

LIGAND PHARMACEUTICALS INC

Form 10-K

March 16, 2009

[Table of Contents](#)

**UNITED STATES**  
**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, 2008

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_.

Commission File No. 001-33093

**LIGAND PHARMACEUTICALS INCORPORATED**

(Exact name of registrant as specified in its charter)

Delaware

77-0160744

# Edgar Filing: LIGAND PHARMACEUTICALS INC - Form 10-K

(State or other jurisdiction of incorporation or organization) **10275 Science Center Drive**  
**San Diego, CA**  
(Address of Principal Executive Offices)  
**Registrant's telephone number, including area code: (858) 550-7500**

(IRS Employer Identification No.) **92121-1117**  
(Zip Code)

## Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value \$.001 per share	The NASDAQ Global Market of The NASDAQ Stock Market LLC
Preferred Share Purchase Rights	The NASDAQ Global Market of The NASDAQ Stock Market LLC

## Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

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

Indicate by check mark 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. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer ☐ Accelerated Filer ☒ Non-accelerated Filer ☐

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the Registrant's voting and non-voting stock held by non-affiliates was approximately \$216.5 million based on the last sales price of the Registrant's Common Stock on the NASDAQ Global Market of the NASDAQ Stock Market LLC on June 30, 2008. For purposes of this calculation, shares of Common Stock held by directors, officers and 10% stockholders known to the Registrant have been deemed to be owned by affiliates which should not be construed to indicate that any such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the Registrant or that such person is controlled by or under common control with the Registrant.

As of February 27, 2009, the Registrant had 113,292,801 shares of Common Stock outstanding.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Registrant's 2009 Annual Meeting of Stockholders to be filed with the Commission on or before April 30, 2009 are incorporated by reference in Part III of this Annual Report on Form 10-K. With the exception of those portions that are specifically incorporated by reference in this Annual Report on Form 10-K, such Proxy Statement shall not be deemed filed as part of this Report or incorporated by reference herein.



**Table of Contents****Table of Contents****Part I**

Item 1.	<u>Business</u>	1
Item 1A.	<u>Risk Factors</u>	18
Item 1B.	<u>Unresolved Staff Comments</u>	29
Item 2.	<u>Properties</u>	29
Item 3.	<u>Legal Proceedings</u>	30
Item 4.	<u>Submission of Matters to a Vote of Security Holders</u>	31
	<u>Executive Officers of the Registrant</u>	31

**Part II**

Item 5.	<u>Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities</u>	33
Item 6.	<u>Selected Consolidated Financial Data</u>	35
Item 7.	<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	37
Item 7A.	<u>Quantitative and Qualitative Disclosures About Market Risk</u>	56
Item 8.	<u>Consolidated Financial Statements and Supplementary Data</u>	57
Item 9.	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	104
Item 9A.	<u>Controls and Procedures</u>	104
Item 9B.	<u>Other Information</u>	106

**Part III**

Item 10.	<u>Directors, Executive Officers and Corporate Governance</u>	106
Item 11.	<u>Executive Compensation</u>	106
Item 12.	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	106
Item 13.	<u>Certain Relationships and Related Transactions, and Director Independence</u>	106
Item 14.	<u>Principal Accountant Fees and Services</u>	106

**Part IV**

Item 15.	<u>Exhibits and Financial Statement Schedule</u>	107
	<u>SIGNATURES</u>	120

## AVAILABLE INFORMATION:

We file electronically with the Securities and Exchange Commission (or SEC) our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and, as necessary, amendments to these reports, pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. The public may read or copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is <http://www.sec.gov>.

You may obtain a free copy of our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports which are posted as soon as reasonably practicable after filing on our website at <http://www.ligand.com>, by contacting the Investor Relations Department at our corporate offices by calling (858) 550-7500 or by sending an e-mail message to [investors@ligand.com](mailto:investors@ligand.com). You may also request information via the Investor Relations page of our website.

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**Table of Contents**

**PART I**

**Item 1. Business**

**Caution:** *This discussion and analysis may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed in Item 1A. Risk Factors. This outlook represents our current judgment on the future direction of our business. These statements include those related to our AVINZA and PROMACTA royalty revenues, product returns, and product development. Actual events or results may differ materially from Ligand's expectations. For example, there can be no assurance that our revenues or expenses will meet any expectations or follow any trend(s), that we will be able to retain our key employees or that we will be able to enter into any strategic partnerships or other transactions. We cannot assure you that we will receive expected AVINZA and PROMACTA royalties to support our ongoing business or that our internal or partnered pipeline products will progress in their development, gain marketing approval or achieve success in the market. In addition, our ongoing SEC investigation, or future arbitration, litigation or disputes with third parties may have a material adverse effect on us. Such risks and uncertainties, and others, could cause actual results to differ materially from any future performance suggested. We undertake no obligation to release publicly the results of any revisions to these forward-looking statements to reflect events or circumstances arising after the date of this annual report. This caution is made under the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, as amended.*

References to Ligand Pharmaceuticals Incorporated, Ligand, the Company, we or our include our wholly owned subsidiaries Ligand Pharmaceuticals International, Inc.; Seragen, Inc., or Seragen; Pharmacopeia, LLC; and Nexus Equity VI LLC, or Nexus.

We were incorporated in Delaware in 1987. Our principal executive offices are located at 10275 Science Center Drive, San Diego, California, 92121. Our telephone number is (858) 550-7500.

**Overview**

We are a biotechnology company that focuses on drug discovery and early-stage development of pharmaceuticals that address critical unmet medical needs or that are more effective and/or safer than existing therapies, more convenient to administer and are cost effective. Our goal is to build a profitable company by generating income from research, milestone, and royalty revenues resulting from our collaborations with pharmaceutical partners.

On December 23, 2008, we acquired all of the outstanding common shares of Pharmacopeia, Inc., or Pharmacopeia. As consideration, we issued approximately 18.0 million shares of our common stock to Pharmacopeia stockholders, or approximately 0.60 shares for each outstanding Pharmacopeia share, as well as approximately \$9.3 million in cash. Security holders of Pharmacopeia also received contingent value rights, under which they could receive an aggregate cash payment of \$15.0 million under certain circumstances. Pharmacopeia was a clinical development stage biopharmaceutical company dedicated to discovering and developing novel small molecule therapeutics to address significant medical needs. Pharmacopeia had a broad portfolio of clinical and preclinical candidates under development internally or by partners.

Our business strategy includes targeted internal drug research and early-stage development capabilities. We believe that we have promising product candidates throughout our internal development programs. We also have research and development collaborations for our product candidates with numerous global pharmaceutical companies. These collaborations include ongoing clinical programs at Bristol-Myers Squibb, or BMS, GlaxoSmithKline, or GSK, Pfizer, Schering-Plough, Wyeth, Cephalon and Celgene. These partnered product candidates are being studied for the treatment of large market indications such as thrombocytopenia, rheumatoid

**Table of Contents**

arthritis, asthma, osteoporosis, menopausal symptoms and Alzheimer's disease as summarized in the following tables.

**Pipeline Overview**

<b>Marketed</b>	<b>Under FDA/EU Review</b>	<b>Phase III</b>
Chronic Pain Avinza (King)	Osteoporosis Bazedoxifene (Wyeth)	Menopausal symptoms Bazedoxifene+Premarin (Wyeth)
ITP Eltrombopag/Promacta (GSK)	Osteoporosis Lasofoxifene (Pfizer)	Hepatitis C Eltrombopag (GSK)
	ITP Eltrombopag/Revolade (GSK)	Chronic liver disease Eltrombopag (GSK)
<b>Phase II</b>	<b>Phase I</b>	<b>Preclinical/Research</b>
DARA	Oncology-related	Alzheimer's BACE inhibitor (Schering)
	Thrombocytopenia-Eltrombopag (GSK)	
ITP-LGD-4665 (GSK)	Leukemia PS095760 (Schering)	Muscle wasting-LGD-4033
Oncology-related thrombocytopenia Eltrombopag (GSK)	Inflammation PS386113 (Schering)	Inflammation-CCR1 antagonist
COPD and Asthma PS291822 (Schering)	Respiratory-PS948115 (Schering)	Hematological-Erythropoietin receptor agonist
RA, psoriasis and atherosclerosis PS540446 (BMS)	Metabolic-PS248288 (Schering)	Inflammation Selective glucocorticoid receptor modulator
	Inflammation-PS873266 (Celgene)	Androgen independent prostate cancer receptor modulators
	Muscle wasting-PS178990	

**Marketed Products**

We currently receive royalty revenues from King Pharmaceuticals, or King, and GSK. In February 2007, we completed the sale of our AVINZA product line to King. As a result of the sale, we received the right to future royalties on the net sales of AVINZA through 2017. Through October 2008, we received a 15% royalty on AVINZA net sales. Subsequent royalty payments will be based upon calendar year net sales (see Table 2 below).

In December 2008, the U.S. Food and Drug Administration, or FDA, granted accelerated approval of GSK's PROMACTA for the treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenic purpura, or ITP, who have had an insufficient response to corticosteroids, immunoglobulins or splenectomy. PROMACTA is the first oral thrombopoietin, or TPO, receptor agonist therapy for the treatment of adult patients with chronic ITP. As a result of the FDA's approval of PROMACTA, we are entitled to receive tiered royalties annual net sales of PROMACTA (Table 2). As part of a settlement agreement and mutual release we entered into on February 12, 2009 with The Rockefeller University, or Rockefeller, we agreed to pay a share of such royalties to Rockefeller. See Item 3. Legal Proceedings.

