCELLANEOUS. This instrument and any Commitment Letter issued by Lessor and any Equipment Schedule hereunder constitutes the entire agreement between Lessor and Lessee, and shall not be amended, altered or changed except by a written agreement signed by the parties hereto, and in the case of Lessor, such agreement shall not be valid unless executed by Lessor at Lessor's home office. To the extent any provision of this lease may be determined to be invalid or unenforceable, it shall be ineffective without affecting the other provisions of this lease. To the extent permitted by applicable law, Lessee hereby waives any provisions of law which render any provision of this lease unenforceable in any respect. Unless specified otherwise, in the event such written agreement is attached to and made a part of an Equipment Schedule, the terms and conditions of said written agreement shall apply only to said Equipment Schedule and shall not apply to any other Equipment Schedule attached to and made a part of this lease. In the event Lessee issues a purchase order to Lessor covering Equipment to be leased hereunder, it is agreed that such purchase order is issued for purposes of authorization and Lessee's internal use only, and none of its terms and conditions shall modify the terms and conditions of this lease and/or related documentation, or affect Lessor's responsibility to Lessee as defined in this lease. An executed Equipment Schedule that incorporates by reference the terms of this Master Lease Agreement, marked "Original," shall be the original of the lease for the Equipment described therein for all purposes. All other executed counterparts of the lease shall be marked "Duplicate." To the extent the lease constitutes chattel paper, as such term is defined in the Uniform Commercial Code of the applicable jurisdiction, no security interest in the lease may be created through the transfer of possession of any counterpart other than the Original of the lease. Lessor reserves the right to charge Lessee fees for its provision of additional administrative services related to the lease requested by Lessee. Lessee shall provide Lessor with such corporate resolutions, opinions of counsel, financial statements, and other documents (including documents for filing or recording) as Lessor may request from time to time. LESSEE REPRESENTS AND WARRANTS THAT ALL CREDIT AND FINANCIAL INFORMATION SUBMITTED TO LESSOR HERewith OR AT ANY OTHER TIME IS TRUE AND CORRECT. LESSEE HEREBY APPOINTS LESSOR OR ITS ASSIGNEE ITS TRUE AND LAWFUL ATTORNEY IN FACT TO EXECUTE ON BEHALF OF LESSEE ALL UNIFORM COMMERCIAL CODE FINANCING STATEMENTS OR OTHER DOCUMENTS WHICH, IN LESSOR'S DETERMINATION, ARE NECESSARY TO SECURE LESSOR'S INTEREST IN SAID EQUIPMENT. The filing of UCC Financing Statements is precautionary and shall not be evidence that the lease is intended as security. If for any reason this agreement is determined not to be a lease, Lessee hereby grants Lessor a security interest in the lease, the Equipment or collateral pertaining thereto and the proceeds thereof, including re-lease, sale or disposition of the Equipment or other collateral. If more than one Lessee is named in this lease, the liability of each shall be joint and several. Time is of the essence with respect to this lease. Lessee represents and warrants that the Equipment is being leased hereunder for business purposes. The descriptive headings which are used in this lease are for convenience of the parties only and shall not affect the meaning of any provision of the lease. Any failure of the Lessor to require strict performance by the Lessee or any waiver by Lessor of any provision herein shall not be construed as a consent or waiver

of any other breach of the same or of any other provision. This agreement shall be governed by the laws of the state of California (without giving effect to principles of conflicts of law thereof).

31. LESSEE'S REPRESENTATIONS; WAIVER OF JURY TRIAL. Lessee represents and warrants, as of the date of this lease: (a) Lessee is duly organized, validly existing and in good standing under the laws of the state of its incorporation or organization, and is duly qualified to do business wherever necessary to carry on its present business and operations and to own its property; (b) this lease (and any Equipment Schedule entered into pursuant to this lease) has been duly authorized by all necessary action on the part of the Lessee, duly executed and delivered by authorized officers or agents of Lessee, does not require any further shareholder or partner approval, does not require the approval of, or the giving notice to, any federal, state, local or foreign governmental authority, does not contravene any law binding on Lessee or contravene any certificate or articles of incorporation or by-laws or partnership certificate or agreement, or any agreement, indenture or other instruments to which Lessee is a party or by which it or any of its assets or property may be bound; (c) this lease (and any Equipment Schedule entered into pursuant to this lease) constitutes the legal, valid and binding obligation of Lessee and is enforceable in accordance with its terms; (d) all credit and financial information, and all other information submitted to Lessor at any time is true and correct, and there does not exist any pending or threatened action or proceeding before any court or administrative agency which might materially adversely affect Lessee's financial condition or operations; (e) Lessee agrees to furnish to Lessor (i) as soon as available, and in any event within 120 days after the last day of each fiscal year of Lessee, a copy of the financial statements of Lessee as of the end of such fiscal year, certified by an independent certified public accounting firm; (ii) at any time if requested by Lessor, a copy of quarterly financial statements certified by the principal financial officer of Lessee; and (iii) such additional information concerning Lessee as Lessor may reasonably request. LESSEE AND LESSOR HEREBY WAIVE THE RIGHT TO TRIAL BY JURY OF ANY MATTERS ARISING OUT OF THIS LEASE OR ANY OTHER AGREEMENT EXECUTED IN CONNECTION HEREWITH.

32. COMMITMENT FEE REQUIREMENT. Lessee agrees, with respect to each transaction, to pay the commitment fee specified in Lessor's proposal for such transaction or in the Equipment Schedule related thereto. This commitment fee is given in consideration for Lessor's costs and expenses in investigating and appraising and/or establishing credit for Lessee. This commitment fee shall not be refunded unless Lessor declines to accept Lessee's offer to enter into the lease. Upon Lessor's acceptance of Lessee's offer to enter into the lease, unless otherwise specified in the proposal or Equipment Schedule, the amount shall be applied to the first period's rent payment. Lessee acknowledges that Lessor's act of depositing any commitment fee into Lessor's bank account shall not in itself constitute Lessor's acceptance of Lessee's offer to enter into the lease.

IN WITNESS WHEREOF, the parties have executed this Master Lease Agreement effective as of the first date it is executed by Lessee below.

<TABLE>					
<S>	<C>	<C>	<C>	TITLE	DATE
USL CAPITAL CORPORATION (LESSOR)		LIGAND PHARMACEUTICALS, INC. (LESSEE)			
BY	BY				
Name /s/ Sandra Oda	X /s/ Paul V. Maier	VP & CFO	5/30/96		
-----	-----	-----	-----		
Title Manager	BY				
-----	X				
-----	-----	-----	-----		
Business Unit BEF					

	-----	(CO-LESSEE)	TITLE	DATE	
HOME OFFICE 733 FRONT STREET, SAN FRANCISCO CA 94111 (415) 627-9000	BY				
	X				
Not valid unless executed by Lessor at Lessor's home office.	-----	-----	-----		
</TABLE>					

AMENDMENT TO EQUIPMENT SCHEDULE(S) DATED 5/30/96

TO MASTER LEASE AGREEMENT ("LEASE")

BETWEEN

USL CAPITAL CORPORATION ("LESSOR")

AND

Ligand Pharmaceuticals, Inc. ("LESSEE")

With respect to the above referenced Equipment Schedule(s) only, the terms and conditions of the Lease shall be modified as follows:

Lessee and Lessor hereby agree that the rent payments shown on the Equipment Schedule shall be adjusted if, for the week preceding the week in which the Equipment is accepted for purposes of the Lease, the weekly average of the Three-Year Treasury Note interest rate as specified in the Federal Reserve statistical release H.15 is greater than or less than 5.10%, and said variance is at least equal to one quarter of one percent (.25%), then the rent payments will be adjusted so that for each one one-hundredth of one percent (.01%) increase or decrease in the aforementioned Treasury interest rate, all rent payments shall be increased or decreased by .0199%.

IN WITNESS WHEREOF, the parties have executed this Amendment to Lease effective as of the date set forth above.

<TABLE>

<S>	<C>	<C>	
USL CAPITAL CORPORATION (LESSOR)		LESSEE SIGNATURE	TITLE
BY	BY		
X /s/ Sandra Oda BEF		X /s/ Paul V. Maier	VP & CFO
-----		-----	-----
TITLE	BUSINESS UNIT	BY	
X Manager		X	
-----		-----	-----
HOME OFFICE; 733 FRONT STREET, SAN FRANCISCO, CA 94111		CO-LESSEE SIGNATURE	TITLE
Not valid unless executed by Lessor at Lessor's home office	BY		
	X		
-----		-----	-----

</TABLE>

AMENDMENT TO EQUIPMENT SCHEDULE DATED _____
TO MASTER LEASE AGREEMENT DATED 5/30/96 ("LEASE")

BETWEEN

USL CAPITAL CORPORATION ("LESSOR") AND
LIGAND PHARMACEUTICALS, INC. ("LESSEE")

With respect to the above referenced Equipment Schedule(s) only, the terms and conditions of the Lease shall be modified as follows:

Provided that no Event of Default shall have occurred and be continuing, Lessee shall be entitled, at its option upon 90 days prior written notice to Lessor, to purchase all but not less than all of the Equipment covered by the Lease, effective as of the calendar day which falls exactly 6/1/99 or 36 months after the Rent Commencement Date by paying the Early Purchase Option Amount shown below:

<TABLE>

<CAPTION>	
After Rent Payment (#)	Early Purchase Option Amount (%)*
<S>	<C>
36	43.47%
	%

</TABLE>

*The Early Purchase Option Amount is calculated by multiplying the Early Purchase Option percentage by Lessor's cost of the Equipment as set forth on the Equipment Schedule.

On the date of such purchase Lessee shall pay to Lessor the Early Purchase Option Amount for the Equipment covered by the Lease (plus any taxes levied thereon, including all property taxes on the Equipment attributable to lien dates occurring on or prior to the date of such purchase) and upon receipt of the Early Purchase Option Amount, Lessor shall convey all of its right, title and interest in and to the Equipment "AS-IS WHERE-IS" without any warranties expressed or implied.

In the event that Lessee elects to exercise the option as set forth herein (and provided that all of the conditions set forth have been met), Lessee shall have no further obligations to pay rent to Lessor under the Lease. In the event that Lessee does not exercise the option as of the effective dates set forth above (or in the event that the conditions as set forth herein have not been met) the Lease shall continue in full force and effect.

Lessor and Lessee agree that the Early Purchase Option Amount shall be subject to adjustment on the Rent Commencement Date in order to preserve Lessor's anticipated yield by compensating for the fact that by virtue of Lessee's exercise of this Early Purchase Option Lessor will not receive the Rent due during the last twelve or 12 rental periods.

Except as amended hereby, the Lease shall remain in full force and effect. In the event of any conflict between the Lease and this Amendment to Lease, the Amendment to Lease shall govern.

IN WITNESS WHEREOF, the parties have executed this Amendment to Lease effective as of the first date set forth above.

<TABLE>		<C>		<C>		
<S>						
USL CAPITAL CORPORATION (LESSOR)				LESSEE SIGNATURE		TITLE
BY		BY				
X /s/ Sandra Oda BEF		X	/s/ Paul V. Maier	VP & CFO		
-----				-----		
TITLE	BUSINESS UNIT		BY			
X Manager		X				
-----				-----		
HOME OFFICE; 733 FRONT STREET, SAN FRANCISCO, CA 94111				CO-LESSEE SIGNATURE		TITLE
Not valid unless executed by Lessor at Lessor's home office		BY				
		X				
-----				-----		
</TABLE>		</C>		</C>		
[USL CAPITAL LOGO]	EXHIBIT F			[FORD FINANCIAL LOGO]		

AMENDMENT TO EQUIPMENT SCHEDULE(S) DATED
 TO MASTER LEASE AGREEMENT ("LEASE")
 BETWEEN
 USL CAPITAL CORPORATION ("LESSOR")
 AND
 LIGAND PHARMACEUTICALS, INC ("LESSEE")

With respect to the above referenced Equipment Schedule(s) only, the terms and conditions of the Lease shall be modified as follows:

Provided that no Event of Default shall have occurred and be continuing, Lessee shall have the option, which shall not be assignable, to cancel the Lease ("Cancellation Option"), effective as of the calendar day which falls exactly 24 months after the Rent Commencement Date ("Option Date") of the Lease, so long as the following conditions are satisfied as of the Option Date:

1. Lessee shall have paid to Lessor on or prior to the Option Date (i) all rental payments due under the Lease as of the Option Date, (ii) all property taxes on the Equipment attributable to lien dates occurring on or prior to the Option Date, and (iii) all other amounts due Lessor as of the Option Date.

2. Lessee shall have notified Lessor, by certified mail, of its election to exercise the Cancellation Option, addressing such notice to the attention of "Manager, BEF Customer Service, 733 Front Street, San Francisco, California 94111", not less than ninety (90) days prior to the Option Date. Lessor shall have no obligation to notify Lessee further of the opportunity to exercise this Cancellation Option.
3. Lessee shall have paid, in addition to the monthly rentals in (1) above, a cancellation fee equal to 50% of the original cost of the Equipment as set forth on the Equipment Schedule, and at Lessee's risk and expense shall have loaded the Equipment, properly packed for shipment, on board the carrier and delivered to such location as Lessor shall specify, all to be completed on or before the Option Date. As of the Option Date, the Lessee shall also provide Lessor with a Letter of Maintainability from the manufacturer of the Equipment, which letter shall state that the Equipment will be eligible for the manufacturer's standard maintenance contract when sold or leased to a third party.

In the event that Lessee elects to exercise the Cancellation Option as set forth herein (and provided that all of the conditions set forth have been met), the Lease shall be terminated and Lessee shall have no further obligations to pay rent to Lessor under the Lease. In the event that Lessee does not exercise the Cancellation Option as of the Option Date (or in the event that the conditions as set forth herein have not been met) the Lease shall continue in full force and effect.

Except as amended hereby, the Lease shall remain in full force and effect. In the event of any conflict between the Lease and this Amendment to Lease, the Amendment to Lease shall govern.

IN WITNESS WHEREOF, the parties have executed this Amendment to Lease effective as of the date set forth above.

<TABLE>			
<S>	<C>	<C>	
USL CAPITAL CORPORATION (LESSOR)		LESSEE SIGNATURE	TITLE
BY	BY		
X /s/ Sandra Oda BEF		X /s/ Paul V. Maier	VP & CFO
-----		-----	
TITLE	BUSINESS UNIT	BY	
X Manager		X	
-----		-----	
HOME OFFICE; 733 FRONT STREET, SAN FRANCISCO, CA 94111		CO-LESSEE SIGNATURE	TITLE
Not valid unless executed by Lessor at Lessor's home office	BY		
	X		
-----		-----	

</TABLE>
 [USL CAPITAL LOGO] EXHIBIT S [FORD FINANCIAL LOGO]

AMENDMENT
 TO EQUIPMENT SCHEDULE/CERTIFICATE OF ACCEPTANCE DATED
 5/30/96
 TO MASTER LEASE AGREEMENT DATED 5/30/96 (THE "LEASE")
 BETWEEN
 USL CAPITAL CORPORATION ("LESSOR")
 AND
 LIGAND PHARMACEUTICALS INC. ("LESSEE")

With respect to the above-referenced Equipment Schedule/Certificate of Acceptance (the "Equipment Schedule") only, the terms and conditions of the Lease shall be modified as follows:

A. In the introductory paragraph, the words "(herein called "Equipment") from supplier" are deleted and be replaced by the words:

"(such personal property being referred to herein individually as an "Item" or "Item of Equipment" and collectively as "Equipment") from Lessee or the supplier or suppliers".

B. Paragraph 4, NON-CANCELLABLE LEASE, of the Lease is amended by adding the following new sentence at the end thereof:

"The foregoing provisions of this Paragraph 4, however, do not

constitute a waiver of any remedy which Lessee may have in damages against Lessor or any other person."

C. Paragraphs 5, 6, 7, 8 and 26 of the Lease are deleted and replaced by the following paragraphs:

5. ORDERING AND PAYMENT FOR EQUIPMENT. Lessee shall arrange for delivery of, and payment for, the Equipment so that it can be sold and leased back in accordance with Paragraph 6 hereof on or before the Commitment Expiration Date set forth in the Equipment Schedule or Approval Letter. Lessee hereby authorizes Lessor to insert in the Equipment Schedule hereunder the serial numbers and other identification data of the Equipment when determined by Lessor.

6. ACCEPTANCE; SALE AND LEASEBACK. On a monthly basis, provided Lessee has accumulated and paid invoices in the aggregate totalling at least \$200,000, Lessee shall present the originals of all such invoices to Lessor together with proof of payment and shall deliver to Lessor an Indenture and Bill of Sale, in form satisfactory to Lessor (a "Bill of Sale"), and such other documents as Lessor shall require to transfer title to the Items of Equipment covered by such invoices to Lessor. Subject to the terms and conditions hereof, upon receipt by Lessor of an executed Equipment Schedule/Certificate of Acceptance, in form satisfactory to Lessor (an "Equipment Schedule"), pertaining to such Items of Equipment, Lessor shall purchase such Items from Lessee and lease them back to Lessee as provided in the Equipment Schedule. Final Equipment Schedule may be less than \$200,000.

7. TERMINATION BY LESSOR. If (a) one or more Items of Equipment have not been delivered to, and paid for by, Lessee and sold to, and leased back from, Lessor on or before the Commitment Expiration Date as provided in Paragraphs 5 and 6 hereof, or (b) on or prior to any date on which Lessor is to purchase any Item of Equipment, an event occurs or a condition or circumstance arises that, in Lessor's sole judgment, could result in a material adverse change in the Lessee's business, condition (financial or other), performance, operations, properties or prospects, or could impair in any material respect Lessee's ability to perform its obligations under the Lease, Lessor may, at its option, by giving written notice to Lessee, terminate any and all of its obligations to Lessee with respect to the Items of Equipment referred to in clause (a) and in the case of an event, condition or circumstance referred to in clause (b), terminate any and all of its obligations to Lessee with respect to any and all Items of Equipment not previously made subject to an Equipment Schedule.

8. TERM; COMMENCEMENT. The term of the lease with respect to an Item of Equipment commences upon the date of Lessor's execution of the Equipment Schedule pertaining thereto (the "Rent Commencement Date"). Lessor is authorized to fill in on the Equipment Schedule the Rent Commencement Date in accordance with the foregoing. The term shall continue until all Lessee's obligations are fulfilled hereunder, unless sooner terminated. The Initial Term of the lease with respect to an Item of Equipment begins on the Rent Commencement Date for such Item and expires after the number of periods for which the rent payments are due.

26. ACQUISITION AGREEMENTS. If the Items of Equipment described in any Equipment Schedule are subject to any Acquisition Agreement between Lessee and the Vendor and/or Manufacturer, Lessee shall indemnify and hold Lessor harmless in accordance with Paragraph 19 from any liability resulting from any Acquisition Agreement.

D. Paragraph 17, TAXES, of the Lease is amended by adding the following new sentence at the end thereof:

"Lessee certifies that, for purposes of California Revenue and Taxation Code Section 6010.65, the date of the first functional use of each Item of Equipment is the date of such use set forth in the Equipment Schedule/Certificate of Acceptance with respect to such Item ("First Functional Use Date"). Lessee hereby acknowledges and agrees that in the event, as to any Item, the Rent Commencement Date occurs more than ninety (90) days after the First Functional Use Date, Lessor shall pay and Lessee shall reimburse Lessor for sales taxes assessed on Lessor's purchase of such Item from Lessee."

E. Paragraph 19(a), INDEMNITY, General Indemnity, of the Lease is amended by deleting the word "sole" appearing in the exclusion clause at the end of the first sentence and replacing it with the word "culpable".

Except as amended hereby, the Lease shall remain in full force and effect. In the event of any conflict between the Lease and this Amendment to Equipment Schedule, this Amendment to Equipment Schedule shall govern.

IN WITNESS WHEREOF, the parties have executed this Amendment to Equipment Schedule effective as of the date it is executed by Lessor below.

<TABLE>		<C>		<C>		
<S>						
USL CAPITAL CORPORATION		LIGAND PHARMACEUTICALS INC		TITLE		
BY		BY				
X /s/ Sandra Oda		X /s/ Paul V. Maier		VP & CFO		
-----		-----		-----		
TITLE	BUSINESS UNIT	BY				
X Manager	BEF	X				
-----		-----		-----		
HOME OFFICE; 733 FRONT STREET, SAN FRANCISCO, CA 94111		XX		TITLE		
Not Valid unless executed by Lessor at Lessor's home office		BYXX				
DATE: 5/30/96		XX				
-----		-----		-----		

</TABLE>

2

[USL CAPITAL LOGO] INDENTURE AND BILL OF SALE [FORD FINANCIAL LOGO]

This Indenture and Bill of Sale, dated the 30th day of May, 1996, from Ligand Pharmaceuticals, Inc., a corporation hereinafter called "Seller" to USL CAPITAL CORPORATION, hereinafter called "Buyer".

WITNESSETH

For valuable consideration, the receipt of which is hereby acknowledged, Seller does hereby sell, assign, transfer, convey and deliver to Buyer all property and equipment of whatsoever kind or character listed, described or otherwise referred to in "Exhibit A" (the "Equipment"), a copy of which Exhibit A is attached hereto and incorporated herein by this reference with the same force and effect as set forth herein in full.

Seller covenants and warrants that:

- A. It is the owner of, and has absolute title to, all the Equipment free and clear of all claims, liens, encumbrances and all other defects of title of any kind whatsoever.
- B. It has not made any prior sale, assignment or transfer of any item of said Equipment to any person, entity, firm or corporation.
- C. It has the present right, power and authority to sell, assign and transfer each and every item of said Equipment to Buyer.
- D. Each and every item of said Equipment is in good repair, condition and working order.
- E. All acts, proceedings and things necessary and required by laws and the articles of incorporation and by-laws of Seller and agreements or judgements binding upon Seller to make this Indenture and Bill of Sale a valid, binding and legal obligation of Seller have been done, taken and have happened; and the execution and delivery hereof have in all respects been duly authorized in accordance with law and said articles of incorporation and by-laws.

Seller shall forever warrant and defend the sale, assignment, transfer, conveyance and delivery of each and every item of said Equipment to Buyer, its successors and assigns, against each and every person whomsoever lawfully claiming the same.

Possession of said Equipment shall not be transferred to Buyer but shall be retained by Seller, it being the intention of Buyer to lease said Equipment to Seller.

This Indenture and Bill of Sale is binding upon the successors and assigns of Seller and inures to the benefit of the successors and assigns of Buyer.

IN WITNESS WHEREOF the undersigned Seller has caused this instrument to be executed on the day and year first above appearing, by and through an officer thereunto duly authorized.

Ligand Pharmaceuticals, Inc., (SELLER)

By /s/ Paul V. Maier

Title VP & CFO

EXHIBIT A TO INDENTURE AND BILL OF SALE

FROM LIGAND PHARMACEUTICALS, INC.

TO USL CAPITAL CORPORATION

DATED 5/30/96

/s/ Paul V. Maier

Equipment Location:

10255 Science Center DR.

San Diego, CA 92121 -----

9393 Town Center Drive

San Diego, CA 92121

Glycomed

860 Atlantic Avenue

Alameda, CA 94501

Equipment Description:

Laboratory and manufacturing process and computers as more fully described in the attached equipment list.

[USL CAPITAL LOGO]

EXHIBIT X

[FORD FINANCIAL LOGO]

AMENDMENT TO EQUIPMENT SCHEDULE DATED 5/30/96
TO MASTER LEASE AGREEMENT ("LEASE")
BETWEEN
USL CAPITAL CORPORATION ("LESSOR")
AND
LIGAND PHARMACEUTICALS, INC. ("LESSEE")

With respect to the above referenced Equipment Schedule only, the terms and conditions of the Lease shall be modified as follows:

1. For purposes of the above-referenced Equipment schedule only, Lessee

shall have the following options at the end of the initial term. Notwithstanding any provision contained in the Lease to the contrary, upon the expiration of the Initial Term and payment by Lessee of all rental payments and other amounts due under the Lease, and provided that no Event of Default shall have occurred and be continuing, Lessee shall have the option, upon written notice to Lessor at least ninety (90) days prior to the expiration of the Initial Term, to (1) purchase all, but not less than all, of the Equipment covered under the Lease, (the "Purchase Option") for an amount equal to 20% of the original cost of the Equipment set forth on the Equipment Schedule (the "Equipment Cost") or (2) return the Equipment to Lessor (the "Return Option"). If Lessee exercises the Return Option, in addition to returning the equipment to Lessor, Lessee will pay Lessor, on the expiration date of the Initial Term, an amount equal to 10% of the Equipment Cost. If Lessee desires Lessor to finance the Purchase Option, Lessee will include a request therefore in its notice of exercise, and Lessor will finance the Purchase Option over a period of 12 months, with monthly payments equal to 1.7442% of the original Equipment Cost. In the event of, and as a condition to, such Lessor financing, Lessee and Lessor will enter into an Amendment to the Equipment Schedule, in the form attached hereto, to reflect such financing.

For softcosts and/or Software, (the "Products"), at the end of the Initial Term, Lessee must either (1) purchase the Products for an amount equal to 20% of the original cost of the Products as set forth on the Equipment Schedule; or 2) renew the Lease for an Extension Term of 12 months at a monthly rental amount equal to 1.7442% of the original Product cost, as set forth on the Equipment Schedule. There is no return option. All notices required and payments due shall be made in accordance with the terms of the lease. Upon expiration of the Extension Term as set forth above, Lessee shall have the option to purchase the Products for one dollar (\$1.00).

The notices to Lessor relative to Lessee's exercise of any of the foregoing options should be sent by certified mail to:

USL Capital Corporation
 Manager, BEF Customer Service
 733 Front Street
 San Francisco, CA 94111

Except as amended hereby, the Lease shall remain in full force and effect. In the event of any conflict between the Lease and this Amendment to Equipment Schedule, the Amendment to Equipment Schedule shall govern.

IN WITNESS WHEREOF, the parties have executed this Amendment to Equipment Schedule as of the date set forth above.

<TABLE>		<C>		<C>	
<S>					
USL CAPITAL CORPORATION (LESSOR)		LESSEE SIGNATURE		TITLE	
BY	BY				
X Sandra Oda	BEF	X /s/ Paul V. Maier	VP & CFO		
-----		-----		-----	
TITLE	BUSINESS UNIT	BY			
X Manager		X			
-----		-----		-----	
HOME OFFICE; 733 FRONT STREET, SAN FRANCISCO, CA 94111		CO-LESSEE SIGNATURE		TITLE	
Not valid unless executed by Lessor at Lessor's home office		BY			
		X			
-----		-----		-----	

</TABLE>
 AMENDMENT DATED 5/30/96 (THIS "AMENDMENT")
 TO
 EQUIPMENT SCHEDULE DATED 5/30/96 (THE "SCHEDULE")
 TO
 MASTER LEASE AGREEMENT DATED 5/30/96 (THE "MASTER LEASE")
 BETWEEN
 USL CAPITAL CORPORATION ("LESSOR")
 AND
 LIGAND PHARMACEUTICALS INC. ("LESSEE")

Lessor is financing Lessee's exercise of the Purchase Option referred to in Exhibit X to the Schedule (the "Financing"). In that connection, this

Amendment amends only the Schedule in the following respects, so that the Master Lease, and the Schedule insofar as it pertains to the Equipment (not soft costs or software) and for purposes only of the Financing, when taken together, will be converted to and will comprise a lease creating a security interest.

NOW, THEREFORE, the parties agree, with respect to the Master Lease only as it pertains to the Schedule and only for purposes of the Financing, as follows:

- A. Paragraph 10, Renewal, is deleted.
- B. Paragraph 11, Location; Inspection; Labels, is amended by (i) renaming it "Location; Inspection" and (ii) deleting the last sentence.
- C. Paragraph 12, Repairs; Use; Alterations, is amended by replacing the second sentence with the following:

"All parts, repairs, additions, alterations and attachments placed on or incorporated into the Equipment shall immediately become part of the Equipment and subject to Lessor's first priority security interest hereunder."

- D. Paragraph 14, Surrender, is amended to read in its entirety as follows:

"14. SURRENDER. If Lessor rightfully demands possession of the Equipment pursuant to this lease or otherwise, Lessee, at its expense, shall return all, but not less than all, of the Equipment by delivering it to such place or on board such carrier, packed for shipping, as Lessor may specify. Lessee agrees that the Equipment, when returned, shall be in the same condition as when delivered to Lessee, reasonable wear and tear excepted, and in a condition which will permit Lessor to be eligible for Manufacturer's standard maintenance contract without incurring any expense to repair or rehabilitate the Equipment. Lessee shall be liable for reasonable and necessary expenses to place the Equipment in such condition. Lessee shall remain liable for the condition of the Equipment until it is received and accepted at the destination designated by Lessor as set forth above. If any items of Equipment are missing or damaged when returned, such occurrence shall be treated as an event of Loss or Damage with respect to such missing or damaged items and shall be subject to the terms specified in Paragraph 15 below."

- E. Paragraph 15, Loss or Damage, is amended by

- (i) replacing clause (b) with the following:

"(b) replace the same with like equipment acceptable to Lessor in good condition and repair, subject to Lessor's first priority security interest hereunder;" and

- (ii) replacing the last sentence with the following:

"Upon Lessor's receipt of such payment, Lessor shall release the security interest that it holds in the Equipment."

- F. Pursuant to Paragraph 17, Lessor directs Lessee, after Lessor's funding of the transaction, to make all payments of taxes with respect to the Equipment or this transaction (except tax payments based upon Lessor's net income).

- G. Paragraph 19(b), Tax Indemnity, is deleted.

- H. Paragraph 22, Default; Remedies, is amended by adding at the end of the second paragraph the following:

"and exercising all rights and remedies of a secured party under the Uniform Commercial Code."

- I. Paragraph 24, Ownership; Personal Property, amended to read in its entirety as follows:

"24. OWNERSHIP; PERSONAL PROPERTY. The Equipment shall be the property of Lessee, subject to Lessor's first priority security

interest, and shall at all times be and remain personal property notwithstanding that the Equipment or any part thereof may now be, or hereafter become, in any manner, affixed or attached to real property or any improvements thereon."

J. Paragraph 26, Acquisition Agreements, is amended by deleting the first sentence.

K. Paragraph 28, Purchase Option, is amended to read in its entirety as follows:

"28. RELEASE OF SECURITY INTEREST. If no default shall have occurred and be continuing, and if Lessee has paid all amounts due hereunder, Lessor shall release the security interest that it holds in the Equipment."

L. Paragraph 29, Related Equipment Schedules, is amended by replacing clause (b) with the following:

"(b) if the Equipment under any Equipment Schedule is returned under Paragraph 14,".

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M. Paragraph 30, Miscellaneous, is amended by replacing the 12th sentence (immediately following the sentences in ALL CAPITALS) with the following:

"This lease is a lease creating a security interest, not a true lease, and shall be deemed to be a security agreement. Lessee hereby grants to Lessor a first priority security interest in this lease, the Equipment, other collateral pertaining thereto and the proceeds thereof, including the re-lease, sale or other disposition of the Equipment or other collateral."

Except as amended hereby for purposes of the Financing only, the Master Lease and the Schedule shall remain in full force and effect in accordance with their terms. In the event of any conflict between the Lease and this Amendment, for purposes of the Financing this Amendment shall govern.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date set forth above.

<TABLE>		
<S>		
USL CAPITAL CORPORATION (LESSOR)	<C>	LIGAND PHARMACEUTICALS INC. (LESSEE)
BY Sandra Oda		
-----	X /s/ Paul V. Maier	Title: VP & CFO
-----	-----	-----
Title: Manager Business Unit: BEF	X	Title:
-----	-----	-----
HOME OFFICE: 733 FRONT STREET, SAN FRANCISCO, CA 94111		
Not valid unless executed by Lessor at Lessor's home office		
</TABLE>		

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EXHIBIT 10.155

[LIGAND PHARMACEUTICALS Letterhead] David E. Robinson
Chairman, President
and Chief Executive Officer

4 November 1996

Mr. William Pettit
4885 Carrigan Ridge Drive
Dublin, Ohio 43017

Dear Bill:

I am pleased to extend to you an offer to become Senior Vice President, Human Resources and Administration and a corporate officer of Ligand Pharmaceuticals, Inc. reporting to me, commencing November 18, 1996 or sooner. The particulars of our offer are as follows:

COMPENSATION

1. Your initial base salary will be \$205,000 per year.
2. You will participate in the 1997 Impact Goal Incentive Plan of corporate officers based upon achievement of pre-agreed goals (a target maximum currently of \$30,000.)
3. You will be granted an option to purchase, at your election 75,000 shares of the Company's common stock at its "fair market price" under our current Employee Stock Option Plan. The grant will be subject to your execution of the Company's Incentive Stock Option Agreement and to final approval by the Compensation Committee of the Board of Directors and any regulatory authority. (See attached.)

RELOCATION PACKAGE

1. The costs associated with relocating your family and household goods to the San Diego area will be paid by the Company as outlined in Ligand's Employee Relocation Policy. (Copy enclosed.)
2. The Company will also loan you \$75,000 towards the purchase of a primary residence in the San Diego area. The loan will be secured by a five year promissory note secured by a Deed of Trust and will bear interest at the market rate then prevailing. The loan and accrued interest will be forgiven in five (5) annual increments if you continue to be employed by the Company. You will be responsible for all taxes related to this loan forgiveness.

Mr. William Pettit
4 November 1996
Page Two

3. The Company will provide further housing assistance to you as follows: During the first year of employment, the Company will pay you \$12,000 in twelve (12) equal monthly installments. During the second and third years, the Company will pay you \$9,000 per year in twelve (12) equal monthly installments.
4. The company will pay the airfare expense of a monthly trip back to Columbus for a period of twelve (12) months or until the family is relocated to Southern California, whichever occurs first.

SPECIAL CONSIDERATIONS

In order to cover any miscellaneous relocation expenses not covered under current Ligand policy, we will pay you \$10,000 up front allowance. You will be responsible for all taxes related to that bonus.

SEVERANCE

If you are terminated without cause by the Company during your first year of employment, you will be paid an amount equal to one (1) year of your base salary. If terminated without cause after the first year, you will be paid an amount equal to six (6) months of your base salary.

As used in this letter, "termination for cause" means termination for malfeasance, misfeasance, or negligence. Termination because of adverse financial circumstances affecting the Company not due to your performance is not termination for cause. If you voluntarily leave the Company's employment, this specifically does not constitute termination without cause.

As a regular employee and officer of Ligand, you will become eligible to participate in Company sponsored benefits which are described in the Company's Employee Handbook, a copy of which will be sent under separate cover. If you have any questions related to these, please feel free to contact me.

Employment at Ligand is not for a specific term and can be terminated by you or by the Company at any time for any reason, with or without cause. If you are terminated for cause, any loan made to you by the Company will become due and payable immediately.

Mr. William Pettit
4 November 1996
Page Three

If you accept this offer, the terms and conditions in this letter shall be the terms of your employment. Any modifications or additions to these terms would have to be in writing and signed by you and me.

Your employment pursuant to this offer is contingent on your executing the Consent Form, Proprietary Information and Inventions Agreement and upon your providing the Company with the legally required proof of your identity and authorization to work in the United States. (To follow.)

Bill, all of us are excited about having you join the growing team at Ligand and we believe our professional association with you will be mutually rewarding. We are truly looking forward to working with you in building an exciting new pharmaceutical company.

Sincerely,

/s/ DAVID E. ROBINSON

David E. Robinson
Chairman, President and CEO

DER/jdb

Attachments

Agreed and Accepted:

/s/ WILLIAM A. PETTIT

11/6/96

NAME

DATE

EXHIBIT 10.156

[LIGAND PHARMACEUTICALS Letterhead] David E. Robinson
Chairman, President
and Chief Executive Officer

6 February 1997

Mr. Russell L. Allen
23 Westminster Drive
Princeton Junction, NJ 08550
Dear Russ:

I am pleased to extend to you an offer to become Vice President, Corporate Development and Strategic Planning and a corporate officer of Ligand Pharmaceuticals, Inc. reporting to me, commencing 6 February 1997. The particulars of our offer are as follows:

COMPENSATION

1. Your initial base salary will be \$175,000 per year.
2. You will participate in the 1997 Impact Goal Incentive Plan of corporate officers based upon achievement of pre-agreed goals (a target maximum currently of \$30,000.)
3. You will be granted an option to purchase, at your election 75,000 shares of the Company's common stock at its "fair market price" under our current Employee Stock Option Plan. The grant will be subject to your execution of the Company's Incentive Stock Option Agreement and to final approval by the Compensation Committee of the Board of Directors and any regulatory authority. (See attached.)

RELOCATION PACKAGE

1. The costs associated with relocating your family and household goods to the San Diego area will be paid by the Company as outlined in Ligand's Employee Relocation Policy, (Copy enclosed.)
2. The Company will also loan you \$75,000 towards the purchase of a primary residence in the San Diego area. The loan will be secured by a five year promissory note secured by a Deed of Trust and will bear interest at the market rate then prevailing. The loan and accrued interest will be forgiven in five (5) annual increments if you continue to be employed by the Company. You will be responsible for all taxes related to this loan forgiveness.

Mr. Russell L. Allen
6 February 1996
Page Two

3. The Company will provide further housing assistance to you as follows: During the first year of employment, the Company will pay you \$9,000 in twelve (12) equal monthly installments. During the second and third years, the Company will pay you \$6,000 per year in twelve (12) equal monthly installments.
4. The company will pay the airfare expense of a 1 monthly trip back to Princeton Junction for a period of six (6) months, through July 1997.

SEVERANCE

If you are terminated without cause by the Company during your first year of employment, you will be paid an amount equal to one (1) year of your base salary. If terminated without cause after the first year, you will be paid an amount equal to six (6) months of your base salary.

As used in this letter, "termination for cause" means termination for malfeasance, misfeasance, or negligence. Termination because of adverse financial circumstances affecting the Company not due to your performance is not termination for cause. If you voluntarily leave the Company's employment, this specifically does not constitute termination without cause.

As a regular employee and officer of Ligand, you will become eligible to participate in Company sponsored benefits which are described in the Company's Employee Handbook, a copy of which will be sent under separate cover. If you have any questions related to these, please feel free to contact me.