**Near-term potential royalties: Products under FDA/EU review and in Phase III**

We also have the potential to receive near-term royalties on product candidates resulting from our research and development collaboration arrangements with third party pharmaceutical companies if and when any such product candidate is ultimately approved by the FDA and successfully marketed. Our near-term product candidates are discussed below.

## **Table of Contents**

In addition to the accelerated approval granted for GSK's PROMACTA for the treatment of thrombocytopenia in patients with chronic ITP, GSK also reported positive Phase II data in patients with thrombocytopenia associated with hepatitis C and initiated two Phase III trials in patients with hepatitis C in the fourth quarter of 2007 and a Phase III trial in patients with chronic liver disease (CLD) in early 2008. A Phase II study in patients with oncology-related thrombocytopenia is ongoing and a Phase I study is ongoing in patients with sarcoma receiving the adriamycin and ifosfamide regimen. In December 2008, GSK submitted a marketing authorization application in EU and international for Revolade (Eltrombopag) for the treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenic purpura, or ITP (see pipeline overview Table).

Bazedoxifene (Viviant) is a product candidate that resulted from one of our collaborations with Wyeth. Bazedoxifene is a synthetic drug that was specifically designed to reduce the risk of osteoporotic fractures while at the same time protecting breast and uterine tissue. In June 2006, Wyeth submitted an NDA for bazedoxifene to the FDA for the prevention of postmenopausal osteoporosis. Wyeth also submitted a second NDA for bazedoxifene in the United States in July 2007 for the treatment of osteoporosis and a Marketing Authorization Application, or MAA, to the European Medicines Agency, or EMEA, in September 2007 for the prevention and treatment of osteoporosis. Wyeth has indicated that it will file a complete response in 2009 and expects the FDA to convene an advisory committee to review the pending NDAs for both the treatment and prevention of postmenopausal osteoporosis with VIVANT. In February 2009, CONBRIZA (EU trade name) received positive Committee for Medicinal Products for Human Use (CHMP) opinion in Europe for the treatment of postmenopausal osteoporosis in women at increased risk of fracture.

Wyeth is also developing bazedoxifene in combination with PREMARIN (Aprela) as a progesterone-free treatment for menopausal symptoms. Two Phase III studies with bazedoxifene/conjugated estrogens (Aprela), showed reduced number and severity of hot flashes in symptomatic postmenopausal women by up to 80 percent, when compared with placebo. Wyeth expects to file an initial NDA no earlier than the first half of 2010. We are entitled to receive tiered royalties on these products (see Table 2 below).

Lasofloxifene (FABLYN®) is a product candidate that resulted from our collaboration with Pfizer. Pfizer submitted an NDA and an MAA for FABLYN for osteoporosis treatment in December 2007 and January 2008, respectively. The FDA Advisory Committee in early September 2008 voted 9-3 in favor of approving this drug. In January 2009, Pfizer received a complete response letter from the FDA requesting additional information for FABLYN. Pfizer is reviewing the letter and will work with the FDA to determine the appropriate next steps regarding its application. In December 2008 CHMP granted a positive opinion for the approval of lasofloxifene in the EU for the treatment of osteoporosis in postmenopausal women at increased risk of fracture. Pfizer has also submitted NDA's for osteoporosis prevention and vaginal atrophy, and the FDA issued non-approvable letters for both NDA's. Under the terms of our agreement with Pfizer, we are entitled to receive royalty payments on worldwide net sales of lasofloxifene for any indication. We are entitled to receive royalties on these products (see Table 2 below).

### ***Advanced R&D Programs***

PS291822 is a CXCR2 antagonist that resulted from our collaboration with Schering Plough. PS291822 entered Phase II clinical trials in the fourth quarter of 2006 for COPD and asthma. Phase II study in patients with COPD was completed in 4Q 2008. Results from two Phase II studies in asthma are expected later this year.

PS540446 is an orally active p-38 mitogen-activated protein (MAP) kinase inhibitor that resulted from our collaboration with BMS. PS540446 is in Phase II studies for treatment of moderate to severe psoriasis, rheumatoid arthritis (RA) and atherosclerosis. Phase II studies are expected to be complete in 2009. Positive Phase I results in healthy subjects and in patients with stable RA were reported at the 2008 ACR meeting.

DARA (PS433540) is a first-in-class Dual Acting Receptor Agonist (DARA) that targets the angiotensin and endothelin receptors. Given its unique mechanism of action, DARA has the potential to treat diabetic

## **Table of Contents**

nephropathy. In connection with our acquisition of Pharmacoepia, Inc., or the Merger, we assumed an exclusive licensing agreement with BMS, whereby we obtained the rights for worldwide development and commercialization of DARA. In February 2009 we announced preliminary results of a Phase IIb study which compared 200 mg, 400 mg, and 800 mg doses of DARA versus placebo and irbesartan for 12-weeks in hypertensive patients. In this study all doses of DARA reduced blood pressure statistically significantly greater than placebo. The 800 mg DARA dose group showed a statistically significantly higher percentage of patients achieving blood pressure control compared to irbesartan. DARA was generally well tolerated and there were no serious adverse events associated with therapy. Ligand plans to pursue discussions with potential collaborators to partner this program based on data received to date.

In December 2008, we entered into an exclusive, worldwide license agreement with SmithKline Beecham Corporation, doing business as GSK. Pursuant to the terms of the GSK agreement, we granted GSK the exclusive right to develop, manufacture and commercialize our LGD-4665 product candidate, as well as all other TPO-related molecules discovered by us. LGD-4665 is currently in a Phase II trial for treatment of thrombocytopenia, a condition of low-platelet levels commonly associated with a diverse range of clinical disorders. Under the terms of the GSK agreement, GSK paid us \$5 million as an upfront license fee and agreed to pay us up to \$158.0 million in development and commercial milestones and a fixed royalty on net sales (see Table 2 below). We reported at the December 2008 American Society of Hematology annual meeting that LGD-4665 has the potential for weekly dosing, has differentiated clinical pharmacology from other products on the market and has promising potential efficacy in ITP, based on interim clinical study results.

## **Business Strategy**

We aim to create value for shareholders by advancing our internally developed programs through early clinical development and then entering licensing agreements with larger pharmaceutical and biotechnology companies with substantially greater development and commercialization infrastructure. In addition to advancing our R&D programs, we expect to collect licensing fees and royalties from existing and future license agreements. We aim to build a profitable company by generating income from our corporate licenses. The principal elements of our strategy are set forth below.

***Leverage Proprietary Gene Expression and Combinatorial Chemistry Platform Technologies Related to Multiple Novel Drug Discovery Programs.*** Ligand technology applies the most advanced cell-based assays, and gene-expression tools, ultra-high throughput screening and one of the world's largest chemical libraries to discover new and important medicines:

**Intracellular Technology:** Ligand pioneered the field of Intracellular receptor (IR) drug discovery using cell-based assays of nuclear receptors, cell signaling enzymes and membrane receptors. Intracellular receptors are families of transcription factors that change cell function by selectively turning on or off specific genes in response to circulating signals that act on cells. Our ability to harness these processes through IR technology has enabled the development of novel, small-molecule drugs that act through intracellular receptors, potentially resulting in more targeted drugs with greater specificity than those currently available.

**Chemical Library:** In December 2008, Ligand acquired high quality combinatorial libraries and proprietary ultra-high through-put screening technology as a result of the acquisition of Pharmacoepia. Our Encoded Combinatorial Library on Polymeric Support, or ECLiPS, combinatorial library technology provides the power of one of the world's largest chemical collections to identifying drugs for novel receptor and enzyme drug targets. Ligand uses a proprietary combinatorial compound collection wedded to a unique ultra-high throughput screening platform to drive lead generation for itself and its pharma partners. Our collection of drug-like molecules is built by our chemists on polystyrene beads and encoded with molecular tags that can be easily decoded for hit identification. This ECLiPS forms the basis for one of the largest compound collections in the industry. Our proprietary tagging technology obviates the usual deconvolution process and facilitates both accurate and rapid hit identification. This combinatorial chemistry collection is built for chemical diversity and drug-like properties. In this way our hits combine the desired target activity with appropriate physicochemical properties that support continued drug discovery.

## **Table of Contents**

**Ultra-High Throughput Screening:** Ligand has married this large proprietary compound collection with industry leading ultra-high throughput screening (UHTS) capacity and capability. More than 70% of our screens are in 1536-well plate formats with well volumes of 1 to 9 microliters. We have developed nanovolume liquid dispensing to deliver reagent volumes as low as 50 nL to 1536 plates with exceptional accuracy. Numerous types of screening and detection capabilities are employed, including cell-free and cell-based, functional or binding, fluorescent or radioactive, and many others.

**Discover and Develop Targeted Modulators that are Promising Drug Candidates.** We discover, synthesize and test numerous compounds to identify those that are most promising for clinical development. We perform extensive target profiling and base our selection of promising development candidates on product characteristics such as initial indications of safety and efficacy. We believe that this focused strategy allows us to eliminate unpromising candidates from consideration sooner without incurring substantial clinical costs.

**License Drug Candidates to Other Parties.** We generally plan to advance drug candidates through initial and/or early-stage drug development. For larger disease indications requiring complex clinical trials, our strategy is to license drug candidates to pharmaceutical or biotechnology partners for final development and global marketing. We believe partnerships are a source of development payments, license fees, future milestone payments and royalties. They also may provide considerable resources for late-stage product development, regulatory activities, manufacturing and marketing. We believe that focusing on discovery and early-stage drug development while benefiting from our partners proven development and commercialization expertise will reduce our internal expenses and allow us to have a larger number of drug candidates progress to later stages of drug development. However, after establishing a lead product candidate, we are willing to license that candidate during any stage of the development process we determine to be beneficial to the company and to the ultimate development and commercialization of that drug candidate.

**Generate Revenue through Partnerships to Fund Our Business and Drive Future Profitability.** We have multiple sources of potential license and royalty revenue from existing corporate agreements and we may enter additional partnerships that will provide additional revenue opportunities. We have numerous collaborations that have the potential to generate future royalties for Ligand. The revenue generated from these and future potential collaborations will fund our business and potentially provide profits to our shareholders.

**Table of Contents****Collaborative Research and Development Programs**

We have entered into multiple research and development collaboration arrangements with third party pharmaceutical companies. The commercial terms of such arrangements typically include some combination of the following types of fees: exclusivity fees, technology access fees, technology development fees and research support payments, as well as milestone payments, license or commercialization fees. We may also receive royalties on product candidates resulting from our research and development collaboration arrangements if and to the extent any such product candidate is ultimately approved by the FDA and successfully marketed (see Table 2 for certain royalties).

**Table 2: Royalties\***

Product/Program	Partner	Rate	Royalty
			Tier
Eltrombopag**	GSK	4.7%	Less than \$100M annual sales
(PROMACTA )		6.6%	On portion of sales in range of \$100M - \$200M
		7.5%	On portion of sales in range of \$200M - \$400M
		9.4%	On portion of sales greater than \$400M
		9.3%	On portion of sales greater than \$1.5B
LGD-4665**	GSK	14.5%	All sales (6.5% for first year sales)
Various ongoing GSK	GSK	6%***	Less than \$500M annual sales
research collaborations		7%	On portion of sales in range of \$500M - \$1B
		8%	On portion of sales in range of \$1B - \$3B
		10%	On portion of sales greater than \$3B
Avinza	King	5%	If sales are less than \$200M annually
			Higher royalties paid if sales exceed \$200M
Bazedoxifene (VIVIAN T )	Wyeth	0.5%	Less than \$400M annual sales
Bazedoxifene (APRELA )		1.5%	On portion of sales in range of \$400M - \$1.0B annually
		2.5%	On portion of sales greater than \$1B annually
Lasofexifene (FABLYN®)*	Pfizer	3%	All sales
PS873266	Celgene	2%	All sales

\* Royalties from other partnered products not listed are either single or double digit royalties as described under collaborative research and development programs. Not all royalties are disclosed due to confidentiality requirements.

\*\* Net of payments due to The Rockefeller University

\*\*\* If GSK exercises its Proof of Concept (PoC) Option for a particular Target, Ligand may continue the development until PoC and receive stepped up royalties ranging from 10% to 14% under the categories of annual sales described above.

Our collaborative research and development programs are discussed below.

***GlaxoSmithKline Collaboration***

*PROMACTA and LGD-4665*

In December 2008, the FDA granted accelerated approval of GSK's PROMACTA® for the treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenic purpura (ITP) who have had an insufficient response to corticosteroids, immunoglobulins or splenectomy. PROMACTA is the first oral TPO receptor agonist therapy for the treatment of adult patients with chronic ITP. As a result of the FDA's approval of

## **Table of Contents**

PROMACTA, we are entitled to receive tiered royalties on annual net sales of PROMACTA (Table 2). As part of a settlement agreement and mutual release we entered into on February 11, 2009 with Rockefeller, we agreed to pay a share of such royalties to Rockefeller. See Item 3. Legal Proceedings.

In December 2008, we entered into an exclusive, worldwide license agreement with SmithKline Beecham Corporation, doing business as GSK. Pursuant to the terms of the license agreement, we granted GSK the exclusive right to develop, manufacture and commercialize our LGD-4665 product candidate, as well as all other TPO-related molecules discovered by us. LGD-4665 is currently in a Phase II trial for treatment of thrombocytopenia, a condition of low-platelet levels commonly associated with a diverse range of clinical disorders. Under the terms of the license agreement, GSK paid us \$5 million as an upfront license fee and agreed to pay us up to \$158.0 million in development and commercial milestones and a royalty on net sales (Table 2). In the first year of sales, royalties will be one-half of the regular royalty rate. GSK has the exclusive right to develop, manufacture and commercialize LGD-4665, as well as other TPO-related molecules discovered by us. GSK will direct all product development and commercialization and will be responsible for all costs going forward for development, patent maintenance and prosecution, and commercialization. We reported at the December 2008 American Society of Hematology annual meeting that LGD-4665 has the potential for weekly dosing, has differentiated clinical pharmacology from other products on the market and has promising potential efficacy in ITP, based on interim clinical study results.

### *Agreement with Pharmacoepia*

In connection with the Merger, we assumed a product development and commercialization agreement, or the GSK Agreement, with SmithKlineBeecham Corporation and Glaxo Group Limited (together "GSK"), which was originally entered into in March 2006. Our role in the alliance with GSK is to identify and advance molecules in chosen therapeutic programs to development stage and, subject to certain provisions in the GSK Agreement, further develop the candidates to clinical proof of concept (a demonstration of efficacy in humans). We have agreed not to screen our compound library for other collaborators, or for our own account, against any target we screen under the GSK Agreement for a specified period.

The GSK Agreement provides GSK an exclusive option to license the program which is exercisable at specified points of the development process for each program (up to the point of clinical Proof of Concept). Upon licensing a program, GSK is obligated to conduct preclinical development and/or clinical trials and to commercialize pharmaceutical products resulting from such licensed programs on a worldwide basis. We are entitled to receive success-based milestone payments from GSK, starting in the preclinical research stage, for each drug development program under the alliance. If GSK exercises its Candidate Selection Option for a particular target, GSK is obligated to pay a tiered royalty on the annual net sales of products resulting from a particular target (Table 2). If GSK exercises its Proof of Concept Option for a particular target, Ligand may receive stepped up royalties under the categories of annual sales described in Table 2.

In the event that GSK does not exercise its option to license a program, pursuant to the GSK Agreement we retain all rights to such program and may continue to develop the program and commercialize any products resulting from the program, or we may elect to discontinue the program and/or seek other partners for further development and commercialization. Should we develop or partner such a program and commercialize any products resulting from that program, we are obligated to make success-based milestone payments to GSK and pay royalties to GSK ranging from 3% to 7% of net sales upon the successful commercialization of such products.

We and GSK each have the right to terminate the GSK Agreement in our sole discretion under certain specified circumstances at any time during the term of the GSK Agreement. If we exercise our discretionary termination right at any time during the first five years of the term of the GSK Agreement, under certain circumstances we could be required to refund to GSK a portion of the \$15.0 million GSK paid to Pharmacoepia for certain initial discovery activities. Pursuant to the terms of the GSK Agreement, the amount of any such refund will be calculated based upon the date upon which such termination occurs.

## **Table of Contents**

We received \$15.0 million in connection with initial discovery activities which we are obligated to perform under the GSK agreement. We recorded deferred revenue of approximately \$14.5 million associated with these payments, net of the fair value of the warrants described below. We have also earned non-refundable aggregate milestone payments of \$3.0 million from GSK related to the identification of six lead compounds. These milestone payments were also recorded as deferred revenue due to our continuing performance obligations under the GSK agreement. The initial research term of the GSK agreement expires in March 2011.

### ***Wyeth Collaborations***

#### ***Bazedoxifene Program***

Bazedoxifene (VIVANT) is a product candidate that resulted from a collaboration with Wyeth. Bazedoxifene is a synthetic drug that was specifically designed to reduce the risk of osteoporotic fractures while at the same time protecting breast and uterine tissue. In June 2006, Wyeth submitted an NDA for bazedoxifene to the FDA for the prevention of postmenopausal osteoporosis. The FDA issued an approvable letter for bazedoxifene for this indication in April 2007. Wyeth received a second approvable letter in December 2007 and plans to have further discussions with the FDA to discuss the issues raised for the prevention indication. Wyeth also submitted a second NDA for bazedoxifene in the United States in July 2007 for the treatment of osteoporosis and an MAA to EMEA in September 2007 for the prevention and treatment of osteoporosis. Wyeth received a third approvable letter in the second quarter of 2008 for bazedoxifene for the treatment of osteoporosis. In the letter, the FDA requested information similar to that outlined in its approvable letter for bazedoxifene's NDA for the prevention of postmenopausal osteoporosis issued in December 2007. This included further analyses concerning the incidence of stroke and venous thrombotic events. Wyeth indicated that it will file a complete response in 2009 and expects the FDA will convene an advisory committee to review the pending NDAs for both the treatment and prevention of postmenopausal osteoporosis with VIVANT. In February 2009, VIVANT received a positive Committee for Medicinal Products for Human Use (CHMP) opinion in Europe for the treatment of postmenopausal osteoporosis in women at increased risk of fracture.