Employment at Ligand is not for a specific term and can be terminated by you or by the Company at any time for any reason, with or without cause. If you are terminated for cause, any loan made to you by the Company will become due and payable immediately.

If you accept this offer, the terms and conditions in this letter shall be the terms of your employment. Any modifications or additions to these terms would have to be in writing and signed by you and me.

Your employment pursuant to this offer is contingent on your executing the Consent Form, Proprietary Information and Inventions Agreement and upon your providing the Company with the legally required proof of your identity and authorization to work in the United States. (To follow.)

Mr. Russell L. Allen
6 February 1997
Page Three

Russ, all of us are excited about having you join the growing team at Ligand and we believe our professional association with you will be mutually rewarding. We are truly looking forward to working with you in building an exciting new pharmaceutical company.

Sincerely,

/s/ DAVID E. ROBINSON

David E. Robinson
Chairman, President and CEO

DER/jdb

Attachments

Agreed and Accepted:

/S/RUSSELL ALLEN

FEB 6, 1997

YOUR NAME

DATE

[LEASE MANAGEMENT SERVICES, INC. LETTERHEAD]

MASTER LEASE AGREEMENT NUMBER 10434

LESSEE: LIGAND PHARMACEUTICALS, INC.
9393 Towne Centre Drive, Suite 100
San Diego, CA 92121

LESSOR: LEASE MANAGEMENT SERVICES, INC.
2500 Sand Hill Road, Suite 101
Menlo Park, CA 94025

LEASE TERMS

1. LEASE. Lessor hereby agrees to lease to Lessee and Lessee hereby agrees to lease from Lessor, subject to the terms of this Master Lease Agreement and any addenda thereto (the "Master Lease") and the Schedule defined below, the personal property (together with all attachments, replacements, parts, substitutions, additions, repairs, accessions, and accessories, incorporated therein and/or affixed, thereto) (the "Equipment") described in any Lease Schedule and any addenda thereto (a "Schedule") executed by the parties hereto and incorporating the terms of this Master Lease by reference therein (the "Lease"). The parties agree that this Lease is a "Finance Lease" as defined by Section 10103 (1)(g) of the California Commercial Code (Cal.Com.C.). Lessee acknowledges either (a) that Lessee has reviewed and approved any written Supply Contract (as defined by Cal.Com.C 10103(1)(y)) covering the Equipment purchased from the "Supplier" (as defined by Cal.Com.C. 10103 (1)(x)) thereof for lease to Lessee or (b) that Lessor has informed or advised Lessee, in writing, either previously or by this Lease of the following: (i) the identity of the Supplier; (ii) that the Lessee may have rights under the Supply Contract; and (iii) that the Lessee may contact the Supplier for a description of any such rights Lessee may have under the Supply Contract.

2. TERM AND RENT. The term of this Lease shall be as specified in the Schedule(s). The rental payments ("Rent") for the Equipment shall be as set forth in the Schedule(s) and any addenda and shall be payable at the time set forth therein.

3. LATE CHARGES. Time is of the essence in this Lease and if any Rent is not paid within ten (10) days after the due date thereof, Lessor shall have the right to add and collect, and Lessee agrees to pay: (a) a late charge on and in addition to such Rent equal to five percent (5%) of such Rent or a lesser amount if established by any state or federal statute applicable thereto, and (b) interest on such Rent from thirty (30) days after the due date until paid at the highest contract rate enforceable against Lessee under applicable law but never to exceed eighteen percent (18%) per annum.

4. DISCLAIMER OF WARRANTIES. LESSOR IS NOT THE MANUFACTURER, SUPPLIER OR SELLER OF THE EQUIPMENT. LESSOR IS NOT THE AGENT OF THE MANUFACTURER, SUPPLIER OR SELLER OF THE EQUIPMENT. LESSOR MAKES NO EXPRESS OR IMPLIED WARRANTIES AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, THE FITNESS, MERCHANTABILITY, CONDITION, QUALITY, DURABILITY OR SUITABILITY OF THE EQUIPMENT IN ANY RESPECT, OR IN CONNECTION WITH, OR FOR THE PURPOSES AND USES OF LESSEE, OR ANY OTHER REPRESENTATION OR COVENANT OF ANY KIND OR CHARACTER, EXPRESS OR IMPLIED, WITH RESPECT THERETO. As between Lessor and Lessee, the Equipment shall be accepted and leased by Lessee "as is" and "with all faults". Lessee specifically waives all rights to make claim against Lessor herein for breach of any warranty of any kind whatsoever, asserting and resolving any such claims directly with the Supplier of the Equipment, and Lessor hereby assigns to Lessee all warranties, if any, received by Lessor resulting from its ownership of the Equipment. Lessor shall not be responsible for any repairs, service or defects in the quality or in its operation or for any delay of Supplier and Lessee waives any claim it might have with respect to

Lessor for any loss, damage, or expense caused by the Equipment, its use or maintenance. In no event shall Lessor be liable for any consequential damages, Supplier is not an agent of Lessor and no employee, salesperson, or agent of Supplier is authorized to waive, supplement, or otherwise alter any provision of this Lease, and no representation as to the Equipment or any other matter by the Supplier shall in any way affect the Lessee's duty to pay Rent and perform all its obligations as set forth in this lease. Lessor makes no warranty that the Equipment is in compliance with applicable governmental requirements, rules or regulations. Lessor has not made any representation or warranty to Lessee as to the tax benefits, if any, Lessee will obtain from the Lease, or as to the manner in which Lessee should treat this Lease in Lessee's records for tax, financial reporting or accounting purposes.

5. ACCEPTANCE. Lessee's acceptance of the Equipment shall be conclusively and irrevocably evidenced by Lessee signing the Lessor's standard form Certificate of Acceptance. If Lessee fails or refuses to sign the Certificate of Acceptance as to all or any part of the Equipment within a reasonable time, Lessee shall automatically assume all of Lessor's purchase obligations for the Equipment and Lessee agrees to indemnify and defend Lessor from any claims including any demand for payment of the purchase price for the Equipment by the manufacturer, Supplier or seller of the Equipment.

6. USE, OPERATION AND LOCATION. Lessee shall not use or operate the Equipment so as to violate the terms of any insurance coverage for the Equipment as required herein. Lessee agrees not to allow the Equipment to be used by persons other than employees of Lessee, not to rent or sublet the Equipment or any part thereof to others, to use the Equipment solely for commercial, agricultural or business purposes, and to use and operate the Equipment in accordance with the manufacturer's operating procedures and all applicable governmental laws, ordinances, rules and regulations. If at any time during the term hereof, Lessor supplies Lessee with labels or other markings, stating that the Equipment is owned by Lessor, Lessee (or Lessor, at Lessor's option) shall affix and keep the labels upon a prominent place on the Equipment.

The Equipment shall be located as shown on the Schedule(s). Lessee, without the prior written consent of Lessor, shall not remove the Equipment from such location nor give up possession or control thereof. Lessor, upon prior reasonable notice to Lessee, shall have the right to inspect the Equipment during Lessee's normal business hours.

7. ALTERATIONS, MAINTENANCE AND REPAIRS. Lessee, at its sole expense, shall keep Equipment in good condition and working order and furnish all labor, parts and supplies required therefor. Lessee agrees to maintain accurate and complete records of all repairs and maintenance to the Equipment. Any modifications or additions to the Equipment required by any governmental edict shall be promptly made by Lessee at its own expense.

Without the prior written consent of Lessor, Lessee shall not make any alterations, additions or improvements to the Equipment which are permanent or which detract from its economic value or functional utility, except as may be required pursuant to the preceding sentence of this Paragraph 7. All additions and improvements to the Equipment shall belong to and immediately become the property of Lessor and shall be returned to Lessor with the Equipment upon the expiration or earlier termination of this Lease unless Lessor notifies Lessee to restore such Equipment to its original state.

8. LOSS, DAMAGE. Lessee assumes the risk of loss and damage to the Equipment, or any portion thereof, from every cause whatsoever, including but not limited to damage, destruction, loss or theft. No loss, theft, damage, destruction of the Equipment shall relieve Lessee of the obligation to pay Rent or to comply with any other obligation under this Lease. In the event of damage to any item of Equipment, Lessee shall immediately place the Equipment in good condition and working order at Lessee's expense. If Lessor determines that any item of Equipment is lost, stolen, destroyed or damaged beyond repair, Lessee shall, at Lessor's option, either: (a) Replace the same with like equipment in good condition and working order, free and clear of all liens, claims and encumbrances, which equipment shall thereupon become subject to this Lease; or (b) Pay Lessor, not as a penalty, but herein liquidated for all purposes an amount equal to the sum of (i) any accrued and unpaid Rent as of the date the loss, theft, damage or destruction occurred ("Date of Loss") plus the total of any amounts due to Lessor pursuant to Paragraph 3; (ii) the present value of all future rentals reserved in this Lease and contracted to be paid over the unexpired term of this Lease discounted at a rate equal to the discount rate of

the Federal Reserve Bank of San Francisco as of the Date of Loss; (iii) the discounted value of the agreed upon or estimated residual value of the Equipment as of the expiration of this Lease or any renewal thereof discounted at a rate equal to the discount rate of the Federal Reserve Bank of San Francisco as of the Date of Loss; and (iv) any other amount otherwise then due and owing under this Lease or which otherwise will become due and owing irrespective of the fact that the Equipment has been damaged, destroyed, lost or stolen including any additional taxes or other charges that may otherwise arise by reason of the damage, destruction, loss or theft of the Equipment. Lessee further agrees to pay late charges calculated in accordance with Paragraph 3 from the Date of Loss to the date the casualty payment is paid to Lessor.

9. INSURANCE. Commencing on the date risk of loss passes to Lessor from the Supplier and continuing until all of Lessee's obligations under this Lease have been satisfied, Lessee shall, at Lessee's own expense, keep the Equipment and any replacements thereto insured against such risks, and in such amounts, in such form and with such companies as are satisfactory to Lessor. All such insurance policies shall protect Lessor and Lessee, as their respective interests may appear, and shall provide that all losses shall be payable to and adjusted solely with Lessor. Lessee shall, at Lessee's own expense, also maintain public liability insurance, in such amounts, in such form and with such companies as are satisfactory to Lessor, insuring Lessor with respect to injury to person or property resulting from the condition, locations, maintenance, and actual or alleged use of the Equipment. Lessee shall, prior to the acceptance of a Schedule by Lessor, deliver to Lessor each of the foregoing policies or satisfactory evidence of such insurance. Each such policy shall contain an endorsement providing that the insurer will give Lessor not less than 30 days' prior written notice of the effective date of any alteration or cancellation of such policy. Lessee shall furnish annually to Lessor satisfactory evidence of the maintenance of such insurance. Lessee hereby irrevocably appoints Lessor as Lessee's attorney-in-fact to make claim for, receive payment of, and execute any and endorse all documents for loss or damages under any insurance policy as herein specified. In case of the failure of Lessee to maintain any of such insurance, Lessor shall have the right, but shall not be obligated, to obtain such insurance, and therefor, Lessee hereby grants Lessor the irrevocable right to select an insurance broker for the procurement and maintenance of such insurance coverage herein specified.

10. TAXES. Lessee shall pay directly, or to Lessor, all license fees, registration fees, assessments and taxes which may now or hereafter be imposed upon the ownership, sale (if authorized), possession or use of the Equipment, excepting only those based on Lessor's income or any single business tax of Lessor. All required personal property tax returns relating to the Equipment shall be filed by Lessor unless otherwise provided in writing. If Lessee fails to pay any said fees,

THIS LEASE MAY NOT BE AMENDED EXCEPT BY A WRITING SIGNED BY LESSOR AND LESSEE.
LESSEE'S INITIALS _____

Dated: 2-13-97

LESSEE: LIGAND PHARMACEUTICALS, INC. LESSOR: LEASE MANAGEMENT SERVICES, INC.

By [SIG. ILLEGIBLE] By [SIG ILLEGIBLE]

Title SR. VP/CFO Title EVP/GENERAL MANAGER

assessments, or taxes, Lessor shall have the right but not the obligation to pay the same, and such amount, including penalties and costs, shall be repayable to Lessor at the next Rent due date, and if not so paid, shall be the same as failure to pay any Rent due hereunder. Lessor shall not be responsible for contesting any valuation of or tax imposed on the Equipment but may do so strictly as an accommodation to Lessee and shall not be liable or accountable to Lessee therefor. If Lessee pays any taxes, fees or assessments directly to

the appropriate taxing authority, Lessee agrees to immediately notify Lessor and to provide Lessor documentary evidence of said payment.

11. LESSEE'S FAILURE TO PAY: LESSOR'S PAYMENT. In the event Lessee fails to pay any amounts due hereunder, including Lessee's obligation to pay taxes and insurance, or to perform any of its other obligations under this Lease, Lessor may, at its option, pay such amounts or perform such obligations, and Lessee shall reimburse Lessor the amount of such payment or cost of such performance, including any charges or penalties which have been levied by the taxing authority or insurance carrier for such late payment. Within ten (10) days from demand, such reimbursement shall be paid as additional Rent plus late charges as calculated in accordance with Paragraph 3 from the date of Lessor's payment to the date of reimbursement.

12. TITLE. The equipment is, and shall at all times be the sole and exclusive property of Lessor, and Lessee shall have no right, title or interest therein or thereto except as expressly set forth in this Lease. Further, the Equipment shall at all times remain personal property, notwithstanding that the Equipment or any part thereof may be affixed or attached to real property or any building thereon.

Lessee shall keep the Equipment free and clear from all liens, charges, encumbrances, legal process, and claims. Lessee shall not assign, sublet, hypothecate, sell, transfer or give up possession of the Equipment or any interest in this Lease, and any such attempt shall be null and void.

13. INDEMNITY. Lessee shall indemnify and hold Lessor harmless from and against all claims, losses, liabilities (including negligence, tort and strict liability), damages, judgments, suits, and all legal proceedings, and any and all costs and expenses in connection therewith (including attorneys' fees) arising out of or in any manner connected (a) with the manufacture, purchase, financing, ownership, delivery, rejection, nondelivery, possession, use, transportation, storage, operation, maintenance, repair, return or other disposition of the Equipment; or (b) with this Lease, including, without limitation, claims for injury or death of persons and for damage to property, and claims for patent, trademark or copyright infringement, and give Lessor prompt notice of any claim or liability.

14. NON-TERMINABLE LEASE: OBLIGATIONS UNCONDITIONAL. This Lease cannot be terminated except as expressly provided herein. Lessee hereby agrees that Lessee's obligation to pay all Rent and any other amounts owing hereunder shall be absolute and unconditional.

15. HOLDING OVER. Any use of the Equipment by Lessee beyond the initial Lease term or any renewal thereof shall be an extension of this Lease term at the then current Rent on a month-to-month basis terminable by Lessor on ten (10) days' notice to Lessee and all obligations of Lessee herein contained, including payment of Rent, shall continue during such holding over. Any holdover period is limited to twelve (12) months without written consent of Lessor.

16. RETURN OF EQUIPMENT. Upon the expiration or earlier termination of this Lease, with respect to the Equipment or any part thereof, Lessee shall return the same to Lessor, in good condition and working order, ordinary wear and tear excepted, in the following manner as selected by Lessor:

(a) By properly packing and delivering the Equipment at Lessee's cost and expense, to such place as Lessor shall specify within the County in which the same was delivered to Lessee; or

(b) By properly packing and loading the Equipment, at Lessee's cost and expense, on board such carrier as Lessor shall specify, and shipping the same, freight prepaid, to the destination indicated by Lessor.

Lessee agrees to pay for all repair to the Equipment other than attributable to ordinary wear and tear. Notice of Lessee's intent to return Equipment must be received by Lessor at least sixty (60) days prior to return.

17. LESSEE'S WAIVERS. To the extent permitted by applicable law, Lessee hereby waives any and all rights and remedies conferred upon a Lessee by Sections 10508 through 10522 of the Cal.Com.C., including but not limited to Lessee's rights to: (i) cancel this Lease; (ii) repudiate this Lease; (iii) reject the equipment; (iv) revoke acceptance of the Equipment; (v) recover damages from Lessor for any breaches of warranty or for any other reason; (vi) a security interest in the Equipment in Lessee's possession or control for any reason; (vii) deduct all or any part of any claimed damages resulting from Lessor's default, if any, under this Lease; (viii) accept partial delivery of the Equipment; (ix) "cover" by making any purchase or lease of or contract to purchase or lease Equipment in substitution for Equipment due from Lessor; (x) recover any general, special, incidental or consequential damages, for any reason whatsoever; and (xi) specific, performance, replevin, detinue, sequestration, claim and delivery or the like for any Equipment identified to this Lease. To the extent permitted by applicable law, Lessee also hereby waives any rights now or hereafter conferred by statute or otherwise which may

require Lessor to sell, lease or otherwise use any Equipment in mitigation of Lessor's damages as set forth in Paragraph 19 or which may otherwise limit or modify any of Lessor's rights or remedies under Paragraph 19. Any action by Lessee against Lessor for any default by Lessor under this Lease, including breach of warranty or indemnity, shall be commenced within one (1) year after any such cause of action accrues.

18. DEFAULT. Any of the following events or conditions shall constitute an event of default ("Event of Default") hereunder.

(a) Lessee's failure to pay when due any Rent or other amount due hereunder;

(b) Lessee's failure to perform any other term, covenant or condition hereof or a default under any other agreement between Lessor and Lessee;

(c) The breach of any representation or warranty made by Lessee or any guarantor of this Lease:

(d) Seizure of the Equipment under legal process;

(e) A filing by or against Lessee of a Petition for Reorganization or Liquidation under the Bankruptcy Code or any amendments thereto or any other insolvency law providing for the relief of debtors;

(f) The voluntary or involuntary making of an assignment of a substantial portion of its assets by Lessee for the benefit of creditors, employment of a receiver or trustee for Lessee or for any of Lessee's assets, the institution of formal or informal proceedings by or against Lessee for dissolution, liquidation, settlement of claims against or winding up of the affairs of Lessee, or the making by Lessee of a transfer of all or a material portion of Lessee's assets or inventory not in the ordinary course of business;

(g) The value or condition of any collateral furnished by the Lessee, or any guarantor of this Lease, becomes impaired or diminished as to, in Lessor's reasonable opinion, increase Lessor's credit risk;

(h) If, in Lessor's reasonable opinion, there should be a material adverse change in the financial condition of Lessee.

19. REMEDIES. Upon the occurrence of any Event of Default and at any time thereafter, Lessor may, with or without cancelling this Lease, in its sole discretion, do any one or more of the following:

(a) upon notice to Lessee cancel this Lease and any or all Schedules;

(b) continue to be the owner of the Equipment and may, but is not obligated to, take possession of the Equipment, dispose of the Equipment by sale or otherwise, all of which determinations may be made by Lessor in its absolute discretion and for its own account;

(c) declare immediately due and payable all Rents due and to become due hereunder for the full term of this Lease (including any renewal or purchase obligations);

(d) recover from Lessee damages not as a penalty but herein liquidated for all purposes and in an amount equal to the sum of (i) any accrued and unpaid rent as of the date of entry of judgment in favor of Lessor plus the total of any amounts due to Lessor pursuant to Paragraph 3; (ii) the present value of all future rentals reserved in this Lease and contracted to be paid over the unexpired term of this Lease discounted at a rate equal to the discount rate of the Federal Reserve Bank of San Francisco as of the date of entry of judgment in favor of Lessor; (iii) all commercially reasonable costs and expenses incurred by Lessor in any repossession, recovery, storage, repair, sale, re-lease or other disposition of the Equipment including reasonable attorneys' fees and costs incurred in connection therewith or otherwise resulting from Lessee's default; (iv) the present value of the agreed upon or estimated residual value of the Equipment as of the expiration of this Lease or any renewal thereof discounted at a rate equal to the discount rate of the Federal Reserve Bank of San Francisco as of the date of entry of judgment in favor of Lessor; and (v) any indemnity, if then determinable, plus interest at eighteen percent (18%) per annum;

(e) In its sole discretion, re-lease or sell any or all of the Equipment at a public or private sale on such terms and notice as Lessor shall deem reasonable and recover from Lessee damages, not as a penalty, but herein liquidated for all purposes and in an amount equal to the sum of (i) any accrued and unpaid rent as of the later of (A) the date of default or (B) the date that Lessor has obtained possession of the Equipment or such other date as Lessee has made an effective tender of possession of the Equipment back to Lessor ("Default Date"); plus rent (at the rate provided for in this Lease) for the additional period (but in no event longer than two (2) two months) that it takes Lessor to resell or re-let all of the Equipment, plus the total of any amounts due to Lessor pursuant to Paragraph 3; (ii) the present value of all future rentals reserved in this Lease and contracted to be paid over the unexpired term of this Lease discounted at a rate equal to the discount rate of the Federal Reserve Bank of San Francisco as of the Default Date; (iii) all commercially reasonable costs and expenses incurred by Lessor in any repossession, recovery, storage,

repair, sale, re-lease or other disposition of the Equipment including reasonable attorneys' fees and costs incurred in connection with or otherwise resulting from the Lessee's default; (iv) estimated residual value of the Equipment as of the expiration of this Lease or any renewal thereof; and (v) any indemnity, if then determinable, plus interest at eighteen percent (18%) per annum; LESS the amount received by Lessor upon such public or private sale or re-lease of such items of Equipment, if any;

(f) exercise any other right or remedy which may be available to it under the Uniform Commercial Code or any applicable law.

A cancellation hereunder shall occur only upon notice by Lessor and only as to such items of Equipment as Lessor specifically elects to cancel and this Lease shall continue in full force and effect as to the remaining items, if any. If this Lease is deemed at any time to be one intended as security, Lessee agrees that the Equipment shall secure; in addition to the indebtedness set forth herein, all other indebtedness at any time owing by Lessee to Lessor.

No remedy referred to in this Paragraph is intended to be exclusive, but shall be cumulative and in addition to any other remedy referred to above or otherwise available to Lessor at law or in equity. No express or implied waiver by Lessor of any default shall constitute a waiver of any other default by Lessee or a waiver of any of Lessor's rights.

20. ASSIGNMENT BY LESSOR. LESSOR MAY ASSIGN OR TRANSFER THIS LEASE OR ANY SCHEDULES OR LESSOR'S INTEREST IN THE EQUIPMENT WITHOUT NOTICE TO LESSEE.

Any assignee or transferee of Lessor shall have the rights, but none of the obligations, of Lessor under this Lease. Lessee agrees that it will not assert against any assignee or transferee of Lessor any defense, counterclaim or offset that Lessee may have against Lessor and that upon notice, it will pay Rent to such assignee or transferee. Lessee acknowledges that any assignment or transfer by Lessor shall not materially change Lessee's duties or obligations under this Lease nor materially increase the burdens or risks imposed on Lessee.

21. NO ASSIGNMENT BY LESSEE. LESSEE SHALL NOT ASSIGN OR IN ANY WAY DISPOSE OF ALL OR ANY PART OF ITS RIGHTS OR OBLIGATIONS UNDER THIS LEASE OR ENTER INTO ANY SUBLEASE OF ALL OR ANY PART OF THE EQUIPMENT WITHOUT THE PRIOR WRITTEN CONSENT OF LESSOR.

22. FURTHER ASSURANCES. Lessee will promptly and duly execute and deliver to Lessor such further documents and take such further actions as Lessor may from time to time deem necessary in order to carry out the intent and purpose of this Lease and to protect the interests of Lessor under this Lease. Lessee, at the request of Lessor, agrees to execute and deliver to Lessor, any financing statements, fixture filings, or other instruments necessary for perfecting the interest and title of Lessor in this Lease and the Equipment, agrees that a copy of this Lease may be so filed, and agrees that all costs incurred in connection therewith (including, without limitation, filing fees and taxes) shall be paid by Lessee. Lessee hereby appoints Lessor as Lessee's attorney-in-fact to affix Lessee's signature to any and all such documents. Lessee will deliver to Lessor monthly financial statements (unaudited but prepared in accordance with generally accepted accounting principles) within 30 days of each month-end and audited annual financial statements within three months of fiscal year-end, which financial statements, Lessee warrants, shall fully and fairly represent the true financial condition of Lessee.

23. MISCELLANEOUS. This Lease shall constitute an agreement of lease and nothing herein shall be construed as giving to Lessee any right, title or interest in any of the Equipment except as a Lessee only. If Lessee is a partnership, then this Lease is executed by a general partner thereof, and if Lessee is a corporation, then this Lease is executed by a duly authorized officer of said corporation pursuant to authority granted by the board of directors of said corporation. This Lease may be executed in several counterparts, each of which shall constitute an original and in each case, such counterparts together shall constitute but one and the same instrument.

(a) Law: Jurisdiction, Venue. This Lease shall be deemed to have been made and accepted in San Mateo County, California, where Lessor's principal place of business is located, and shall be governed by the laws of the State of California, except for local recording statutes. Lessee hereby agrees that all actions and proceedings arising from this Lease may be litigated, at the election of Lessor, only in courts having sites within the State of California and Lessee hereby consents to the jurisdiction of any state or federal court located within the State of California. Lessee agrees that if any action is brought to enforce the provisions of this Lease by either party, the County of San Mateo shall be a proper place for the trial of such action. Lessee agrees to waive trial by jury.

(b) Binding on Successors. The terms and conditions of this Lease shall, subject only to the provisions as to assignment, be binding upon and

inure to the benefit of Lessor and Lessee and their respective heirs, executors, administrators and assigns.

(c) Survival. Lessee's indemnities such as given in Paragraphs 13 and in any addenda to this Lease shall survive the expiration or other termination of this Lease.

(d) Entire Agreement; Non-Waiver; Notices; Severability. This Lease constitutes the entire understanding between Lessor and Lessee relating to the subject matter hereof. Any representation, promises or conditions not contained herein shall not be binding unless in writing and signed by duly authorized representatives of each party. No covenant or condition of this Lease can be waived except by the written consent of Lessor. Any notices required to be given hereunder shall be given in writing at the address of each party herein set forth, or at such other address as either party may substitute by written notice to the other. If any condition of this Lease is held invalid, such an invalidity shall not affect any other provisions hereof.

(e) Gender; Number; Joint and Several Liability; Authorization; Paragraph Headings. Whenever the content of this Lease requires, the masculine gender includes the feminine or neuter, and the single number includes the plural. Whenever the word "Lessor" is used herein, it shall include all assignees of Lessor. Whenever the word "herein" is used referring to this Lease, it shall include the applicable Schedules hereto. If there is more than one Lessee named in this Lease, the liability of each shall be joint and several. Lessee hereby authorizes Lessor to (i) insert serial numbers and other identification in the Equipment Description when known and (ii) correct any patent errors or omissions in this Lease. The titles to the Paragraphs of this Lease are solely for the convenience of the parties and shall in no way be held to explain, modify, amplify or aid in the interpretation of the terms and provisions hereof.

[LETTERHEAD - Lease Management Services, Inc.]

ADDENDUM
MASTER LEASE AGREEMENT NUMBER 10434
BY AND BETWEEN
LIGAND PHARMACEUTICALS, INC., AS LESSEE
AND
LEASE MANAGEMENT SERVICES, INC., AS LESSOR

Attached to and made an integral part of Master Lease Agreement Number 10434 schedule number 21 and subsequent, by and between LIGAND PHARMACEUTICALS, INC., as Lessee, and LEASE MANAGEMENT SERVICES, INC., as Lessor (the "Master Lease").

In consideration of Lessor acquiring and leasing the equipment as more fully described in subsequent Lease Schedules of the Master Lease, Lessor and Lessee hereby agree that at the end of the initial lease term, Lessee shall purchase the leased Equipment at its residual value which the parties agree is equal to ten percent (10%) of its initial cost. Such initial cost includes any/all taxes, installation, freight, and other charges capitalized into the lease.

No Lease Schedule may be subdivided. All Equipment subject to a Lease Schedule shall be treated identically for purposes of purchase or renewal.

IN WITNESS WHEREOF, Lessor and Lessee have each caused this Addendum to be duly executed in their respective names this 14th day of February, 1997.

LESSEE: LESSOR:
LIGAND PHARMACEUTICALS, INC. LEASE MANAGEMENT SERVICES, INC.

By: [SIG] By: [SIG]

Title: Sr. VP/CFO Title: EVP/ General Manager

EQUIPMENT FINANCING AGREEMENT
(Number 10734)

THIS EQUIPMENT FINANCING AGREEMENT NUMBER 10734 ("Agreement") is dated as of the date set forth at the foot hereof and is between LEASE MANAGEMENT SERVICES, INC., ("Secured Party") and LIGAND PHARMACEUTICALS, INC., ("Debtor").

1. EQUIPMENT; SECURITY INTEREST. The terms and conditions of this Agreement cover each item of machinery, equipment and other property (individually an "Item" or "Item of Equipment" and collectively the "Equipment") described in a schedule now or hereafter executed by the parties hereto and made a part hereof (individually a "Schedule" and collectively the "Schedules"). Debtor hereby grants Secured Party a security interest in and to all Debtor's right, title and interest in and to the Equipment under the Uniform Commercial Code, such grant with respect to an Item of Equipment to be as of Debtor's execution of a related Equipment Financing Commitment referencing this Agreement or, if Debtor then has no interest in such Item, as of such subsequent time as Debtor acquires an interest in the Item. Such security interest is granted by Debtor to secure performance by Debtor of Debtor's obligations to Secured Party hereunder and under any other agreements under which Debtor has or may hereafter have obligations to Secured Party. Debtor will ensure that such security interest will be and remain a sole and valid first lien security interest subject only to the lien of current taxes and assessment not in default but only if such taxes are entitled to priority as a matter of law.

2. DEBTOR'S OBLIGATIONS. The obligations of Debtor under this Agreement respecting an Item of Equipment, except the obligation to pay installment payments with respect thereto which will commence as set forth in Paragraph 3 below, commence upon the grant to Secured Party of a security interest in the Item. Debtor's obligations hereunder with respect to an Item of Equipment and Secured Party's security interest therein will continue until payment of all amounts due, and performance of all terms and conditions required hereunder provided, however, that if this Agreement is in default said obligations and security interest will continue during the continuance of said default. Upon termination of Secured Party's security interest in an Item of Equipment, Secured Party will execute such release of interest with respect thereto as Debtor reasonably requests.

3. INSTALLMENT PAYMENTS AND OTHER PAYMENTS. Debtor will repay advances Secured Party makes on account of the Equipment in installment payments in the amounts and at the times set forth in the Schedules, whether or not Secured Party has rendered an invoice therefor, at the office of Secured Party set forth at the foot hereof, or to such person and/or at such other place as Secured Party may from time to time designate by notice to Debtor. Any other amounts required to be paid Secured Party by Debtor hereunder are due upon Debtor's receipt of Secured Party's invoice therefor and will be payable as directed in the invoice. Payments under this Agreement may be applied to Debtor's then accrued obligations to Secured Party in such order as Secured Party may choose.

4. NET AGREEMENT; NO OFFSET, SURVIVAL. This Agreement is a net agreement, and Debtor will not be entitled to any abatement of installment payments or other payments due hereunder or any reduction thereof under any circumstance or for any reason whatsoever. Debtor hereby waives any and all existing and future claims, as offsets, against any installment payments or other payments due hereunder and agrees to pay the installment payments and other amounts due hereunder as and when due regardless of any offset or claim which may be asserted by Debtor or on its behalf. The obligations and liabilities of Debtor hereunder will survive the termination of the Agreement.

5. FINANCING AGREEMENT. THIS AGREEMENT IS SOLELY A FINANCING AGREEMENT. DEBTOR ACKNOWLEDGES THAT THE EQUIPMENT HAS OR WILL HAVE BEEN SELECTED AND ACQUIRED SOLELY BY DEBTOR FOR DEBTOR'S PURPOSES, THAT SECURED PARTY IS NOT AND WILL NOT BE THE VENDOR OF ANY

EQUIPMENT AND THAT SECURED PARTY HAS NOT MADE AND WILL NOT MAKE ANY AGREEMENT, REPRESENTATION OR WARRANTY WITH RESPECT TO THE MERCHANTABILITY, CONDITION, QUALIFICATION OR FITNESS FOR A PARTICULAR PURPOSE OR VALUE OF THE EQUIPMENT OR ANY OTHER MATTER WITH RESPECT THERETO IN ANY RESPECT WHATSOEVER.

6. NO AGENCY. DEBTOR ACKNOWLEDGES THAT NO AGENT OF THE MANUFACTURER OR OTHER SUPPLIER OF AN ITEM OF EQUIPMENT OR OF ANY FINANCIAL INTERMEDIARY IN CONNECTION WITH THIS AGREEMENT IS AN AGENT OF SECURED PARTY. SECURED PARTY IS NOT BOUND BY A REPRESENTATION OF ANY SUCH PARTY AND, AS CONTEMPLATED IN PARAGRAPH 27 BELOW, THE ENTIRE AGREEMENT OF SECURED PARTY AND DEBTOR CONCERNING THE FINANCING OF THE EQUIPMENT IS CONTAINED IN THIS AGREEMENT AS IT MAY BE AMENDED ONLY AS PROVIDED IN THAT PARAGRAPH.

7. ACCEPTANCE. Execution by Debtor and Secured Party of a Schedule covering the Equipment or any Items thereof will conclusively establish that such Equipment has been included under and will be subject to all the terms and conditions of this Agreement. If Debtor has not furnished Secured Party with an executed Schedule by the earlier of fourteen (14) days after receipt thereof or expiration of the commitment period set forth in the applicable Equipment Financing Agreement, Secured Party may terminate its obligation to advance funds as to the applicable Equipment.

8. LOCATION; INSPECTION; USE. Debtor will keep, or in the case of motor vehicles, permanently garage and not remove from the United States, as appropriate, each Item of Equipment in Debtor's possession and control at the Equipment Location designated in the applicable Schedule, or at such other location to which such Item may have been moved with the prior written consent of Secured Party. Whenever requested by Secured Party, Debtor will advise Secured Party as to the exact location of an Item of Equipment. Secured Party will have the right to inspect the Equipment and observe its use during normal business hours, subject to Debtor's security procedures and to enter into and upon the premises where the Equipment may be located for such purpose. The Equipment will at all times be used solely for commercial or business purposes and operated in a careful and proper manner and in compliance with all applicable laws, ordinances, rules and regulations, all conditions and requirements of the policy or policies of insurance required to be carried by Debtor under the terms of this Agreement and all manufacturer's instructions and warranty requirements. Any modifications or additions to the Equipment required by any such governmental edict or insurance policy will be promptly made by Debtor.

9. ALTERATIONS; SECURITY INTEREST COVERAGE. Without the prior written consent of Secured Party, Debtor will not make any alterations, additions or improvements to any Item of Equipment which detract from its economic value or functional utility, except as may be required pursuant to Paragraph 8 above. Secured Party's security interest in the Equipment will include all modifications and additions thereto and replacements and substitutions therefor, in whole or in part. Such reference to replacements and substitutions will not grant Debtor greater rights to replace or substitute than are provided in Paragraph 11 below or as may be allowed upon the prior written consent of Secured Party.

10. MAINTENANCE: Debtor will maintain the Equipment in good repair, condition and working order. Debtor will also cause each Item of Equipment for which a service contract is generally available to be covered by such a contract which provides coverages typical to property of the type involved and is issued by a competent servicing entity.

11. LOSS AND DAMAGE; CASUALTY VALUE. In the event of the loss of, theft of, requisition of, damage to or destruction of an Item of Equipment ("Casualty Occurrence"), Debtor will give Secured Party prompt notice thereof and will thereafter place such Item in good repair,

condition and working order, provided, however, that if such Item is determined by Secured Party to be lost, stolen, destroyed or damaged beyond repair, is requisitioned or suffers a constructive total loss as defined in any applicable insurance policy carried by Debtor in accordance with Paragraph 14 below, Debtor, at Secured Party's option, will (a) replace such Item with like Equipment in good repair, condition and working order whereupon such replacement equipment will be deemed such Item for all purposes hereof or (b) pay Secured Party the "Casualty Value" of such Item which will equal the total of (i) all installment payments and other amounts due from Debtor to Secured Party at the time of such payment and (ii) future installment payments due with respect to such Item with each such payment including any final uneven payment discounted at a rate equal to the discount rate of the Federal Reserve Bank of San Francisco from the date due to the date of such payment.

Upon such replacement or payment, as appropriate, this Agreement and Secured Party's security interest will terminate with, and only with, respect to the Item of Equipment so replaced or as to which such payment is made in accordance with Paragraph 2 above.

12. **TITLING; REGISTRATION.** Each item of Equipment subject to title registration laws will at all times be titled and/or registered by Debtor as Secured Party's agent and attorney-in-fact with full power and authority to register (but without power to affect title to) the Equipment in such manner and in such jurisdiction or jurisdictions as Secured Party directs. Debtor will promptly notify Secured Party of any necessary or advisable retitling and/or reregistration of an Item of Equipment in a jurisdiction other than the one in which such Item is then titled and/or registered. Any and all documents of title will be furnished or caused to be furnished Secured Party by Debtor within sixty (60) days of the date any titling or registering or restating or reregistering, as appropriate, is directed by Secured Party.

13. **TAXES.** Debtor will make all filings as to and pay when due all personal property and other ad valorem taxes and all other taxes, fees, charges and assessments based on the ownership or use of the Equipment and will pay as directed by Secured Party or reimburse Secured Party for all other taxes, including, but not limited to, gross receipt taxes (exclusive of federal and state taxes based on Secured Party's net income, unless such net income taxes are in substitution for or relieve Debtor from any taxes which Debtor would otherwise be obligated to pay under the terms of this Paragraph 13), fees, charges and assessments whatsoever, however designated, whether based on the installment payments or other amounts due hereunder, levied, assessed or imposed upon the Equipment or otherwise related hereto or to the Equipment, now or hereafter levied, assessed or imposed under the authority of a federal, state, or local taxing jurisdiction, regardless of when and by whom payable. Filings with respect to such other amounts will, at Secured Party's option, be made by Secured Party or by Debtor as directed by Secured Party.