Wyeth is also developing bazedoxifene in combination with PREMARIN (Aprela) as a progesterone-free treatment for menopausal symptoms. Two Phase III studies with bazedoxifene/conjugated estrogens (Aprela), showed reduced number and severity of hot flashes in symptomatic postmenopausal women by up to 80 percent, when compared with placebo. Wyeth expects to file an initial NDA no earlier than the first half of 2010.

We previously sold to Royalty Pharma AG, or Royalty Pharma, the rights to a total of 3.0% of net sales of bazedoxifene for a period of ten years following the first commercial sale of each product. After giving effect to the royalty sale, we will receive tiered royalties on annual net sales as described in Table 2. Additionally, the royalty owed to Royalty Pharma may be reduced by one third if net product sales exceed certain thresholds across all indications.

#### ***JAK3 Program***

In connection with the completion of our acquisition of Pharmacoepia, we assumed a research and license agreement with Wyeth, acting through its Wyeth Pharmaceuticals Division, providing for the formation of a new alliance based on our Janus Kinase-3, or JAK3, inhibitor program. The alliance's goal is to identify, develop and commercialize therapeutic products for the treatment of certain immunological conditions in humans. The agreement was originally entered into in December 2006.

Pursuant to the Wyeth Agreement, we and Wyeth each have certain exclusive rights to develop and commercialize products resulting from the JAK3 program and the alliance. We retain the right to develop and commercialize therapeutic products for the employment of topical administration for treatment of dermatological and ocular diseases and Wyeth has the right to develop therapeutic products for all other indications and routes of delivery. Under the terms of the Wyeth Agreement, we have received an up-front non-refundable \$5.0 million cash payment, approximately \$6.0 million in quarterly research funding, and a non-refundable milestone

## **Table of Contents**

payment of \$500 thousand. We may also receive an additional \$3.0 million over the remaining portion of the initial three-year research term, which expires in December 2009. In addition, we may receive up to \$175.0 million for Wyeth's achievement of development, regulatory and commercialization milestones. Wyeth will pay to Ligand double digit royalties on the net sales of any products commercialized by Wyeth under the collaboration. Each company is responsible for all development, regulatory, manufacturing and commercialization activities for the products it develops and commercializes in its field. The revenue for this research is recognized on a proportional performance basis, which is expected to approximate straight-line recognition of revenue over the initial three year term of the alliance.

Each of the companies has the right to terminate the Wyeth agreement under certain specified circumstances at any time during the term of the Wyeth agreement. In addition, Wyeth has the right, upon providing us six months' prior written notice, to terminate the research collaboration and/or the Wyeth agreement in its entirety or in part. Such right to termination would not apply to Wyeth's obligations with respect to any program developed by the collaboration and licensed by Wyeth. No termination will require us to refund to Wyeth any or all of the cash payments described above.

### ***Pfizer Collaboration***

Lasofoxifene (FABLYN) is a product candidate that resulted from our collaboration with Pfizer. In April 2007, Pfizer announced completion of the Postmenopausal Evaluation and Risk Reduction with lasofoxifene, or PEARL, Phase III study with favorable efficacy and safety. Pfizer submitted an NDA and an MAA for osteoporosis treatment in December 2007 and January 2008, respectively. The FDA Advisory Committee in early September 2008 voted 9-3 in favor of approval of this drug and in January 2009, Pfizer received a complete response letter from the FDA requesting additional information for FABLYN. Pfizer is reviewing the letter and will work with the FDA to determine the appropriate next steps regarding its application. In December 2008 an EU Drug Panel granted a positive opinion for the approval of lasofoxifene in the EU for the treatment of osteoporosis in postmenopausal women at increased risk of fracture. Pfizer has also submitted NDAs for osteoporosis prevention and vaginal atrophy, and the FDA issued non-approvable letters for both NDAs.

Under the terms of our agreement with Pfizer, we are entitled to receive royalty payments on worldwide net sales of lasofoxifene for any indication. We previously sold to Royalty Pharma the rights to a total of 3% of net sales of lasofoxifene for a period of ten years following the first commercial sale of lasofoxifene. After giving effect to the royalty sale, the amount of net royalties we will receive on annual net sales is described in Table 2.

### ***Schering-Plough Collaboration***

#### ***1998 Collaboration***

In connection with our acquisition of Pharmacoepia, we assumed collaboration and license agreements with Schering-Plough Ltd. and Schering Corporation (collectively "Schering-Plough") that were originally entered into in October of 1998. These agreements produced a CXCR2 antagonist that entered Phase II clinical trials in the fourth quarter of 2006 for COPD and asthma, an enzyme inhibitor that entered Phase II clinical trials in November 2008 for oncology, a candidate for inflammatory diseases that entered Phase I clinical trials in March 2007, a candidate for respiratory diseases that entered Phase I clinical trials in September 2007 and a BACE inhibitor for Alzheimer's disease for which a first development milestone was achieved in December 2008. Under the terms of these agreements with Schering-Plough, while our research activities have ceased, the cessation of those research activities did not affect other aspects of those agreements, including the ongoing Phase II and Phase I clinical trials and preclinical programs that Schering-Plough is conducting. We continue to be entitled to payments resulting from the successful achievement by Schering-Plough of clinical and regulatory milestones, as well as royalty payments at different rates depending on the origin of collaboration products from discovery and optimization libraries at Ligand and Schering-Plough, and on net sales of products resulting from compounds being developed by Schering-Plough under those agreements.

## **Table of Contents**

### *2007 Collaboration*

In connection with our acquisition of Pharmacoepia, we also assumed an amended and restated collaboration and license agreement with N.V. Organon, entered into in February 2007. In November 2007, Organon was acquired by, and is now a part of, Schering-Plough. Under the 2007 Schering-Plough agreement, we have agreed to work collaboratively with Schering-Plough to generate lead compounds at targets in mutual therapeutic areas selected by Schering-Plough and agreed upon by a joint research committee. The purpose of the agreement is to produce development-ready compounds, the potential development of which will be handled primarily by Schering-Plough. The 2007 Schering-Plough agreement provides that we will receive up to \$4.0 million per year from Schering-Plough in research funding over the remaining portion of the five-year term of the agreement.

Pursuant to the 2007 Schering-Plough agreement, we have the option to purchase the right to co-develop and co-commercialize certain therapeutic candidates of mutual interest discovered through the alliance. For the therapeutic candidates that we do not elect to co-develop and co-commercialize, Schering-Plough will retain exclusive development and commercialization rights, and we will receive milestone payments as a result of Schering-Plough's successful advancement, if any, of each candidate through clinical development. We will also receive up to double-digit royalties on net sales, if any, of pharmaceutical products resulting from the collaboration when the lead optimization was conducted by us, and lower royalties when the lead optimization was conducted by Schering-Plough.

We and Schering-Plough each have the right to terminate the 2007 Schering-Plough agreement at any time during the term of the agreement under certain specified circumstances, and upon other circumstances customary for these types of agreements.

### ***Bristol-Myers Squibb Collaborations***

#### *P-38 Kinase Program*

In connection with the Merger, we assumed a collaboration and license agreement with BMS which was originally entered into in November 1997. This collaboration has resulted in a compound that entered Phase II clinical trials in September 2007 in psoriasis. BMS has also initiated Phase II clinical trials with this compound targeting rheumatoid arthritis and atherosclerosis. A second compound resulting from that partnership, which is a back-up candidate, entered Phase I clinical trials in Canada in December 2005. The research collaboration portion of the agreement has expired, however we will continue to be entitled to payments resulting from the successful achievement by BMS of certain clinical and regulatory milestones, as well as a royalty on net sales of products resulting from compounds already delivered under the agreement.

#### *Medicinal Chemistry Services*

In connection with the Merger, we also assumed a discovery collaboration agreement with BMS, or the Discovery Collaboration Agreement, to provide a portion of our medicinal chemistry resources to a BMS discovery program for a period up to three years beginning in October 2007. The Discovery Collaboration Agreement provides that each such year, we are required to provide a fixed number of full-time workers for the BMS discovery program, divided between employees located in Cranbury, New Jersey and contracted headcount located outside the United States.

## **Table of Contents**

### ***Cephalon Collaboration***

In connection with the Merger, we assumed a collaboration and license agreement, or the Cephalon Agreement, with Cephalon, Inc., or Cephalon, originally entered into in May 2006, which provides for the formation of a new drug discovery, development and commercialization alliance. Under the Cephalon agreement, Pharmacopeia received an up-front, non-refundable payment of \$15.0 million in June 2006 to support its research efforts.

Pursuant to the terms of the Cephalon Agreement, Cephalon is responsible for identifying hit and lead compounds, after which we and Cephalon agreed to work together to develop related clinical candidates. We are principally responsible for medicinal chemistry research and Cephalon is responsible for providing biology support, including preclinical disease models, as required by the Cephalon Agreement. We have agreed that, for a specified period, we will not screen our compound library for other collaborators, or for our own account, against any target upon which we collaborate under the Cephalon Agreement.

Upon the nomination of any clinical candidates by the alliance, Cephalon will be primarily responsible for their development and commercialization. We retain an option to develop certain candidates from the alliance, subject to Cephalon's agreement. For each clinical candidate advanced under the alliance, the developing company is obligated to make clinical, regulatory and sales milestone payments to the non-developing company. In addition, the company commercializing each resulting product is required to pay the non-commercializing company up to a double-digit royalty based on the sales level achieved.

In connection with the acquisition of Pharmacopeia, Ligand and Cephalon executed an amendment in January 2009 to the collaboration agreement dated May 16, 2006. The agreement provided for Ligand to have no obligation to continue research activities with respect to the two active collaboration programs and was released to redeploy FTEs currently assigned to the collaboration. All licenses granted to Pharmacopeia by Cephalon with respect to the two active collaboration programs terminated as of the date of amendment. Ligand will be entitled to milestone and royalty payments associated with only one of the two active programs. In addition, Ligand entered in to an agreement with a third party vendor to provide certain chemistry services to Cephalon for a term of nine months from the date of agreement.

We and Cephalon each have the right to terminate the Cephalon agreement under certain specified circumstances at any time during the term of the agreement. In addition, Cephalon has the right to terminate the agreement, in its sole discretion, upon ninety days written notice to us, during the initial three-year phase of the alliance, which phase may be extended by agreement of the parties. No such termination shall require us to refund to Cephalon any or all of the above research and development funding.

### ***Celgene Collaboration***

In connection with the Merger, we assumed a research and license agreement, or the Celgene Agreement, with Celgene Corporation, or Celgene. Under the Celgene Agreement we have no further research requirements. Our relationship with Celgene produced a compound that led to a clinical candidate currently being evaluated for the treatment of fibrotic and inflammatory diseases that entered a Phase I clinical trial in the first quarter of 2008. We are entitled to receive payments resulting from the successful achievement by Celgene of clinical milestones, as well as royalties on net sales of products resulting from the collaboration (Table 2).

### ***Trevena Collaboration***

In February 2009 Ligand announced the initiation of a joint research and license alliance to screen targets using Trevena's novel biological platform against Ligand's combinatorial library of compounds, to identify active compounds with potential for development as novel G-protein coupled receptor (GPCR) therapeutics.

**Table of Contents**

Under the terms of the agreement, Trevena has been granted exclusive worldwide rights to sublicense active compounds resulting from the collaboration. Ligand expects to screen 24 targets over two years and receive payments triggered by a tiered screening paradigm for each target.

**Internal Product Development Programs**

As summarized in the table below, we are developing several proprietary products for a variety of indications.

<b>Program</b>	<b>Disease/Indication</b>	<b>Development Phase</b>
Dual-Acting angiotensin and endothelin Receptor Antagonist (DARA)	Diabetic Nephropathy*	Phase II
Selective Androgen Receptor Modulators (SARMs) (agonists)	Muscle wasting and frailty	Pre-clinical
Chemokine Receptor (CCR1) antagonist	Inflammatory and autoimmune diseases	Pre-clinical
Small molecule Erythropoietin (EPO) receptor agonists	Chemotherapy-induced anemia, anemia due to kidney failure	Research
Selective Glucocorticoid Receptor Modulators (SGRMs)	Inflammation, cancer	Research
Androgen-independent Prostate Cancer (AiPC)	Prostate cancer	Research

\* Phase II clinical trials conducted so far have studied patients with hypertension  
***Dual-Acting Angiotensin and Endothelin Receptor Antagonist (DARA) Program***

In connection with the completion of our previously announced acquisition of Pharmacoceia, Inc. (the "Merger"), we assumed an exclusive licensing agreement, or the DARA License Agreement, with BMS, originally entered into in March 2006, which provides us with an exclusive license under certain BMS patents with respect to worldwide development and commercialization of DARA (PS433540), as well as certain other compounds discovered by BMS that possess dual angiotensin and endothelin receptor antagonist, or DARA, activity.

DARA has been studied in seven Phase I and two Phase II clinical studies, including a Phase II study in hypertensive patients. Given the drug's unique mechanism targeting the angiotensin and endothelin receptors, we believe the drug has potential as a treatment for diabetic nephropathy. In May 2008, results were announced for a Phase IIa study of DARA in subjects with Stage I and Stage II hypertension that showed statistically significantly greater blood pressure reductions than placebo. This study met its primary endpoint by showing a statistically significant effect on 24-hour systolic ambulatory blood pressure and also showed statistically significant improvements over placebo in mean 24-hour diastolic ambulatory blood pressure as well as seated blood pressure. There were no serious adverse events in subjects treated with DARA. Three subjects discontinued therapy for adverse events, all of whom were in the placebo group.

In February 2009, we announced preliminary results of a Phase IIb study of DARA which compared 200 mg, 400 mg, and 800 mg doses of PS433540 versus placebo and irbesartan for 12-weeks in hypertensive patients. In this study all doses of DARA reduced blood pressure statistically significantly greater than placebo. The highest dose of DARA (800 mg) showed a statistically significantly higher percentage of patients achieving blood pressure control compared to irbesartan. DARA was generally well tolerated and there were no serious adverse

## **Table of Contents**

events associated with therapy. Ligand plans to pursue discussions with potential collaborators to partner this program based on data received to date.

Under the terms of the DARA License Agreement, we are obligated to pay BMS milestone payments upon the achievement, if any, of further successive clinical and regulatory events in the United States and certain other jurisdictions, and a stepped royalty based on net sales of products, if any, resulting from the DARA program. BMS has a limited right of first negotiation in the event that we desire to license compounds that are the subject of the DARA License Agreement to a third party other than BMS.

In addition, we are required to provide BMS with a set of compound libraries over a period of approximately three years ending in March 2009. In the event we fail to deliver such compound libraries to BMS by the end of March 2010, we could be required to make cash payments to BMS of up to \$0.1 million. We expect to complete delivery of these compound libraries by the end of the first quarter of 2009

### ***Selective Androgen Receptor Modulators (SARM) Research and Development Programs***

We are developing tissue selective androgen receptor modulators, or SARMs, a novel class of non-steroidal, orally active molecules that selectively modulate the activity of the androgen receptor in different tissues, providing a wide range of opportunities for the treatment of many diseases and disorders in both men and women. Tissue-selective androgen receptor agonists may provide utility in the treatment of patients with frailty, cachexia, osteoporosis, sexual dysfunction and hypogonadism.

We have assembled an extensive SARM compound library and, we believe, one of the most experienced androgen receptor drug discovery teams in the pharmaceutical industry. We may pursue the specialty applications emerging from SARMs internally and seek collaborations with major pharmaceutical companies to exploit broader clinical applications.

LGD-2941, a SARM, was selected as a clinical candidate during our collaboration with TAP. TAP assigned the current SARM agreement to Abbott in the second quarter of 2008 upon the closing of the transaction between Takeda and Abbott to separate portions of the TAP business between the two parties. As part of our joint development and research alliance with TAP Pharmaceutical Products, Inc., or TAP), we exercised an option to select for development one compound and a back-up, LGD-3303 and LGD-3129, respectively, out of a pool of compounds available for development. Preclinical studies we have conducted with LGD-3303 indicate that the compound may have utility for osteoporosis, sexual dysfunction, frailty and hypogonadism. *In vivo* studies in rodents indicate a favorable profile with anabolic effects on bone, but an absence of the prostatic hypertrophy that occurs with the currently marketed androgens.

After the conclusion of our research alliance with TAP, we discovered SARM compounds with androgen effects in bone and skeletal muscle, but with little or no activity in the prostate, oil-secreting glands in the skin, or female genitalia. Preclinical studies conducted on one of these compounds, LGD-4033, suggest that the compound may have favorable activity in the treatment of cachexia, frailty, osteoporosis, hypogonadism as well as other disorders. We filed an Investigational New Drug (IND) in December 2008 for LGD-4033.

In connection with the acquisition of Pharmacopeia, we assumed an exclusive licensing agreement, or the SARM License Agreement, with BMS, originally entered into in October 2007, which provides us exclusive worldwide development and commercialization rights to a third lead non-steroidal SARM, PS178990, for which a Phase I single ascending dose study had been completed. Under the SARM License Agreement, we are required to make milestone payments to BMS upon the submission and approval of a therapeutic product for marketing in the United States and certain other jurisdictions. BMS has a limited right of first negotiation for PS178990 in the event that we attempt to license compounds that are the subject of the SARM License Agreement to a third party other than BMS.

## **Table of Contents**

### ***Chemokine Receptor (CCR1) program***

In February 2008, we announced the nomination of PS031291 as a preclinical development compound from our internal chemokine receptor CCR1 program. PS031291 is a potent and highly selective antagonist at the chemokine receptor CCR1, which has been implicated in playing a significant role in multiple inflammatory and autoimmune disease processes. We believe PS031291 may possess significant potential in the treatment of various inflammatory diseases including rheumatoid arthritis. We initiated good laboratory practice (often referred to as GLP) toxicology studies on PS031291 in the second quarter of 2008, and those studies are ongoing.