14. **INSURANCE.** Debtor will procure and continuously maintain all risk insurance against loss or damage to the Equipment from any cause whatsoever for not less than the full replacement value thereof naming Secured Party as Loss Payee. Such insurance must be in a form and with companies approved by Secured Party, must provide at least thirty (30) days advance written notice to Secured Party of cancellation, change or modification in any term, condition, or amount of protection provided therein, must provide full breach of warranty protection and must provide that the coverage is "primary coverage" (does not require contribution from any other applicable coverage). Debtor will provide Secured Party with an original policy or certificate evidencing such insurance. In the event of an assignment of this Agreement of which Debtor has notice, Debtor will cause such insurance to provide the same protection to the assignee as its interests may appear. The proceeds of such insurance, at the option of the Secured Party or such assignee, as appropriate, will be applied toward (a) repair or replacement of the appropriate Item or Items of Equipment, (b) payment of the Casualty Value thereof and/or (c) payment of, or as provision for, satisfaction of any other accrued obligations of Debtor hereunder. Debtor hereby appoints Secured Party as Debtor's attorney-in-fact with full power and authority to do all things, including, but not limited to, making claims, receiving payments and endorsing documents, checks or drafts, necessary to secure payments due under any policy contemplated hereby on account of a Casualty

Occurrence. Debtor and Secured Party contemplate that the jurisdictions where the Equipment will be located will not impose any liability upon Secured Party for personal injury and/or property damage resulting out of the possession, use, operation or condition of the Equipment. In the event Secured Party determines that such is not or may not be the case with respect to a given jurisdiction, Debtor will provide Secured Party with public liability and property damage coverage applicable to the Equipment in such amounts and in such form as Secured Party requires.

15. SECURED PARTY'S PAYMENT. If Debtor fails to pay any amounts due hereunder or to perform any of its other obligations under this Agreement, Secured Party may, at its option, but without any obligation to do so, pay such amounts or perform such obligations, and Debtor will reimburse Secured Party the amount of such payment or cost of such performance, plus interest at 1.5 % per month.

16. INDEMNITY. Debtor does hereby assume liability for and does agree to indemnify, defend, protect, save and keep harmless Secured Party from and against any and all liabilities, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements, including court costs and legal expenses, of whatever kind and nature, imposed on, incurred by or asserted against Secured Party (whether or not also indemnified against by any other person) in any way relating to or arising out of this Agreement or the manufacture, financing, ownership, delivery, possession, use, operation, condition or disposition of the Equipment by Secured Party or Debtor, including without limitation, any claim alleging latent and other defects, whether or not discoverable by Secured Party or Debtor, and any other claim arising out of strict liability in tort, whether or not in either instance relating to an event occurring while Debtor remains obligated under this Agreement, and any claim for patent, trademark or copyright infringement. Debtor agrees to give Secured Party and Secured Party agrees to give Debtor notice of any claim or liability hereby indemnified against promptly following learning thereof.

17. DEFAULT. Any of the following will constitute an event of default hereunder: (a) Debtor's failure to pay when due any installment payment or other amount due hereunder, which failure continues for ten (10) days after the due date thereof; (b) Debtor's default in performing any other obligation, term or condition of this Agreement or any other agreement between Debtor and Secured Party or default under any further agreement providing security for the performance by Debtor of its obligations hereunder provided such default has continued for more than twenty (20) days, except as provided in (c) and (d) hereinbelow, or, without limiting the generality of subparagraph (1) hereinbelow, default under any lease or any mortgage or other instrument contemplating the provision of financial accommodation applicable to the real property where an Item of Equipment is located; (c) any writ or order of attachment or execution or other legal process being levied on or charged against any Item of Equipment and not being released or satisfied within ten (10) days; (d) Debtor's failure to comply with its obligations under Paragraph 14 above or any transfer by Debtor in violation of Paragraph 21 below; (e) a non-appealable judgment for the payment of money in excess of \$100,000 being rendered by a court of record against Debtor which Debtor does not discharge or make provision for discharge in accordance with the terms thereof within ninety (90) days from the date of entry thereof; (f) death or judicial declaration of incompetency of Debtor, if an individual; (g) the filing by Debtor of a petition under the Bankruptcy Code or any amendment thereto or under any other insolvency law or law providing for the relief of debtors, including, without limitation, a petition for reorganization, arrangement or extension, or the commission by Debtor of an act of bankruptcy; (h) the filing against Debtor of any such petition not dismissed or permanently stayed within thirty (30) days of the filing thereof; (i) the voluntary or involuntary making of an assignment of substantial portion of its assets by Debtor for the benefit of creditors, appointment of a receiver or trustee for Debtor or for any of Debtor's assets, institution by or against Debtor or any other type of insolvency proceeding (under the Bankruptcy Code or otherwise) or of any formal or informal proceeding for dissolution, liquidation, settlement of claims against or winding up of the

affairs of Debtor, Debtor's cessation of business activities or the making by Debtor of a transfer of all or a material portion of Debtor's assets or inventory not in the ordinary course of business; (j) the occurrence of any event described in parts (e), (f), (g), (h) or (i) hereinabove with respect to any guarantor or

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other party liable for payment or performance of this Agreement; (k) any certificate, statement, representation, warranty or audit heretofore or hereafter furnished with respect hereto by or on behalf of Debtor or any guarantor or other party liable for payment or performance of this Agreement proving to have been false in any material respect at the time as of which the facts therein set forth were stated or certified or having omitted any substantial contingent or unliquidated liability or claim against Debtor or any such guarantor or other party; (l) breach by Debtor of any lease or other agreement providing financial accommodation under which Debtor or its property is bound; or (m) a transfer of effective control of Debtor, if an organization.

18. REMEDIES. Upon the occurrence of an event of default, Secured Party will have the rights, options, duties and remedies of a Secured Party, and Debtor will have the rights and duties of a debtor, under the Uniform Commercial Code (regardless of whether such Code or a law similar thereto has been enacted in a jurisdiction wherein the rights or remedies are asserted) and, without limiting the foregoing, Secured Party may exercise any one or more of the, following remedies: (a) declare the Casualty Value or such lesser amount as may be set by law immediately due and payable with respect to any or all Items of Equipment without notice or demand to Debtor; (b) sue from time to time for and recover all installment payments and other payments then accrued and which accrue during the pendency of such action with respect to any or all Items of Equipment; (c) take possession of and, if deemed appropriate, render unusable any or all Items of Equipment, without demand or notice, wherever same may be located, without any court order or other process of law and without liability for any damages occasioned by such taking of possession and remove, keep and store the same or use and operate or lease the same until sold; (d) require Debtor to assemble any or all Items of Equipment at the Equipment Location therefor, or at such location to which such Equipment may have been moved with the written consent of Secured Party or such other location in reasonable proximity to either of the foregoing as Secured Party designates; (e) upon ten (10) days notice to Debtor or such other notice as may be required by law, sell or otherwise dispose of any Item of Equipment, whether or not in Secured Party's possession, in a commercially reasonable manner at public or private sale at any place deemed appropriate and apply the new proceeds of such sale, after deducting all costs of such sale, including, but not limited to, costs of transportation, repossession, storage, refurbishing, advertising and brokers' fees, to the obligations of Debtor to Secured Party hereunder or otherwise, with Debtor remaining liable for any deficiency and with any excess being returned to Debtor; (f) upon thirty (30) days notice to Debtor, retain any repossessed or assembled Items of Equipment as Secured Party's own property in full satisfaction of Debtor's liability for the installment payments due hereunder with respect thereto, provided that Debtor will have the right to redeem such Items by payment in full of its obligations to Secured Party hereunder or otherwise or to require Secured Party to sell or otherwise dispose of such Items in the manner set forth in subparagraph (e) hereinabove upon notice to Secured Party within such thirty (30) day period; or (g) utilize any other remedy available to Secured Party under the Uniform Commercial Code or similar provision of law or otherwise at law or in equity.

No right or remedy conferred herein is exclusive of any other right or remedy conferred herein or by law; but all such remedies are cumulative of every other right or remedy conferred hereunder or at law or in equity, by statute or otherwise, and may be exercised concurrently or separately from time to time. Any sale contemplated by subparagraph (e) of this Paragraph 18 may be adjourned from time to time by announcement at the time and place appointed for such sale, or for any such adjourned sale, without further published notice, Secured Party may bid and become the purchaser at any such sale. Any sale of an Item of Equipment, whether under said subparagraph or by virtue of judicial proceedings,

will operate to divest all right, title, interest, claim and demand whatsoever; either at law or in equity, of Debtor in and to said item and will be a perpetual bar to any claim against such Item, both at law and in equity, against Debtor and all persons claiming by, through or under Debtor.

19. DISCONTINUANCE OF REMEDIES. If Secured Party proceeds to enforce any right under this Agreement and such proceedings are discontinued or abandoned for any reason or are

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determined adversely, then and in every such case Debtor and Secured Party will be restored to their former positions and rights hereunder.

20. SECURED PARTY'S EXPENSES. Debtor will pay Secured Party all costs and expenses, including attorney's fees and court costs and sales costs not offset against sales proceeds under Paragraph 18 above, incurred by Secured Party in exercising any of its rights or remedies hereunder or enforcing any of the terms, conditions or provisions hereof. This obligation includes the payment or reimbursement of all such amounts whether an action is ultimately filed and whether an action is ultimately dismissed.

21. ASSIGNMENT. Without the prior written consent of Secured Party, Debtor will not sell, lease, pledge or hypothecate, except as provided in this Agreement, any Item of Equipment or any interest therein or assign, transfer, pledge, or hypothecate this Agreement or any interest in this Agreement or permit the Equipment to be subject to any lien, charge or encumbrance of any nature except the security interest of Secured Party contemplated hereby. Debtor's interest herein is not assignable and will not be assigned or transferred by operation of law. Consent to any of the foregoing prohibited acts applies only in the given instance and is not a consent to any subsequent like act by Debtor or any other person.

All rights of Secured Party hereunder may be assigned, pledged, mortgaged, transferred or otherwise disposed of, either in whole or in part, without notice to Debtor but always, however, subject to the rights of Debtor under this Agreement. If Debtor is given notice of any such assignment, Debtor will acknowledge receipt thereof in writing. In the event Secured Party assigns this Agreement or the installment payments due or to become due hereunder or any other interest herein, whether as security for any of its indebtedness or otherwise, no breach or default by Secured Party hereunder or pursuant to any other agreement between Secured Party and Debtor, should there be one, will excuse performance by Debtor of any provision hereof, it being understood that in the event of such default or breach by Secured Party that Debtor will pursue any rights on account thereof solely against Secured Party. No such assignee, unless such assignee agrees in writing, will be obligated to perform any duty, covenant or condition required to be performed by Secured Party in connection with this Agreement.

Subject always to the foregoing, this Agreement inures to the benefit of, and is binding upon, the heirs, legatees, personal representative, successors and assigns of the parties hereto.

22. MARKINGS; PERSONAL PROPERTY. If Secured Party supplies Debtor with labels, plates, decals or other markings stating that Secured Party has an interest in the Equipment, Debtor will affix and keep the same prominently displayed on the Equipment or will otherwise mark the Equipment or its then location or locations, as appropriate, at Secured Party's request to indicate Secured Party's security interest in the Equipment. The Equipment is, and at all times will remain, personal property notwithstanding that the Equipment or any Item thereof may now be, or hereafter become, in any manner affixed or attached to, or embedded in, or permanently resting upon real property or any improvement thereof or attached in any manner to what is permanent as by means of cement, plaster, nails, bolts, screws or otherwise. If requested by Secured Party, Debtor will obtain and deliver to Secured Party waivers of interest or liens in

recordable form satisfactory to Secured Party from all persons claiming any interest in the real property on which an Item of Equipment is or is to be installed or located.

23. LATE CHARGES. Time is of the essence in this Agreement and if any Installment Payment is not paid within ten (10) days after the due date thereof, Secured Party shall have the right to add and collect, and Debtor agrees to pay: (a) a late charge on and in addition to, such Installment Payment equal to five percent (5%) of such Installment Payment or a lesser amount if established by any state or federal statute applicable thereto, and (b) interest on such Installment Payment from thirty (30) days after the due date until paid at the highest contract rate enforceable against Debtor under applicable law but never to exceed eighteen percent (18%) per annum.

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24. NON-WAIVER. No covenant or condition of this Agreement can be waived except by the written consent of Secured Party. Forbearance or indulgence by Secured Party in regard to any breach hereunder will not constitute a waiver of the related covenant or condition to be performed by Debtor.

25. ADDITIONAL DOCUMENTS. In connection with and in order to perfect and evidence the security interest in the Equipment granted Secured Party hereunder Debtor will execute and deliver to Secured Party such financing statements and similar documents as Secured Party requests. Debtor authorizes Secured Party where permitted by law to make filings of such financing statements without Debtor's signature. Debtor further will furnish Secured Party (a) on a timely basis, Debtor's future financial statements, including Debtor's most recent annual report, balance sheet and income statement, prepared in accordance with generally accepted accounting principles, which reports, Debtor warrants, shall fully and fairly represent the true financial condition of Debtor (b) any other information normally provided by Debtor to the public and (c) such other financial data or information relative to this Agreement and the Equipment, including, without limitation, copies of vendor proposals and purchase orders and agreements, listings of serial numbers or other identification data and confirmations of such information, as Secured Party may from time to time reasonably request. Debtor will procure and/or execute, have executed, acknowledged, have acknowledged, deliver to Secured Party, record and file such other documents and showings as Secured Party deems necessary or desirable to protect its interest in and rights under this Agreement and interest in the Equipment. Debtor will pay as directed by Secured Party or reimburse Secured Party for all filing, search, title report, legal and other fees incurred by Secured Party in connection with any documents to be provided by Debtor pursuant to this Paragraph or Paragraph 22 and any further similar documents Secured Party may procure.

26. DEBTOR'S WARRANTIES. Debtor certifies and warrants that the financial data and other information which Debtor has submitted, or will submit, to Secured Party in connection with this Agreement is, or will be at time of delivery, as appropriate, a true and complete statement of the matters therein contained. Debtor further certifies and warrants: (a) this Agreement has been duly authorized by Debtor and when executed and delivered by the person signing on behalf of Debtor below will constitute the legal, valid and binding obligation, contract and agreement of Debtor enforceable against Debtor in accordance with its respective terms; (b) this Agreement and each and every showing provided by or on behalf of Debtor in connection herewith may be relied upon by Secured Party in accordance with the terms thereof notwithstanding the failure of Debtor or other applicable party to ensure proper attestation thereto, whether by absence of a seal or acknowledgment or otherwise; (c) Debtor has the right, power and authority to grant a security interest in the Equipment to Secured Party for the uses and purposes herein set forth and (d) each Item of Equipment will, at the time such Item becomes subject hereto, be in good repair, condition and working order.

27. ENTIRE AGREEMENT. This instrument with exhibits and related documentation

constitutes the entire agreement between Secured Party and Debtor and will not be amended, altered or changed except by a written agreement signed by the parties.

28. NOTICES. Notices under this Agreement must be in writing and must be mailed by United States mail, certified mail with return receipt requested, duly addressed, with postage prepaid, to the party involved at its respective address set forth at the foot hereof or at such other address as each party may provide on notice to the other from time to time. Notices will be effective when deposited. Each party will promptly notify the other of any change in that party's address.

29. GENDER, NUMBER: JOINT AND SEVERAL LIABILITY. Whenever the context of this Agreement requires, the neuter gender includes the feminine or masculine and the singular number includes the plural; and whenever the words "Secured Party" are used herein, they include all assignees of Secured Party, it being understood that specific reference to "assignee" in

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Paragraph 14 above is for further emphasis. If there is more than one Debtor named in this Agreement, the liability of each will be joint and several.

30. TITLES. The titles to the Paragraphs of this Agreement are solely for the convenience of the parties and are not an aid in the interpretation of the instrument.

31. GOVERNING LAW; VENUE. This Agreement will be governed by and construed in accordance with the laws of the State of California. Venue for any action related to the Agreement will be in an appropriate court in San Mateo County, California, to which Debtor consents, or in another court selected by Secured Party which has jurisdiction over the parties. In the event any provision hereof is declared invalid, such provision will be deemed severable from the remaining provisions of this Agreement, which will remain in full force and effect.

32. TIME. Time is of the essence of this Agreement and for each and all of its provisions.

In WITNESS WHEREOF, the undersigned have executed this Agreement as of 2/14, 1997.

DEBTOR:
LIGAND PHARMACEUTICALS, INC.
9393 Towne Centre Drive, Suite 100
San Diego, CA 92121

By: [SIG]

Titl: Sr. VP/CFO

SECURED PARTY:
LEASE MANAGEMENT SERVICES, INC.
2500 Sand Hill Road, Suite 101
Menlo Park, CA 94025

By: [SIG]

Title: EVP/ General Manager

[LETTERHEAD - Lease Management Services, Inc.]

CERTIFIED COPY OF RESOLUTIONS OF
BOARD OF DIRECTORS

I, William Respass, hereby certify that I am the Corporate Secretary and official custodian of certain records including the Charter, By-Laws, and the Minutes of the Meetings of the Board of Directors of LIGAND PHARMACEUTICALS, INC, a Corporation duly organized and existing under the laws of the State of Delaware, that the following is a true, accurate and compared transcript of the Resolutions contained in the Minute Book of the Corporation, duly adopted by the Board of Directors of said Corporation at a Meeting of the Board of Directors of said Corporation duly held on the 6th day of February , 1997, at which time a quorum was present and acted throughout and authorized its officers to transact the business hereinafter described, and that the proceedings of said meeting were in accordance with the Charter and By-Laws of said Corporation and that said Resolutions have not been rescinded or amended and are in full force and effect:

RESOLVED, that this Corporation enter into a Lease Agreement and/or an Equipment Financing Agreement with LEASE MANAGEMENT SERVICES, INC. for the funding of that certain property as is set forth in the Master Equipment Lease Agreement and/or Equipment Financing Agreement, and it is further

RESOLVED, that any officers of this Corporation be and they are hereby authorized and empowered in the name of and on behalf of this Corporation to execute any and all documents as may be required by LEASE MANAGEMENT SERVICES, INC. to effectuate the provisions hereof.

I CERTIFY, that I have examined the Articles of Incorporation, the By-Laws of the Corporation, and all amendments therewith and I am fully familiar with all of said documents and that there are no restrictions imposed on the power and authority of the Board of Directors of said Corporation to adopt the foregoing resolutions whereupon the Corporation and its officers are authorized to act in accordance therewith.

IN WITNESS WHEREOF, I have hereupon subscribed my name on the 18th day Of February , 1997. -----

By: /s/ [WILLIAM L. RESPASS]

William L. Respass
Corporate Secretary

ATTEST:

/s/ [DAVID E. ROBINSON]

David E. Robinson
Title: President and Chief Executive Officer

[LETTERHEAD - Lease Management Services, Inc.]

CERTIFICATE OF INCUMBENCY AND AUTHORITY

I, David E. Robinson, do hereby certify that I am the duly elected, qualified and acting President and Chief Executive Officer of LIGAND PHARMACEUTICALS, INC.,

(Lessee/Debtor), a California corporation; that the persons whose names, titles and signatures appear below are duly elected (or appointed) qualified and acting officers of said corporation and hold on the date of this Certificate, and on the date of execution of the Master Lease documents and/or Equipment Financing documents, the offices set opposite their respective names; that the signatures appearing opposite their respective names are the genuine signatures of such officers; that each such officer is duly authorized for and on behalf of said corporation to execute and deliver any Equipment Lease and/or Equipment Financing Agreement between said corporation and said Lessor/Secured Party, LEASE MANAGEMENT SERVICES, INC., and all agreements, documents, and instruments in connection therewith, including without limitation, Rental Schedules and Certificates of Equipment Acceptance, and that the execution and delivery of any such equipment lease and/or financing agreement, and all agreements, documents, and instruments in connection therewith for and on behalf of said corporation is not prohibited by or in any manner restricted by the terms of said corporation's Certificate of Incorporation, its by-laws, or of any loan agreement, indenture or contract to which said corporation is a party or under which it is bound. I do further certify that the foregoing authority shall remain in full force and effect, and LEASE MANAGEMENT SERVICES, INC. shall be entitled to rely upon the same, until written notice of the modification, rescission or revocation of same, in whole or in part, has been delivered to LEASE MANAGEMENT SERVICES, INC., but no such modification, rescission or revocation shall, in any event, be effective with respect to any documents executed or actions taken in reliance upon the foregoing authority prior to the delivery to LEASE MANAGEMENT SERVICES, INC. of said written notice of said modification, rescission or revocation.

NAME OF OFFICER	TITLE OF OFFICER	SIGNATURE OF OFFICER
Paul V. Maier	Sr. Vice President and Chief Financial Officer	/s/ [PAUL V. MAIER] ----- Paul V. Maier

IN WITNESS WHEREOF, I have hereunto set my hand this 18th day of February, 1997.

Lessee/Debtor: LIGAND PHARMACEUTICALS, INC.

By: /s/ [DAVID E. ROBINSON]

David E. Robinson
Title: President and Chief Executive Officer

[LETTERHEAD - Lease Management Services, Inc.]

COLLATERAL SECURITY AGREEMENT

Agreement made and entered into as of this 14th day of February, 1997, by and between LIGAND PHARMACEUTICALS, INC., Lessee/Debtor and LEASE MANAGEMENT SERVICES, INC., Lessor/Secured Party.

As security for the payment and performance by LIGAND PHARMACEUTICALS ("LIGAND") to LEASE MANAGEMENT SERVICES, INC. ("LMSI") under (a) Master Lease Agreement Number 10434 schedule number 21 and subsequent and Equipment Financing Agreement Number 10734 , and all schedules thereunder between LIGAND and LMSI (hereinafter collectively referred to as the "Agreements"); (b) any and all obligations of LIGAND to LMSI hereunder and any and all indebtedness and obligations of LIGAND to LMSI, direct, indirect or contingent , joint or several, whether or not otherwise secured, and whether now existing or hereafter incurred; and (c) any and all amounts advanced or expended by LMSI for the maintenance or preservation of the Collateral (as defined below); LIGAND hereby pledges, assigns and grants to LMSI, a first security interest in:

All equipment and personal property which was previously leased or financed under the Agreements between Lessee/Debtor and Lessor/Secured Party as more fully described on the 62 page Exhibit A, attached hereto and made an integral part hereof, together with all accessories, parts, upgrades, renewals and

replacements of, and repairs, improvements and accessions to the equipment and any insurance proceeds or proceeds or revenue derived from the sale or other disposition of the equipment.

LIGAND hereby warrants that it is the sole owner in possession of all Collateral and that the Collateral is free and clear of all liens, encumbrances and adverse claims, with the exception of the security interest herein created and all other security interests previously granted to LMSI. LIGAND agrees to execute and deliver to LMSI at any time and from time to time such other security agreements or mortgages of chattel as LMSI may reasonably request, covering the Collateral. LIGAND also agrees to appear in and defend any and all actions and proceedings, at its own expense, affecting title to the Collateral or any part thereof, or affecting the security interest of LMSI therein.

LIGAND also agrees to: do all acts which may be necessary to maintain, preserve and protect the Collateral and to keep the Collateral in good condition and repair; not to cause or permit any waste or unusual or unreasonable depreciation thereof or any act for which the Collateral might be confiscated; to pay before delinquency all taxes, assessments and liens now or hereafter imposed upon the Collateral; not to sell, lease, encumber or dispose of all or any part of the Collateral; at any time upon demand of LMSI to exhibit to and allow inspection by LMSI of the Collateral; not to remove or permit the removal of the Collateral from the premises where it is now located without the prior written consent of LMSI; to provide, maintain and deliver to LMSI policies insuring the Collateral against loss or damage by such risks and in such amounts, forms and companies as LMSI reasonably requires and with loss payable to LMSI. If LMSI takes possession of the Collateral in the event of a Default, the insurance policy or policies of any unearned or returned premium shall, at the option of LMSI, be assigned by LIGAND to LMSI, upon LMSI crediting the amount of any unearned premium upon the obligation secured hereby.

In the event the Collateral or an item thereof is destroyed and payment upon such policies of insurance is made to LIGAND and LIGAND chooses not to replace the Collateral with equipment of like kind or value, LMSI will retain all insurance proceeds except to the extent that the proceeds exceed the remaining obligation of LIGAND to LMSI. If LIGAND chooses to replace the Collateral or any item thereof with equipment of like kind and value, the

COLLATERAL SECURITY AGREEMENT
LIGAND PHARMACEUTICALS, INC.
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covered by any schedules to a Master Lease Agreement or Equipment Financing Agreement between and LMSI which shall governed by the provisions of the applicable Master Lease Agreement and Equipment Financing Agreement.

If LIGAND fails to make any payment or do any act as herein required, then LMSI may, but without obligation to do so, and without notice to or demand upon LIGAND, make such payments and do such acts as LMSI may deem necessary to protect its security interest in the Collateral. LMSI is hereby authorized (without limiting the general nature of the authority hereinabove conferred) to take possession of the Collateral; to pay, purchase, contest, and compromise any encumbrance, charge or lien Which in the judgment of LMSI appears to be prior or superior to its security interest; and, in exercising any such powers and authority, to pay necessary expenses, employ counsel and pay reasonable fees therefor. LIGAND hereby agrees to repay immediately, and without demand, all sums so expended by LMSI, with interest from date of expenditure at the rate of Eighteen Percent (18%), but never to exceed any legal limit for such interest.

Any officer of LMSI is hereby irrevocably appointed the attorney-in-fact of LIGAND, with full power of substitution, to sign any certificate of ownership, registration card, application therefor, affidavits or documents necessary to transfer title to any of the Collateral, to receive and give receipt for all licenses, registration cards and certificates of ownership, and to do all acts necessary or incident to the powers granted to LMSI herein, as full as LIGAND might.

Should LIGAND default under the Lease, upon written notice, pursuant to the terms and conditions of the Agreements, LMSI may (a) immediately take possession of the Collateral wherever it may be found, using all necessary force to do so or require LIGAND to assemble the Collateral and make it available to LMSI at a place designated by LMSI which is reasonably convenient to LMSI, and LIGAND waives all claims for damages due to or arising from or connected with any such taking; (b) proceed in the foreclosure of LMSI's security interest and the sale of the Collateral in any manner permitted by law, or provided for herein; (c) sell, lease or otherwise dispose of the Collateral at public or private sale, with or without having the Collateral at the place of sale, and upon terms and in such manner as LMSI may determine, and LMSI may purchase the same at any such sale; (d) retain the Collateral in full satisfaction of the obligations secured thereby; (e) exercise any remedies of a LMSI under the Uniform Commercial Code.

Prior to any such disposition, LMSI may, at its option, cause any of the Collateral to be repaired or reconditioned in such manner and to such extent as LMSI may deem advisable, and any sums expended therefor by LMSI shall be repaid by LIGAND and secured hereby; LMSI shall have the right to enforce one or more remedies hereunder successively or concurrently, and any such action shall not stop or prevent LMSI from pursuing any further remedy which it may have hereunder or by law. If a sufficient sum is not realized from any such disposition of Collateral to pay all obligations secured by this agreement, LIGAND hereby promises and agrees to pay LMSI any deficiency.

Time and exactitude of each of the terms, obligations, covenants and conditions are hereby declared to be the essence hereof. No waiver by LMSI of any breach or default shall be deemed a waiver of any breach or default thereafter occurring and the taking of any action by LMSI shall not be deemed to be an election of that action but rather the rights and privileges and options granted to LMSI under the terms hereof shall be deemed cumulative, the one with the other and not alternative.

Should the Collateral be sold, with or without the consent of LMSI, then it is expressly agreed that the proceeds from said sale are hereby assigned to LMSI who shall immediately receive the entire proceeds.

COLLATERAL SECURITY AGREEMENT
LIGAND PHARMACEUTICALS, INC.
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LIGAND agrees to execute any additional documents deemed necessary by LMSI to assure the perfection of the security interest created hereunder and to pay any fees or charges paid by LMSI in connection with the perfection of, or continue the perfection of, the security interest created hereunder.

Upon termination of the Agreements and the satisfaction of all obligations of LIGAND thereunder, LMSI shall release its security interest in the Collateral, and this Collateral Security Agreement shall thereupon be without further effect.

IN WITNESS WHEREOF, the parties have caused this Collateral Security Agreement to be executed as of this 14th day of February, 1997.

LESSEE/DEBTOR. LESSOR/SECURED PARTY
LIGAND PHARMACEUTICALS, INC. LEASE MANAGEMENT SERVICES, INC.

By: [SIG] By: [SIG]

Title: SR VP/CFO Title: EVP/General Manager

[STAMP]

CERTIFIED to be a correct Copy of the
Contents of the Original Document
Recorded 3-11-97 @ 9:34 am

File No. 1997 - 0105342

Official Records of San Diego County, California
CHICAGO TITLE COMPANY
[SIG]

RECORDING REQUESTED BY:

WHEN RECORDED, MAIL TO:

Ligand Pharmaceuticals, Inc.
Attn: David E. Robinson
President and CEO
9393 Towne Centre Drive, Suite 100
San Diego, CA 92121

MAIL TAX STATEMENTS TO:

SAME AS ABOVE

ALL OF 340-180-05 AND
A PORTION OF TAX ASSESSOR'S PARCEL NO. 340-180-04

Amount of Documentary Transfer Tax shown on attached paper--not for public
record.

GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
MS VICKERS II, LLC, a Delaware limited liability company ("Grantor") , hereby
grants to NEXUS EQUITY VI LLC, a California limited liability company
("Grantee"), the real property located in the City of San Diego, County of San
Diego, State of California, described on Exhibit "A" attached hereto and made a
part hereof, and hereinafter referred to as the "Property":

SUBJECT TO:

(a) All general and special real property taxes and assessments, not
delinquent.

(b) Easements, liens, charges, covenants, restrictions, reservations
and other terms and provisions set forth in that certain Declaration of
Covenants, Conditions, and Restrictions for Torrey Pines Science Center (Unit
2), executed by Chevron Land and Development Company dated June 22, 1994, and
recorded on June 27, 1994 as File No. 1994-0405385 of the Official Records of
San Diego County, California, as amended as of the date hereof ("Declaration"),
which Declaration is by this reference incorporated herein and made a part
hereof. The Property is conveyed to Grantee together with all easements set
forth in the

Declaration which are appurtenant to the Property. By acceptance of this Grant
Deed, Grantor accepts and agrees to be bound by the covenants, conditions,

restrictions, rights and liabilities set forth in the Declaration, which shall bind successor owners of the Property conveyed to Grantee as covenants running with the land.

(c) Easements, liens, charges, covenants, restrictions and other terms and provisions of that certain Grant of Reciprocal Access Easements executed as of July 14, 1994 and recorded on July 29, 1994 as File No. 1994-0467713 of the Official Records of San Diego County, California.

BY ACCEPTANCE AND RECORDATION OF THIS DEED, GRANTEE COVENANTS, for itself, its successors and assigns, that except as provided in California Civil Code Section 1113, the Property is acquired by Grantee "AS IS" without any representations or warranties whatsoever, express or implied, with full knowledge of its prior use, and Grantee hereby releases Grantor from any and all liability on account of the condition of the Property.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

[Signature Page to Grant Deed]

IN WITNESS WHEREOF, Grantor has executed this Grant Deed on MARCH 5 , 1997.

GRANTOR: MS VICKERS II, LLC, a Delaware limited liability company

By: /S/ [JAMES R. BROOKS]

James R. Brooks
Vice President

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

On 3-5-97 before me, VIRGINIA BARBA ,
Notary Public, -----
personally appeared James R. Brooks , personally known to me to be
the person whose name ----- is subscribed to the within instrument
and acknowledged to me that he executed the same in his authorized capacity, and
that by his signature (s) on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[NOTARY SEAL]

[SEAL]

/s/ [VIRGINIA BARBA]

Virginia Barba
Signature

[Signature Page to Grant Deed]

AGREED AND ACCEPTED and executed on March 7, 1997.

GRANTEE: NEXUS EQUITY VI LLC, a California limited liability company

By: Nexus Properties, Inc., a California corporation Its: Manager

By: /s/ [MICHAEL J. REIDY]

Michael J. Reidy Chief Executive Officer

STATE OF CALIFORNIA)

) ss.

COUNTY OF SAN DIEGO)

On MARCH 7, 1997 before me, [ILLEGIBLE], personally appeared Michael J. Reidy, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name(s) are/is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature (s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[SIG]

[NOTARY SEAL]

Signature

(SEAL)

EXHIBIT "A"

LEGAL DESCRIPTION OF PROPERTY

Parcel 2 of Parcel Map No. 17826 in the City of San Diego, County of San Diego, State of California, according to Map thereof filed in the Office of the County Recorder of San Diego County on February 18, 1997.

[STAMP]

CERTIFIED to be a correct Copy of the
Contents of the Original Document
Recorded 3-11-97 @ 9:34 am

File No. 1997 - 0105343

Official Records of San Diego County, California
CHICAGO TITLE COMPANY
[SIG]

RECORDING REQUESTED BY
AND WHEN RECORDED, MAIL TO:

TOKAI BANK OF CALIFORNIA
Central Note Department
Branch #9207 - Credit Control
300 South Grand Avenue, 5th Floor
Los Angeles, California 90071

Assessor's Parcel No. 340-180-05 AND
A PORTION OF 340-180-04

CONSTRUCTION DEED OF TRUST, ASSIGNMENT OF RENTS,
SECURITY AGREEMENT AND FIXTURE FILING

This Construction Deed of Trust, Assignment of Rents, Security Agreement and Fixture Filing ("Deed of Trust") is made to be effective on the 7th day of March, 1997, by Nexus Equity VI LLC ("Trustor"), whose address is 4350 La Jolla Village Drive, Suite 930, San Diego, California 92122, to CHICAGO TITLE COMPANY, as Trustee ("Trustee"), for the benefit of TOKAI BANK OF CALIFORNIA, a California banking corporation, as Beneficiary ("Lender").

THIS DEED OF TRUST ALSO CONSTITUTES A FIXTURE FILING UNDER SECTION 9313 OF THE CALIFORNIA UNIFORM COMMERCIAL CODE AND COVERS GOODS WHICH ARE OR ARE TO BECOME FIXTURES ON THE REAL PROPERTY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF. TRUSTOR IS A RECORD OWNER OF AN INTEREST IN SAID REAL PROPERTY.

GRANT IN TRUST:

Trustor irrevocably grants, transfers and assigns to Trustee, in trust, for the benefit of Lender, with power of sale, all of Trustor's interest in that certain real property located in the County of San Diego, California, described as:

(SEE EXHIBIT "A" ATTACHED HERETO AND
INCORPORATED HEREIN BY THIS REFERENCE]

TOGETHER WITH: All right, title and interest which Trustor now has or may later acquire in such real property and all appurtenances, easements, rights of way, tenements, hereditaments and appurtenances thereunto belonging or in any way appertaining thereto now or hereafter, and all of the estate, right, title, interest, claim, demand, reversion or remainder whatsoever of Trustor therein or thereto, at law or in equity, now or hereafter in possession or expectancy, including, without limitation, all mineral, oil, and gas

rights and royalties and profits therefrom, all water and water rights and shares of stock pertaining to water and water rights, and all sewers, pipes, conduits, wires and other facilities furnishing utility or services to the real property (collectively, the "Land");

TOGETHER WITH: All right, title and interest which Trustor now has or may later acquire in and to all buildings, structures and improvements now or hereafter erected on the Land, including, without limitation, all plant equipment, apparatus, machinery and fixtures of every kind and nature whatsoever now or hereafter located on or forming part of said buildings, structures and improvements (collectively, the "Improvements"; the Land and Improvements being hereinafter sometimes collectively referred to as the "Premises");

TOGETHER WITH: All right, title and interest which Trustor now has or may later acquire in and to the land lying in the bed of any street, road, highway or avenue now or hereafter in front of or adjoining the Premises;

TOGETHER WITH: Any and all awards heretofore or hereafter made by any governmental authorities (federal, state, local or otherwise) to Trustor and all subsequent owners of the Premises which may be made with respect to the Premises as a result of the exercise of the right of eminent domain, the alteration of the grade of any street or any other injury to or decrease of value of the Premises, which said award or awards are hereby assigned to Lender;

TOGETHER WITH: Any and all unearned premiums accrued, accruing or to accrue, and the proceeds of insurance now or hereafter in effect with respect to all or any portion of the Premises;

TOGETHER WITH: Any and all claims or demands which Trustor now has or may hereafter acquire against anyone with respect to any damage to all or any portion of the Premises;

TOGETHER WITH: All goods, equipment, machinery, furniture, furnishings, trade fixtures, appliances, inventory, building materials, apparatus, utensils, vehicles, wiring, pipes, conduits, elevators, escalators, heating and air conditioning equipment, chattels and articles of personal property, including, without limitation, any interest therein now or at any time hereafter affixed to, attached to or used in any way in connection with or to be incorporated at any time into the Premises or placed on any part thereof wheresoever located, whether or not attached to or incorporated in the Premises, together with any and all accessions, accessories, attachments, and replacements thereof, appertaining and adapted to the complete and compatible use, enjoyment, occupancy, operation or improvement of the Premises;

TOGETHER WITH: All instruments, deposit accounts, accounts,

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contract rights, general intangibles, and other intangible property and rights now or hereafter relating to the foregoing property, or the operation thereof or used in connection therewith, including, without limitation, all options, letters of intent, and rights of first refusal of any nature whatsoever, covering all or any portion of such property, together with any modifications thereof, and deposits or other payments made in connection therewith, existing and future development rights, permits and approvals, air rights, density bonus rights, and transferable development rights; all of Trustor's right, title, and interest in and to any awards, remunerations, settlements, or compensation heretofore made or hereafter made by any and all courts, boards, agencies, commissions, offices, or authorities, of any nature whatsoever for any governmental unit (federal, state, local or otherwise) to the present or any subsequent owner of the foregoing property, including those for any vacation of, or change of grade in, any streets affecting the foregoing property;

TOGETHER WITH: All leases of the Premises, Personalty, Fixtures, or any part thereof, now or hereafter entered into and all right, title and interest of Trustor thereunder, including, without limitation, cash or securities deposited thereunder to secure performance by the lessees of their obligations thereunder (whether such cash or securities are to be held until the expiration of the terms of such leases or applied to one or more of the installments of rent coming due immediately prior to the expiration of such terms); all other rights and easements of Trustor now or hereafter existing pertaining to the use and enjoyment of the Premises; and all right, title and interest of Trustor in and

to all declarations of covenants, conditions and restrictions as may affect or otherwise relate to the Premises;

TOGETHER WITH: All permits, plans, licenses, specifications, subdivision rights, security interests, contracts, contract rights, public utility deposits, prepaid sewer and water hook-up charges, or other rights as may affect or otherwise relate to the Property;

TOGETHER WITH: All rents, income, issues and profits (subject, however, to the rights given in this Deed of Trust to Lender to collect and apply same), including, without limitation, the accounts, revenues, and proceeds of any business operation conducted by or on behalf of Trustor on or through the use of the Premises, prepaid municipal and utility fees, bonds, revenues, income, and other benefits to which Trustor may now or hereafter be entitled to, or which are derived from, the Property or any portion thereof or interest therein.