### ***Erythropoietin (EPO) Research Program***

We are developing small molecule agonists for the EPO receptor. EPO stimulates the differentiation of bone marrow stem cells to form red blood cells. Various recombinant human EPO derivatives are marketed for the treatment of anemia due to renal failure or cancer chemotherapy (e.g., Aranesp, Epogen, Eprex, and Procrit). We believe that a small molecule agonist for the EPO receptor would provide additional benefit in the treatment of anemia and the convenience of oral administration compared to recombinant human protein therapeutics. EPO and TPO act on the same bone marrow hematopoietic stem cell to guide the development of blood cells. We expect that our prior experience in developing small molecule TPO mimetic drugs will lead to increased efficiency in discovering small molecule EPO mimetic drugs.

### ***Selective Glucocorticoid Receptor Modulators (SGRM) Research and Development Program***

We are developing SGRMs for inflammation, cancer indications and other therapeutic applications. We have a library of compounds that we are optimizing with the goal to identify one or more compounds to enter human trials. Our studies of these compounds are in the research stage.

### ***Androgen-Independent Prostate Cancer (AiPC) program***

AiPC typically occurs within two years of initiation of hormonal therapy and no targeted treatment is currently available. Docetaxel is the current standard of care which could extend survival by approximately six months (from 12 to 18 months). Most prostate-derived tumors are initially androgen dependent and they regress in response to androgen ablation therapy. On average, regression lasts about two years, followed by break-through growth of androgen-independent tumors. There is experimental evidence that these androgen-independent tumors require the androgen receptor, or AR, for continued proliferation (i.e. tumors are receptor dependent). The goal of the AiPC program is to identify compounds that specifically inhibit and degrade the AR. Our studies of these compounds are in the research stage.

## **Technology**

We employ various modern research laboratory methods to discover and conduct preclinical development of new chemical entities. These methods are performed either in our own laboratories or in those of contract research organizations under our direction.

In our efforts to discover new and important medicines, we have concentrated on certain technologies and acquired special expertise related to intracellular receptors and the receptors for hematopoietic growth factors. Intracellular receptors are involved in the actions of non-peptide hormones and drugs such as selective androgen receptor modulators, or SERMs, and SARMS. Hematopoietic growth factor receptors are involved in the differentiation and proliferation of blood cell progenitors, the formation of new blood cells, and the action of drugs such as PROMACTA, Epogen and Neumega. We use and have developed particular expertise in co-transfection assays, which measure gene transcription in response to the activation of a target receptor, and gene expression in cells selected for expression of particular receptors or transfected with cDNA for particular receptors. Some of these methods are covered by patents issued to or licensed by Ligand, are trade secrets, or are

## **Table of Contents**

methods that are in the public domain, but that we may use in novel ways to improve our efficiency in identifying promising leads and developing new chemical entities.

Our drug discovery approach is further supported by our proprietary combinatorial chemistry encoding technology, Encoded Combinatorial Libraries on Polymeric Support, or ECLiPS<sup>®</sup>, our proprietary collection of chemical compounds, assay technology, production automation, information systems and quality assurance programs. We have employed ECLiPS<sup>®</sup>, together with other technologies, to assemble what we believe is the largest group of compound libraries held by one company in the pharmaceutical industry. Our small molecule libraries have been engineered to be both drug-like and diverse. Our compound collection and high throughput screening technologies have been proven to be effective against a wide variety of biological targets. Importantly, we have achieved success against some of our collaborators' most difficult targets, often after our partners' internal drug discovery efforts were unsuccessful.

Our tagging technology used in ECLiPS<sup>®</sup> has been licensed exclusively from the Trustees of Columbia University, or Columbia, and Cold Spring Harbor Laboratory, or Cold Spring, since 1993. We are obligated to pay a minimum annual license fee of \$100,000 to Columbia and Cold Spring. The term of the agreement is the later of (i) July 16, 2013 or (ii) the expiration of the last patent relating to the technology, at which time we will have a fully paid license to the technology. The license granted to us under the agreement can be terminated by Columbia and Cold Spring (i) upon 30 days written notice to us if we materially breach the agreement and we fail to cure such material breach in accordance with the agreement or (ii) if we commit any act of bankruptcy, become insolvent, file a petition under any bankruptcy or insolvency act or have any such petition filed against us that is not dismissed within 60 days. We are also obligated to pay royalties to Columbia and Cold Spring based on net sales of pharmaceutical products we develop, as well as a percentage of all other revenue we recognize from collaborators that is derived from the technology licensed from Columbia and Cold Spring.

## **Manufacturing**

We currently have no manufacturing facilities and, accordingly, rely on third parties, including our collaborative partners, for clinical production of any products or compounds.

## **Sale of Commercial Businesses**

In February 2007, we completed the sale of our AVINZA product line to King Pharmaceuticals, Inc, or King. Pursuant to the AVINZA purchase agreement, King acquired all of our rights in and to AVINZA in the United States, its territories and Canada, including, among other things, all AVINZA inventory, records and related intellectual property, and assumed certain liabilities as set forth in the AVINZA purchase agreement. Pursuant to the AVINZA purchase agreement, we received a total of \$295.4 million in net cash proceeds. We also received the right to future royalties on the net sales of AVINZA through 2017.

In October 2006, we completed the sale of our Oncology product line to Eisai Inc., a Delaware corporation, and Eisai Co., Ltd., a Japanese company, which we collectively refer to as Eisai. Pursuant to the Oncology purchase agreement, Eisai acquired all of our worldwide rights in and to our oncology products, including, among other things, all related inventory, equipment, records and intellectual property, and assumed certain liabilities as set forth in the Oncology purchase agreement. The Oncology product line included our four marketed oncology drugs: ONTAK, Targretin capsules, Targretin gel and Panretin gel. Pursuant to the Oncology purchase agreement, we received a total of \$205.0 million in net cash proceeds.

For further discussion of these items, see below under Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

## **Table of Contents**

### **Research and Development Expenses**

Research and development expenses from continuing operations were \$30.8 million, \$44.6 million, and \$41.5 million in 2008, 2007 and 2006, respectively, of which 100%, 100%, and 95%, respectively, were sponsored by us.

Research and development expenses from discontinued operations were none, \$0.1 million, and \$13.3 million in 2008, 2007 and 2006 respectively.

### **Competition**

Some of the drugs we are developing may compete with existing therapies or other drugs in development by other companies. A number of pharmaceutical and biotechnology companies are pursuing IR-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 our competitors.

Many of our existing or potential competitors, particularly large pharmaceutical companies, have greater financial, technical and human resources than we do and may be better equipped to develop, manufacture and market products. Many of these companies also have extensive experience in preclinical testing and human clinical trials, obtaining FDA and other regulatory approvals and manufacturing and marketing pharmaceutical products.

Our competitive position also depends upon our 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. For a discussion of the risks associated with competition, see below under Item 1A. Risk Factors.

### **Government Regulation**

The manufacturing and marketing of our products, our ongoing research and development activities and products being developed by our collaborative partners 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 the 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 our products. There are often comparable regulations that 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 (1) preclinical laboratory tests, (2) the submission to the FDA of an IND, which must become effective before human clinical trials may commence, (3) adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug, (4) the submission of an NDA to the FDA and (5) the FDA approval of the NDA prior to any commercial sale or shipment of the drug. 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 pre-approval inspections by the FDA prior to marketing approval, then to biennial inspections, and must comply with current Good Manufacturing Practices (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.

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 to us.

## **Table of Contents**

For marketing outside the United States before FDA approval to market, we must submit an export permit application to the FDA. We also are 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 we or any of our partners will meet and sustain any such requirements.

We are also increasingly subject to regulation by the states. A number of states now regulate, for example, pharmaceutical marketing practices and the reporting of marketing activities, controlled substances, clinical trials and general commercial practices. We have developed and are developing a number of policies and procedures to ensure our compliance with these state laws, in addition to the federal regulations described above. Significant resources are now required on an ongoing basis to ensure such compliance. For a discussion of the risks associated with government regulations, see below under Item 1A. Risk Factors.

## **Patents and Proprietary Rights**

We believe that patents and other proprietary rights are important to our business. Our policy is to file patent applications to protect technology, inventions and improvements to our inventions that are considered important to the development of our business. We also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain our competitive position.

Royalties we currently receive from King on AVINZA represent a significant portion of our ongoing revenue. The United States patent on AVINZA expires in November 2017; however, an application for a generic form of AVINZA has been submitted to the FDA. The United States patents relating to PROMACTA do not expire until December 2021. Subject to compliance with the terms of the respective agreements, our rights under our licenses with our exclusive licensors extend for the life of the patents covering such developments. For a discussion of the risks associated with patent and proprietary rights, see below under Item 1A. Risk Factors.

## **Human Resources**

As of February 27, 2009, we had 96 full-time employees, of whom 73 are involved directly in scientific research and development activities. Of these employees, 39 hold Ph.D. or M.D. degrees.

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## **Table of Contents**

### **Item 1A. Risk Factors**

*The following is a summary description of some of the many risks we face in our business. You should carefully review these risks in evaluating our business, including the businesses of our subsidiaries. You should also consider the other information described in this report.*

#### **Risks Related To Us and Our Business.**

*We are substantially dependent on AVINZA and PROMACTA royalties for our revenues.*

King is obligated to pay us royalties based on its sales of AVINZA and GSK is obligated to pay us royalties on its sales of PROMACTA. These royalties represent and will for some time represent substantially all of our ongoing revenue. Although we may also receive royalties and milestones from our partners in various past and future collaborations, the amount of revenue from such royalties and milestones is unknown and highly uncertain. As a result, any setback that may occur with respect to AVINZA or PROMACTA could significantly impair our operating results and/or reduce the market price of our stock. Setbacks could include problems with shipping, distribution, manufacturing, product safety, marketing, government licenses and approvals, intellectual property rights, competition with existing or new products and physician or patient acceptance of the products, as well as higher than expected total rebates, returns or discounts.