The foregoing listing is intended only to be descriptive of the property encumbered hereby, and not exclusive or all inclusive. It is the intent of Trustor to encumber hereby all property located or to be located upon the above-described real property. Said real

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property (or the leasehold estate if this Deed of Trust encumbers a leasehold estate), buildings, improvements, appurtenances, Fixtures, Personalty, additions, accretions, and other property are hereinafter referred to as the "Property." As used herein, the term "Fixtures" shall include all articles of personal property hereinabove described, now or hereafter attached to, placed upon for a definite term, or otherwise used in connection with the Property, and shall include trade fixtures and goods which are or are to become fixtures. As used herein, the term "Personalty" shall include all furniture, furnishings, equipment, machinery, goods, contract rights, general intangibles, money, deposit accounts, instruments, accounts, leases, chattel paper and other personal property described in this Deed of Trust (other than Fixtures) of any kind or character now existing or hereafter arising or acquired, now or hereafter located upon, within or about the Property, or which otherwise pertains to the use, ownership, management, operation, construction, leasing and sale of the Property, and all products and proceeds thereof, and all of Trustor's right, title, and interest in and to all such property.

Trustor makes the foregoing grant to Trustee, and to Lender, as applicable, to hold the Property in trust for the benefit of Lender and for the purposes and upon the terms and conditions hereinafter set forth.

FOR THE PURPOSE OF SECURING:

(1) Payment of the sum of \$14,270,000.00 together with interest thereon and certain additional costs and expenses related to or incurred in connection with or as provided in that certain Secured Promissory Note ("the Note") executed pursuant to that certain Construction Loan Agreement ("Agreement"), both documents being of even date herewith, in the original principal amount of \$14,270,000.00, executed by Trustor payable to Lender, or order, and all extensions, modifications or renewals thereof (including, without limitation, any extension, modification, or renewal of the Note at a different rate of interest or on different terms);

(2) Performance of each and every term, covenant and condition of the Agreement, including all modifications, renewals or extensions thereof;

(3) Payment of all other sums, with interest, advanced, paid, or incurred by Lender or Trustee under the terms of this Deed of Trust to protect the Property or Lender's security interest therein;

(4) Payment of such additional sums, with interest, as the then record owner of the Property may later borrow from Lender, in those instances in which the later obligations are evidenced by a promissory note or notes reciting that it or they are so secured

(which additional obligations shall be referred to as "future advances" in this Deed of Trust);

(5) If the Property is a leasehold, the Trustor's compliance with and performance of each provision of the lease creating such leasehold; and

(6) Trustor's performance of each agreement in this Deed of Trust.

TRUSTOR AND LENDER AGREE AS FOLLOWS:

RIGHTS AND DUTIES OF THE PARTIES:

(1) PAYMENT AND PERFORMANCE BY TRUSTOR; TITLE: Trustor represents and warrants that Trustor holds good and marketable title of record to the Property in fee simple. Trustor shall promptly: (a) pay when due all sums payable under the Note and all future advances; and (b) perform each and every term, covenant and condition of this Deed of Trust and any other obligation secured by this Deed of Trust.

(2) PAYMENT BY TRUSTOR OF TAXES AND OTHER IMPOSITIONS: The term "Taxes" shall mean all taxes, bonds and assessments, both general and special, affecting or levied upon the Property or any part thereof, assessments on water company stock, if any, all taxes or excises levied or assessed against Trustor, the Property, or any part thereof, in addition to or as a substitution in whole or in part for any real estate taxes or assessments, all taxes or excises measured by or based in whole or in part upon the rents, operating income, or any other factor relating to the Property, or any part thereof, and all license fees, taxes and excises imposed upon Lender (but not any federal or state income taxes imposed upon Lender) and measured by or based in whole or in part upon the obligations secured hereby. The term "Other Impositions" shall mean any fine, fee, charge, or other imposition in connection with the Property or Trustor, payment of which Lender shall deem to be necessary, in Lender's reasonable opinion, to protect, preserve, and defend Lender's security interests hereunder. Trustor shall pay all Taxes, insurance premiums, and Other Impositions attributable to the Property, at least fifteen (15) days before delinquency directly to the payee thereof, or in such other manner as Lender may designate in writing. Trustor shall promptly furnish to Lender all notices of amounts due under this paragraph, and if Trustor shall make payment directly, Trustor shall furnish to Lender receipts evidencing payments of Taxes at least ten (10) days before delinquency and shall promptly deliver to Lender receipts evidencing all other payments above required.

Following any default under this Deed of Trust, or in the

payment or performance of any other obligation secured hereby, at the request of Lender, or otherwise upon written agreement between Trustor and Lender, or as provided by applicable law, Trustor shall pay to Lender, on each day on which monthly installments of principal and/or interest are payable under the Note, until the Note is paid in full, an amount equal to one-twelfth (1/12) of the sum of annual Taxes and Other Impositions, together with annual insurance premiums on all policies of insurance required by this Deed of Trust. In such event, Trustor further agrees to cause all bills, statements, or other documents relating to Taxes, Other Impositions, and insurance premiums to be sent or mailed directly to Lender. Upon receipt of such bills, statements, or other documents, and provided Trustor has deposited sufficient funds with Lender pursuant to this paragraph (2), Lender shall pay such amounts as may be due thereunder out of the funds so deposited with Lender for that purpose, subject to Lender's rights to seize and apply said funds to satisfy, in whole or in part, any default by Trustor. If at any time and for any reason the funds deposited with Lender are or will be insufficient to pay such amounts as may then or subsequently be due, Lender shall notify Trustor and Trustor shall immediately deposit an amount equal to such deficiency with Lender.

Notwithstanding the foregoing, nothing contained herein shall cause Lender to be deemed a trustee of said funds or to be obligated to pay any amounts in excess of the amount of funds deposited with Lender pursuant to this paragraph (2). Lender shall not be obligated to pay or allow any interest on any sums held by Lender pending disbursement or application hereunder, and Lender may impound or reserve for future payment of Taxes, Other Impositions, and insurance such portion of such payments as Lender may in its reasonable discretion deem proper, applying the balance on the principal of or interest on the obligations secured hereby. Should Trustor fail to deposit with Lender (exclusive of that portion of said payments which has been applied by Lender on principal of or interest on the indebtedness secured hereby) sums sufficient to fully pay such Taxes, Other Impositions, or insurance premiums, at least thirty (30) days before delinquency thereof, Lender may, at Lender's election, but without any obligation so to do, advance any amounts required to make up the deficiency, which advances, if any, shall be secured hereby and shall be repayable to Lender as herein elsewhere provided, or at the option of Lender the latter may, without making any advance whatever, apply any sums held by it upon any obligation of Trustor secured hereby. Shall any default occur or exist on the part of Trustor in the payment or performance of any of Trustor's and/or any guarantor's obligation in connection with the above Note, Lender may, at Lender's option, apply any sums or amounts in its possession or under its control, received pursuant hereto or as rents or income of the Property or otherwise, upon any indebtedness or obligation of the Trustor secured hereby in such manner and order as Lender may elect. The receipt, use or application of any such sums paid by Trustor to Lender hereunder shall not be construed to affect the maturity of any indebtedness secured by this Deed of Trust or any

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of the rights or powers of Lender or said Trustee under this Deed of Trust or any other obligation secured hereby.

In the event of the passage, after the date of this Deed of Trust, of any law or judicial decision deducting from the value of the Property for the purposes of taxation any lien thereon, or changing in any way the laws now in force for the taxation of deeds of trust or obligations secured by deeds of trust, or the manner of operation of any such Taxes so as to adversely affect the interest of Lender, or imposing payment of the whole or any portion of any Taxes upon Lender, then and in such event, Trustor shall bear and pay the full amount of such Taxes; provided that if for any reason payment by Trustor of any such new or additional Taxes would be unlawful or if the payment thereof would constitute usury or render the Note, or other indebtedness secured hereby, wholly or partially usurious under any of the terms or provisions of the Note, or this Deed of Trust, or otherwise, Lender may, at its option, upon thirty (30) days' written notice to Trustor, (i) declare the whole indebtedness secured by this Deed of Trust, together with accrued interest thereon, to be immediately due and payable, or (ii) pay that amount or portion of such Taxes as renders the Note, or other indebtedness secured hereby, unlawful or usurious, in which event Trustor shall concurrently therewith pay the remaining lawful nonusurious portion or balance of such Taxes.

(3) **TRUSTOR TO PAY GROUND RENTS AND OBLIGATIONS THAT COULD RESULT IN LIENS ON THE PROPERTY:** Trustor shall fully and faithfully pay and perform each and every obligation, and otherwise satisfy all conditions and covenants, which are or may be secured by any deed of trust upon the Property, or any portion thereof, existing of record as of the date this Deed of Trust is recorded, and to which this Deed of Trust may be subordinate. Trustor shall pay at or prior to maturity all ground rents and any liens, charges and encumbrances that are, later become, or claim to be to Lender to be prior or superior to the lien of this Deed of Trust, including, without limiting the generality of the foregoing, any and all claims for (a) work or labor performed, (b) materials and services supplied in connection with any work of demolition, alteration, improvement of or construction upon the Property, and (c) fees, charges and liens for utilities provided to the Property.

(4) **TRUSTOR TO MAINTAIN INSURANCE:** (a) Trustor shall maintain insurance covering the Property against loss or damage by fire and other risks as shall from time to time be required by Lender in its reasonable judgment as necessary to protect the security interest of Lender in the

Property. The insurance shall be maintained with such companies, in such amounts, for such terms, and in form and content satisfactory to Lender, in Lender's reasonable opinion and judgment. Lender shall be named as the primary loss payee under all of the insurance policies, and Trustor shall assure

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that Lender receives a certificate from each insurance company that acknowledges Lender's position as loss payee and that states that the insurance policy cannot be terminated as to Lender except upon thirty (30) days' prior written notice to Lender. Such policies of insurance shall include, without limitation, the following: (i) insurance against loss or damage to the Property (including contents) by fire or other risk embraced by coverage of the type known as the broad form or extended coverage (or special extended coverage) in the amount required by Lender, but in no event less than one hundred percent (100%) of the full replacement cost of the Improvements and Personalty included within the Property without deduction for depreciation of any kind or the unpaid balance of the Note, whichever is greater, (ii) insurance against the loss of rental value of the Property on a "rented or vacant basis," including business interruption insurance, arising out of the perils insured against pursuant to clause (i) above in the amount required by Lender, but in no event less than one (1) year's gross rental income and other revenues from the Property, and (iii) comprehensive public liability insurance against claims for personal injury, death, or property damage occurring on, in, or about the Property, or arising from or connected with the use, conduct, or operation of Trustor's business in the amount from time to time required by Lender. (b) If such insurance, together with written evidence of the premium having been paid, are not delivered to Lender at least five (5) days prior to the expiration of such insurance, Lender shall have the right, but without obligation to do so, without notice to or demand upon Trustor and without releasing the Trustor from any obligation under this Deed of Trust, to obtain such insurance or like insurance through or from any insurance agency or company acceptable to it, pay the premium for such insurance, and add the amount of the premium to the loan secured by this Deed of Trust, and this amount shall bear interest at the applicable rate of interest set forth in the Note. Neither the Trustee nor Lender shall be responsible for such insurance or for the collection of any insurance monies, or for any insolvency of any insurer or insurance underwriter. (c) In the event that the Property is sold to Lender at any trustee's sale under this Deed of Trust (see paragraph (17), below), Trustor hereby assigns to Lender all unearned premiums on all policies of insurance covering the Property and agrees that any and all unexpired insurance covering the Property shall inure to the benefit of and pass to Lender at the time of such Trustee's sale.

(5) INSURANCE PROCEEDS, CONDEMNATION PROCEEDS AND OTHER RECOVERIES: (a) All settlements, awards, damages and proceeds received by Trustor or in which Trustor has an interest under any fire or other hazard insurance policy, for losses occurring after the effective date of this Deed of Trust, or in connection with any condemnation for public use of or injury to the Property (or any part of or interest in the Property) are assigned to Lender and may, at the option of Lender, be applied by Lender as provided in section (c)

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of this paragraph (5). (b) All causes of action, whether accrued before or after the date of this Deed of Trust, of any type for any damage or injury to the Property (or any portion of or interest in the Property), or in connection with the sale or other transaction being financed by the funds that are secured by this Deed of Trust, or in connection with or affecting the Property (or any portion of or interest in the Property), including causes of action arising in tort or contract and causes of action in fraud or concealment of a material fact, are assigned to Lender, and the proceeds of any such causes of action may, at the option of Lender, be applied by Lender as provided in section (c) of this paragraph (5). Lender may, at its option, appear in and prosecute in its own name any action or proceeding to enforce any such cause of action and may make any compromise or settlement of any such action or proceeding. Trustor agrees to execute such further assignments of any settlements, awards, damages and causes of action as Lender from time to time may request. (c) Settlements, awards, proceeds and damages (collectively, "Awards") received by Lender under the

provisions of section (a) and section (b) of this paragraph (5), except as otherwise provided for in this paragraph (5) at the option of Lender, may be applied by Lender to the outstanding balance due on the Note, or any other obligation secured by this Deed of Trust, in such order as Lender may determine.

Trustor agrees to endorse in favor of Lender any Award which is made payable to Trustor or to Trustor and Lender and deliver same to Lender immediately upon receipt. The amount collected under any fire or other insurance policy may be applied by Lender, first, to reimbursement of all costs of collection of the proceeds. Thereafter, the proceeds may be applied to repair, replace, restore or construct the Property (hereafter collectively referred to as "Repair") to its physical condition immediately prior to the act or occurrence that caused the loss, damage or destruction, as the case may be, but only if (a) there exists no default hereunder and (b) the insurance proceeds (together with such additional funds as are deposited by Trustor with Lender pursuant to this paragraph), are sufficient for the Repair. Otherwise, at the election of Lender, in Lender's sole and absolute opinion and judgment, the proceeds may be applied to reduce the principal balance of the Note or any obligation secured hereby in such order as Lender may determine, whether or not then due, unless such application is prohibited by applicable law, or be released to Trustor. Such application or release shall not cure or waive any default or notice of default hereunder or invalidate any act done pursuant to such notice or shall not extend due dates of payments or modify any obligations of Trustor.

Should insurance proceeds be used for Repair, Lender may condition such application upon (a) the deposit with Lender of such additional funds as Lender determines are necessary to pay all costs of Repair; (b) delivery of plans and specifications, executed

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construction contracts, cost breakdowns and a payment and performance bond satisfactory to Lender, in its sole and absolute opinion and judgment; (c) establishment of a procedure satisfactory to Lender for lien waivers and disbursement of funds, disbursement being conditioned upon Lender having sufficient proceeds to pay the cost of Repair free of liens; and (d) evidence acceptable to Lender that the Property after completion will be in at least the same condition as existed prior to the damage, destruction or loss, as the case may be, and that there has been no material adverse change in the financial condition of Trustor since the date of this Deed of Trust. In the event Trustor does not comply with the foregoing conditions within ninety (90) days of the casualty, Lender may, at its option, use the proceeds to reduce the principal balance of the Note or pay any other obligation secured by this Deed of Trust.

(6) MAINTENANCE AND PRESERVATION OF THE PROPERTY:

(a) Trustor shall: (i) keep the Property, and every portion thereof, in good condition and repair and replace from time to time, or at any time, any Fixtures, Personalty or other items comprising the Property which may become obsolete or worn out, with Fixtures, Personalty or other items of at least the same utility, quality and value, each such replacement to be free of any liens or security interests of any kind or character other than the lien of this Deed of Trust, or any other document or instrument securing the indebtedness hereunder; (ii) not remove or demolish the Property, or any part thereof; (iii) complete or restore promptly and in good and workmanlike manner the Property, or any part thereof, which may be damaged or destroyed; (iv) comply with and not suffer violations of (A) any and all laws, ordinances, rules, regulations, standards and orders, including, without limitation, making any alterations or additions required to be made to, or safety appliances and devices required to be installed or maintained in or about, the Property, or any portion thereof, under any such laws, ordinances, rules, regulations, standards or orders now or hereafter adopted, enacted or made applicable to the Property, or any portion thereof, and payment of any fees, charges or assessments arising out of or in any way related to treatment of the Property, or any portion thereof, as a source of air pollution, traffic, storm water runoff, or other adverse environmental impacts or effects, and (B) any and all covenants, conditions, restrictions, equitable servitudes and easements, whether public or private, of every kind and character, and (C) any and all requirements of insurance companies and any bureau or agency which establishes standards of insurability, which laws, covenants or requirements affect the Property and/or

pertain to acts committed or conditions existing thereon, or the use, management, operation or occupancy thereof by Trustor and anyone holding under Trustor, including (but without limitation) such work of alteration, improvement or demolition as such laws, covenants or requirements mandate; (v) not commit or permit waste of the Property,

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or any portion thereof; (vi) do all other acts which from the character or use of the Property may be reasonably necessary to maintain, preserve and enhance its value, including, without limitation, keeping all plants, lawns and other landscaping in a good and thriving condition, and otherwise performing such appropriate upkeep and maintenance to the Property to insure that the Property, and each part thereof, is maintained in a first-class manner and retains at all times a first-class appearance and condition, such upkeep to include, without limitation, appropriate measures to protect wood, stucco and concrete surfaces from weathering, deterioration and aging, and to protect from and immediately remove graffiti or other defacement from such surfaces; (vii) perform all obligations required to be performed in leases or conditional sales or like agreements affecting the Property or the operation, occupation or use thereof (and, if not previously assigned, in the event of default, all right, title and interest of Trustor under any such leases, conditional sales or like agreements shall be automatically assigned to Lender hereunder, together with any deposits made in connection therewith); (viii) make payment of any and all charges, assessments or fees imposed in connection with the delivery, installation or maintenance of any utility services or installations on, to or for the Property, or any portion thereof; (ix) except as permitted pursuant to the Agreement, not create any deed of trust, liens or encumbrances upon the Property subsequent hereto, the parties hereby having specifically bargained in contemplation of the fact that any subsequent encumbrance upon the Property would adversely affect Lender's reasonable security interests hereunder; (x) make no further assignment of rents of the Property; and (xi) execute and, where appropriate, acknowledge and deliver such further documents or instruments as Lender or Trustee reasonably deem necessary or appropriate to preserve, continue, perfect and enjoy the security provided for herein, including (but without limitation) assignments of Trustor's interest in leases of the Property.

(b) Trustor shall not undertake or suffer to be made pursuant to section (a) of this paragraph (6), any material alterations, additions, repairs, expansions, relocations, remodeling or demolition of, or structural or other material changes in, any improvements, Fixtures or Personalty comprising the Property except as permitted pursuant to the Agreement, without the prior written consent of Lender. No material changes are to be made in the Plans and Specifications as approved by Lender without Lender's prior written consent. All such work shall be performed promptly and in good and workmanlike manner, using first quality materials in conformity with plans and specifications approved in advance by Lender, and shall be diligently prosecuted to completion free of liens and encumbrances, other than this Deed of Trust and any other document or instrument evidencing or securing the indebtedness secured hereby.

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(c) Without limiting the generality of this paragraph (6), Trustor hereby warrants, represents and covenants to Lender that, to the best of Trustor's knowledge, Trustor and the Property presently comply with, and will in the future comply fully with, all applicable federal, state and local laws, ordinances, rules and regulations, and all permits and approvals issued thereunder, affecting Trustor's qualification to do business, the construction of the improvements to be located upon the Property, the sale, operation, leasing or financing of the Property and the intended occupancy, use and enjoyment thereof, including, but not limited to, all applicable subdivision laws, licenses and permits, building codes, zoning ordinances, environmental protection laws, flood disaster laws, and all laws pertaining to industrial hygiene and the environmental conditions on, under or about the Property, including, but not limited to, soil and groundwater condition. Trustor further warrants, represents and covenants that Trustor does not presently, and will not in the future, use, store, manufacture, generate, transport to or from, or

dispose of any toxic substances, hazardous wastes, radioactive materials, flammable explosives or related material on or in connection with the Property or the business of Trustor on the Property except as are described in Exhibit "B" attached hereto and incorporated herein, and which are used, stored or maintained in full and complete compliance with all such laws ("Permitted Toxic Materials"). Trustor further warrants, represents and covenants to Lender that Trustor does not presently, and will not knowingly permit any lessee or other user of the Property to use, store, manufacture, generate, transport to or from, release or dispose of any toxic substances, hazardous materials, hazardous wastes, radioactive materials, flammable explosives or related materials on or in connection with the Property or the business of said lessee or other user of the Property, except as to Permitted Toxic Materials Trustor further warrants, represents and covenants to Lender that as to the Permitted Toxic Materials, Trustor shall obtain and continue to maintain all necessary permits and approvals for the Permitted Toxic Materials, and comply with all laws, ordinances, rules and regulations, and all permits and approvals issued thereunder, pertaining thereto. ("Toxic substances," "hazardous materials" and "hazardous wastes" shall include, but not be limited to, such substances, materials and wastes which are or become regulated under applicable federal, state or local laws, ordinances, rules or regulations.) Without the prior written consent of Lender, Trustor shall not seek, make or consent to any change in the zoning, conditions of use, or any other applicable land use permits, approvals or regulations pertaining to the Property, or any portion thereof, which would constitute a violation of the warranties, representations and covenants herein contained, or would otherwise impair the ability of Trustor to complete construction of any improvements now underway or to be constructed, constituting the Property, or would change the nature of the use or occupancy of the Property. Within five (5) days of (i) any contact from any federal,

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state, or local governmental agency concerning any environmental protection laws, including, but not limited to, any notice of any proceeding or inquiry with respect to the presence of any hazardous wastes, toxic substances or hazardous materials on the Property or the migration thereof from or to other property, (ii) any and all claims made or threatened by any third party against or relating to the Property concerning any loss or injury resulting from toxic substances, hazardous wastes, or hazardous materials, or (iii) Trustor's discovery of any occurrence or condition on any property adjoining or in the vicinity of the Property that is likely to cause the Property, or any part thereof, to be subject to any restrictions on the ownership, occupancy, transferability, or loss of the Property under any federal, state, or local laws, ordinances, rules, or regulations, Trustor shall deliver to Lender a report regarding such contact and setting forth in detail and describing any action which Trustor proposes to take with respect thereto, signed by Trustor.

(d) If Trustor has executed any unsecured agreement regarding hazardous materials containing any warranties and/or indemnities by Trustor in favor of Lender pertaining to the presence or release of hazardous and/or toxic materials or other similar substances upon, within or from the Property (hereinafter "Hazardous Substances Indemnity"), then the covenants, duties, and liabilities of Trustor, and the rights and remedies of Lender with respect to the subject of hazardous and/or toxic materials, shall be governed by the provisions of the Hazardous Substances Indemnity in addition to the provisions of this Deed of Trust; provided, however, that the provisions of the Hazardous Substances Indemnity shall prevail and exclusively govern the subject matter to the extent of any duplication, conflict or inconsistency between such provisions and the provisions of this Deed of Trust, and payment or performance of Trustor's obligations under said Hazardous Substances Indemnity shall not be secured by this Deed of Trust but shall be and remain unsecured obligations of the Trustor, unless expressly otherwise therein provided.

(e) Trustor shall deliver to Lender such affidavits, reports, certificates or other written instruments as may be requested by Lender, in Lender's reasonable judgment, pertaining to Trustor's compliance with this paragraph (6). Lender may conclusively assume that the statements, facts, information and representations contained herein and/or in any affidavits, orders, receipts or other written instruments that are filed with Lender or exhibited to it, are true and correct. Lender may rely thereon without any investigation or inquiry. By accepting or approving anything required to be

observed, performed, fulfilled, or given to Lender pursuant to this paragraph (6), Lender shall not be deemed to have warranted or represented the sufficiency, legality, effectiveness or legal effect of the same, or of any term, provision or condition thereof, or of Trustor's compliance with the terms of

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this Deed of Trust, and such acceptance or approval thereof shall not be or constitute any warranty or representation to anyone with respect thereto by Lender.

(7) LEGAL ACTIONS AND PAYMENT OF RELATED COSTS: Trustor shall appear in and defend any action or proceeding that may, in Lender's reasonable judgment, adversely affect the Lender's security interest under this Deed of Trust or any of the rights or powers of Lender or Trustee under this Deed of Trust. Whether or not Trustor so appears or defends, Trustor shall pay all reasonable costs and expenses, including, without limitation, cost of evidence of title and reasonable attorneys' fees, that are incurred by Trustor, Lender or Trustee in any such action or proceeding in which Lender or Trustee may appear, by virtue of being made a party defendant or otherwise, and irrespective of whether the interest of Lender or Trustee in the Property is directly questioned by such action or proceeding or whether Lender's rights or interests are otherwise adversely affected thereby, or whether Lender is or shall become a party, including by way of intervention. Trustor promises and agrees to give Lender notice in writing of the pendency of any such action or proceeding promptly, but in any event no later than five (5) business days, after Trustor first obtains knowledge of the pendency of such action or proceeding. Trustor shall cooperate with Lender in any action that is brought by Lender to protect its security interest under this Deed of Trust. Trustor will, upon demand by Lender, commence any action or proceeding reasonably required to protect or facilitate Lender's recovery of Awards under paragraph (5) of this Deed of Trust. If Trustor fails to bring any such action or proceeding, then Lender may, but need not, do so, and Trustor shall pay to Lender all reasonable costs, expenses and reasonable attorneys' fees that are incurred by Lender in doing so. Whenever, under this Deed of Trust, or any other document or instrument evidencing or securing the indebtedness secured hereby, Trustor is obligated to appear in and defend Lender or defend or prosecute any action or proceeding, Lender shall have the right of full participation in any such action or proceeding, with counsel of Lender's choice, and all reasonable costs and expenses incurred by Lender in connection with such participation (including, without limitation, reasonable attorneys' fees) shall be reimbursed by Trustor to Lender immediately upon demand. In addition, Lender shall have the right to approve any counsel retained by Trustor in connection with the prosecution or defense of any such action or proceeding by Trustor, which approval shall not be unreasonably withheld. All costs or expenses required to be reimbursed by Trustor to Lender hereunder shall, if not paid upon demand by Lender, thereafter bear interest at the applicable rate of interest set forth in the Note. As used herein, "proceeding" shall include litigation (whether by way of complaint, answer, cross-complaint, counter claim or third party claim), arbitration and administrative hearings or proceedings, and shall include commencement of any case or the filing

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of any petition for relief or other action under any Chapter of the U.S. Bankruptcy Code.

(8) LENDER'S RIGHTS TO INSPECT THE PROPERTY: Lender and its agents, employees and contractors, may enter upon the Property at any reasonable times upon not less than twenty-four (24) hours prior written notice to inspect the Property for any purpose relating to Lender's rights and interests under the terms of this Deed of Trust, including, but not limited to, Trustor's compliance with the terms of paragraph (6).

(9) SUBSTITUTION OF TRUSTEE: From time to time, by an instrument signed and acknowledged by Lender, and recorded in the office of the Recorder of the County in which the Property is located, Lender may appoint a substitute Trustee or Trustees in place of the Trustee named in this Deed of Trust. Such instrument shall refer to this Deed of Trust and shall set forth the date and instrument number or book and page of its recordation. Upon recordation of such instrument, the Trustee named in this Deed of Trust shall be discharged and the new Trustee so appointed shall be substituted as Trustee under this Deed of Trust with the same effect as if originally named Trustee in this Deed of Trust. An instrument recorded pursuant to the provisions of this paragraph (9) shall be conclusive proof of the proper substitution of such new Trustee.

(10) MISCELLANEOUS POWERS OF LENDER AND TRUSTEE: In addition to any other powers granted in this Deed of Trust to the Trustee, from time to time, upon the written request of Lender and upon the presentation of this Deed of Trust and any obligation secured by this Deed of Trust for endorsement, and without affecting any obligation secured by this Deed of Trust or the performance of the obligations set forth in this Deed of Trust, the Trustee may, without liability and without notice to any person: reconvey all or any part of the Property to Trustor, consent to the making of any map or plat of the Property, join in granting any easement on the Property, join in any agreement subordinating the lien of this Deed of Trust, release any obligation secured by this Deed of Trust, in whole or in part, with regard to any Trustor, extend or renew the Note or any other obligation secured by this Deed of Trust, accept or release any additional security under this Deed of Trust, or accept and release the guaranty of any additional person or any obligation secured by this Deed of Trust.

(11) ASSIGNMENT AND COLLECTION OF RENTS: (a) Trustor hereby assigns absolutely to Lender the rents of the Property, with a revocable license to collect such rents as they become due and payable, prior to any default by Trustor under paragraph (14) of this Deed of Trust, being retained by Trustor. (b) Upon any default by Trustor under paragraph (14) of this Deed of Trust, such license

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will, automatically, be deemed revoked without the necessity for any act or notice by Lender, and Lender, in person, by agent or by judicially appointed receiver, shall be entitled to enter upon, take possession of and manage the Property and may collect the rents of the Property, and, after so taking possession, shall be entitled to collect any rents that are past due. Lender has, however, no duty to produce rents from the Property nor any responsibility for pursuing or collecting claims or rights of Trustor. If Trustor, at or immediately prior to such taking of possession by or on behalf of Lender, has operated a business upon the Property other than the rental thereof, the authority granted herein to so take possession of the Property shall also include the authority and power to take possession of the receipts of such business and, if appropriate, to operate such business, and the receipts thereof shall be deemed herein to be a form of rents. All rents collected by Lender or the receiver shall be applied first to payment of the costs of management of the Property and of collection of rents, including, but not limited to, reasonable costs and expenses of any receivership and reasonable attorneys' fees incurred by Lender in connection with the receivership, and then to the Note and any other obligations secured by this Deed of Trust. Lender and the receiver shall be liable to account only for those rents actually received. (c) At any time, whether or not an event of default exists under this Deed of Trust, or any other agreement or obligation secured by this Deed of Trust, Trustor shall, on demand, deliver to Lender from time to time all security deposits made by lessees to Trustor under the terms of any lease of all or part of the Property. These funds shall be held by Lender without interest payable to Trustor and as a part of and commingled with Lender's general funds. These funds, however, will be repayable to lessees pursuant to the provisions of the leases under which security deposits are made. In the event of any conflict between the provisions of this paragraph (11) and the provisions of a specific separate assignment of rents and/or assignment of lease(s), the provisions of the specific assignment(s) shall be deemed to govern over the provisions of this paragraph.

(12) RECONVEYANCE OF THE PROPERTY: Upon the written request of Lender stating that the Note and all other obligations secured by this Deed of Trust have been discharged, and upon surrender of this Deed of Trust, the Note or any other notes or instruments evidencing such other obligations to the Trustee, and upon payment of the Trustee's fees, the Trustee shall reconvey, without warranty, the Property or that portion of the Property then held by the Trustee under this Deed of Trust. The recitals in any such reconveyance of any matters or facts shall be conclusive proof of the truthfulness of such matters or facts. The grantee in such reconveyance may be described as "the person or persons legally entitled thereto." When the Property has been fully reconveyed, the last such reconveyance shall operate as a reassignment of all of the rents of the Property to the person or persons legally entitled to such rents. Five (5)

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years after issuance of such full reconveyance, the Trustee may destroy this Deed of Trust and any such notes, unless directed in such request to retain them.

(13) CHANGE OF LENDER'S RECORDS: In the event Trustor requests Lender to change any of its records relating to the Property, the Note or this Deed of Trust (including, but not limited to, changes in mailing address or ownership of the Property), Trustor shall pay a reasonable fee prescribed by the Lender to so change its records.

ACCELERATION AND DEFAULT:

(14) CONDITIONS UNDER WHICH LENDER MAY DECLARE A DEFAULT BY TRUSTOR: A default under this Deed of Trust shall occur in the event that: (a) Trustor fails to pay when due: (i) any sum payable under the Note; or (ii) any sum the payment of which is required or secured by this Deed of Trust; (b) Trustor fails to perform any other obligation required to be performed by Trustor under this Deed of Trust or secured by this Deed of Trust; (c) the Property is or becomes subject to any proceedings for abatement of a public nuisance; (d) any material information given to Lender by Trustor, intended to or which does, in fact, induce the granting of any loan by Lender secured by this Deed of Trust, was not true in any respect when given, or any material information requested or required by Lender is intentionally or grossly negligently withheld or concealed from such application by Trustor; or (e) there is an Event of Default under the Agreement.

(15) LENDER'S RIGHT TO REQUIRE IMMEDIATE PAYMENT IN FULL: In the event: (a) of a default under this Deed of Trust, or (b) Trustor sells, transfers, grants, hypothecates, conveys, encumbers, alienates, or assigns (voluntarily, involuntarily, or by operation of law), enters into a contract of sale of, or leases, the Property, or any portion of the Property or any interest therein, except as permitted under the Agreement, Lender may, at its option and without further notice to any person, declare the entire principal balance and any other obligations under the Note and/or any other obligations secured by this Deed of Trust, together with accrued interest thereon and any prepayment penalties, immediately due and payable. Trustor shall provide to Lender a complete and exact duplicate copy of any contract providing for the transfer of any interest in the Property, or any deed of trust or similar instrument creating a lien or encumbrance on the Property, immediately upon the execution of any such contract, deed of trust, or other instrument. No waiver of the Lender's right to accelerate shall be effective unless it is in writing. For purposes of this paragraph, a transfer by Trustor shall also be deemed to occur in the event all or a majority interest in Trustor shall be transferred by Nexus Properties, Inc. ("NPI") to any person or entity other than Ligand or an entity owned or controlled

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partnership, joint venture or unincorporated organization, directly or indirectly related to, in control of, controlled by or under the common control of Ligand).

Notwithstanding the foregoing, the obligations secured by this Deed of Trust, including the obligations of Trustor under the Agreement, may be assumed by Ligand or an entity owned or controlled by Ligand in connection with the transfer of the Property by Trustor to Ligand or such entity in the event each of the following terms and conditions is fully and completely satisfied, in Lender's determination:

(a) the financial condition and creditworthiness of Ligand or such entity at the time of the assumption shall be satisfactory to Lender, in Lender's reasonable discretion; and

(b) Ligand or such entity shall affirmatively assume all obligations of Trustor under the Deed of Trust, Note, Agreement and other Loan Documents in form and content satisfactory to Lender, in Lender's sole discretion; and

(c) Ligand, such entity or Trustor shall pay all reasonable costs incurred by Lender in connection with the request, approval and processing of any assumption including title fees, escrow fees, credit reporting fees and the like; and

(d) Ligand, such entity or Trustor shall pay all reasonable attorney's fees and costs for preparation of any documents in connection with the assumption of the obligations requested by Lender, including an assumption agreement; and

(e) There shall exist no default hereunder or under any of the Loan Documents at the time of the assumption; and

(f) Ligand shall acquire the Property through the Ligand Option or pursuant to the right of first refusal contained in the Ligand Lease.

In the event Ligand or such entity assumes the obligations of Trustor as permitted herein, Trustor and Guarantors shall be released from any further obligations under the Deed of Trust, Note, Agreement, Continuing Guaranties and the other Loan Documents.

(16) LENDER'S RIGHT TO PERFORM ACTS TRUSTOR FAILS TO PERFORM AND INDEMNIFICATION:

(a) If Trustor fails to make any payment when due or to do any act required to be made or performed under this Deed of

Trust, then Lender or Trustee, without notice to or demand upon Trustor and without releasing Trustor from any obligation under this Deed of Trust, may, but are not required to, make or do the same in such manner and to such extent as either may deem necessary or desirable to protect the security of this Deed of Trust. Lender and Trustee are authorized to (i) enter upon the Property for such purposes; (ii) appear in and defend any action or proceeding purporting to affect the security of this Deed of Trust or the rights or powers of Lender or Trustee; and (iii) pay, purchase, contest or compromise any encumbrance, charge, lien or claim of lien, in whole, in part and/or in installments, which is or claims to be prior or superior to the lien of this Deed of Trust, the judgment of Lender or Trustee being conclusive of the matter as among the parties to this Deed of Trust. In exercising the above powers, Lender or Trustee may pay necessary costs and expenses, employ counsel, consultants, any other agents or independent contractors that Lender believes is necessary, in Lender's reasonable judgment, and pay reasonable fees, compensation, and costs thereof. Trustor promises and agrees to pay immediately upon demand all amounts so expended by Lender or Trustee (including all such reasonable costs, expenses and attorneys' fees) under this paragraph (16), together with any reasonable fees charged by Lender in regard to such activity by Lender and interest from the date of expenditure at the applicable rate of interest set forth in the Note, with payment of such amounts being secured by this Deed of Trust.

(b) Trustor hereby indemnifies and agrees to hold harmless Lender and Trustee and their directors, officers, shareholders, agents and employees (individually and collectively the "Indemnitees") from and against: (i) any and all claims, demands, actions, liabilities, or causes of action that are asserted against any Indemnitee by any person or entity if the claim, demand, action, liability, or cause of action, directly or indirectly, relates to a claim, demand, action, liability, or cause of action that the person or entity has or asserts based upon, arising out of, or in connection with, the Property, the conduct of Trustor, any action or non-action by Trustor in connection with the Property, or this Deed of Trust; and (ii) any and all claims, liabilities, losses, costs, or expenses (including court costs and attorneys' fees) that any Indemnitee suffers or incurs as a result of the assertion of any such claim, demand, action, liability or cause of action; provided, however, the indemnification in this paragraph shall not be applicable to any of the foregoing in the event that such is the result of Lender's breach of or default under this Deed of Trust, Lender's gross negligence, or Lender's willful misconduct; The foregoing indemnity shall survive the release of this Deed of Trust, whether such release is as a result of payment of the indebtedness secured hereby, foreclosure, acceptance of a deed in lieu of foreclosure, other action, or otherwise.

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(17) TRUSTEE'S RIGHTS AND DUTIES TO SELL THE PROPERTY: (a) In the event of a default under this Deed of Trust by Trustor, Lender may then or thereafter execute or cause the Trustee to execute a written notice of such default and of its election to have the Property sold to satisfy the obligations secured by this Deed of Trust. Such notice shall be recorded in the office of the Recorder of the County where the Property is located. (b) When the minimum period of time required by law following recordation of such notice of default has elapsed, and notice of sale having been given as then required by law, the Trustee, without demand upon Trustor, shall sell the Property at the time and place of sale fixed by it in the notice of sale, either as a whole or in separate parcels, and in such order as Lender may determine, at public auction to the highest bidder for cash or a cash equivalent acceptable to Trustee, in lawful money of the United States, payable at time of sale. Lender shall have the right, at its option, to offset Lender's bid(s) to the extent of the total amount due Lender, including but not limited to all Trustee's fees, costs, expenses (including, without limitation, premiums for guarantees or other evidence of title), and other amounts secured by this Deed of Trust. The Trustee may postpone the sale of all or any portion of the Property by public notice at such time and place of sale, and from time to time thereafter may postpone such sale by public announcement at the time fixed by the preceding postponement. Additionally, Lender, from time to time before any Trustee's sale, may rescind or cause to be rescinded any notice of default and election to sell or notice of sale by executing and delivering to Trustee a written notice of such rescission, which notice, when recorded, shall also constitute a cancellation of any prior declaration of default and demand for sale. The exercise by Lender of such right of rescission shall not constitute a waiver of any breach or default then existing or subsequently occurring, or impair the right of Lender to execute and deliver to Trustee, as above provided, other declarations or notices of default and demand for sale of the Property to satisfy the obligations hereof, nor otherwise affect any provision, covenant or condition of the Note or the Agreement or any of the rights, obligations or remedies of Trustee to Lender. (c) The Trustee shall deliver to the purchaser at such sale its deed conveying the Property so sold, but without any covenant or warranty, express or implied. The recitals in such deed of any matters or facts shall be conclusive proof of the truthfulness thereof. (d) Any person, including Trustor, Lender or Trustee may purchase at such sale. After deducting all costs, fees and expenses of the Trustee and of this Trust, including, without limitation, cost of evidence of title and attorneys' fees in connection with the sale, the Trustee shall apply the proceeds of the sale to the payment of: first, all sums expended under the terms of this Deed of Trust not then repaid, with interest at the applicable rate of interest set forth in the Note; second, the payment of all other sums then secured by this Deed, of Trust; and third, the remainder, if any, to person or persons legally entitled to such proceeds.

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(18) OTHER REMEDIES IF TRUSTOR DEFAULTS: (a) All of the remedies of Lender and Trustee set forth in this Deed of Trust are intended to be in addition to and not in substitution for any other remedies available to Lender or Trustee at law or in equity. It is expressly understood and agreed that Lender or Trustee, or both, may bring suit in any court of competent jurisdiction to foreclose this Deed of Trust by judicial action or to obtain specific performance of the assignment of rents contained in this Deed of Trust. In connection with any such action, Lender or Trustee may apply to the court for the appointment of a receiver to take possession of the Property, operate the business of Trustor being conducted on the Property, utilize and enforce all agreements of Trustor in respect of the operation of such business, the utilization of any such agreement being at the election of Lender or the receiver, to be exercised at any time after declaration of a default hereunder, receive the rents of the Property and apply the same to the obligations of Trustor under this Deed of Trust and under the Note and any other obligations secured by this Deed of Trust. (b) Neither the acceptance of this Deed of Trust nor its enforcement in any manner shall prejudice the right of Lender or Trustee to realize upon or enforce any other security now or later held by Lender or Trustee. The rights of Lender and Trustee under this Deed of Trust, and with respect to any other security now or later held by Lender, may be enforced in such order and manner as Lender and Trustee, or either of them, may determine in their sole and absolute discretion to the extent permitted under applicable law.

(19) TRUSTOR'S OBLIGATIONS AND LENDER'S RIGHTS NOT WAIVED: By accepting payment of any sum secured by this Deed of Trust after its due date, or by accepting late performance of any obligation secured by this Deed of Trust, or by making any payment or performing any act on behalf of Trustor that Trustor was obligated to make or perform under this Deed of Trust but failed to make or perform, or by adding any payment so made by Lender to the Note secured by this Deed of Trust, Lender does not waive its right either to require prompt payment when due of all other sums so secured or to declare default for failure to make any such prompt payment or to perform any such act. No failure or delay on the part of Lender, Trustee, or any holder of the Note or this Deed of Trust in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof. No single or partial exercise of any such power, right or privilege shall preclude other or further exercise thereof or of any other right, power or privilege. No exercise of any right or remedy of Lender or Trustee under this Deed of Trust shall constitute a waiver of any other right or remedy contained in this Deed of Trust or provided by law. All rights and remedies existing under this Deed of Trust are cumulative to, and not exclusive of, any rights or remedies otherwise available.

(20) SUCCESSORS IN INTEREST: The terms, agreements, and

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conditions contained in this Deed of Trust shall apply to, be binding upon and inure to the benefit of, all of the parties to this Deed of Trust, their heirs, personal representatives, successors and assigns.

(21) STATEMENTS CONCERNING THE STATUS OF THE LOAN: From time to time as required by law, Lender shall furnish to Trustor such statements as may be required concerning the status of the obligations secured by this Deed of Trust. Trustor promises and agrees to pay upon demand for such statements the maximum amount permitted by law.

(22) TRUSTEE'S OBLIGATIONS: The Trustee accepts this Trust when this Deed of Trust, duly executed and acknowledged, is made a public record as provided by law. The Trustee is not obligated to notify any party to this Deed of Trust of pending sale under any other deed of trust or of any action or proceeding in which Trustor, Lender or Trustee is a party unless such action is brought by the Trustee. The Trustee shall not be obligated to perform any act required of it under this Deed of Trust unless the performance of such act is requested in writing and the Trustee is reasonably indemnified against loss, costs, liability and expense.

(23) OBLIGATIONS OF TRUSTOR ARE JOINT AND SEVERAL; GENDER AND NUMBER: If more than one person has executed this Deed of Trust as "Trustor," the obligations of all such persons under this Deed of Trust shall be joint and several. In this Deed of Trust, whenever the context so requires, the masculine gender includes the feminine and/or neuter, and the singular number includes the plural.

(24) NO OFFSETS: No offset or claims which Trustor now or in the future may have against Lender shall relieve Trustor from making payments or performing any other obligations contained in or secured by this Deed of Trust. Despite any right or option that may be granted to Lender or Trustee by this Deed of Trust or in the evidence of any obligations secured by this Deed of Trust or document ancillary to this Deed of Trust to receive, collect, accept deposit of, use, apply or in any other manner obtain or dispose of any funds or property, the same shall not be deemed to constitute any credit against or to satisfy any obligation secured by this Deed of Trust, in whole or in part, unless and until such funds or property shall be both so obtained and expressly so applied by Lender or Trustee to such satisfaction of such obligation and then only in the manner and to the extent of such application.

(25) GOVERNING LAW: The loan secured by this Deed of Trust is made pursuant to the laws of the State of California, and the rules and regulations promulgated thereunder. The loan contracts between the parties, including this Deed of Trust, shall be construed and governed by such laws, rules, and regulations.

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(26) AGREEMENT CHANGED ONLY BY WRITING: This Deed of Trust cannot be changed except by agreement in writing signed by Trustor and Lender.

(27) TIME: Time is of the essence in connection with all of Trustor's obligations under this Deed of Trust.

(28) NOTICE: Except for any notice required under applicable law to be given in another manner: (a) any notice to Trustor provided for in this Deed of Trust shall be addressed to Trustor at the address of Trustor set forth above, or to such other address as Trustor may designate by notice to Lender pursuant to the terms of paragraph (28)(c), and (b) any notice to Lender provided for in this Deed of Trust shall be addressed to Lender as follows:

Tokai Bank of California 300 South Grand Avenue
Los Angeles, California 90071
Attention: Legal Department

and to such other address as Lender may designate by notice to Trustor, pursuant to the terms of paragraph (28)(c).

(c) Except as otherwise provided by law, all notices, requests, demands, directions, and other communications provided for in this Deed of Trust must be in writing mailed, telegraphed, delivered, or sent by telex, facsimile, cable or other form of electronic written communication to the appropriate party at its respective address. Any notice given by telegram, telex, facsimile, cable or other form of electronic written communication must be confirmed within forty-eight (48) hours by letter mailed or delivered to the appropriate party at its respective address. If any notice is given by mail it will be effective three (3) calendar days after being deposited in the mails with first-class or airmail postage prepaid or, if given to an overnight air courier, such as FedEx, DHL or Purolator, on the next business day after timely and proper deposit with such overnight air courier with request for next business day delivery; if given by telegraph or cable, when delivered to the telegraph company with charges prepaid; if given by telex, facsimile or other form of electronic written communication, when sent; or if given by personal delivery, when delivered.

(29) TITLES, CAPTIONS, AND HEADINGS: The titles, captions, and headings to paragraphs contained in this Deed of Trust are for assistance in identification only and are not to be considered part of the substance of the provisions of this Deed of Trust.

(30) SEVERABILITY OF PROVISIONS: If any paragraph, clause or provision of this Deed of Trust is construed or interpreted by a

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court of competent jurisdiction to be void, invalid or unenforceable, such decision shall affect only those paragraphs, clauses or provisions so construed or interpreted and shall not affect the remaining paragraphs, clauses and provisions of this Deed of Trust.

(31) ACKNOWLEDGMENT OF TRUSTOR'S UNDERSTANDING OF DEED OF TRUST: The foregoing terms, provisions and conditions of this Deed of Trust have been read and are understood by Trustor. Trustor hereby acknowledges receipt of a copy of this Deed of Trust.

(32) LENDER'S RELIANCE: The financial accommodations made or to be made by Lender to Trustor are being made, renewed or extended, as applicable, by Lender to Trustor at the request and urging of Trustor and this Deed of Trust is being given in consideration of such financial accommodations, and Lender may rely upon the validity and enforceability of this Deed of Trust in making such financial accommodations.

(33) SECURITY AGREEMENT:

(a) Security Interest and Fixture Filing. This Deed of Trust shall also constitute and serve as a security agreement and financing statement for Personalty, Fixtures, and any of the Property in which a security interest can be perfected within the meaning of and under Division 9 of the California Uniform Commercial Code, and shall grant to Lender, until the obligations secured hereby shall be satisfied, a first priority security interest, including but not limited to a fixture filing, pursuant to Division 9 of the California Uniform Commercial Code with respect to the Personalty and Fixtures. To this end, Trustor shall and hereby does grant to Lender, a first priority security interest in, under and to the Personalty, Fixtures, and any of the Property in which a security interest can be perfected under Division 9 of the California Uniform Commercial Code.

(b) Financing Statements. Trustor shall execute and deliver to Lender, in form and substance reasonably satisfactory to Lender, such financing statements and further assurances as Lender may, from time to time, require to create, perfect, and preserve Lender's security interest herein granted, and Lender may cause such financing statements and assurances to be recorded and filed at such times and places as may be required or permitted by law to so create, perfect and preserve such security interest.

(c) Remedies on Default. Upon default, Lender may, at its option (i) exercise any remedy permitted by law or in equity, its option: including without limitation, all the rights and remedies of a secured party under the California Uniform Commercial Code in any jurisdiction where enforcement is sought, whether in California or elsewhere; (ii) notify any parties obligated on any of Personalty or Fixtures to make payment to Lender and enforce

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collection thereof; (iii) apply any sums received or collected from or on account of any Personalty or Fixtures, including the proceeds of any sales thereof, to the payment of any indebtedness of Trustor to Lender in any order, including the costs and expenses incurred in preserving and enforcing the rights of Lender and attorneys, fees, in such order and manner as Lender in Lender's sole discretion determines. All of Lender's rights and remedies shall be cumulative and not exclusive.

(d) This Deed of Trust shall constitute a fixture filing under the California Uniform Commercial Code. Lender's address from which information concerning Lender's security interest can be obtained is set forth in paragraph (28) above, subject to change as therein provided.

(34) SALE OF INTEREST: Trustor acknowledges and accepts that Lender may, at any time, in Lender's sole discretion sell all or any portion of Lender's interest in the Note and this Deed of Trust to one or more third parties. The sale of all or any part of Lender's interest in the Note or Deed of Trust shall not relieve Trustor of any of Trustor's obligations hereunder.

(35) SEPARATE PROPERTY: Any married person executing this Deed of Trust in an individual capacity agrees that recourse may be had to his or her separate property for satisfaction of all sums secured under this Deed of Trust.

(36) BOOKS AND RECORDS: Trustor shall keep and maintain at all times at Trustor's address stated above, or at such other place as Lender, in the exercise of its reasonable judgment, may approve in writing from time to time, complete and accurate books or accounts and records adequate to reflect correctly the results of the operation of the Property and copies of all written contracts, leases, rental agreements, concessions, licenses, and other documents and instruments which affect the Property, or any portion thereof or interest therein. Such books, records, contracts, leases, documents, and other instruments shall be subject to examination and inspection by Lender, or Lender's agents or designated auditors, at any reasonable time and from time to time, on not less than twenty-four (24) hours prior written notice. Trustor shall furnish upon Lender's request, a rent schedule for the Property, certified by Trustor, showing the name of each tenant and, for each tenant, the space occupied, the expiration date of the lease or rental agreement, the rent payable and the rent paid, the security deposit held, and such other information regarding the leasing of the Property as Lender shall require in its reasonable judgment. Upon Lender's request, Trustor shall also provide to Lender, within ten (10) days after request, such interim statements of income and expense as Lender shall require, and current financial statements of Trustor and any guarantor of all or any of the obligations secured by this Deed of

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Trust; provided, however, except as otherwise permitted under the Agreement, such request shall not be made more than two (2) times in any calendar year; Such statements shall be prepared in accordance with generally accepted accounting principles consistently applied, certified as being complete and accurate by the party whose statement is being furnished and, if required by Lender, by an independent certified public accountant.

(37) INSPECTION, APPRAISAL, AND ASSESSMENTS: Lender may, at any time and from time to time and as and when Lender deems to be appropriate, whether or not Trustor is then in default of not less than twenty-four (24) hours prior written notice, (a) enter upon the Premises, directly or through one or more agents or independent contractors, to inspect any and all Property which is security for the obligations herein described, and (b) cause to be performed and prepared one or more appraisals and/or preliminary or other environmental assessments of the Property, or any portion thereof, in form and content satisfactory to Lender and meeting all requirements or standards of applicable laws, regulations, ordinances, orders, and generally recognized industry standards relating thereto. All reasonable costs and expenses incurred by Lender or Trustee in connection with any such inspection, appraisal, or assessment, shall be payable by Trustor upon demand and shall be secured by this Deed of Trust. All reports and other evidence and work papers relating to such inspections, appraisals, and assessments, shall be and remain the sole property of Lender, and Trustor hereby waives any right which Trustor may have by agreement or by operation of law to receive an original or duplicate thereof. Any appraisal or assessment may, at Lender's sole election, be relied upon by Lender in taking any action Lender deems to be necessary or appropriate in connection with the enforcement of its rights and exercise of remedies under or by virtue of this Deed of Trust, or under any obligation secured hereby, or under any separate obligation pertaining to the Property, or in connection with the protection, maintenance, preservation, remediation, restoration, or repair of the Property. Unless Lender otherwise expressly declares in writing, neither

said appraisal nor assessment shall constitute conclusive evidence of the value or condition of the Property or as a representation or warranty by Lender as to the value or condition of the Property, and may not be used or relied upon by Trustor for any purpose.

(38) DEFINITIONS: All terms not defined herein shall be defined as set forth on the Agreement.

(39) LIMITATIONS ON LIABILITY: Ligand Pharmaceuticals Incorporated ("Ligand") is a member of Trustor and owns a one percent (1%) interest in Trustor. Ligand shall not have any liability for the obligations of Trustor under this Deed of Trust beyond the amount that Ligand contributed to purchase its one percent (1%) interest in

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Trustor. Notwithstanding the foregoing, the limitation of liability of Ligand provided for herein shall not be applicable and shall cease to be in force and effect in the event that: (i) Ligand or any officer, director, employee or shareholder of Ligand has caused or contributed to any breach or violation of this Deed of Trust and has liability therefor under applicable law other than by virtue of its membership interest in Trustor; or (ii) Ligand acquires in excess of fifty percent (50%) of the ownership interest in Borrower, directly or through an entity of Ligand; (iii) Ligand assumes the obligations of Trustor under the Note; or (iv) Ligand acquires the Property; or (v) Ligand acquires in excess of fifty percent (50%) of the ownership interest in any entity that assumes the obligations of Trustor under the Note or acquires the Property.

THE UNDERSIGNED TRUSTOR REQUESTS THAT A COPY OF ANY NOTICE OF DEFAULT AND ANY NOTICE OF SALE HEREUNDER BE MAILED TO TRUSTOR AT TRUSTOR'S ADDRESS SET FORTH ABOVE.

("Trustor")

NEXUS EQUITY VI LLC,
a California limited liability
company

By: NEXUS PROPERTIES, INC.
Its Manager

By: /s/Michael J. Reidy

Michael J. Reidy
Chief Executive Officer

[ALL SIGNATURES MUST BE ACKNOWLEDGED]

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EXHIBIT "A"
(Legal Description)

PARCEL 2 OF PARCEL MAP 17826, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, FEBRUARY 18, 1997.

EXHIBIT "B"
(Permitted Toxic Materials)

Trustor shall not permit there to be any hazardous and/or toxic materials at, on, in, around and/or under the Property and improvements, other than those as used in the regular course of business and for which Trustor has licenses from the proper authority, such as a government agency or regulatory body, and further, notwithstanding the foregoing, Trustor hereby expressly covenants, represents and warrants to Lender that all such materials shall be used or stored in strict compliance with the provisions as set forth in paragraph 6(c) of the Deed of Trust for compliance with all state and federal laws, rules, regulations, relating to or governing the use, storage and/or presence of toxic and/or Hazardous Substances Indemnity.

Notwithstanding any provisions to the contrary contained in this Exhibit "B" and paragraph 6(c) of the Deed of Trust, in the event Trustor has executed any unsecured Hazardous Substances Indemnity Agreement ("Hazardous Substances Indemnity") in favor of Beneficiary pertaining to the presence or release of hazardous and/or toxic materials or other similar substances upon, within or from the Property, then the covenants, duties and liabilities of Trustor, and the rights and remedies of Beneficiary with respect to the subject of hazardous and/or toxic materials, shall be governed by the provisions of the Hazardous Substances Indemnity in addition to the provisions of the Deed of Trust; provided, however, that the provisions of said Hazardous Substances Indemnity shall prevail and exclusively govern the subject matter to the extent of any duplication, conflict or inconsistency between such provisions and the provisions of this Deed of Trust, and payment or performance of Trustor's obligations under said Hazardous Substances Indemnity shall not be secured by this Deed of Trust, but shall be and remain unsecured obligations of the Trustor.

STATE OF CALIFORNIA)
)ss.
COUNTY OF SAN DIEGO)

On MARCH 10, 1997 before me, PATRICIA M.ERICKSON, NOTARY PUBLIC personally appeared MICHAEL J. REIDY, (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted executed the instrument.

WITNESS my hand and official seal.

Signature /s/Patricia M. Erickson

(Seal)

[STAMP] CERTIFIED to be a correct Copy of the
 Contents of the Original Document
 Recorded 3-11-97 @ 9:34 AM

 File No. 1997 - 0105344

RECORDING REQUESTED BY: Official Records of San Diego County,
AND WHEN RECORDED MAIL TO: California
TOKAI BANK OF CALIFORNIA CHICAGO TITLE COMPANY
Central Note Department
Branch: #9207 - Credit Control [SIGNATURE]
300 South Grand Avenue, 5th Floor -----
Los Angeles, CA 90071

Assessor's Parcel No. 340-180-05 AND

A PORTION OF 340-180-04

ABSOLUTE ASSIGNMENT OF LEASES, RENTS AND LEASE GUARANTIES

FOR VALUE RECEIVED, the undersigned ("Assignor") grants, transfers and assigns to Tokai Bank of California, a California banking corporation ("Assignee"), all of Assignor's right, title and interest in all leases executed by Assignor, or Assignor's successor in interest, in regard to the real property described below, as lessor (individually and collectively the "Leases") concerning real property located in San Diego County, California, commonly known as Lot #15, Torrey Pines Science Center, La Jolla, California, and legally described as set forth in Exhibit "A" hereto, which Exhibit "A" is incorporated herein by reference ("Property") and all lease guaranties in regard to the Leases (individually and collectively, the "Lease Guaranties"). The Property is the subject of a certain Construction Deed of Trust, Assignment of Rents, Security Agreement and Fixture Filing ("Deed of Trust"), by Assignor to Chicago Title Company, as Trustee, for Assignee, as Beneficiary, which Deed of Trust secures an obligation in the aggregate original principal amount of \$14,270,000.00 plus permitted accrued interest pursuant to a Construction Loan Agreement between Assignor and Assignee dated March 7, 1997 ("Loan Agreement"), in regard to which this assignment is given. This assignment includes assignment of Assignor's interest in all extensions and renewals of the Leases, and all extensions or renewals of the Lease Guaranties.

1. Assignor warrants that title to all of such property interests is in Assignor; that Assignor has the right to make this assignment; that full title and right to receive all rents, issues and profits under the Leases and all amounts accruing under the

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Lease Guaranties are vested absolutely in Assignee by this assignment; and that the rental property and rental payments and other sums are free from liens, encumbrances, claims and setoffs of every kind whatsoever, except as permitted under the Loan Agreement.

2. Assignor, to the extent made necessary hereby, appoints Assignee its true, lawful and irrevocable attorney to demand, receive and enforce payment, to give receipts, releases and satisfactions, and to sue, either in the name of Assignor or in the name of Assignee, for all rents and other sums payable in regard to the Leases and Lease Guaranties.

3. Until a notice of default in the payment of any indebtedness to which this assignment is related or in the performance of any obligation, covenant or agreement contained herein or in the Deed of Trust on the part of Assignor to be performed is transmitted by Assignee to Assignor, Assignor shall have the right to collect said rents or other sums, but according to the terms and conditions hereinafter specified. Notice shall be given in accordance with the Loan Agreement.

4. Assignor consents that, without further notice and without releasing the liability of Assignor, Assignee may, at Assignee's discretion, give grace or indulgence in the collection of all rents and sums due or to become due under the Leases and Lease Guaranties and grant extensions of time for the payment of the same before, at, or after maturity.

5. Nothing herein contained shall be construed as imposing upon Assignee the duty to collect any rent or any other sum. Further, nothing herein contained shall be construed as imposing upon Assignee any duty in regard to

causing the Property to be rented, in whole or in part, or to be utilized in any other way.

6. Nothing herein contained shall be construed as requiring Assignee to give credit to Assignor or any successor in interest of Assignor in regard to Assignor's obligation or obligations to Assignee which are related to this assignment, or as creating any setoff against or reduction of said obligation or obligations for any sum or sums except to the extent of any sum or sums actually received and so applied by Assignee.

7. Assignee does not assume any of the landlord's obligations under the Leases or the Lease Guaranties, or any of them, and Assignor agrees (a) to keep and perform all obligations

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of the landlord under the Leases and the Lease Guaranties and to save Assignee harmless from the consequences of any failure to do so; and (b) to preserve the Property subject to the Leases free and clear of liens and encumbrances, except to or with the consent of Assignee.

8. Except as permitted under the Loan Agreement, Assignor agrees that Assignor will not assign any other interest in the Leases or the Lease Guaranties, or any of them, or in the rents, issues or profits of the Property; that notice of this assignment may be given to any tenant or lease guarantor at any time at Assignee's option; and that, in the event any payment of rent or any other sum is made to Assignor, Assignor will hold the same as trustee for Assignee to the extent that the same equals any installment or installments then due and payable under the related obligation or obligations, any installment or installments on any lien which may be superior to the Deed of Trust in terms of priority and any taxes or assessments then due and payable in regard to the Property.

9. Assignor further agrees, at its sole cost and expense, to enforce or secure the performance of each obligation of the Leases by the respective Lessees to be performed and each obligation of the Lease Guaranties by the respective lease guarantor to be performed; except as permitted under the Loan Agreement, not to anticipate the rents thereunder, nor to waive or release any party thereunder of or from his, her or its obligations; not to modify the Leases or Lease Guaranties, or any of them, nor accept surrender thereunder.

10. This assignment is in addition to the Deed of Trust and is not to be construed as being a waiver of any of the terms thereof or of the obligation which the Deed of Trust secures.

11. If, as and when Assignee gives notice of default, as hereinabove described, and commences collecting rents or other sums payable in regard to said Property, Assignee shall be entitled to reasonable attorneys' fees for so doing, reasonable fees and commissions for management of the Property and reimbursement for expenses for maintaining said Property, all added to the obligation hereinabove described as though advances under the Deed of Trust.

12. This assignment is irrevocable and shall remain in full force and effect until and unless there is payment in full of all obligations related to it or it is released in writing by Assignee.

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13. A breach or default under any of the terms, provisions, conditions, or covenants of this Assignment shall constitute a default under the Note, the Deed of Trust and all other instruments evidencing or securing the Note, as those terms are defined in the Loan Agreement, and, upon occurrence of any such breach or default, at the option of Lender, without notice to Assignor, all unpaid indebtedness secured by said instruments shall become immediately due and payable.

14. Nothing contained in this assignment or in any action or undertaking by Assignee pursuant to this assignment shall be deemed or be construed to constitute Assignee as a mortgagee in possession of the Property or to obligate Assignee to take any action hereunder, to incur expenses or discharge any obligation, duty or liability hereunder or under the Leases or Lease Guaranties. Until the loan as evidenced by the Note and all indebtedness secured hereby shall have been paid in full, Assignor will from time to time execute and deliver to Assignee upon demand any and all writings which Assignee may reasonably deem necessary or desirable to carry out the purposes and intent hereof, and which will enable Assignee to enforce any right or remedy hereunder.

15. Assignor hereby indemnifies and holds Assignee harmless from and against any and all liability, loss, or damage which Assignee may incur under the Leases or Lease Guaranties or by reason of this assignment, and of and from any and all claims and demands whatsoever which may be asserted against Assignee by reason of any alleged obligation or undertaking to be performed or discharged by any mortgagee or holder of a trust deed under the Leases or this assignment. Nothing contained in the Deed of Trust, the Note, or in this assignment shall be construed to bind Assignee to the performance of any of the terms or provisions contained in any of the Leases or Lease Guaranties, or otherwise to impose any obligation on Assignee, including, but not limited to, any liability under any covenant of quiet enjoyment contained in the Leases in the event that any tenant shall have been enjoined as a party defendant in any action to foreclose the Deed of Trust and shall have been barred and foreclosed thereby of all right, title, and interest, and equity of redemption, in said premises. Prior to actual entry and taking possession of the Property, or any portion thereof, by Assignee, even though Assignee may be receiving rental income, this assignment shall not operate to place responsibility for control, care, management, or repair of said Property upon Assignee, nor for the carrying out of any terms and provisions of said Leases or Lease Guaranties. Should Assignee incur any liability described in this Section, or loss or damage under the Leases or Lease Guaranties or under or by reason of the assignment,

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or in defense of any such claims or demands, Assignor shall immediately upon demand reimburse Assignee for the amount thereof, including reasonable costs, expenses and reasonable attorneys' fees incurred in connection therewith, and Assignee may retain possession and collection of any and all rents and other income derived from the Leases, the Lease Guaranties and/or the Property, and, from time to time, apply them in or towards satisfaction of or reimbursement for any such loss, damage, cost or expense.

16. Ligand Pharmaceuticals Incorporated ("Ligand") is a member of Assignor and owns a one percent (1%) interest in Assignor. Ligand shall not have any liability for the obligations of Assignor under this Assignment beyond the amount that Ligand contributed to purchase its one percent (1%) interest in Assignor. Notwithstanding the foregoing, the limitation of liability of Ligand provided for herein shall not be applicable and shall cease to be in force and effect in the event that: (i) Ligand or any officer, director, employee or shareholder of Ligand has caused or contributed to any breach or violation of this Assignment and has liability therefor under applicable law other than by virtue of its membership interest in Assignor; or (ii) Ligand acquires in excess of fifty percent (50%) of the ownership interest in Borrower, directly or through any corporation, limited liability company, partnership, joint venture, unincorporated organization, directly or indirectly related to, in control of, controlled by or under the common control of (hereinafter referred to as "entity") Ligand; or (iii) Ligand assumes the obligations of Assignor under the Note; or (iv) Ligand acquires the Property; or (v) Ligand acquires in excess of fifty percent (50%) of the ownership interest in any entity that assumes the obligations of Assignor under the Note or acquires the Property.

Dated at Los Angeles, California, this 7th day of March, 1997.

ASSIGNOR:

NEXUS EQUITY VI LLC, a
California limited liability company

By: Nexus Properties, Inc.

A California corporation
Its Manager

By: s/ Michael J. Reidy

Michael J. Reidy
Chief Executive Officer

[ALL SIGNATURES MUST BE ACKNOWLEDGED]

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EXHIBIT "A"

LEGAL DESCRIPTION

PARCEL 2 OF PARCEL MAP 17826, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO,
STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF, FILED IN THE OFFICE OF THE COUNTY
RECORDER OF SAN DIEGO COUNTY, FEBRUARY 18, 1997.

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STATE OF CALIFORNIA)
)ss.
COUNTY OF SAN DIEGO)

On MARCH 10, 1997 before me, PATRICIA M. ERICKSON, NOTARY PUBLIC (here insert
name and title of the officer),----- personally
appeared MICHAEL J. REIDY , (or proved to me on the basis of satisfactory
evidence)----- to be the person(s) whose name(s) is subscribed to
the within instrument and acknowledged to me that he/she/they executed the same
in his/her/their authorized capacity(ies), and that by his/her/their
signature(s) on the instrument the person(s), or the entity upon behalf of which
the person(s) acted executed the instrument.

WITNESS my hand and official seal.

Signature /s/ Patricia M. Erickson

(Seal)

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[STAMP]

CERTIFIED to be a correct Copy of the
Contents of the Original Document
Recorded 3-11-97 @ 9:334 am

File No. 1997 - 0105345

Official Records of San Diego County, California
CHICAGO TITLE COMPANY
[SIG]

RECORDING REQUESTED BY:
TOKAI BANK OF CALIFORNIA

AND WHEN RECORDED MAIL TO:

TOKAI BANK OF CALIFORNIA
Central Note Department
Branch #9207 - Credit Control
300 South Grand Avenue, 5th Floor
Los Angeles, California 90071

SUBORDINATION AND FORBEARANCE AGREEMENT

NOTICE: THIS SUBORDINATION AND FORBEARANCE AGREEMENT RESULTS IN YOUR SECURITY INTEREST IN THE PROPERTY BECOMING SUBJECT TO AND OF LOWER PRIORITY THAN THE LIEN OF SOME OTHER OR LATER SECURITY INSTRUMENT.

THIS AGREEMENT is made as of this 7th day of March, 1997, between and among (i) NEXUS PROPERTY VI LLC, a California limited liability company, owner of the land hereinafter described ("Owner"), (ii) TOKAI BANK OF CALIFORNIA, a California banking corporation ("Tokai"), and (iii) LIGAND PHARMACEUTICALS INCORPORATED, a Delaware corporation ("Ligand"), with reference to the following:

RECITALS

A. Owner is in the process of developing an 82,500 square foot lab/administration building on the real property described in Exhibit A, which is attached hereto and incorporated herein by this reference. (the "Property"). Owner has applied to Tokai for a loan in the principal amount of \$14,270,000.00, the proceeds of which are intended to be utilized in developing and constructing improvements on the Property (the "Tokai Loan"). In connection therewith, Owner has executed and delivered, or is about to execute and deliver in favor of Tokai, a Secured Promissory Note dated as of March 7, 1997 (the "Tokai Note") in the original principal sum of Fourteen Million Two Hundred and Seventy Thousand and no/100 Dollars (\$14,270,000.00). The Tokai Note will be secured, among other things, by a Construction Deed of Trust, Assignment of Rents, Security Agreement and Fixture Filing, dated as of March 7, 1997 (the "Tokai Deed of Trust") in favor of Tokai. The Tokai Deed of Trust is to be recorded concurrently herewith. The Tokai Note, the Tokai Deed of Trust and all other documents, instruments, and agreements evidencing and/or securing the Tokai Loan, as now existing, or

hereafter amended, modified, renewed or extended, are sometimes collectively referred to herein as the "Tokai Loan Documents."

B. Owner has also applied to Ligand for a loan in the principal amount of \$3,650,000.00 (the "Ligand Loan"), the proceeds of which are intended to be utilized to acquire the Property and in developing and constructing improvements on the Property. In connection therewith, Owner has executed and delivered, or is about to execute and deliver in favor of Ligand, a Secured Promissory Note dated as of March 7, 1997 (the "Ligand Note") in the original principal sum of Three Million Six Hundred and Fifty Thousand and No/ 100 Dollars (\$3,650,000.00). The Ligand Note will be secured, among other things, by a Construction Deed of Trust, Assignment of Rents, Security Agreement and Fixture Filing, dated as of March 7, 1997 (the "Ligand Deed of Trust") in favor of Ligand. The Ligand Deed of Trust is to be recorded subsequent to the Tokai Deed of Trust, and is to be junior, subordinate and subject to the Tokai Deed of Trust. The Ligand Note, the Ligand Deed of Trust and all other documents, instruments and agreements evidencing and/or securing the Ligand Loan, as now existing or hereafter amended, modified, renewed or extended, are sometimes collectively referred to herein as the "Ligand Loan Documents."

C. It is a condition precedent to obtaining the Tokai Loan that the Tokai Deed of Trust and other Tokai Loan Documents shall unconditionally be and remain at all times a lien or charge upon the Property which is prior and superior to the lien or charge of the Ligand Deed of Trust and other Ligand Loan Documents.

D. Tokai is willing to make the Tokai Loan provided, among other things, that (i) the Tokai Deed of Trust is a lien or charge upon the Property prior and superior to the lien or charge of the Ligand Deed of Trust; (ii) Ligand specifically and unconditionally subordinates the lien or charge of the Ligand

Deed of Trust to the lien or charge of the Tokai Deed of Trust; and (iii), notwithstanding any provisions in the Ligand Loan Documents to the contrary, Ligand agrees that, prior to the full reconveyance of record of the Tokai Deed of Trust, subject to the provisions of this Agreement, Ligand will unconditionally forbear and refrain from exercising any and all of its rights and remedies available under the Ligand Deed of Trust or other Ligand Loan Documents, or at law or in equity, including without limitation, (1) any rights to approve or disapprove any changes to the terms, conditions or provisions of any of the Tokai Loan Documents, (2) any rights to approve or disapprove existing or new leases affecting the Property or any amendments, modifications or terminations thereof, changes in the development and construction costs for the improvements on the Property or changes to the plans and specifications for the improvements on the Property, or (3) any rights to accelerate the indebtedness secured by the Ligand Deed of Trust, to seek appointment of a receiver with respect to the Property or any portion thereof and/or to commence or pursue judicial or non-judicial foreclosure proceedings with respect to the Property or any portion thereof and/or to accept a deed in lieu of foreclosure from Owner or any of Owner's successors or assigns.

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E. It is to the mutual benefit of the parties hereto that Tokai make the Tokai Loan to Owner, and Ligand is willing that the Tokai Deed of Trust shall, when recorded, constitute a lien or charge upon the Property which is unconditionally prior and superior to the lien or charge of the Ligand Deed of Trust.

NOW, THEREFORE, in consideration of the mutual benefits accruing to the parties hereto and other valuable consideration, the receipt and sufficiency of which consideration is hereby acknowledged, and in order to induce Tokai to make the Tokai Loan, it is hereby declared, understood and agreed as follows:

AGREEMENT

1. The Tokai Deed of Trust and all other Tokai Loan Documents, and any and all modifications, amendments, renewals and extensions thereof, including, without limitation, any increases in the principal amount in excess of the face amount of the Tokai Note or increases in the interest rate charged on the Tokai Note, as approved from time to time by Tokai in its sole and absolute discretion, shall unconditionally be and remain at all times a lien or charge on the Property, prior and superior to the lien or charge of the Ligand Deed of Trust and all other Ligand Loan Documents.

2. Tokai would not make the Tokai Loan without this Agreement.

3. This Agreement shall be the whole and only agreement with regard to the subjection and subordination of the lien or charge of the Ligand Deed of Trust and all other Ligand Loan Documents to the lien or charge of the Tokai Deed of Trust and all other Tokai Loan Documents and shall supersede and cancel, but only insofar as such would affect the priority between the Tokai Loan Documents and the Ligand Loan Documents, any prior agreements as to such subjection or subordination, including but not limited to those provisions, if any, contained in the Ligand Deed of Trust or other agreements between Owner and Ligand which provide for the subjection or subordination of the lien or charge thereof to another deed or deeds of trust or other security instruments.