King and GSK's sales efforts for AVINZA and PROMACTA, respectively, could be affected by a number of factors and decisions regarding their organizations, operations, and activities as well as events both related and unrelated to AVINZA or PROMACTA, including sales force reorganizations and lower than expected sales calls and prescription volumes. AVINZA and PROMACTA could also face stiffer competition from existing or future products. The negative impact on the sales of AVINZA or PROMACTA will negatively affect our royalties, revenues and earnings.

Sales of AVINZA and PROMACTA may also be negatively impacted by higher than expected discounts (especially pharmacy benefit management/group purchasing organization rebates and Medicaid rebates, which can be substantial), returns and chargebacks and/or slower than expected market penetration. Other setbacks that AVINZA could face in the sustained-release opioid market include abuse issues and the inability to obtain sufficient quotas of morphine from the Drug Enforcement Agency to support production requirements.

AVINZA or PROMACTA could also face regulatory action and product safety issues. For example, the FDA previously requested expanded warnings on the AVINZA label to alert doctors and patients to the dangers of using AVINZA with alcohol. Changes were subsequently made to the label. The FDA also requested clinical studies to investigate the risks associated with taking AVINZA with alcohol. Any additional warnings, studies and any further regulatory action could have significant adverse effects on AVINZA sales.

On September 10, 2007, King reported that Actavis, a manufacturer of generic pharmaceutical products headquartered in Iceland, had filed with the FDA an Abbreviated New Drug Application, or ANDA, with a Paragraph IV Certification pertaining to AVINZA, the rights to which were acquired by King from us in February 2007. According to the report, Actavis's Paragraph IV Certification sets forth allegations that U.S. Patent No. 6,066,339, or the 339 patent, which pertains to AVINZA, and which is listed in the FDA's Approved Drug Products With Therapeutic Equivalence Evaluations, will not be infringed by Actavis's manufacture, use, or sale of the product for which the ANDA was submitted. The expiration date for this patent is November 2017. King, King Pharmaceuticals Research and Development, Inc., Elan Corporation, plc and Elan Pharma International Ltd. jointly filed suit in federal district court in New Jersey on October 18, 2007 against Actavis, Inc. and Actavis Elizabeth LLC for patent infringement under the 339 patent. The lawsuit seeks a judgment that would, among other things, prevent Actavis from commercializing its proposed morphine product until after expiration of the 339 patent.

## **Table of Contents**

AVINZA was licensed from Elan Corporation, or Elan, which is its sole manufacturer. Any problems with Elan's manufacturing operations or capacity could reduce sales of AVINZA, as could any licensing or other contract disputes with Elan, raw materials suppliers, or others.

Further, pursuant to the agreement with King, beginning in 2009 we will no longer be entitled to receive AVINZA royalties on a quarterly basis, but will collect royalties on an annual basis, which may adversely impact our cash flows.

### ***Our product candidates face significant regulatory hurdles prior to marketing which could delay or prevent sales.***

Before we obtain the approvals necessary to sell any of our potential products, we must show through preclinical studies and human testing that each product is safe and effective. We and our partners have a number of products moving toward or currently awaiting regulatory action, including bazedoxifene, lasofoxifene, PS433540 and PS178990. Failure to show any product's safety and effectiveness could delay or prevent regulatory approval of a product and could adversely affect our business. The clinical trials process is complex and uncertain. For example, the results of preclinical studies and initial clinical trials may not necessarily predict the results from later large-scale clinical trials. In addition, clinical trials may not demonstrate a product's safety and effectiveness to the satisfaction of the regulatory authorities. Recently, a number of companies have suffered significant setbacks in advanced clinical trials or in seeking regulatory approvals, despite promising results in earlier trials. The FDA may also require additional clinical trials after regulatory approvals are received. Such additional trials may be expensive and time-consuming, and failure to successfully conduct those trials could jeopardize continued commercialization of a product.

The rate at which we complete our clinical trials depends on many factors, including, but not limited to, our ability to obtain adequate supplies of the products to be tested and patient enrollment. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites and the eligibility criteria for the trial. Delays in patient enrollment for our trials may result in increased costs and longer development times. In addition, our collaborative partners have rights to control product development and clinical programs for products developed under the collaborations. As a result, these collaborative partners may conduct these programs more slowly or in a different manner than expected. Moreover, even if clinical trials are completed, we or our collaborative partners still may not apply for FDA approval in a timely manner or the FDA still may not grant approval.

### ***We rely heavily on collaborative relationships, and any disputes or litigation with our collaborative partners or termination or breach of any of the related agreements could reduce the financial resources available to us, including milestone payments and future royalty revenues.***

Our strategy for developing and commercializing many of our potential products, including products aimed at larger markets, includes entering into collaborations with corporate partners and others. These collaborations have provided us with funding and research and development resources for potential products for the treatment of a variety of diseases. These agreements also give our collaborative partners significant discretion when deciding whether or not to pursue any development program. Our existing collaborations may not continue or be successful, and we may be unable to enter into future collaborative arrangements to develop and commercialize our product candidates.

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

## **Table of Contents**

terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully, our product development under these agreements will be delayed or terminated. Disputes or litigation may also arise with our collaborators, including disputes or litigation over ownership rights to intellectual property, know-how or technologies developed with our collaborators. Such disputes or litigation could adversely affect our rights to one or more of our product candidates, including our PS433540, PS178990 and LGD-4665 and other small-molecule TPO mimetic compounds. Any such dispute or litigation could delay, interrupt or terminate the collaborative research, development and commercialization of certain potential products, create uncertainty as to ownership rights of intellectual property, or could result in litigation or arbitration. The occurrence of any of these problems could be time-consuming and expensive and could adversely affect our business.

*If we consume cash more quickly than expected, and if we are unable to raise additional capital, we may be forced to curtail operations.*

Our operations have consumed substantial amounts of cash since inception. Clinical and preclinical development of drug candidates is a long, expensive and uncertain process. Also, we may acquire companies, businesses or products and the consummation of such acquisitions may consume additional cash. For example, as part of the consideration for our recent acquisition of Pharmacopeia we distributed approximately \$9.3 million in cash to Pharmacopeia stockholders. Security holders of Pharmacopeia also received contingent value rights under which we could be required to make an aggregate cash payment of \$15.0 million to such security holders under certain circumstances.

We believe that our capital resources will be adequate to fund our operations at their current levels at least for the next twelve months. However, changes may occur that would cause us to consume available capital resources before that time. Examples of relevant potential changes that could impact our capital resources include:

the costs associated with our drug research and development activities, and additional costs we may incur if our development programs are delayed or are more expensive to implement than we currently anticipate;

changes in existing collaborative relationships, including the funding we receive in connection with those relationships;

the progress of our milestone and royalty producing activities;

acquisitions of other businesses or technologies;

the termination of our lease agreements;

the purchase of additional capital equipment;

cash payments or refunds we may be required to make pursuant to certain agreements with third parties;

competing technological and market developments; and

the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights, and the outcome of related litigation.

Additional capital may not be available on favorable terms, or at all. If additional capital is not available, we may be required to curtail operations significantly or to obtain funds by entering into arrangements with partners or other third parties that may require us to relinquish rights to certain of our technologies, products or potential markets that we would not otherwise relinquish.



## **Table of Contents**

***If, as the result of a merger, or otherwise, our collaborative partners were to change their strategy or the focus of their development and commercialization efforts with respect to our alliance products, the success of our alliance products could be adversely affected.***

Our collaborative partners may change the focus of their development and commercialization efforts as the result of a merger. Pharmaceutical and biotechnology companies have historically re-evaluated their priorities from time to time, including following mergers and consolidations which are common in these industries, and two of our collaborative partners have recently entered into merger agreements. In January 2009, Wyeth, a collaborative partner of ours, and Pfizer announced that they have entered into a definitive merger agreement under which Pfizer will acquire Wyeth in a cash and stock transaction. Furthermore, in March 2009, Schering-Plough Corporation, another of our collaborative partners, and Merck & Co., Inc., or Merck, announced that their boards of directors have unanimously approved a definitive merger agreement pursuant to which Merck and Schering-Plough will combine, under the name Merck, in a stock and cash transaction. As a result of the consummation of these mergers our collaborative partners may develop and commercialize, either alone or with others, products and services that are similar to or competitive with our alliance products. Furthermore, the ability of our alliance products to reach their potential could be limited if our collaborative partners reduce or fail to increase spending related to such products as a result of these mergers.

If our collaborative partners terminate their collaborations with us or do not commit sufficient resources to the development, manufacture, marketing or distribution of our alliance products, we could be required to devote additional resources to our alliance products, seek new collaborative partners or abandon such alliance products, all of which could have an adverse effect on our business.