4. Ligand declares, agrees and acknowledges that:

(a) Ligand consents to and approves (or expressly waives and relinquishes any rights it may now or hereafter have to consent to or approve) all provisions of the Tokai Loan Documents, including but not limited to any construction loan or escrow agreements, between Owner and Tokai for the disbursement of the proceeds of the Tokai Loan. In the event there is any conflict in any procedures for the disbursement of any loan proceeds for construction of improvements on the Property in the Ligand Loan Documents and the Tokai Loan Documents, the procedures provided for in the Tokai Loan Documents, subject to the provisions, of this Agreement, shall control;

(b) Tokai in making disbursements pursuant to any such agreement is under no obligation or duty to, nor has Tokai represented that it will, see to the application of such proceeds by the person or persons to whom Tokai disburses such proceeds, and any application or use of such proceeds for purposes other than those provided for in such agreement or agreements shall not defeat the subordination herein made in whole or in part;

(c) Ligand intentionally and unconditionally subjects and subordinates the lien or charge of the Ligand Deed of Trust and all other Ligand Loan Documents in favor of the lien or charge upon the Property of the Tokai Deed of Trust and all other Tokai Loan Documents and any and all modifications, amendments, renewals and extensions thereof, and understands that in reliance upon, and in consideration of, this waiver, relinquishment, subjection and subordination, specific loans and advances are being and will be made and, as part and parcel thereof, specific monetary and other obligations are being made and will be entered into which would not be made or entered into but for said reliance upon this waiver, relinquishment, subjection, and subordination;

(d) Subsequent to the date hereof and prior to the full reconveyance of record of the Tokai Deed of Trust, Ligand will not demand or accept payment of any interest, principal or any other amounts (however characterized) in respect of the Ligand Loan or receive any prepayments of the Ligand Loan. However, as long as there is no event of default under the Tokai Loan Documents, Ligand shall be entitled to receive and collect any regularly scheduled payments required to be made by Owner under the Ligand Loan Documents. Subsequent to an event of default under the Tokai Loan Documents, and upon written notice thereof to Ligand of such default, subject to the provisions of Section 5 below, Ligand will not demand or accept payment of any interest, principal or any other amounts (however characterized) in respect of the Ligand Loan prior to the full reconveyance of record of the Tokai Deed of Trust. Tokai shall provide Ligand copies of any written notice of default that it provides to Owner concurrently therewith; provided, however, Tokai's failure to do so shall not affect any of its rights, benefits and remedies hereunder. If Ligand receives or collects any payment in violation of this Agreement, Ligand shall hold such payment in trust for the benefit of Tokai and promptly deliver such payment to Tokai;

(e) Prior to full reconveyance of record of the Tokai Deed of Trust, and notwithstanding the maturation of any indebtedness secured by the Tokai Deed of Trust and/or the Ligand Deed of Trust, and/or the occurrence of any default or event of default under the Tokai Deed of Trust and/or the Ligand Deed of Trust, or otherwise, subject to the provisions of Section 5 below, Ligand shall not, in the event of default by Owner under the Tokai Loan Documents or the Ligand Loan Documents: (i) exercise or permit or cause to be exercised, any of its rights or remedies under the Ligand Loan Documents, including without limitation, (1) any action or proceeding for the appointment of a receiver or other action to divest Owner of possession, management and/or control of the Property or any portion thereof or any interest therein, including without limitation, any rents, issues, profits, revenues or proceeds (including without limitation, insurance proceeds and/or condemnation proceeds) of the Property or any

improvements thereon, (2) the commencement of a court action to foreclose the Ligand Deed of Trust or to enforce any of the provisions thereof, (3) the commencement of proceedings for sale of the Property or any portion thereof under the power of sale granted by the Ligand Deed of Trust, or (4) the acceptance of a deed in lieu of foreclosure from Owner or any of Owner's successors or assigns; or (ii) exercise or permit or cause to be exercised any other rights or remedies available at law or in equity, including without limitation any rights of subrogation to the rights of the Owner with respect to the Tokai Deed of Trust or the other Tokai Loan Documents and/or the Property; and

(f) Ligand shall from time to time, upon not more than five (5) days prior written request, execute and deliver in recordable form, such additional documents or instruments as Tokai may require in order to further

evidence and confirm the subordinations provided for in this Agreement.

5. The forbearance provided for in Sections 4 (d) and 4 (e) above, shall terminate and be of no further force and effect in the event that and only so long as Ligand cures any default by Owner under the Tokai Loan Documents. In the event Ligand cures a default by Owner under the Tokai Loan Documents, and, thereafter, another default occurs under the Tokai Loan Documents, the forbearance provided for in Sections 4 (d) and 4 (e) shall automatically be reinstated and in full force and effect on each occasion that such default exists unless and until Ligand cures such default. It is acknowledged by Tokai, Owner and Ligand that a default under the Ligand Loan Documents constitutes a default under the Tokai Loan Documents ("Cross-Default Default"). Therefore, notwithstanding the foregoing provisions of this Section 5, in the event that Ligand cures all other defaults under the Tokai Loan Documents, it shall not be required to cure the Cross-Default Default, and upon cure of all other defaults the forbearance provided for in Sections 4(d) and 4(e) above shall terminate as provided for herein.

6. In the event Ligand takes, or causes or permits to be taken, any action in violation of the provisions of Sections 4(d) or 4(e) above, or fails to duly and timely deliver the further assurances requested pursuant to Section 4(f) above, such action or failure to act shall, at the election of the holder of the Tokai Deed of Trust, constitute an event of default under the Tokai Deed of Trust.

7. All notices, requests, demands, directions and other communications provided for or permitted hereunder must be in writing and must be mailed, hand-delivered, sent by overnight commercial courier, or sent by confirmed electronic facsimile transmission ("fax") to the appropriate party(ies) at the respective addresses set forth below or, as to any party, at any other address as may be designated by it in a written notice sent to the other party(ies) in accordance with this Section. Any notice given by fax must be confirmed within forty-eight (48) hours by letter mailed or delivered to the appropriate party at its respective address. If any notice is given by mail, it will be effective three (3) calendar days after being deposited in the U. S. mail with first-class or air mail postage prepaid; if given by fax, on the next business day following confirmation

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of receipt; if given by overnight commercial courier, on the date of receipt; or if given by personal delivery, when delivered,

8. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of California.

9. Whenever the context of this Agreement requires, the singular shall include the plural and the masculine gender shall include the feminine and/or neuter.

10. If any provision of this Agreement is held to be inoperative, unenforceable or invalid, such provision shall be inoperative, unenforceable or invalid without affecting the remaining provisions; this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part of this Agreement; and to this end the provisions of this Agreement are declared to be severable, remaining in full force and effect.

11. This Agreement may be amended or modified only by a written instrument duly executed and delivered by the parties hereto or their respective successors in interest and assigns.

12. This Agreement may be executed in any number of counterparts which, when taken together, shall constitute one and the same instrument.

NOTICE: THIS SUBORDINATION AND FORBEARANCE AGREEMENT CONTAINS A PROVISION WHICH ALLOWS THE PERSON OBLIGATED ON YOUR REAL PROPERTY SECURITY TO OBTAIN A LOAN, A PORTION OF WHICH MAY BE EXPENDED FOR OTHER PURPOSES THAN IMPROVEMENT OF THE LAND.

OWNER: LIGAND:
NEXUS EQUITY VI LLC LIGAND PHARMACEUTICALS
INCORPORATED

By: Nexus Properties, Inc., a
California corporation
Its Manager By: /s/ [Illegible]
Address: SECRETARY

By: /s/ [Illegible]
Its: SENIOR VP

/s/ MICHAEL J. REIDY

Michael J. Reidy,
Chief Executive Officer

By: [Illegible]

Address: 4550 La Jolla Village Drive

San Diego, CA [Illegible]

[Illegible]

TOKAI:
TOKAI BANK OF CALIFORNIA

By: [Illegible]

Address: 300 South Grand Avenue

Fifth Floor

Los Angeles, CA 90071

(ALL SIGNATURES MUST BE ACKNOWLEDGED)

7
STATE OF CALIFORNIA)
) ss
COUNTY OF)

On March 10, 1997, before me, G. Kay Nakamura, a Notary Public in and for said County and State, personally appeared Paul V. Maier, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[Illegible]

Notary Public

[SEAL]

[G. Kay Nakamura]
Commission #1080201
Notary Public-California
San Diego County
[My Comm. Expires Dec. 10, 1999]

8

STATE OF CALIFORNIA)
) ss
COUNTY OF)

On March 10, 1997, before me, G. Kay Nakamura, a Notary Public in and for said County and State, personally appeared William L. [Illegible], personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[Illegible]

Notary Public

[SEAL]

[G. Kay Nakamura]
Commission #1080201
Notary Public-California
San Diego County
[My Comm. Expires Dec. 10, 1999]

9

STATE OF CALIFORNIA)
) ss
COUNTY OF SAN DIEGO)

On March 10, 1997, before me, Patricia M. Erickson, a Notary Public in and for said County and State, personally appeared Michael J. Reidy, (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is subscribed to the within instrument, and acknowledge to me that he executed the same in his authorized capacity/ies, and that by his signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Patricia M. Erickson

Notary Public

[SEAL]

[Patricia M. Erickson]
Commission #1078819
Notary Public-California
San Diego County
[My Comm. Expires Nov. 29, 1999]

STATE OF CALIFORNIA)
) SS.
COUNTY OF SAN DIEGO)

On March 10, 1997, before me, Patricia M. Erickson, a Notary Public in and for said County and State, personally appeared James W. Holliman, (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) are subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Patricia M. Erickson

FOR NOTARY SEAL OR STAMP

[SEAL]

PATRCIA M. ERICKSON
Commission #1078819
Notary Public - California
San Diego County
My Comm. Expires Nov 29, 1999

STATE OF CALIFORNIA)
) SS.
COUNTY OF)

On _____, before me, _____, a
Notary Public in and for said County and State, personally appeared
_____ personally known to me (or proved to me on the
basis of satisfactory evidence) to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they
executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon
behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature

FOR NOTARY SEAL OR STAMP

[SEAL]

EXHIBIT "A"

Legal Description

PARCEL 2 OF PARCEL MAP NO. 17826 IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO,
STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF FILED IN THE OFFICE OF THE COUNTY
RECORDER OF SAN DIEGO COUNTY ON FEBRUARY 18,1997.

<TABLE>

<S>

<C>

RECORDING REQUESTED BY CERTIFIED to be a correct Copy of the
AND WHEN RECORDED RETURN TO: Contents of the Original Document
Recorded 3-11-97 @ 9:34 AM

TOKAI BANK OF CALIFORNIA -----

Central Note Department File No. 1997 - 0105346

Branch: #9207 - Credit Control -----

300 South Grand Avenue Official Records of San Diego County, California

Los Angeles, California 90071 CHICAGO TITLE COMPANY

[SIG]

</TABLE>

NONDISTURBANCE AND ATTORNMENT AGREEMENT

THIS NONDISTURBANCE AND ATTORNMENT AGREEMENT ("Agreement") made to be effective the 7th day of March, 1997 is entered into by and among TOKAI BANK OF CALIFORNIA, a California banking corporation (hereinafter called "Bank"), NEXUS EQUITY VI LLC (hereinafter called "Borrower"), and LIGAND PHARMACEUTICALS INCORPORATED (hereinafter called "Tenant");

WITNESSETH

WHEREAS, Bank is now or concurrently herewith is about to become the beneficiary and holder of a deed of trust (the "Deed of Trust"), covering the real property described in EXHIBIT A, attached hereto and made a part hereof for all purposes, and the buildings and improvements thereon (hereinafter collectively called the "Property"), securing the payment of a loan (the "Loan") made or to be made by Bank to Borrower as more particularly described in Supplement I; and

WHEREAS, Tenant is the holder of a leasehold estate pursuant to a lease (hereinafter called the "Lease") covering a portion of the Property as more particularly described in Supplement I; and

WHEREAS, Borrower (with such party and its successors and assigns occupying the position of landlord under the Lease being referred to collectively hereinafter as "Landlord") has assigned its rights as landlord under the Lease to Bank as partial security for repayment of the Loan and performance of its obligations under the Deed of Trust; and

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WHEREAS, Tenant and Bank desire to confirm their understanding with respect to the Lease and the Deed of Trust;

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, Bank and Tenant hereby agree and covenant as follows:

1. NONDISTURBANCE. So long as Tenant is not in default (beyond any period given Tenant to cure such default) in the payment of rent or additional rent or in the performance of any of the terms, covenants or conditions of the Lease on Tenant's part to be performed, (a) Tenant's possession of the Premises and Tenant's rights and privileges under the Lease, and any extensions or renewals thereof, shall not be diminished or interfered with by Bank in the exercise of any of its rights under the Deed of Trust or by any party who acquires the Property from Bank as a result of the exercise by Bank of any such rights, (b) Tenant's occupancy of the Premises shall not be disturbed by Bank in the exercise of any of its rights under the Deed of Trust during the term of the Lease or any extensions or renewals thereof or by any party who acquires the Property from Bank as a result of the exercise by Bank of any such rights, and (c) Bank will not join Tenant as a party defendant in any action or proceeding for the purpose of terminating Tenant's interest and estate under the Lease because of any default under the Deed of Trust or any other instrument evidencing or securing the Loan.

2. ATTORNMENT. If any proceedings are brought for the foreclosure of the Deed of Trust, or if the Property is sold pursuant to a trustee's sale under the Deed of Trust, or if Bank becomes owner of the Property by acceptance of a deed or assignment in lieu of foreclosure or otherwise, Tenant shall attorn to Bank or purchaser, as the case may be, upon any such foreclosure sale or trustee's sale, or acceptance by Bank of a deed or assignment in lieu of foreclosure, and Tenant shall recognize Bank or such purchaser, as the case may be, as the Landlord under the Lease. Such attornment shall be effective and self-operative without the execution of any further instrument on the part of any of the parties hereto. Tenant agrees, however, to execute and deliver at any time, and from time to time, within five (5) business days after the request of Landlord, any holder(s) of any of the indebtedness or other obligations secured by the Deed of Trust, or any such purchaser, all instruments or certificates which, in the reasonable judgment of Landlord, such holder(s) or such purchaser, may be necessary or appropriate in any such foreclosure proceeding or otherwise to evidence such attornment. In the event of any such attornment, Tenant further waives the provisions of any statute or rule of law, now or hereafter in effect, which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect the Lease and the obligation of Tenant thereunder as a result of any such foreclosure proceeding or trustee's sale.

3. BANKS RIGHTS, REMEDIES AND LIABILITY AS A LANDLORD OR BANK IN POSSESSION. If Bank shall succeed to the interest of Landlord under the Lease in any manner, or if any purchaser acquires the Property upon any foreclosure of the Deed of Trust or any trustee's sale under the Deed of Trust, Bank or such purchaser, as the case may be, in the event of attornment, shall have the same remedies by entry, action or otherwise in the event of any default by Tenant (beyond any period given Tenant to cure such default) in the payment of rent or

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additional rent or in the performance of any of the terms, covenants and conditions of the Lease on Tenant's part to be performed that Landlord had or would have had if Bank or such purchaser had not succeeded to the interest of Landlord. From and after any such attornment, Bank or such purchaser shall be bound to Tenant under all the terms, covenants, and conditions of the Lease, and Tenant shall, from and after the succession to the interest of Landlord under the Lease by Bank or such purchaser, have the same remedies against Bank or such purchaser for the breach of an agreement contained in the Lease that Tenant might have had under the Lease against Landlord if Bank or such purchaser had not succeeded to the interest of Landlord, and Tenant shall be bound to Bank or such purchaser under all of the terms, covenants and conditions of the Lease. However, the provisions of the Deed of Trust shall govern with respect to the disposition of any casualty insurance proceeds or condemnation awards and Bank or such purchaser shall not be:

(a) liable for any act or omission of any prior landlord (including Landlord); or

(b) subject to offsets or defenses which Tenant might have against any prior landlord (including Landlord); or

(c) bound by any rent or additional rent which Tenant might have paid for more than the current month to any prior landlord (including Landlord), unless the same was paid to and received by Bank, or

(d) bound by any representation or warranty contained in the Lease or made by any party to Tenant, including, but not limited to, Landlord; or

(e) bound by any amendment or modification of the Lease made without Bank's consent that would have the effect, directly or indirectly, of reducing the rent or other amounts to be paid by Tenant pursuant to the Lease; or

(f) liable for any security deposit or other sum(s) paid by Tenant to Landlord unless the same was paid to and received by Bank.

Neither Bank nor any other party who from time to time shall be included in the definition of Bank hereunder, shall have any liability or responsibility under

or pursuant to the terms of this Agreement after it ceases to own an interest in or to the Property.

Tenant further acknowledges and agrees that neither Bank nor any purchaser of the Property at foreclosure sale nor any grantee of the Property named in a deed-in-lieu of foreclosure, nor any heir, legal representative, successor, or assignee of Bank or of any such purchaser or grantee, has or shall have any personal liability for the obligations of Landlord under the Lease, except to the extent of the rents, security deposits, and insurance and condemnation proceeds actually received and the equity in the Property then owned by such party.

4. NO WAIVER. Nothing herein contained is intended, nor shall it be construed, to abridge or adversely affect any right or remedy of Landlord under the Lease in the event of any default by Tenant (beyond any period given Tenant to cure such default) in the payment of rent or

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additional rent or in the performance of any of the terms, covenants or conditions of the Lease on Tenant's part to be performed.

5. NOTICES. Tenant hereby acknowledges and agrees that:

(a) From and after the date hereof in the event of any act or omission of Landlord which would give Tenant the right, either immediately or after the lapse of time, to terminate the Lease or to claim a partial or total eviction, Tenant will not exercise any such right (i) until it has given written notice of such act or omission to Bank and (ii) until the expiration of thirty (30) days following such giving of notice to Bank in which time period Bank shall be entitled to cure any such act or omissions of Landlord, or begin the cure and diligently pursue the cure if such cure, by its nature, cannot reasonably be effected within such thirty (30) day period.

(b) Tenant shall send a copy of any such default, notice or statement under the Lease to Bank at the same time such notice or statement is sent to Landlord.

(c) If Bank notifies Tenant of a default under the Deed of Trust and demands that Tenant pay its rent and all other sums due under the Lease to Bank, Tenant shall honor such demand and pay its rent and all of the sums due under the Lease directly to Bank or as otherwise required pursuant to such notice. In connection therewith, Landlord, by its execution of this Agreement, hereby acknowledges and agrees that in the event of a default under the Deed of Trust, Tenant may pay all rents and all of the sums due under the Lease directly to Bank as provided hereinabove upon notice from Bank that Landlord is in default. If Tenant shall make rental payments to Bank following receipt of notice that Landlord is in default, Landlord hereby waives any claims against Tenant for the amount of such payments made by Tenant to Bank.

6. COVENANTS. Tenant shall not, without obtaining the prior written consent of Bank, (a) prepay any of the rents, additional rents or other sums due under the Lease for more than one (1) month in advance of the due dates thereof, (b) voluntarily surrender the Property or terminate the Lease without cause or (c) assign the Lease or sublet the Property other than pursuant to the provisions of the Lease. Additionally, Bank may, at its election, in its sole and absolute opinion and judgment, subordinate the lien of the Deed of Trust to the Lease and the leasehold interest created thereby, and make said lien subject to the Lease by providing Borrower and Tenant written notice of such election at any time prior to completion of a foreclosure of the Deed of Trust, whether judicial or through the power of sale contained in the Deed of Trust, or the acceptance of any assignment or deed in lieu of foreclosure. From and after delivery of such notice to Tenant, the lien of the Deed of Trust shall be subject and subordinate to the Lease and the leasehold estate created thereby.

7. AMENDMENTS/SUCCESSORS. This Agreement and the Lease may not be amended or modified orally or in any manner other than by an agreement in writing signed by the parties hereto or their respective successors in interest. This Agreement shall inure to the benefit of and be binding upon the parties hereto, their successors and permitted assigns, and any purchaser or purchasers at foreclosure

On March 10, 1997, before me, personally appeared WILLIAM L. RESPESS and PAUL V. MAIER, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name(s) are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacity, and that by their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Signature [ILLEGIBLE]

STATE OF CALIFORNIA)
) S.S.
COUNTY OF SAN DIEGO)

On March 10, 1997, before me, personally appeared PAUL V. MAIER and WILLIAM L. RESPESS, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name(s) are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacity, and that by their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Signature [ILLEGIBLE]

STATE OF CALIFORNIA,)
) S.S.
COUNTY OF SAN DIEGO)

On March 10, 1997, before me, personally appeared MICHAEL J. REIDY (or proved to me on the basis of satisfactory evidence) to be the person whose name(s) is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Signature PATRICIA M. ERICKSON

STATE OF CALIFORNIA,)
) S.S.
COUNTY OF SAN DIEGO)

On March 10, 1997, before me, PATRICIA M. ERICKSON, a Notary Public in and for said County and State, personally appeared JAMES W. HOLLIMAN (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity(ies), and that by his signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

[SEAL]

WITNESS my hand and official seal.

Signature /s/ Patricia M. Erickson

STATE OF CALIFORNIA,)
) S.S.
COUNTY OF _____)

On _____, before me, _____, a Notary Public in and for said County and State, personally appeared _____ personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

FOR NOTARY SEAL OR STAMP

WITNESS my hand and official seal.

Signature

SUPPLEMENT I

1.1 Date of Lease: March 7, 1997

Lessor: NEXUS EQUITY VI LLC

Lessee: LIGAND PHARMACEUTICALS INCORPORATED

1.2 Note Amounts: \$14,270,000.00

Deed of Trust Dated: March 7, 1997

County: San Diego

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EXHIBIT "A"
Legal Description

PARCEL 2 OF PARCEL MAP NO. 17826 IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON FEBRUARY 18, 1997.

9

RECORDING REQUESTED BY:

Nexus Properties, Inc.

WHEN RECORDED, RETURN TO: [CHICAGO TITLE CO.]
[SEAL]

Nexus Properties, Inc.
4350 La Jolla Village Dr., Suite 930
San Diego, CA 92122

APN 340-180-05

MEMORANDUM OF LEASE

This MEMORANDUM OF LEASE ("Memorandum") is effective as of March 7, 1997, by and between NEXUS EQUITY VI LLC, a California limited liability company ("Landlord"), and LIGAND PHARMACEUTICALS, INC., a Delaware corporation ("Tenant").

NOW, THEREFORE, the parties hereto agree as follows:

1. Lease of Premises. Pursuant to that certain Lease of even date herewith ("Lease"), Landlord hereby leases to Tenant for a term of fifteen (15) years, commencing on the Term Commencement Date as defined in the Lease, with one (1) option to extend the term for five (5) years, on the terms and conditions set forth in the Lease, all of which are made a part of this Memorandum as though fully set forth herein, those certain premises located on and including real property ("Real Property") located in the City of San Diego, County of San Diego, State of California, more particularly described as follows:

Parcel 2 of Parcel Map 17826, in the City of San Diego, County of San Diego, State of California, according to Map thereof, filed in the Office of the County Recorder of San Diego County, February 18, 1997

2. Right of First Refusal to Purchase Premises. Pursuant to Article 41 of the Lease, Landlord hereby grants to Tenant the right to acquire ("Right of First Refusal") the Real Property, which may be exercised prior to the expiration or earlier termination of the term of the Lease on the terms and conditions set forth therein.

3 Purpose of This Memorandum. This Memorandum is executed for the purpose of being recorded, in order to give notice of the Lease and Right of First Refusal. This

Memorandum is not a complete summary of the terms and conditions of the Lease, and is subject to, and shall not be used to interpret or modify, the Lease or Right of First Refusal.

The parties hereto have entered into this Memorandum of Lease as of the date first written above.

LANDLORD:

NEXUS EQUITY VI LLC
A California Limited Liability Company
By Nexus Properties, Inc.
Its Manager

By: MICHAEL J. REIDY

Michael J. Reidy
Chief Executive Officer

TENANT:

LIGAND PHARMACEUTICALS, INC.
A Delaware corporation

By: P. MAIER

Paul V. Maier
President and Chief Financial Officer

STATE OF CALIFORNIA
SS.
COUNTY OF SAN DIEGO

On March 7, 1997, before me, the undersigned Notary Public in and for said County and State, personally appeared

Michael V. Reidy

personally known to me

----- or

X proved to me on the basis of satisfactory evidence to be

the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person(s) acted, executed the instrument.

Witness my hand and official seal

DONNA J. MICKELSON

[SEAL]

Signature of Notary

STATE OF CALIFORNIA
SS.
COUNTY OF SAN DIEGO

On March 7, 1997, before me, the undersigned Notary Public in and for said County and State, personally appeared

Paul V. Maier

X

- ---- personally known to me

or

- ---- proved to me on the basis of satisfactory evidence to be

the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

[SEAL G. KAY NAKAMURA]

Witness my hand and official seal.

[SIG]

Signature of Notary

-3-

WHEN RECORDED MAIL TO:

CERTIFIED to be a correct Copy of the
LIGAND PHARMACEUTICALS Contents of the Original Document
INCORPORATED Recorded 3-11-97 @ 9:34 AM
c/o Luce, Forward, Hamilton & Scripps LLP File No. 1997 - 0105342
600 West Broadway, Suite 2600 Official Records of San Diego,
San Diego, California 92101 County, California
CHICAGO TITLE COMPANY

Attn: Robert J. Bell, Esq.

INSTRUCTIONS TO COUNTY RECORDER-Index this instrument as:

- (i) a Deed of Trust and
- (ii) a Fixture Filing.

CONSTRUCTION DEED OF TRUST, ASSIGNMENT OF
RENTS AND LEASES, SECURITY AGREEMENT
AND FIXTURE FILING

THIS CONSTRUCTION DEED OF TRUST, ASSIGNMENT OF RENTS AND LEASES, SECURITY AGREEMENT AND FIXTURE FILING ("Deed of Trust") is made the 7th day of March, 1997, by and among Nexus Equity VILLC, a California limited liability company ("Trustor"), whose address is 4350 La Jolla Village Drive, Suite 930, San Diego, California 92122, Attn: Michael J. Reidy, Chief Executive Officer, Chicago Title Company ("Trustee") and Ligand Pharmaceuticals Incorporated, a Delaware corporation ("Beneficiary"), whose address is 9393 Towne Centre Drive, San Diego, California 92121, Attn: Paul V. Maier, Vice President and Chief Financial Officer.

RECITALS

WHEREAS, Trustor and Beneficiary have entered into a construction loan of even date herewith (the "Loan Agreement), which provides for a loan by Beneficiary to Trustor (the "Loan");

WHEREAS, pursuant to the Loan Agreement, for value received, Trustor has executed and delivered to Beneficiary a promissory note (the "Note") of even date herewith payable to Beneficiary in the principal amount of THREE MILLION SIX HUNDRED FIFTY THOUSAND AND NO/100 Dollars (\$3,650,000.00) plus additional advances pursuant to the terms of the Loan Agreement and Trustor has agreed to execute and deliver to Beneficiary, as security for the payment of the Note, and any and all extensions, modifications, substitutions, replacements, and/or renewals thereof, this Deed of Trust respecting the Trust Estate (as hereinafter defined);

WHEREAS, this Deed of Trust shall be second in priority with respect to the Trust Estate, it being agreed between Trustor and Beneficiary that the Deed of Trust, Assignment of Rents and Leases, Security Agreement and Fixture Filing executed by Trustor on even date herewith in favor of Tokai Bank of California, a California banking corporation ("Tokai") shall be first in priority with respect to the Trust Estate (the "Tokai Deed of Trust").

WHEREAS, all things necessary have been done and performed to make the Note the duly authorized, valid and legally binding obligation of Trustor and this instrument the duly authorized and, when executed and delivered by Trustor, valid and legally binding second Deed of Trust on the Trust Estate, in order to secure the Note as hereinafter provided; and

WHEREAS, Trustor has agreed to execute and deliver to Beneficiary this Deed of Trust as security (except as expressly provided herein) for performance of all of its obligations under, among other things, the Loan Agreement, the Note and all of the other Loan Documents as defined in the Loan Agreement (collectively, the "Loan Documents"), and all extensions, modifications, substitutions, replacements and renewals of any kind thereof (collectively, the "Obligations");

NOW, THEREFORE, for the purposes and upon the terms and conditions of this Deed of Trust and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and in consideration of these premises, Trustor irrevocably GRANTS, TRANSFERS, SETS OVER, CONVEYS AND ASSIGNS to Trustee, its successors and assigns, in trust for the benefit of Beneficiary, WITH POWER OF SALE AND RIGHT OF ENTRY AND POSSESSION, all of its present and future estate, right, title and interest in and to all of the following described property, now owned or hereafter acquired (the "Trust Estate"):

1. The real property located in the City of San Diego, County of San Diego, State of California, as more particularly described in Exhibit "A" attached hereto and incorporated herein by reference (the "Real Property") and all of Trustor's rights and interests in and to the Real Property, including but not limited to, all present and future options of any kind, rights of first refusal and other similar benefits; and

2. All present and future structures, buildings, improvements, appurtenances, and fixtures of any kind now or hereafter located in, on or attached or affixed to, or used or intended to be used in connection with the operation, occupancy, development or improvement of the Real Property, including, but not limited to, all rights of Trustor to all apparatus, equipment and appliances used in connection with the operation or occupancy of the Real Property or in any development of the Real Property, such as heating and air-conditioning systems and facilities used to provide any utility services, refrigeration, ventilation, laundry, drying, dishwashing, garbage disposal, recreation or other services on the Real Property, and all window coverings, drapes and rods, carpeting and floor coverings, it being intended and agreed that all such items will be conclusively considered to be a part of the Real Property, whether or not attached or affixed thereto (herein the property which is the subject of this Section is referred to as the "Improvements"); and

3. All interest and estate or other rights, in law or in equity, all appurtenances of the Real Property, and all rights of the Trustor in and to any streets, roads, navigable waters, public places, easements or rights of way relating to the Real Property, which Trustor now has or may hereafter acquire in the Real Property; and

4. All of the rents, issues, accounts, royalties, profits and income of the Real Property or the Improvements, and a rights of the Trustor under all present and future leases and subleases now or hereafter affecting the Real Property or the Improvements, including but not limited to, any

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security deposits and lease guarantees (subject to the absolute assignment of leases and rents set forth herein below); and

5. All guarantees, warranties and agreements regarding the quality of construction or other performance, and the quality of workmanship and supplies, furnishings, equipment and fixtures supplied to, installed by or on the Real Property or otherwise associated with the Trust Estate, whether or not such guarantees, warranties and agreements are set forth in any contracts relating to the Improvements, together with any and all claims or demands to

enforce them; and

6. All proceeds, including insurance proceeds, and claims arising on account of any damage to or taking of the Real Property and/or the Improvements and any and all causes of action and recoveries for any loss or diminution in value of the Real Property and/or the Improvements; and all deposits made by Trustor with third parties in connection with the development of the Real Property, and refunds received by the Trustor with respect to payments made in connection with the development of the Real Property; and

7. All oil and gas and other mineral rights in or pertaining to the Real Property, and all royalty, and other rights of Trustor pertaining thereto, and all water, water rights, water stock, parking, parking rights and general intangibles relating to the Real Property and all proceeds, including insurance proceeds thereof and all damages, royalties and revenue of every kind, nature and description whatsoever that Trustor may be entitled to receive from any person or entity owning or having or hereafter acquiring a right to any oil, gas or mineral rights and reservations of the Real Property; and

8. All rights under any reciprocal easement agreements or documents of membership in any owners' or members' association or similar group having responsibility for managing or operating any part of the Real Property and the proceeds, including insurance proceeds thereof, and

9. All existing and future goods now or hereafter located on the Real Property which are now or in the future owned by Trustor or in which Trustor has any interest, and used in the operation or occupancy of the Real Property or the Improvements or in any development of the Real Property or the Improvements or in any construction on the Real Property, but that are not effectively made real property under Section 2 above, including, but not limited to, all appliances, furniture and furnishings, building service equipment, and building materials, supplies and equipment; and

10. All general intangibles relating to the development, operation, use, or enjoyment of the Real Property and/or the Improvements, including, but not limited to: All governmental permits or parcel maps (whether tentative or final), building permits, bonds and certificates of occupancy relating to the use, construction upon, or subdivision of the Real Property, all special use permits or authorizations in any way relating to the transportation, use, handling, disposal, or any other activity with regard to Hazardous Substances (as hereinafter defined); all names under or by which the Real Property or any of the Improvements may at any time be operated or known and all rights to carry on business under any such names or any variant thereof, all trademarks and good will in any way relating to the Real Property or the Improvements; all management agreements, service contracts, supply contracts or other contracts or agreements relating in any manner or to any extent to the Trust

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Estate or any part thereof and all warranties relating thereto, covering or arising in respect of or in connection with the Trust Estate or any part thereof, and

11. All present and future accounts, funds, accounts receivable, chattel paper, documents, instruments (whether negotiable or non-negotiable), deposit accounts, money or contract rights of any kind related to the Trust Estate or the development thereof including but not limited to any and all accounts with Tokai; and

12. All plans and specifications prepared for construction of improvements, or any part thereof and all studies, surveys, data and drawings related thereto, including, without limitation, all studies, data or reports relating to the existence or presence of any Hazardous Substances located on the Real Property, and all contracts and agreements of Trustor relating to the aforesaid plans and specifications or to the aforesaid studies, data, and drawings or to the construction of improvements on the Real Property, or any part thereof, and

13. All sales agreements, deposit receipts, escrow agreements and other ancillary documents and agreements entered into respecting the sale to any purchasers of any part of the Trust Estate, together with all deposits and other proceeds of the sale thereof, and

14. Any and all claims, damages, awards, or payments, including interest thereon, at law or in equity, which may arise or be made with respect to the Real Property, including, as a result of the exercise of the right of eminent domain, against suppliers of labor, materials or services to the Real Property, arising in tort contract or based on fraud or concealment of a material fact, or any other damage or injury to or decrease in the value of the Real Property or the Trust Estate; and

15. All deposits made with or other security given to utility companies by Trustor with respect to the Trust Estate or any part thereof and an advance payments of insurance premiums made by Trustor with respect thereto and all claim or demands with respect to insurance; and

16. All substitutions, renewals, improvements, attachments, accessions, additions and replacements to any of the foregoing; and

17. All collections, proceeds, insurance proceeds and products of any of the foregoing, including without limitation, proceeds of any voluntary or involuntary disposition, conversion or claim respecting any part thereof (pursuant to judgment, condemnation award or otherwise) and all documents, instruments, general intangibles, goods, equipment, inventory, chattel paper, monies, accounts, deposit accounts and other personal property that may arise from the sale, liquidation, conversion, or disposition or any of the foregoing, all guaranties of and security for any of the foregoing, and all books and records, including, without limitation, all computer records, computer tapes and electronic and electromagnetic representations and reproductions thereof relating to any of the foregoing.

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FOR THE PURPOSE OF SECURING, in such order of priority as Beneficiary, in its absolute discretion, may determine:

I. Payment by Trustor of the Obligations, including, but not limited to, the indebtedness as evidenced by the Note, and any and all modifications, extensions or renewals of the Note (whether evidenced by the Note or otherwise); together with the payment of interest on said indebtedness and the payment of all other sums (with interest as therein provided) according to the terms of the Note (and any and all modifications, extensions, or renewals thereof); and

II. Payment of all other sums, with interest as herein provided, becoming due or payable, under the provisions of this Deed of Trust, to Trustee or Beneficiary or under the Loan Agreement or any of the other Loan Documents; and

III. Due, prompt, and complete observance, performance and discharge of each and every condition, obligation, covenant and agreement contained in this Deed of Trust, the Loan Agreement, the Note, the other Loan Documents, any document or instrument modifying or amending this Deed of Trust or the Note, or any instrument or agreement given to evidence or further secure the payment and performance of any obligation secured hereby; and

IV. Payment of such additional advances and sums (with interest thereon) as may hereafter be borrowed from Beneficiary, or its successors or assigns, by Trustor or the then record owner of the Real Property pursuant to the Loan Agreement or otherwise and evidenced by one or more promissory notes which are by their terms secured by this Deed of Trust.

TO PROTECT AND MAINTAIN THE SECURITY OF THIS DEED OF TRUST, TRUSTOR AND BENEFICIARY AGREE AS FOLLOWS:

A. AGREEMENTS OF TRUSTOR WITH BENEFICIARY

A.1 Ownership of Trust Estate

(a) Ownership of Trust Estate. Trustor is the sole owner and holder of the fee estate in the Improvements and the fee estate in the Real Property. This Deed of Trust is lawfully executed and delivered in

conformity with the Loan Agreement and is and will be a valid lien on all right, title and interest of Trustor in and to the Trust Estate.

A.2 Payment; Trust Estate.

(a) Trustor shall promptly pay when due and in lawful money of the United States of America, which shall be legal tender for public and private debts at the time of payment, each and every indebtedness and obligation for which this Deed of Trust has been given as security as provided hereinabove; and Trustor, as applicable, shall promptly perform, observe and discharge each and every condition, obligation, covenant and agreement for which this Deed of Trust has been given as security as provided herein.

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(b) Trustor shall maintain and keep the Trust Estate in good condition and repair and shall not commit or permit waste of the whole or part or any item consisting of a part of the Trust Estate. Trustor shall promptly repair, replace or restore (in good, workmanlike manner and in compliance with all laws, ordinances, governmental rules and regulations, easements, agreements, covenants, conditions and restrictions affecting the Trust Estate) all buildings, improvements, machinery, equipment, appliances and fixtures now or hereafter on the Real Property, in the event of damage to or destruction of such buildings, improvements, machinery, equipment, appliances and fixtures. Trustor shall cultivate, irrigate, fertilize, fumigate, prune and do any other acts which from the character or use of the Trust Estate may be reasonably necessary.

(c) In the performance of all acts required of Trustor under the above paragraphs describing maintenance of the Trust Estate, Trustor shall promptly pay when due all expenses incurred therefor and shall promptly pay, discharge or otherwise release all claims for labor performed and materials furnished therefor, subject to Trustor's right to contest such matters set forth in Section E.4 below.

(d) Trustor shall promptly comply with all laws, ordinances and regulations of all governmental authorities applicable to the use or occupancy of the Trust Estate. Trustor may contest in good faith any such law, ordinance or regulation and withhold compliance during any proceeding, including appropriate appeals, so long as Beneficiary's interest in the Trust Estate is not jeopardized.

(e) The Beneficiary and/or the Trustee will have the right to appear in and participate in all proceedings, including any arbitration proceedings, which could affect the Beneficiary's security or which relate to the Trust Estate. Trustor agrees to pay promptly upon demand all reasonable costs and expenses of the Beneficiary and the Trustee (including but not limited to legal fees and disbursements) incurred in any such proceedings. Beneficiary and its agents and representatives may enter upon the Real Property in a reasonable manner at all reasonable times to attend to Beneficiary's interest and to inspect the Trust Estate.

A.3 Alteration of Improvements.

(a) Except as may be permitted under the Loan Agreement, Trustor shall not remove, demolish or structurally alter any portion of the Trust Estate, or permit or suffer the same to be done, except such alterations as may be required by laws, ordinances, rules, regulations or orders of governmental authorities or by the terms hereof without the prior written consent of Beneficiary. Trustor shall complete promptly and in a good and workmanlike manner any Improvement which may now or hereafter be constructed on the Real Property and promptly restore in like manner any Improvement which may be damaged or destroyed by any cause whatsoever.

(b) Except as may be permitted under the Loan Agreement, Trustor shall not commit or permit waste of the Trust Estate, not alter the occupancy of all or any part of the Improvements without the prior written consent of Beneficiary; and shall execute and acknowledge and deliver, as appropriate, all further documents, instruments and other papers as Beneficiary or Trustee deems reasonably necessary or appropriate to preserve, continue, perfect and enjoy the security of this Deed of Trust and perform

Trustor's obligations hereunder.

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A.4 Liens. Except as provided herein or in the Loan Agreement, Trustor shall not suffer any liens or encumbrances to attach to the Trust Estate, and shall promptly pay and promptly discharge, at Trustor's sole cost and expense, all liens, encumbrances and charges now or hereafter affecting the Trust Estate or any part thereof or interest therein, except taxes and assessments not yet due or not delinquent. The existence of any mechanic's, laborer's, materialman's, supplier's, vendor's or statutory lien or right thereto shall not constitute a violation of this Section if payment is not yet due under the contract, obligation, or statute which is the foundation thereof or if Trustor is contesting in good faith the validity of any such lien, encumbrance or charge as provided herein. Trustor shall perform all of Trustor's obligations under any mortgage, note, deed of trust or other security agreement with a lien which has priority over this Deed of Trust, including Trustor's covenants to make payments when due.

A.5 Compliance With Laws. Trustor shall comply with all laws, ordinances, rules, regulations and orders of any governmental authority now or hereafter affecting the Real Property or requiring any alterations or improvements to be made thereon. Trustor shall not commit, suffer or permit any act to be done in, upon or to the Real Property or the Improvements in violation of any law or ordinance, or any covenant, condition or restriction now or hereafter affecting the Real Property or the Improvements.

A.6 Defense of Actions and Costs. Trustor shall appear in and defend any action or proceeding purporting to affect the security of this Deed of Trust and/or any additional or other security for the obligations secured hereby, the interest of Beneficiary or the rights, powers and duties of Trustee hereunder. Trustor shall pay all costs, fees and expenses, including costs of evidence of title and trustees' fees and attorneys' fees, paid or incurred in any action or proceeding in which Beneficiary and/or Trustee may appear or be made a party, whether or not pursued to final judgment, and in any exercise of the power of sale contained herein, whether or not such sale is actually consummated.

A.7 Actions by Trustee and/or Beneficiary to Preserve Security. Should Trustor fail to make any payment as and when provided in the Note, this Deed of Trust, or the other Loan Documents, or to do any act as and in the manner provided in any of the Loan Documents, Beneficiary and/or Trustee, each in its own discretion, without obligation to do so and following notice to Trustor (except in the event of an emergency, when no notice shall be required) and without releasing Trustor from any obligation, may make or do the same in such manner and to such extent as either may deem necessary to protect the security hereof. In connection therewith (without limiting their general powers), Beneficiary and/or Trustee shall have and are hereby given the right, but not the obligation (i) to enter upon and take possession of the Trust Estate, (ii) to make additions, alterations, repairs and improvements to the Trust Estate which they or either of them may consider necessary or proper to keep the Trust Estate in good condition and repair, (iii) to appear and participate in any action or proceeding affecting or which may affect the security hereof or the rights or powers of Beneficiary or Trustee hereunder, (iv) to pay, purchase, contest or compromise any encumbrance, claim, charge, lien or debt which in the judgment of either may affect or appear to affect the security of this Deed of Trust or be or appear to be prior or superior hereto, and (v) in exercising such powers, to pay necessary expenses and employ necessary or desirable consultants

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A.8 Reimbursement. Trustor shall pay upon demand, after expenditure, all sums expended for expenses paid or incurred by Trustee and/or Beneficiary, including, without limitation, court costs, expenses for evidence of title, appraisals and surveys and trustees' and attorneys' fees, under any of the terms of this Deed of Trust, including, without limitation, the provisions of Sections A.6 and A.7 hereof, together with interest on the amount of each expenditure from the date of such demand at the rate in effect under the Note.

A.9 Taxes and Impositions.

(a) Trustor shall pay, prior to delinquency, all

real and personal property taxes and assessments, general and special, and all other taxes and assessments of any kind or nature whatsoever, including, without limitation, state and federal income, withholding and social security taxes, nongovernmental levies or assessments such as maintenance charges, owner association dues or charges or fees, levies or charges resulting from covenants, conditions and restrictions affecting the Trust Estate, which are assessed or imposed upon the Trust Estate, or become due and payable, and which create, may create or appear to create a lien upon the Trust Estate, or any part thereof, or upon any personal property, equipment or other facility used in the operation or maintenance of the Trust Estate (all of which taxes, assessments and other governmental charges of like nature are hereinafter referred to as "Impositions"); provided, however, that if, by law, any such Imposition is payable, or may at the option of the taxpayer be paid, in installments, Trustor may pay the same together with any accrued interest on the unpaid balance of such Imposition in installments as the same become due and before any fine, penalty, interest or cost may be added thereto for the nonpayment of any such installment.

(b) If at any time after the date hereof there shall be assessed or imposed (1) a tax or assessment on the Trust Estate in lieu of or in addition to the Impositions payable by Trustor pursuant to Section A.9(a) hereof, or (ii) a license fee, tax or assessment imposed on Beneficiary and measured by or based in whole or in part upon the amount of the outstanding obligations secured hereby (but excluding any state or federal income or franchise tax), then (I) all such taxes, assessments or fees shall be deemed to be included within the term "Impositions" as defined in Section A.9(a) hereof and Trustor shall pay and discharge the same as herein provided with respect to the payment of Impositions or (II) at the option of Beneficiary, all obligations secured hereby, together with all accrued but unpaid interest thereon, shall immediately become due and payable. Anything to the contrary herein notwithstanding, Trustor shall have no obligation to pay any franchise, estate, inheritance, income, excess profits or similar tax levied on Beneficiary or on the obligations secured hereby.

(c) If requested by Beneficiary, Trustor shall furnish Beneficiary prior to the date upon which any Imposition is delinquent, official receipts of the appropriate taxing authority, or other proof satisfactory to Beneficiary, evidencing the payments thereof

(d) Trustor shall not suffer, permit or initiate the joint assessment of the real and personal property, or any other procedure whereby the lien of the real property taxes and the lien of the personal property taxes shall be assessed, levied or charged to the Trust Estate as a single lien, except as may be required by law.

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(e) if requested by Beneficiary, Trustor shall cause to be furnished to Beneficiary a tax reporting service covering the Trust Estate of a type, duration and with a company satisfactory to Beneficiary.

(f) If requested by Beneficiary, Trustor shall deposit with Beneficiary, in monthly installments, an amount equal to one-twelfth of the estimated aggregate annual Impositions. In such event, Trustor shall cause all bills, statements or other documents relating to Impositions to be sent or mailed directly to Beneficiary. Upon receipt of such bills, statements or other documents, and providing Trustor has deposited sufficient funds with Beneficiary pursuant to this Section, Beneficiary shall pay such amounts as may be due thereunder out of the funds so deposited with Beneficiary. If at any time and for any reason the funds deposited with Beneficiary are or will be insufficient to pay such amounts as may then or subsequently be due, Beneficiary shall notify Trustor and Trustor shall immediately deposit an amount equal to such deficiency with Beneficiary. Notwithstanding the foregoing, nothing contained herein shall cause Beneficiary to be deemed a trustee of said funds or to be obligated to pay any amounts in excess of the amount of funds deposited with Beneficiary pursuant to this Section. Beneficiary may commingle said reserve with its own funds and Trustor shall be entitled to no interest thereon.

A.10 Utilities. Trustor shall pay when due all utility charges which are incurred by Trustor for the benefit of the Trust Estate or which may become a charge or lien against the Trust Estate, including, without limitation, all charges for gas, electricity, water or sewer services furnished

to the Trust Estate and all other assessments or charges of a similar nature, whether public or private, affecting the Trust Estate or any portion thereof, whether or not such taxes, assessments or charges are liens thereon.

A.11 Loan Statement Fees. Trustor shall pay the amount demanded by Beneficiary or its authorized loan servicing agent for any statement regarding the obligations secured hereby; provided, however, that such amount may not exceed the maximum amount allowed by law at the time request for the statement is made.

A.12 Late Charge. If Trustor defaults in the payment of any amount when due and payable under or secured by this Deed of Trust, a late charge specified in the Note, or, if no such charge is so specified, a late charge of five percent (5.00%) of the amount of such delinquent payment may be charged by Beneficiary for the purpose of defraying the extra administrative expenses incident to handling such delinquent payment and the loss of the use of funds resulting from Trustor's nonpayment when due. Such late charge represents a fair and reasonable estimate by Beneficiary and Trustor of a fair average compensation for the loss that may be sustained by the Beneficiary due to the failure of Trustor to make timely payments, the parties recognizing that the damages caused by such extra administrative expenses and loss of use of funds is impracticable or extremely difficult to ascertain. Such late charge shall be paid without prejudice to the rights of the Beneficiary to collect any other amounts provided to be paid hereunder or to declare a default under the Note, this Deed of Trust or any other Loan Document.

A.13 Books and Records. Trustor shall keep and maintain or cause to be kept and maintained at such place or places as Beneficiary shall reasonably designate, proper and accurate books, records and accounts reflecting all items of income and expense in connection with the

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operation of the Trust Estate, whether such income and expenses are realized by Trustor or by any other person or entity whatsoever. Beneficiary or its designees shall have the right, from time to time and at all times during normal business hours, to examine such books, records and accounts at the office of Trustor or other person or entity maintaining such books, records and accounts and to make copies thereof.

A.14 Further Assignments. Upon demand of Beneficiary, Trustor shall assign to Beneficiary, in addition to the assignment of rents, issues and profits provided hereinbelow and any other grant, transfer or assignment effected under this Deed of Trust, a specific assignment of Trustor's interest in any or all development agreements, ground leases, building leases, subleases, contracts, licenses and permits affecting the Trust Estate, such assignments to be made by instruments in form satisfactory to Beneficiary; provided, however, that no such assignment shall be construed as imposing upon Beneficiary any obligations with respect thereto. A default by Trustor in the performance of any covenant of any lease or other instrument so assigned to Beneficiary, by reason of which default the lessee or other party thereunder has the right to cancel such lease or other instrument or to claim any diminution or offset against future rents, issues or profits shall, at the option of Beneficiary, constitute a default hereunder and under the Loan Documents, and Beneficiary shall have all the rights and remedies herein as if such default had occurred under this Deed of Trust. Beneficiary may, at its option, exercise its rights hereunder or under such specific assignment, and such exercise shall not constitute a waiver of any rights hereunder or under such specific assignment.

A.15 Insurance.

(a) Trustor shall at all times provide, maintain, deliver to Beneficiary and keep in full force and effect:

(1) Policies of insurance insuring the Trust Estate against loss or damage by risks embraced in coverage of the type now known as the broad form of all-risk, extended coverage, including without limitation, coverage against loss by fire, vandalism, and malicious mischief, in an amount not less than the lesser of (i) the original amount of the Note or (ii) the full replacement cost of the Improvements (exclusive of the cost of excavations, foundations, and footings below the lowest basement floor, but including any Improvements hereafter made); and with not more than Ten Thousand

Dollars (\$10,000.00) deductible from the loss payable for any casualty. The policies of insurance carried in accordance with this Subsection (a) shall contain the "Replacement Cost Endorsement" and course of construction endorsements;

(2) Comprehensive public liability insurance, [including, but not limited to, coverage for completed operations for two years after the construction of the Improvements (as defined in the Loan Agreement), has been completed], on an "occurrence basis" against claims for "personal injury," including, without limitation, bodily injury, death or Trust Estate damage, occurring on, in or about the Trust Estate and the adjoining streets and sidewalks, or arising from or connected with the use, conduct or operation of Trustor's business or interest, in an amount of not less than Five Million Dollars (\$5,000,000.00) per occurrence, with respect to personal injury or death of one or more persons and with respect to damage to property. Beneficiary shall have the right from time to time to require an increase in the amount of coverage based on the standard practices in the industry and the risks involved in Trustor's business, operations or interest;

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(3) Insurance against damage by flood or similar occurrences in the event such insurance is available pursuant to the provisions of the Flood Disaster Protection Act of 1973, as may be amended, or other applicable legislation, such insurance to be in an amount equal to the lesser of one hundred percent (100%) of the insurable value of the Trust Estate or the maximum amount obtainable under such legislation;

(4) Appropriate worker's compensation insurance against liability arising from claims of workers with respect to and during the period of any work on or about the Trust Estate, and also after completion of construction of the Improvements. Without prior request by Beneficiary, Trustor shall require each of its contractors and subcontractors employed to perform work on the Trust Estate to furnish a certificate of workers' compensation insurance prior to the commencement of any work;

(5) Such other insurance against such risks or hazards, or other risks and hazards, and in such amounts, as may from time to time be reasonably required by Beneficiary, including, without limitation, policies insuring against earthquakes, to the extent that such insurance is available a commercially reasonable rates as determined by Beneficiary in its reasonable judgment, or policies insuring against other specified hazards affecting Lender's security as may be required by governmental regulations, or as may be reasonably available for improvements similar to the Improvements located in the same locality as the Trust Estate.

(b) All policies of insurance shall be issued by companies approved by Beneficiary in its sole discretion and licensed to do business in California, shall contain the Standard Non-Contributory Mortgagee Clause and the Standard Lenders' Loss Payable Cause, or their equivalents, in favor of Beneficiary, and shall provide that the proceeds thereof shall be payable to Beneficiary to the extent of its interest. In the event of the foreclosure of this Deed of Trust or other transfer of title to the Trust Estate in extinguishment, in whole or in part, of the indebtedness secured hereby, all right, title and interest of Trustor in and to any insurance policy then in force shall pass to the purchaser or grantee. Beneficiary shall be furnished with the original of each policy required to be provided by Trustor hereunder, which policy shall provide that it shall not be modified or cancelled without thirty (30) days' written notice to Beneficiary. Trustor shall furnish Beneficiary with receipts for the payment of premiums on such insurance policies or other evidence of such payment reasonably satisfactory to Beneficiary. In the event Trustor does not deposit with Beneficiary a new policy of insurance with evidence of payment of premium thereon prior to the expiration of any expiring policy, then Beneficiary may, but shall not be obligated to, procure such insurance and Trustor shall pay the premiums thereon promptly upon demand. Beneficiary shall not be liable by the fact of approving, disapproving, accepting, preventing, obtaining or failing to obtain any such insurance, incur any liability for the form or legal sufficiency of insurance contracts, solvency of insurers, or payment of losses, and Trustor hereby expressly assumes full responsibility therefor and all liability, if any, thereunder.

(c) if reasonably requested by Beneficiary,

Trustor shall deposit with Beneficiary, in monthly installments, an amount equal to one-twelfth of the estimated aggregate annual insurance premiums on all policies of insurance required by this Deed of Trust. In such event, Trustor shall cause all bills, statements or other documents relating to such insurance premiums to

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be sent or mailed directly to Beneficiary. Upon receipt of such bills, statements or other documents evidencing that a premium for a required policy is then payable, and providing Trustor has deposited sufficient funds, with Beneficiary pursuant to this Section, Beneficiary shall pay such amounts as may be due thereunder out of the funds so deposited with Beneficiary. If at any time and for any reason the funds deposited with Beneficiary are or will be insufficient to pay such amounts as may then or subsequently be due, Beneficiary shall notify Trustor and Trustor shall immediately deposit an amount equal to such deficiency with Beneficiary. Notwithstanding the foregoing, nothing contained herein shall cause Beneficiary to be deemed a trustee of said funds or to be obligated to pay any amounts in excess of the amount of funds deposited with Beneficiary pursuant to this Section, nor shall anything contained herein modify the obligation of Trustor to maintain and keep such insurance in force at all times. Beneficiary may commingle said reserve with its own funds and Trustor shall be entitled to no interest thereon.

A.16 Casualties;Insurance Proceeds. Trustor shall give prompt written notice to Beneficiary of any material casualties to the Improvements or any part thereof,whether or not covered by insurance. In the event of such a casualty, all proceeds of insurance shall be payable to Beneficiary and Trustor hereby authorizes and empowers Beneficiary, at Beneficiary's option and in Beneficiary's sole discretion as attorney-in-fact for Trustor, to make proof of loss, to adjust and compromise any claim under insurance policies, to appear in and prosecute any action arising from such insurance policies, to collect and receive insurance proceeds, and to deduct therefrom Beneficiary's expenses incurred in the collection of such proceeds. In the event of any damage to or destruction of the Improvements, Beneficiary shall have the option, in its sole discretion, to:

(a) Apply all or any part of such proceeds to any indebtedness secured hereby in such order as Beneficiary may determine, whether or not such indebtedness is then due; or

(b) Release all or any part of such proceeds to Trustor upon such conditions as Beneficiary may impose.

Notwithstanding the foregoing, Beneficiary shall hold the balance of such proceeds to be used to reimburse Trustor for the costs of reconstruction of the Improvements if Beneficiary determines in its reasonable discretion that all of the following conditions can be satisfied within a reasonable time following the date of damage or destruction, but in no event later than the date for completion of the Project as provided in the Loan Agreement:

(i) Trustor satisfies Beneficiary that after the reconstruction is completed, the value of the Trust Estate as determined by Beneficiary in its reasonable discretion, will be not less than the appraised value of the Real Property and the Improvements determined by Beneficiary as the Real Property and Improvements existed prior to the event of the damage or destruction of the Improvements;

(ii) In Beneficiary's reasonable opinion, such insurance proceeds, together with any applicable undisbursed portion of the Loan, are sufficient to pay all costs of reconstruction of the Improvements; or if such proceeds are not sufficient, Trustor deposits additional funds with Beneficiary sufficient to pay such additional costs of reconstructing the Improvements;

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(iii) Trustor has delivered to Beneficiary a construction contract for the work of reconstruction in form and content acceptable to Beneficiary with a contractor acceptable to Beneficiary; and

(iv) Trustor is not in default hereunder and no event has occurred which with notice and/or lapse of time would constitute a default hereunder.

If the insurance proceeds are held by Beneficiary to be used to reimburse Trustor for the cost of reconstruction of the Improvements, the Improvements shall be promptly and diligently restored by Trustor to the equivalent of their condition immediately prior to the casualty or to such other condition as Beneficiary may approve in writing, and disbursements of such insurance proceeds shall be in accordance with disbursement procedures acceptable to Beneficiary. Failure of Trustor to satisfy such conditions within such time period shall constitute an event of default hereunder and shall entitle Beneficiary to apply any remaining proceeds held by Beneficiary as provided in Section A.16(a) hereof. Any proceeds not required to reconstruct the Improvements or to satisfy the conditions set forth in of Section A.16 (i) through (iv) of above, shall be applied in accordance with Section A.16(a) or (b) above. If after applying the insurance proceeds to the payment of the sums secured by this Deed of Trust, Beneficiary reasonably determines the remaining security to be inadequate to secure the remaining indebtedness, Trustor shall upon written demand from Beneficiary prepay on principal such an amount as will reduce the remaining indebtedness to a balance for which adequate security is present.

A.17 Condemnation and Other Awards. Promptly upon its obtaining knowledge of the institution or the threatened institution of any proceeding for the condemnation of the Trust Estate or any part thereof, Trustor shall notify Trustee and Beneficiary of such fact. Trustor shall then, if requested by Beneficiary, file or defend its rights thereunder and prosecute the same with due diligence to its final disposition and shall cause any awards or settlements to be paid over to Beneficiary for disposition pursuant to the terms of this Deed of Trust. Trustor may be the nominal party in such proceeding but Beneficiary shall be entitled to participate in and to control the same and to be represented therein by counsel of its choice, and Trustor will deliver, or cause to be delivered, to Beneficiary such instruments as may be requested by it from time to time to permit such participation. If the Trust Estate or any part thereof is taken or diminished in value, or if a consent settlement is entered, by or under threat of such proceeding, the award or settlement payable to Trustor by virtue of its interest in the Trust Estate shall be and hereby is assigned, transferred and set over unto Beneficiary to be held by it, in trust, subject to the lien and security interest of this Deed of Trust. Any such award or settlement shall be first applied to reimburse Trustee and Beneficiary for all costs and expenses, including reasonable attorneys' fees, incurred in connection with the collection of such award or settlement. The balance of such award or settlement shall be:

(a) Applied to any indebtedness secured hereby in such order as Beneficiary may determine, whether or not such indebtedness is then due; or

(b) In the event that, notwithstanding any condemnation, the portion of the Trust Estate affected is susceptible to reconstruction or restoration, if Beneficiary determines in its reasonable discretion that all of the conditions set forth in Section A.16 (i) through (iv) can be

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satisfied within a reasonable time from the date of such award or settlement, but in no event later than the completion date for the Project set forth in the Loan Agreement, such proceeds shall be held by Beneficiary to be used in accordance with such provisions to reimburse Trustor for the costs of rebuilding, reconstruction or repair of the Improvements; provided, however, Trustor's failure to satisfy such conditions within such time period shall, at the option of Beneficiary, constitute an event of default hereunder, and shall entitle Beneficiary to apply any remaking proceeds held by Beneficiary as provided in Section A. 17(a) hereof.

If after applying the award or settlement to the payment of the indebtedness secured by this Deed of Trust, Beneficiary reasonably determines the remaining security to be inadequate to secure the remaining indebtedness, Trustor shall

upon written demand from Beneficiary prepay on principal such an amount as will reduce the remaining indebtedness to a balance for which adequate security is present.

A.18 Restrictions on Sale, Transfer or Encumbrance.

Neither the Trust Estate nor any part thereof or interest therein shall be encumbered, sold (including sale by contract or installment sale), conveyed, or otherwise transferred either by Trustor or by operation of law, without Beneficiary's prior written consent, nor without Beneficiary's prior written consent shall there be any change in the ownership of any stock in a corporate Trustor, in the ownership of any general partnership interest in any general or limited partnership Trustor, in any membership interest in any limited liability company Trustor or in the ownership of any beneficial interests in any other Trustor which is not a natural person or persons. Any such action without Beneficiary's prior written consent shall constitute an event of default hereunder and shall be deemed to increase the risk to Beneficiary, and Beneficiary may, at its option, declare all sums secured hereby immediately due and payable notwithstanding any stated maturity date therefor, or may, in its sole and absolute discretion, consent to such change in title, occupancy or ownership.

A.19 Lien Subrogation. As further security, Beneficiary, except as provided herein or in the Loan Agreement, shall be subrogated to any and all liens or encumbrances prior or superior to this Deed of Trust, whether or not released of record, to the extent paid out of the proceeds of the loan secured by this Deed of Trust.

A.20 Assignment of Leases and Rents.

(a) Trustor hereby absolutely and unconditionally assigns and transfers to Beneficiary (and has not heretofore otherwise so assigned or transferred) all the leases, subleases, income, rents, issues, deposits, profits and proceeds of the Trust Estate and Personal Property (as hereinafter defined) to which Trustor may be entitled, whether now due, past due or to become due, and hereby gives to and confers upon Beneficiary the right, power and authority to collect such income, rents, issues, deposits, profits and proceeds. This assignment of the leases, income, rents, issues, deposits, profits and proceeds constitutes an irrevocable direction and authorization of all tenants under the leases to pay all rent, income and profits to Beneficiary upon demand and without further consent or other action by Trustor. This is an absolute assignment, not an assignment for security only, and Beneficiary's right to rents, issues and profits is not contingent on Beneficiary's possession of all or any portion of the Trust Estate. Trustor irrevocably appoints Beneficiary its true and lawful attorney, at the option of Beneficiary at any time, to demand, receive and enforce payment,

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to give receipts, releases and satisfactions, and to sue, either in the name of Trustor or in the name of Beneficiary, for all such income, rents, issues, deposits, profits and proceeds and apply the same to the indebtedness secured hereby.

(b) It is understood and agreed that neither the foregoing assignment of leases, income, rents, issues, deposits, profits and proceeds to Beneficiary nor the exercise by Beneficiary of any of its rights or remedies under this Section or under any other provision of this Deed of Trust hereof shall be deemed to make Beneficiary a "mortgagee-in-possession" or otherwise obligated, responsible or liable in any manner with respect to the Trust Estate, or the use, occupancy, enjoyment or operation of all or any portion thereof.

(c) Notwithstanding anything to the contrary contained herein or in the Note, so long as no event of default shall have occurred, Trustor shall have a license to collect all income, rents, issues, profits and proceeds from the Trust Estate. Upon the occurrence of an event of default, such license shall be deemed revoked and any rents received thereafter by Trustor shall be delivered in kind to Beneficiary. Upon such occurrence of an event of default, Trustor agrees to deliver the original copies of all leases to Beneficiary. Trustor hereby irrevocably constitutes and appoints Beneficiary its true and lawful attorney-in-fact to enforce in Trustor's name or in Beneficiary's name or otherwise all rights of Trustor in the instruments, including, without limitation, checks and money orders tendered as payments of

rents and to do any and all things necessary and proper to carry out the purposes hereof.

(d) Trustor shall not accept any deposit or prepayment of rental or lease payment in excess of one (1) month in advance without Beneficiary's prior written consent. Trustor agrees not to lease all or any part of the Project, and not to enter into an agreement providing for the management, leasing or operation of the Project except as provided in the Loan Agreement, without the prior written consent of Beneficiary.

A.21 Exculpation and Indemnification.

(a) Trustor shall pay to Beneficiary reasonable compensation for services rendered concerning this Deed of Trust, including, without limitation, any statement of amounts owing under any of the Obligations. Beneficiary shall not directly or indirectly be liable to Trustor or any other person as a consequence of (i) the exercise of the rights, remedies or powers granted to Beneficiary in this Deed of Trust, (ii) the failure or refusal of Beneficiary to perform or discharge any obligation or liability of Trustor under any agreement related to the Trust Estate or this Deed of Trust, or (iii) any losses sustained by Trustor or any third party resulting from Beneficiary's inability or failure to lease the Project after a default or from any other act or omission of Beneficiary in managing the Trust Estate after a default unless the loss is caused by the negligence, willful misconduct, or bad faith of Beneficiary and no such liability shall be asserted against or imposed upon Beneficiary, and all such liability is hereby expressly waived and released by Trustor.

(b) Trustor indemnifies Trustee and Beneficiary against, and holds them harmless from, all losses, damages, liabilities, claims, causes of action, judgments, court costs, attorneys' fees and other reasonable expenses, costs of evidence of title, cost of evidence of value, and other expenses which either may suffer or incur other than from the negligence or willful

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misconduct of Trustee or Beneficiary (i) by reason of this Deed of Trust, or (ii) by reason of the execution of this Deed of Trust or in performance of any act required or permitted hereunder or by law, or (iii) as a result of any failure of Trustor to perform Trustor's obligations under this Deed of Trust or any of the Loan Documents, or (iv) by reason of any alleged obligation or undertaking on Beneficiary's part to perform or discharge any of the representations, warranties, conditions, covenants or other obligations contained in any other document related to the Trust Estate. Trustor's duty to indemnify Trustee and Beneficiary (I) shall survive the cancellation of the Obligations and the release and reconveyance or partial release or reconveyance of this Deed of Trust and (II) shall include the obligation to indemnify Beneficiary for attorneys' fees and costs incurred in the enforcement of Trustor's indemnity obligations hereunder.

B. SECURITY AGREEMENT AND FIXTURE FILING

B.1 Security Agreement. This Deed of Trust shall constitute a security agreement as that term is used in the Uniform Commercial Code of California and Trustor hereby grants to Beneficiary a security interest in all existing and future tangible personal property, inventory, equipment, fixtures, fittings, goods, supplies and materials now or hereafter owned by Trustor and now or hereafter located at or on or used in connection with the real property described in Exhibit "A" attached hereto and incorporated herein (whether or not such items are stored on the premises or elsewhere), and all present and future accounts, general intangibles, chattel paper, documents, permits, and approvals including, without limitation, building permits, instruments (whether negotiable or non-negotiable), deposit accounts, money, insurance policies, refunds, deposits, contract rights including, without limitation, Trustor's contract rights in any and all architectural plans and drawings and all engineering plans and studies which in any way relate to or affect the Property, all rights to payment of any kind related to or arising from the Trust Estate, and all proceeds, products, substitutions, replacements and accessions therefor and thereto (collectively, the "Personal Property"). Trustor will procure any documents, including, without limitation, mortgagee waivers or landlord disclaimers or subordination agreements, in form and

substance satisfactory to Beneficiary, with respect to any and all Personal Property (or fixtures which are a part of the Trust Estate), deliver to Beneficiary any instruments, mark any chattel paper, give any notices and take any other actions which are necessary to perfect or to continue the perfection and priority of the security interest created hereunder or to protect the Personal Property or fixtures against the rights, claims or interests of third persons, and will pay all costs incurred in connection therewith. Notwithstanding anything to the contrary contained in this Deed of Trust, Trustor and Beneficiary agree that (i) Beneficiary is, and shall be deemed to be, the "secured party" as that term is defined in such Uniform Commercial Code and elsewhere with respect to personal property, and (ii) Trustor is, and shall be deemed to be, the "debtor" as that term is defined in such Uniform Commercial Code and elsewhere with respect to personal property. Trustor shall, upon the demand of Beneficiary, assemble all of such Personal Property and make it available to Beneficiary at the Property, which is hereby agreed to be reasonably convenient to Beneficiary and Trustee. The proceeds of any sale of any portion of the Personal Property shall be applied first to the expenses of Beneficiary in retaking, holding, preparing for sale, selling or similar matters, including but not limited to reasonable attorneys' fees. Any sale proceeds which are applied against principal indebtedness shall, to the extent not repaying all indebtedness in full, be applied to principal in the reverse order of maturity. If more than one person has executed this Deed of Trust as "Trustor," the obligations of all such persons hereunder shall be joint and several.

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B.2 Fixture Filing. The Personal Property in which Beneficiary has a security interest includes goods which are or shall become fixtures on the Property. This Deed of Trust is intended to serve as a fixture filing pursuant to the terms of Sections 9313 and 9402 of the California Commercial Code. This filing is to be recorded in the real estate records of the County in which the property is located. In that regard, the following information is provided. The Trustor shall be the "debtor" and the Beneficiary shall be the "secured party" and their respective addresses are set forth in page I of this Agreement. Trustor warrants and agrees that there is no financing statement covering the foregoing Personal Property, the Property, or any part thereof, on Me on any public office except for any such financing statement allowed pursuant to the Loan Agreement.

C. DEFAULTS AND REMEDIES

C.1 Default. Any of the following events shall, at Beneficiary's option, constitute an event of default under this Deed of Trust:

(a) The failure to pay when due any installment of principal or interest or any other sum under the Note, or any other sum as provided in any of the other Loan Documents and secured by this Deed of Trust; or

(b) The failure of Trustor to observe or to perform any term, condition, covenant or agreement contained in this Deed of Trust or to comply with any term, condition, covenant, or agreement now or hereafter affecting the Trust Estate, or any part thereof, or contained in any agreement relating to the Trust Estate or the indebtedness secured hereby and Trustor does not cure such failure within ten (10) days, unless such failure is not reasonably capable of being cured within such ten (10) day period, but is reasonably capable of being cured within thirty (30) days, and Trustor commences action to cure such failure within such ten (10) day period and diligently and continuously prosecutes such action to completion and causes such failure to be cured within such thirty (30) day period; provided, however, that if a specific time period for cure has been provided in this Deed of Trust or any of the other Loan Documents, such provision shall control; or

(c) The occurrence of an event of default under any of the Loan Documents;

(d) Any representation, covenant or warranty contained in this Deed of Trust or in any of the other Loan Documents or in any other document evidencing or securing the obligations represented by the Note was when made, or thereafter becomes, untrue or misleading in any material respect; or

(e) Any transfer of the duties of managing or

operating the Trust Estate under any management contract to any person, firm, corporation, partnership or other entity without the prior written consent of Beneficiary which may be given or withheld in Beneficiary's sole and absolute discretion; or

(f) The amendment or modification in any manner which would adversely affect Beneficiary (without the prior written consent of Beneficiary which may be given or withheld in Beneficiary's sole and absolute discretion) of the articles of incorporation, articles of

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organization, bylaws, articles of partnership, certificate of partnership or other charter or enabling documents of (i) Trustor if Trustor is a corporation, limited liability company, partnership or joint venture, and/or (ii) Trustor's general partners if Trustor is a partnership; or

(g) A breach or default by Trustor under that certain Lease of or about even date herewith between Trustor, as landlord, and Beneficiary, as tenant, regarding the Real Property and the Improvements; or

(h) Any breach or event of default of Trustor under the Tokai Deed of Trust or any one or more of the other Tokai Loan Documents (as defined in the Loan Agreement); or

(i) Any guaranty executed in connection with the Loan ceases to be in full force and effect; any guarantor asserts that any such guaranty is not in full force and effect; or the occurrence of an event of default under any such guaranty.

C.2 Remedies. Upon the occurrence of any event of default as provided in Section C.1 above, Beneficiary may, at its option and without notice, declare the entire outstanding principal balance and accrued but unpaid interest thereon under the Note and/or all other sums and interest secured hereby immediately due and payable and the same shall then be immediately due and payable notwithstanding any stated maturity date therefor. Thereafter, Beneficiary, at its option may:

(a) Terminate Trustor's right and license to collect the rents, issues and profits and either in person or by agent, with or without bringing any action or proceeding, or by a receiver appointed by a court and without regard to the adequacy of its security, enter upon and take possession of the Trust Estate, or any part thereof, in its own name or in the name of Trustee, and do any acts which it deems necessary or desirable to preserve the value, marketability or rentability of the Trust Estate, or any part thereof or interest therein, make, modify, enforce, cancel or accept the surrender of any Lease, increase the income therefrom or protect the security hereof and, with or without taking possession of the Trust Estate, sue for or otherwise collect the rents, issues and profits, including those past due and unpaid, and apply the same, less costs and expenses of operation and collection, including attorneys' fees, upon any indebtedness secured hereby, all in such order as Beneficiary may determine. The entering upon and taking possession of the Trust Estate, the collection of the rents, issues and profits and the application thereof as aforesaid, or any of such acts, shall not cure or waive any default or notice of default hereunder or invalidate any act done in response to such default or pursuant to such notice or default and, notwithstanding the continuance in possession of the Trust Estate or the collection, receipt and application of rents, issues or profits, Trustee or Beneficiary shall be entitled to exercise every right provided for in any of the Loan Documents or by law upon occurrence of any event of default, including the right to exercise the power of sale provided below;

(b) Commence an action to foreclose this Deed of Trust as a mortgage, or specifically enforce any of the covenants hereof;

(c) Exercise any or all of the remedies available to a secured party under the California Commercial Code in such order and in such manner as Beneficiary, in its sole

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discretion, may determine; provided, however, that the expenses of retaking, holding, preparing for sale or the like as provided thereunder shall include reasonable attorneys' fees and other expenses of Beneficiary and Trustee and shall be additionally secured by this Deed of Trust;

(d) Deliver to Trustee a written declaration of default and demand for sale, and a written notice of default and election to cause Trustor's interest in the Trust Estate or any portion thereof to be sold, which notice Trustee or Beneficiary shall cause to be duly filed for record in the Official Records of the County in which the Trust Estate is located; and/or

(e) Exercise all other rights and remedies provided herein, in any of the other Loan Documents or other document or agreement now or hereafter securing all or any portion of the obligations secured hereby, or provided by law. Upon request of Beneficiary, Trustor shall assemble and make available to Beneficiary at the Premises any of the Trust Estate which is not located thereon or has been removed therefrom.

C.3 Foreclosure By Power of Sale. Should Beneficiary elect to foreclose by exercise of the power of sale herein contained, Beneficiary shall notify Trustee and shall deposit with Trustee this Deed of Trust and the Note and such receipts and evidence of expenditures made and secured hereby as Trustee may require.

(a) Upon receipt of such notice from Beneficiary, Trustee shall cause to be recorded, published and delivered to Trustor such Notice of Default and Election to Sell as may then be required by law and by this Deed of Trust. Trustee shall, without demand on Trustor, after lapse of such time as may then be required by law and after recordation of such Notice of Default and after Notice of Sale having been given as required by law, sell the Trust Estate at the time and place of sale fixed by it in said Notice of Sale, either as a whole, or in separate lots or parcels, or in separate legal interests, or items as Trustee shall deem expedient, and in such order as it may determine, at one or more public auctions to the highest bidder for cash in lawful money of the United States payable at the time of sale. Trustee shall deliver to such purchaser or purchasers thereof its good and sufficient deed or deeds conveying the property so sold, but without any covenant or warranty, express or implied. The recitals in such deed of any matters or facts shall be conclusive proof of the truthfulness thereof. Any person, including, without limitation, Trustor, Trustee or Beneficiary, may purchase at such sale and Trustor hereby covenants to warrant and defend the title of such purchaser or purchasers.

(b) After deducting all costs, fees and expenses of Trustee and of this Deed of Trust, including costs of evidence of title and attorneys' fees of Trustee or Beneficiary in connection with the sale, Trustee shall apply the proceeds of sale to payment of all sums expended under the terms hereof not then repaid, with accrued interest at the rate then in effect under the Note, all other sums then secured hereby and the remainder, if any, to the person or persons legally entitled thereto.

(c) Trustee may postpone the sale of all or any portion of the Trust Estate by public announcement at the time and place of such sale, and from time to time thereafter may postpone such sale by public announcement at the time fixed by the preceding postponement or

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subsequently noticed sale, and without further notice make such sale at the time fixed by the last postponement, or may, in its discretion, give a new notice of sale.

(d) Trustor hereby expressly waives any right which it may have to direct the order in which any of the Trust Estate shall be sold in the event of any sale or sales pursuant thereto.

C.4 Rescission of Notice of Default. Beneficiary, from time to time before any Trustee's sale as provided above, may rescind any notice of default and election to sell or notice of sale by executing and delivering to Trustee a written notice of such rescission, which such notice, when recorded, shall also constitute a cancellation of any prior declaration of default and demand for sale. The exercise by Beneficiary of such right of rescission shall not constitute a waiver of any breach or default then existing or subsequently occurring, or impair the right of Beneficiary to execute and deliver to Trustee, as above provided, other declarations or notices of default and demand for sale of the Trust Estate to satisfy the obligations hereof, nor otherwise affect any provision, covenant or condition of any Loan Document or

any of the rights, obligations or remedies of Trustee or Beneficiary hereunder or thereunder.

C.5 Appointment of Receiver. If an event of default shall have occurred and be continuing, Beneficiary, as a matter of right and without notice to Trustor or to anyone claiming under Trustor, and without regard to the then value of the Trust Estate or the interest of Trustor therein, shall have the right to apply to any court having jurisdiction to appoint a receiver or receivers of the Trust Estate, or any portion thereof, and Trustor hereby irrevocably consents to such appointment. Any such receiver or receivers shall have all the usual powers and duties of receivers in like or similar cases and all the powers and duties of Beneficiary in case of entry as provided in Section C.2(a) hereof, and shall continue as such and exercise all such powers until the date of confirmation of the sale of the Trust Estate, unless such receivership is sooner terminated.

C.6 Remedies Not Exclusive; Waiver. Trustee and Beneficiary, and each of them, shall be entitled to enforce the payment and performance of any indebtedness or obligations secured hereby and to exercise all rights and powers under this Deed of Trust or under any other Loan Document or other agreement or any laws now or hereafter in force, notwithstanding the fact that some or all of the indebtedness and obligations secured hereby may now or hereafter be otherwise secured, whether by mortgage, deed of trust, pledge, lien, assignment or otherwise. Neither the acceptance of this Deed of Trust nor its enforcement, whether by court action or pursuant to the power of sale or other powers contained herein, shall prejudice or in any manner affect Trustee's or Beneficiary's right to realize upon or enforce any other security now or hereafter held by Trustee or Beneficiary. Trustee and Beneficiary, and each of them, shall be entitled to enforce this Deed of Trust and any other security now or hereafter held by Beneficiary or Trustee in such order and manner as they or either of them may in their absolute discretion determine. No remedy herein conferred upon or reserved to Trustee or Beneficiary is intended to be exclusive of any other remedy contained herein or by law provided or permitted, but each shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute. Every power or remedy given by any of the Loan Documents to Trustee or Beneficiary or to which either of them may be otherwise entitled, may be exercised, concurrently or independently, from time to time and as often as may be deemed expedient by Trustee or Beneficiary, and either of them may

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pursue inconsistent remedies. By exercising or by failing to exercise any right, option or election hereunder, Beneficiary shall not be deemed to have waived any provision hereof or to have released Trustor from any of the obligations secured hereby unless such waiver or release is in writing and signed by Beneficiary. The waiver by Beneficiary of Trustor's failure to perform or observe any term, covenant, or condition referred to or contained herein to be performed or observed by Trustor shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent failure of Trustor to perform or observe the same or any other such term, covenant or condition referred to or contained herein, and no custom or practice which may develop between Trustor and Beneficiary during the term hereof shall be deemed a waiver of or any way affect the right of Beneficiary to insist upon the performance by Trustor of the obligations secured hereby in strict accordance with the terms hereof or of any other Loan Document.

C.7 Request for Notice. Trustor hereby requests a copy of any notice of default and requests that any notice of sale hereunder be mailed to it at the address set forth for Trustor on the first page of this Deed of Trust. Otherwise, neither Trustee nor Beneficiary is under any obligation to notify any person or entity of any action or proceeding of any kind in which Trustor, Beneficiary and/or Trustee shall be a party, unless brought by Trustee, or of any pending sale under any other deed of trust.

D. HAZARDOUS SUBSTANCES

D.1 Definitions.

(a) Hazardous Substances. The term "Hazardous Substance(s)" shall include:

(i) Federal Law. All of those substances included within the definitions of "hazardous substances,"

"hazardous materials," "toxic substances," or "solid waste" in (i) the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. Section 9601 et seq. ("CERCLA"), (ii) the Resource Conservation and Recovery Act of 1976, 42 U.S.C. Section 6901 et seq. ("RCRA"), (iii) California Health & Safety Code Sections 25100 et seq., and (iv) California Water Code Section 13000 et seq. and the Hazardous Materials Transportation Act, 49 U.S.C. Section 1801, et seq., and in the regulations promulgated pursuant to said laws or any replacement thereof;

(ii) Federal Regulations. All of those substances listed in the United States Department of Transportation Table (49 CFR 172.101 and amendments thereto) or by the Environmental Protection Agency (40 CFR Part 302 and amendments thereto) as hazardous substances;

(iii) California Law. All of those substances defined as "hazardous wastes" in Section 25117 of the California Health & Safety Code, or as "hazardous substances" in Section 25316 of the California Health & Safety Code, and in the regulations promulgated pursuant to said laws or any replacement thereof; and

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(iv) Other Laws and Regulations. All other substances, materials and wastes which are or in the future become regulated under applicable local, state or federal law, or which are classified as hazardous or toxic under federal, state, or local laws or regulations, including without limitation federal laws and regulations and California law set forth above.

(b) Environmental Laws. The term "Environmental Laws" shall mean any of the laws, ordinances, codes, statutes, regulations and other matters referenced in Sections D.1(a)(i), (ii), (iii) and (iv) above.

D.2 Representations and Warranties. Trustor represents and warrants to Beneficiary as to the matters set forth below with respect to any Hazardous Substances.

(a) Violations of Environmental Laws. The Trust Estate, the Real Property, the Improvements and Trustor are not in violation of, have not incurred liability under and are not subject to any existing, pending, or threatened investigation by any federal, state or local governmental authority under, any Environmental Laws.

(b) Inquiry by Trustor. Prior to the date of this Deed of Trust, no Hazardous Substance has been released or disposed of, on, in or at the Trust Estate, the Real Property or the Improvements.

(c) Trustor's Use. Trustor's intended use of the Trust Estate, the Real Property or the Improvements under the Loan Agreement, will not result in the release or disposal of any Hazardous Substance onto the Trust Estate, the Real Property or the Improvements in violation of any Environmental Laws.

(d) Storage of Hazardous Substances. To Trustor's actual knowledge there are no Hazardous Substances or materials which are being stored or otherwise held on, under or about the Trust Estate, the Real Property or the Improvements, by Trustor, or other person which are in violation of Environmental Laws.

(e) Border Zone Property. To the actual knowledge of Trustor, there is no occurrence or condition on any other real property that could cause the Trust Estate, the Real Property, the Improvements or any part thereof to be classified as "Border Zone Property" under the provisions of California Health and Safety Code Sections 25220 et seq., or any regulation adopted in accordance therewith or to be otherwise subject to any restrictions on ownership, occupancy, transferability or use.

D.3 Covenants. Trustor covenants as set forth below.

(a) Use and Disposal of Hazardous Substances. Neither Trustor nor any third party under Trustor's supervision or control will

use, generate, manufacture, produce, store, release, discharge, or dispose of any Hazardous Substance on, under or about the Trust Estate, the Real Property or the Improvements or transport any Hazardous Substance to or from the Trust Estate, the Real Property or the Improvements in violation of any Environmental Laws.

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(b) Written Notice with Respect to Hazardous Substances. Trustor shall give prompt written notice to Beneficiary of any of the following with respect to which Trustor acquires actual knowledge:

(i) Any proceeding or inquiry by any governmental authority with respect to the presence of any Hazardous Substance on the Trust Estate, the Real Property, the Improvements or the migration thereof from or to other real property with respect to which Trustor has acquired actual knowledge;

(ii) All claims made or threatened by any third party against Trustor, or the Trust Estate, the Real Property or the Improvements relating to any loss or injury resulting from any Hazardous Substance with respect to which Trustor has acquired actual knowledge;

(iii) Trustor's discovery of any occurrence or condition on any real property adjoining or in the vicinity of the Trust Estate, the Real Property or the Improvements that could cause the Trust Estate, the Real Property or the Improvements or any part thereof to be subject to any restrictions on the ownership, occupancy, transferability or use of the Trust Estate, the Real Property or the Improvements under any Environmental Laws; and

(iv) Any other notice required by law.

(c) Right to Join in Legal Proceedings.

Beneficiary shall have the right to join and participate in, as a party if it so elects, any legal proceedings or actions initiated in connection with any Environmental Laws.

(d) Duty to Clean Up. In the event that any Hazardous Substance is hereafter found on, under or about the Trust Estate, the Real Property or the Improvements in violation of Environmental Laws, to the extent placed thereon or therein by Trustor, Trustor shall take all necessary and appropriate actions and shall spend all necessary sums to cause the same to be cleaned up in compliance with applicable Environmental Laws, and Beneficiary shall in no event be liable or responsible for any costs or expenses incurred in so doing.

(e) Compliance with Environmental Laws. In its use or operations on the Real Property, Trustor shall at all times observe and satisfy the requirements of and maintain the Trust Estate, the Real Property and the Improvements in compliance with all Environmental Laws.

D.4 Indemnification. Should Trustor at any time default in or fail to perform or observe any of its obligations under this Article D, Beneficiary shall have the right, but not the duty, without limitation upon any of Beneficiary's rights pursuant thereto, to perform the same, and Trustor agrees to pay to Beneficiary, on demand, all costs and expenses incurred by Beneficiary in connection therewith, including without limitation reasonable attorneys' fees, together with interest from the date of expenditure at the rate of interest set forth in the Note applicable after an event of default. Trustor shall indemnify, defend, protect Beneficiary and agrees to hold Beneficiary harmless

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from and against any loss incurred by or liability imposed on Beneficiary, including but not limited to, attorneys' fees, by reason of the inaccuracy of any representation or warranty contained in this Article D or by reason of Trustor's failure to perform or observe any of its obligations or agreements under this Article D. Trustor's indemnification obligations hereunder include, without limitation, the indemnification of Beneficiary for reasonable attorneys' fees and costs incurred in the enforcement of this Section D.4.

E. MISCELLANEOUS PROVISIONS

E.1 Successors: Gender. Subject to the provisions on transfer set out elsewhere in this Deed of Trust, this Deed of Trust applies to, inures to the benefit of, and binds all parties hereto, their heirs, legatees, devisees, administrators, executors, successors and assigns. The term "Beneficiary" shall mean the owner and holder from time to time, including pledgees, participants or owners of other such interests, of the Note, whether or not named as Beneficiary herein. In this Deed of Trust, whenever the context so requires, the masculine gender includes the feminine and/or neuter, and the singular number includes the plural.

E.2 Authorization to Rely. Trustee, upon presentation to it of an affidavit signed by or on behalf of Beneficiary, setting forth any fact or facts showing a default by Trustor under any of the terms or conditions of this Deed of Trust, is authorized to accept as true and conclusive all facts and statements in such affidavit and to act hereunder in complete reliance thereon.

E.3 Governing Law. The provisions of this Deed of Trust governing the contractual rights and obligations of Trustor, Beneficiary and Trustee shall be governed and construed according to the laws of the State of California.

E.4 Permitted Contests. Trustor may contest or object in good faith to the amount or validity of any tax, assessment, claim demand, levy, lien, encumbrance, charge or notice of noncompliance asserted by a third party (collectively, the "Claim"), but only in accordance with the following conditions:

(a) Trustor shall first give written notice to Beneficiary and deposit with Beneficiary a bond or cash satisfactory to Beneficiary in such amounts as Beneficiary shall reasonably require, up to 150% of the amount of any Claim or other sum in controversy, and, if the context of such Claim so requires, Trustor shall have provided such additional undertaking as may be required or permitted by law to accomplish a stay of any legal proceedings then pending in connection with any such Claim or controversy; and

(b) Trustor shall promptly and diligently proceed to cause such Claim to be settled and discharged in a manner not prejudicial to Beneficiary or its rights hereunder; and

(c) If Trustor shall fail to discharge diligently any such Claim, then, in addition to any other right or remedy of Beneficiary, Beneficiary may, but shall not be obligated to, discharge the same, either by paying the amount claimed to be due, or by procuring the discharge of such Claim by promptly depositing in court a bond or the amount claimed or otherwise giving security for such Claim, or in such manner as is or may be prescribed by law; and

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(d) Beneficiary may employ an attorney or attorneys to protect its rights hereunder, and in the event of such employment, Trustor shall pay Beneficiary the attorneys' fees and expenses incurred by Beneficiary, whether or not an action is actually commenced against Trustor by reason of any default hereunder; and

(e) Trustor has demonstrated to Beneficiary's reasonable satisfaction that no portion of the Trust Estate will be sold to satisfy any such Claim prior to final resolution of such Claim or permitted contest.

E.5 Statute of Limitations. Except insofar as now or hereafter prohibited by law, the right to plead, use or assert any statute of limitations as a plea or defense or bar of any kind, or for any purpose, to any debt, demand or obligation secured or to be secured hereby, or to any complaint or other pleading or proceeding filed, instituted or maintained for the purpose of enforcing this Deed of Trust or any rights hereunder, is hereby waived by Trustor.

E.6 Severability. The invalidity of any one or more covenants, phrases, clauses, sentences or paragraphs of this Deed of Trust shall not affect the remaining portions of this Deed of Trust or any part thereof, and the same shall be construed as if such invalid covenants, phrases,

clauses, sentences or paragraphs, if any, had not been inserted herein. If the lien of this Deed of Trust is invalid or unenforceable as to any part of the indebtedness secured hereby, or if the lien is invalid or unenforceable as to any part of the Trust Estate, the unsecured or partially secured portion of such indebtedness shall be completely paid prior to the payment of the remaining and secured or partially secured position of such indebtedness, and all payments made on such indebtedness, whether voluntary or under foreclosure or other enforcement action or procedure, shall be considered to have been first paid on and applied to the full payment of that portion of such indebtedness which is not secured or fully secured by the lien of this Deed of Trust.

E.7 Notices. Whenever Beneficiary, Trustor or Trustee shall desire to give or serve any notice, demand, request or other communication with respect to this Deed of Trust, each such notice, demand, request or other communication shall be in writing and shall be effective only if the same is delivered by personal service against receipt, mailed by United States registered or certified mail, postage prepaid, return receipt requested, or delivered by receipted nationwide overnight commercial courier, addressed to the addresses first set forth above. Notice so mailed shall be effective three (3) business days following its posting in the United States mail. Notice delivered by receipted nationwide overnight commercial courier shall be effective one (1) business day following its delivery to such service as evidenced by the receipt. Notice given in any other manner shall be effective only if and when received by the addressee. Any party may at any time change its address for such notices by delivering or mailing to the other parties hereto, as aforesaid, a notice of such change.

E.8 Waiver of Remedies. By accepting payment of any amount secured hereby after its due date, or an amount which is less than the amount then due, or performance of any obligation required hereunder after the date required for such performance, Beneficiary does not waive its rights either to require prompt payments or performance when due of all other amounts or

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other obligations so secured, or to declare a default as herein provided for the failure so to pay or perform.

E.9 Trustee's Powers. At any time, or from time to time, without liability therefor and without notice, upon written request of Beneficiary and presentation of the original or certified copies of this Deed of Trust and the Note secured hereby for endorsement, and without affecting the personal liability of any person for payment of the indebtedness secured hereby or the effect of this Deed of Trust upon the remainder of the Trust Estate, Trustee may (i) reconvey any part of the Trust Estate, (ii) consent in writing to the making of any map or plat of the Trust Estate, or any part thereof, (iii) join in granting any easement on the Trust Estate, or any part thereof, or (iv) join in any extension agreement or any agreement subordinating the lien or charge of this Deed of Trust.

E.10 Beneficiary Powers. Without affecting the liability of Trustor or any other person liable for the payment of any obligation secured hereby, and without affecting the lien or charge of this Deed of Trust upon any portion of the Trust Estate not then or theretofore released as security for the full amount of all unpaid obligations, Beneficiary may, from time to time and without notice (i) release any person so liable, (ii) extend the maturity or alter any of the terms of any such obligation, or join in any agreement modifying the terms of any Loan Document, (iii) waive any provision hereof or grant other indulgences, (iv) release or reconvey, or cause to be released or reconveyed at any time at Beneficiary's option, the Trust Estate or any parcel or portion thereof, (v) take or release any other or additional security for any obligation herein mentioned, (vi) make compositions or other arrangements with debtors in relation thereto, or (vii) subordinate the lien or charge of this Deed of Trust.

E.11 Substitution of Trustee. Beneficiary may, from time to time, by a written instrument executed and acknowledged by Beneficiary and recorded in the county or counties where the Trust Estate is located, and by otherwise complying with the provisions of California Civil Code Section 2934a, or any successor section, substitute a successor or successors for the Trustee named herein or acting hereunder.

E.12 Additional Security. In the event Beneficiary at any time holds additional security for any of the obligations secured hereby, all such additional security shall be taken, considered and held as cumulative, and Beneficiary may enforce the sale thereof or otherwise realize upon the same, at its option, either before or concurrently with the exercise of any of its rights or remedies hereunder or after a sale is made hereunder. The taking of additional security, execution of partial releases of the security, or any extension of the time of payment Of the indebtedness secured hereby, shall not diminish the force, effect or lien of this Deed of Trust and shall not affect or impair the liability of any maker, surety or endorser for the payment of such indebtedness.

E.13 Captions. The captions or headings at the beginning of each Section hereof are for the convenience of the parties and are not to be construed as a part of this Deed of Trust.

E.14 Trust Irrevocable; No Offset. The trust created hereby is irrevocable by Trustor. No offset or claim that Trustor now or may in the future have against Beneficiary shall

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relieve Trustor from paying the installments or performing any other obligation contained herein or secured hereby.

E.15 Corrections. Trustor shall, upon request of Trustee, promptly correct any defect, error or omission which may be discovered in the contents of this Deed of Trust or in the execution or acknowledgment hereof, and will execute, acknowledge and deliver such further instruments and do such further acts as may be necessary or as may be reasonably requested by Trustee to carry out more effectively the purposes of this Deed of Trust, to be subject to the lien and security interest hereby created any of Trustor's properties, rights or interest covered or intended to be covered hereby, and to perfect and maintain such lien and security interest.

E.16 Full Reconveyance. Upon written request of Beneficiary stating that all sums secured hereby have been paid and upon surrender to Trustee of this Deed of Trust and the Note for cancellation and retention and upon payment of its fees, Trustee shall fully reconvey, without warranty, the entire remaining Trust Estate then held hereunder. The recitals in such reconveyance of any matters of facts shall be conclusive proof of the truthfulness thereof. The grantee in such reconveyance may be described as "the person or persons legally entitled thereto."

E.17 Performance Under Other Documents. Trustor shall faithfully perform each and every covenant to be performed by Trustor under any lien or encumbrance, lease, sublease, instrument, declaration, covenant, condition, restriction, license, order or other agreement which affects or may affect the Trust Estate, in law or in equity, including, without limitation, each and every covenant to be performed by Trustor under any mortgages and any and all other instruments pertaining to such mortgages, including the respective obligations secured thereby. A breach of or a default under any such lien, encumbrance or other instrument which Beneficiary reasonably believes may be prior and superior to the lien or charge of this Deed of Trust shall, at Beneficiary's option, constitute an event of default under this Deed of Trust.

E.18 Inspections. Beneficiary, and its agents, representatives and workmen, are authorized to enter at any reasonable time upon or in any part of the Trust Estate for the purpose of inspecting the same and for the purpose of performing any of the acts it or Trustor is authorized to perform under the terms of any of the Loan Documents.

E.19 Amendments. This instrument cannot be waived, changed discharged or terminated orally, but only by an instrument in writing signed by the Party against whom enforcement of any waiver, change, discharge or termination is sought.

E.20 Assignment. Any assignment of this Deed of Trust shall be considered an assignment of the Note and Loan Documents.

E.21 Attorneys' Fees. In the event it becomes necessary for any party to retain legal counsel in order to enforce its rights under this Deed of Trust, if successful in such enforcement by legal proceedings or otherwise, such party shall be reimbursed immediately for reasonably incurred attorneys' fees and other costs and expenses by the party against whom enforcement was sought, including but not limited to, expenses and costs of investigation incurred in Appellate proceedings, costs incurred in establishing the right to indemnification, or in any action or participation in, or in

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connection with, any case or proceeding under Chapters 7, 11, or 13 of the Bankruptcy Code, 11 United States Code Section 101 et. seq. or any successor or statutes.

E.22 Acceptance by Trustee. Trustee accepts this trust when this Deed of Trust, duly executed and acknowledged, is made a public record as provided by law.

E.23 Defense and Notice of Losses, Claim and Actions. Trustor shall protect, preserve and defend the Trust Estate and title to and right of possession of the Trust Estate, the security hereof and the rights and powers of Beneficiary and Trustee hereunder at Trustor's sole expense against all adverse claims, whether the claim (i) is against a possessory or non-possessory interest, (ii) arose prior or subsequent to the date hereof, or (iii) is senior or junior to Trustor's or Beneficiary's rights. Trustor shall give Beneficiary and Trustee prompt notice in writing of the assertion of any claim, of the filing of any action or proceeding, or the occurrence of any damage to the Trust Estate and of any condemnation offer or action.

E.24 Underlying Waiver of Remedies. By accepting payment of any amount secured hereby after its due date, or an amount which is less than the amount then due, or performance of any obligation required hereunder after the date required for such performance, Beneficiary does not waive its rights either to require prompt payment or performance when due of all other amounts or other obligations so secured, or to declare a default as herein provided for the failure to so pay or perform.

E.25 No Merger. If both Beneficiaries' and Trustors' interest under any lease for the Trust Estate, or any portion thereof, shall at any time become vested in any one person or entity, this Deed of Trust, and the lien and security interest created hereby shall not be destroyed or terminated by the application of the doctrine of merger and, in such event, Trustee and Beneficiary shall continue to have and enjoy all of the rights and privileges of Trustee and Beneficiary hereunder as to each separate estate. Upon the foreclosure of the lien created hereby, any leases then existing with respect to the Trust Estate, or any portion thereof, shall not be destroyed or terminated by application of the doctrine of merger or as a matter of law or as a result of such foreclosure unless Beneficiary or any purchaser at the foreclosure sale shall so elect by notice to the lessee in question.

[INTENTIONALLY LEFT BLANK]

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E.26 Release of Deed of Trust. At the election of Trustor, the lien of this Deed of Trust shall be released from the Trust Estate upon the occurrence of a "Ligand Default" as defined in that certain Operating Agreement for Nexus Equity VI LLC, a California Limited Liability Company, dated March 7, 1997. The release of the Deed of Trust under this Section E.26 shall not impair or diminish the obligations of Trustor on the Promissory Note secured hereby and such Promissory Note.

IN WITNESS WHEREOF, the undersigned has executed and delivered this Deed of Trust as of the date first above written.

TRUSTOR:

NEXUS EQUITY VI LLC, a California
limited liability company

By: Nexus Properties, Inc., a California corporation

Its: Manager

By: /s/ MICHAEL J. REIDY

Michael J. Reidy
Chief Executive Officer

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STATE OF CALIFORNIA)
) Ss.
COUNTY OF SAN DIEGO)

On March 3 before me, Donna J. Mickelson, personally appeared Michael J. Reidy personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name(s) are/is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal. /s/ DONNA J. MICKELSON

Signature

(SEAL)

EXHIBIT "A"
Legal Description of Real Property

PARCEL 2 OF PARCEL MAP NO. 17826 IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON FEBRUARY 18, 1997.

RECORDING REQUESTED BY:

Nexus Properties, Inc.

WHEN RECORDED, RETURN TO:

Nexus Properties, Inc.
4350 La Jolla Village Dr., Suite 930
San Diego, CA 92122

APN 340-180-05

MEMORANDUM OF OPTION TO PURCHASE REAL PROPERTY

This MEMORANDUM OF OPTION TO PURCHASE REAL PROPERTY ("Memorandum") is effective as of March 7, 1997, by and between NEXUS EQUITY VI LLC, a California limited liability company ("Optionor"), and LIGAND PHARMACEUTICALS, INC., a Delaware corporation ("Optionee").

NOW, THEREFORE, the parties hereto agree as follows:

1. Option to Purchase. Pursuant to that certain Option to Purchase Real Property of even date herewith ("Option Agreement"), Optionor hereby grants to Optionee an option to purchase ("Option to Purchase") those certain premises located on and including real property ("Real Property") located in the City of San Diego, County of San Diego, State of California, more

particularly described as follows:

Parcel 2 of Parcel Map 17826, in the City of San Diego, County of San Diego, State of California, according to Map thereof, filed in the Office of the County Recorder of San Diego County, February 18, 1997

2. Terms of Option to Purchase. The Option to Purchase may be exercised prior to the expiration or earlier termination of that certain Lease of even date of the Real Property by and between Optionor as Landlord and Optionee as Tenant, and is otherwise on and subject to the terms and conditions set forth in the Option Agreement, all of which are made a part of this Memorandum as though fully set forth here.

3. Purpose of This Memorandum. This Memorandum is executed for the purpose of being recorded, in order to give notice of the Option Agreement. This Memorandum is not a

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complete summary of the terms and conditions of the Option Agreement, and is subject to, and shall not be used to interpret or modify, the Option Agreement.

The parties hereto have entered into this Memorandum of Option to Purchase Real Property as of the date first written above.

OPTIONOR:

NEXUS EQUITY VI LLC
A California Limited Liability Company
By Nexus Properties, Inc.
Its Manager

By: /s/ MICHAEL J. REIDY

Michael J. Reidy
Chief Executive Officer

OPTIONEE:

LIGAND PHARMACEUTICALS, INC.
A Delaware corporation

By: /s/ PAUL V. MAIER

Paul V. Maier
Senior Vice President and Chief Financial Officer

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STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN DIEGO)

On March 7, 1997, before me, the undersigned Notary Public in and for said County and State, personally appeared

Michael J. Reidy

personally known to me

or

x proved to me on the basis of satisfactory evidence to be

the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity on behalf of which the person acted, executed the instrument.

Witness my hand and official seal. Donna J. Mickelson
COMM. 1082241, MFR. PWR1
Donna J. Mickelson NOTARY PUBLIC
----- CALIFORNIA, SAN DIEGO COUNTY
Signature of Notary COMMISSION EXPIRES JAN. 7, 2000

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN DIEGO)

On March 7, 1997, before me, the unadvertised Notary Public in and for said County and State, personally appeared

Paul V. Maier

x personally known to me

or
proved to me on the basis of satisfactory evidence to be

the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity on behalf of which the person acted, executed the instrument.

Witness my hand and official seal. G. Kay Nakamura
COMMISSION #1080201
G. Kay Nakamura NOTARY PUBLIC - CALIFORNIA
----- SAN DIEGO COUNTY
Signature of Notary COMMISSION EXPIRES DEC. 10, 1999

EIGHTH ADDENDUM TO AMENDED REGISTRATION RIGHTS AGREEMENT

This Eighth Addendum ("Addendum") to the Amended Registration Rights Agreement dated June 24, 1994, as amended through the date hereof ("Registration Rights Agreement") between Ligand Pharmaceuticals Incorporated (the "Company") and S.R. One, Limited ("Investor") is effective as of February 10, 1997.

RECITALS

A. As of the date hereof, the Company has issued 164,474 shares of the Company's Common Stock (the "Shares") to Investor pursuant to Section 1.1(c) of that certain Stock and Note Purchase Agreement dated February 3, 1995 among the Company, Investor and SmithKline Beecham Corporation (the "Purchase Agreement").

B. This Addendum serves to include the Shares within the definition of "Registrable Securities" under the Registration Rights Agreement and to modify Schedule A to the Registration Rights Agreement to include such Shares, all pursuant to Section 2.6(a) of the Registration Rights Agreement.

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

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

"(f) The term "Registrable Securities" means (i) the 6,150,085 shares of Class B Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued upon conversion of the Company's Preferred Stock to the holders thereof and in the amounts set forth on Schedule A attached hereto, (ii) the Common Stock issuable or issued upon exercise of those warrants issued to certain Existing Investors and pursuant to which such Existing Investors were previously granted registration rights by the Company, (iii) the 571,305 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to Abbott Laboratories pursuant to a Stock Purchase Agreement dated July 6, 1994 which shares are reflected on Schedule A attached to the First Addendum to this Agreement, (iv) the 574,513 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to American Home Products Corporation pursuant to a Stock and Note Purchase Agreement dated September 2, 1994 which shares are reflected on Schedule A attached to the Second Addendum to this Agreement, and the shares of Common Stock (or the shares of such other class of stock into which the Common Stock is converted) issuable upon conversion of those certain Unsecured Convertible Promissory Notes issued to American Home Products Corporation pursuant to the Stock and Note Purchase Agreement (and upon such conversion of the Notes, Schedule A shall be updated to include such shares), (v) the 674,127 shares of Common Stock (formerly Class B Common Stock prior to conversion of Class A Common Stock into Class B Common Stock and the renaming of all outstanding shares of Class B Common Stock pursuant to the Corporation's Certificate of Designation) issued to Investor pursuant to the Purchase Agreement which shares are reflected on Schedule A attached to the Third Addendum to this Agreement, (vi) the 35,957 shares of Common Stock issuable or issued upon exercise of the Warrant issued to Genentech, Inc. in connection with the merger of L.G. Acquisition Corp., a wholly-owned subsidiary of the Company, with and into Glycomed Incorporated, which shares are reflected on Schedule A attached to the Fourth Addendum to this Agreement, (vii) the 189,274 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to Sankyo Company Limited pursuant to a Stock Purchase Agreement dated June 28, 1995 which shares are reflected on Schedule A attached to the Fifth Addendum to this Agreement, (viii) the 516,129 shares of Common Stock (or that number of shares of such other class of stock into which the Common

Stock is converted) issued to Abbott Laboratories pursuant to a Stock Purchase Agreement dated August 28, 1995 which shares are reflected on Schedule A attached to the Sixth Addendum to this Agreement, (ix) the 260,200 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to the Investor pursuant to the Purchase Agreement which shares are reflected on Schedule A attached to the Seventh Addendum to this Agreement, (x) the 164,474 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to the Investor pursuant to the Purchase Agreement which shares are reflected on Schedule A attached to the Eighth Addendum to this Agreement, and (xi) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of the shares referenced in (i), (ii), (iii), (iv), (v), (vi), (vii), (viii) and (ix) above, excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which rights under this Agreement are not assigned."

2. Schedule A of the Registration Rights Agreement is hereby restated in its entirety as attached to this Addendum.
3. This Addendum may be executed in one or more counterparts.
4. This Addendum shall be binding upon the Company, Investor and each holder of Registrable Securities and each future holder of Registrable Securities pursuant to Section 2.6(a) of the Registration Rights Agreement.

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

S.R. ONE, LIMITED LIGAND PHARMACEUTICALS INCORPORATED

By [SIG] By:
William L. Respass

Title: Vice President Title: Senior Vice President, General Counsel,
Government Affairs

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SCHEDULE A
To
Eighth Addendum to
Amended Registration Rights Agreement

Registered Name Of:	Shares
Abbott Laboratories	516,129
Abbott Laboratories	571,305
Alexander D. Cross, Trustee, O.A., dated 7.8.91	11,275
Allergan Pharmaceuticals (Ireland) Ltd., Inc.	1,353,125
American Home Products Corporation	574,513
American Home Products Corporation	374,626
Aspen Venture Partners, L.P.	2,659
Enterprise Partners	774,766
Enterprise Partners	3,745

Genentech, Inc.		35,957
Glaxo, Inc.		662,755
Kleiner Perkins Caufield & Byers IV		1,553,469
Kleiner Perkins Caufield & Byers IV		7,688
KPCB Zaibatsu		36,082
ML Venture Partners II, L.P.		499,858
ML Venture Partners II, L.P.		2,417
Levy	David	8,119
New York University		8,119
Pfizer Inc.		1,252,114
Respass	William	901
S.R. One, Limited		674,127
S.R. One, Limited		164,474
S.R. One, Limited		260,200
Sankyo Company Limited		189,274
Senyei	Andrew	11,275
Venrock Associates II, L.P.		1,540
Venrock Associates		3,441
Windsor Venture Lease Partners Ltd., Inc.		283
TOTAL		9,554,236

SEVENTH ADDENDUM TO AMENDED REGISTRATION RIGHTS AGREEMENT

This Seventh Addendum ("Addendum") to the Amended Registration Rights Agreement dated June 24, 1994, as amended through the date hereof ("Registration Rights Agreement") between Ligand Pharmaceuticals Incorporated (the "Company") and S.R. One, Limited ("Investor") is effective as of November 10, 1995.

RECITALS

A. As of the date hereof, the Company has issued 260,200 shares of the Company's Common Stock (the "Shares") to Investor pursuant to Section 1.1(b) of that certain Stock and Note purchase Agreement dated February 3, 1995 among the Company, Investor and Smith Kline Beecham Corporation (the "Purchase Agreement").

B. This Addendum serves to include the Shares within the definition of "Registrable Securities" under the Registration Rights Agreement and to modify Schedule A to the Registration Rights Agreement to include such Shares, all pursuant to Section 2.6(a) of the Registration Rights Agreement.

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

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

"(f) The term "Registrable Securities" means (i) the 1,939,435 shares of Class A Common Stock and 5,818,362 shares of Class B Common Stock (or that number of shares of such other class of stock into which the Class A Common Stock and Class B Common Stock are converted) issued upon conversion of the Company's Preferred Stock to the holders thereof and in the amounts set forth on Schedule A attached hereto, (ii) the Common Stock issuable or issued upon exercise of those warrants issued to certain Existing Investors and pursuant to which such Existing Investors were previously granted registration rights by the Company (iii) the 429,553 shares of Class A Common Stock (or that number of shares of such other class of stock into which the Class A Common Stock is converted) issued to Abbott Laboratories pursuant to a Stock Purchase Agreement dated July 6, 1994 which shares are reflected on Schedule A attached to the First Addendum to this Agreement, (iv) the 431,965 shares of Class A Common Stock (or that number of shares of such other class of stock into which the Class A Common Stock is converted) issued to American Home Products Corporation pursuant to a Stock and Note Purchase Agreement dated September 2, 1994 which shares are reflected on Schedule A attached to the Second Addendum to this Agreement, and the shares of Class A Common Stock (or the shares of such other class of stock into which the Class A Common Stock is converted) issuable upon conversion of those certain Unsecured Convertible Promissory Notes issued to American Home Products Corporation pursuant to the Stock and Note Purchase Agreement (and upon such conversion of the Notes, Schedule A shall be updated to include such shares), (v) the 674,127 shares of Common Stock (formerly Class B Common Stock prior to conversion of Class A Common Stock into Class B Common Stock and the renaming of all outstanding shares of Class B Common Stock pursuant to the Corporation's Certificate of Designation) issued to Investor pursuant to the Purchase Agreement which shares are reflected on Schedule A attached to the Third Addendum to this Agreement, (vi) the 35,957 shares of Common Stock issuable or issued upon exercise of the Warrant issued to Genentech, Inc. in connection with the merger of L.G. Acquisition Corp., a wholly-owned subsidiary of the Company, with and into Glycomed Incorporated, which shares are reflected on Schedule A attached to the Fourth Addendum to this Agreement, (vii) the 189,274 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to Sankyo Company Limited pursuant to a Stock Purchase Agreement dated June 28, 1995 which shares are reflected on Schedule A attached to the Fifth Addendum to this Agreement, (viii) the 516,129 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to Abbott Laboratories pursuant to a Stock Purchase Agreement dated August 28, 1995 which shares reflected on Schedule A

attached to the Sixth Addendum to this Agreement, (ix) the 260,200 shares of Common Stock (or that number of shares of such other class of stock into which the Common Stock is converted) issued to the Investor pursuant to the Purchase Agreement which shares are reflected on Schedule A attached to the Seventh Addendum to this Agreement, and (x) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of the shares referenced in (i), (ii), (iii), (iv), (v), (vi), (vii), (viii), and (ix) above, excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which rights under this Agreement are not assigned."

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

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

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

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

S.R. ONE, LIMITED LIGAND PHARMACEUTICALS
INCORPORATED

By: /s/ By: /s/

William L. Respass

Title: Vice President Title: Senior Vice President, General
Counsel, Government Affairs
SCHEDULE A

To
Seventh Addendum to
Amended Registration Rights Agreement

LIGAND PHARMACEUTICALS INCORPORATED
Common Stock

Registered Name Of:	Shares
Abbott Laboratories	516,129
Abbott Laboratories	571,305
Alexander D. Cross, Trustee, O.A., dated 7/8/91	11,275
Allergan Pharmaceuticals (Ireland) Ltd., Inc.	1,353,125
American Home Products Corporation	574,513
Enterprise Partners	774,766
Genentech, Inc.	35,957
Glaxo Inc.	662,755
Kleiner Perkins Caufield & Byers IV	1,553,469
KPCB Zaibatsu	36,082
ML Venture Partners II, L.P.	499,858
Levy, David	8,119
New York University	8,119
Pfizer Inc	1,353,125
Respass, William	901
Rockefeller	101,250
S.R. One, Limited	674,127
S.R. One, Limited	260,200
Sankyo Company Limited	189,274
Senyei, Andrew	11,275

TOTAL

9,195,624

Exhibit 21.1 Subsidiaries of the Registrant

LIGAND PHARMACEUTICALS, INCORPORATED
LIST OF SUBSIDIARIES

Name	Jurisdiction of Incorporation
Glycomed Incorporated	California
Ligand Pharmaceuticals, (Canada) Incorporated	Saskatchewan, Canada

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 33-85366) pertaining to the 1992 Stock Option/Stock Issuance Plan of Ligand Pharmaceuticals Incorporated, as amended, of our report dated January 29, 1997, with respect to the consolidated financial statements of Ligand Pharmaceuticals Incorporated included in Ligand Pharmaceuticals Incorporated's Annual Report (Form 10-K) for the year ended December 31, 1996.

ERNST & YOUNG LLP

San Diego, California
March 27, 1997

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This schedule contains summary financial information extracted from SEC Form 10-K for the Year Ended December 31, 1996 and is qualified in its entirety by reference to such financial statements

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