***Third party intellectual property may prevent us or our partners from developing our potential products and we may owe a portion of any payments we receive from our collaborative partners to one or more third parties.***

Our success will depend on our ability and the ability of our collaborative partners to avoid infringing the proprietary rights of others, both in the United States and in foreign countries. In addition, disputes with licensors under our license agreements may arise which could result in additional financial liability or loss of important technology and potential products and related revenue, if any. Further, the manufacture, use or sale of our potential products or our collaborative partners' products or potential products may infringe the patent rights of others. This could impact AVINZA, PROMACTA, bazedoxifene, lasofoxifene, LGD-4665, PS433540, PS178990 and any other products or potential products.

Several drug companies and research and academic institutions have developed technologies, filed patent applications or received patents for technologies that may be related to our business. Others have filed patent applications and received patents that conflict with patents or patent applications we have licensed for our use, either by claiming the same methods or compounds or by claiming methods or compounds that could dominate those licensed to us. In addition, we may not be aware of all patents or patent applications that may impact our ability to make, use or sell any of our potential products. For example, US patent applications may be kept confidential while pending in the United States Patent and Trademark Office and patent applications filed in foreign countries are often first published six months or more after filing.

On March 4, 2008, Rockefeller filed suit in the United States District Court for the Southern District of New York, against us alleging, among other things, a breach by us of our September 30, 1992 license agreement with Rockefeller, as well as other causes of action for unjust enrichment, quantum meruit, specific performance to perform an audit and declaratory relief. In February 2009 we reached a settlement with Rockefeller whereby the parties resolved all disputes that have arisen between them, including Rockefeller's primary claim relating to the development of PROMACTA as well our counterclaims. See Item 3. Legal Proceedings.

Other possible disagreements or litigation with our collaborative partners could delay our ability and the ability of our collaborative partners to achieve milestones or our receipt of other payments. In addition, other

## **Table of Contents**

possible disagreements or litigation could delay, interrupt or terminate the research, development and commercialization of certain potential products being developed by either our collaborative partners or by us. The occurrence of any of the foregoing problems could be time-consuming and expensive and could adversely affect our business.

Third parties have not directly threatened an action or claim against us, although we do periodically receive other communications or have other conversations with the owners of other patents or other intellectual property. If others obtain patents with conflicting claims, we may be required to obtain licenses to those patents or to develop or obtain alternative technology. We may not be able to obtain any such licenses on acceptable terms, or at all. Any failure to obtain such licenses could delay or prevent us from pursuing the development or commercialization of our potential products.

In general, litigation claims can be expensive and time consuming to bring or defend against and could result in settlements or damages that could significantly impact our results of operations and financial condition. We cannot predict or determine the outcome of these matters or reasonably estimate the amount or range of amounts of any fines or penalties that might result from a settlement or an adverse outcome. However, a settlement or an adverse outcome could have a material adverse effect on our financial position, liquidity and results of operations.

### ***We may not be able to hire and/or retain key employees.***

If we are unable to hire and/or retain key employees, we may not have sufficient resources to successfully manage our assets or our business, and we may not be able to perform our obligations under various contracts and commitments. Furthermore, there can be no assurance that we will be able to retain all of Pharmacoepia's key management and scientific personnel. If we fail to retain such key employees, we may not realize the anticipated benefits of the merger. Either of these could have substantial negative impacts on our business and our stock price.

### ***Our stock price has been volatile and could experience a sudden decline in value.***

Our common stock has experienced significant price and volume fluctuations and may continue to experience volatility in the future. As a result, you may not be able to sell your shares quickly or at the latest market price if trading in our stock is not active or the volume is low. Many factors may have a significant impact on the market price of our common stock, including, but not limited to, the following factors: results of or delays in our preclinical studies and clinical trials; the success of our collaboration agreements; publicity regarding actual or potential medical results relating to products under development by us or others; announcements of technological innovations or new commercial products by us or others; developments in patent or other proprietary rights by us or others; comments or opinions by securities analysts or major stockholders; future sales of our common stock by existing stockholders; regulatory developments or changes in regulatory guidance; litigation or threats of litigation; economic and other external factors or other disaster or crises; the departure of any of our officers, directors or key employees; period-to-period fluctuations in financial results; and limited daily trading volume.

The Financial Industry Regulatory Authority, or FINRA, (formerly the National Association of Securities Dealers, Inc.) and the Securities and Exchange Commission, or SEC, have adopted certain new rules. If we were unable to continue to comply with the new rules, we could be delisted from trading on the NASDAQ Global Market, or Nasdaq, and thereafter trading in our common stock, if any, would be conducted through the over-the-counter market or on the Electronic Bulletin Board of FINRA. As a consequence of such delisting, an investor would likely find it more difficult to dispose of, or to obtain quotations as to the price of, our common stock. Delisting of our common stock could also result in lower prices per share of our common stock than would otherwise prevail.

## **Table of Contents**

***We may not be successful in entering into additional out-license agreements on favorable terms, which may adversely affect our liquidity or require us to alter development plans on our products.***

We have entered into several out-licensing agreements for the development and commercialization of our products. Although we expend considerable resources on internal research and development for our proprietary programs, we may not be successful in entering into additional out-licensing agreements under favorable terms due to several factors including:

the difficulty in creating valuable product candidates that target large market opportunities;

research and spending priorities of potential licensing partners;

willingness of and the resources available to pharmaceutical and biotechnology companies to in-license product candidates for their clinical pipelines; or

differences of opinion with potential partners on the valuation of products we are seeking to out-license.

The inability to enter into out-licensing agreements under favorable terms and to earn milestone payments, license fees and/or upfront fees may adversely affect our liquidity and may force us to curtail or delay development of some or all of our proprietary programs, which in turn may harm our business and the value of our stock.

***Our product development involves a number of uncertainties, and we may never generate sufficient collaborative payments and royalties from the development of products to become profitable.***

We were founded in 1987. We have incurred significant losses since our inception. As of December 31, 2008, our accumulated deficit was \$679.6 million.

Most of our products in development will require extensive additional development, including preclinical testing and human studies, as well as regulatory approvals, before they can be marketed. We cannot predict if or when any of the products we are developing or those being developed with our partners will be approved for marketing. There are many reasons why we or our collaborative partners may fail in our efforts to develop our potential products, including the possibility that: preclinical testing or human studies may show that our potential products are ineffective or cause harmful side effects; the products may fail to receive necessary regulatory approvals from the FDA or foreign authorities in a timely manner, or at all; the products, if approved, may not be produced in commercial quantities or at reasonable costs; the products, if approved, may not achieve commercial acceptance; regulatory or governmental authorities may apply restrictions to our products, which could adversely affect their commercial success; or the proprietary rights of other parties may prevent us or our partners from marketing the products.

Any product development failures for these or other reasons, whether with our products or our partners' products, may reduce our expected revenues, profits, and stock price.

***The past restatement of our consolidated financial statements increased the possibility of legal or administrative proceedings. Any future material weaknesses or deficiencies in our internal control over financial reporting could harm stockholder and business confidence on our financial reporting, our ability to obtain financing and other aspects of our business.***

We determined that our consolidated financial statements for the years ended December 31, 2002 and 2003, and for the first three quarters of 2004, as described in more detail in our 2004 Annual Report on Form 10-K, should be restated. As a result of the restatement, we have become subject to a number of additional risks and uncertainties. We expect to continue to incur unanticipated accounting and legal costs as noted below. In addition, the SEC has instituted a formal investigation into our restated consolidated financial statements

## **Table of Contents**

identified above. This investigation will likely continue to divert more of our management's time and attention and cause us to continue to incur substantial costs. Such investigations can also lead to fines or injunctions or orders with respect to future activities, as well as further substantial costs and diversion of management time and attention.

While no material weaknesses were identified as of December 31, 2008, we cannot assure you that material weaknesses will not be identified in future periods. The existence of one or more material weakness or significant deficiency could result in errors in our consolidated financial statements. Substantial costs and resources may be required to rectify any internal control deficiencies. If we fail to achieve and maintain the adequacy of our internal controls in accordance with applicable standards, we may be unable to conclude on an ongoing basis that we have effective internal controls over financial reporting. If we cannot produce reliable financial reports, our business and financial condition could be harmed, investors could lose confidence in our reported financial information, or the market price of our stock could decline significantly. In addition, our ability to obtain additional financing to operate and expand our business, or obtain additional financing on favorable terms, could be materially and adversely affected, which, in turn, could materially and adversely affect our business, our financial condition and the market value of our securities. Moreover, our reputation with customers, lenders, investors, securities analysts and others may be adversely affected.

### ***Challenges to or failure to secure patents and other proprietary rights may significantly hurt our business.***

Our success will depend on our ability and the ability of our licensors to obtain and maintain patents and proprietary rights for our potential products both in the United States and in foreign countries. Patents may not be issued from any of these applications currently on file, or, if issued, may not provide sufficient protection. Our patent position, like that of many biotechnology and pharmaceutical companies, is uncertain and involves complex legal and technical questions for which important legal principles are unresolved. We may not develop or obtain rights to products or processes that are patentable. Even if we do obtain patents, such patents may not adequately protect the technology we own or have licensed. In addition, others may challenge, seek to invalidate, infringe or circumvent any patents we own or license and rights we receive under those patents may not provide competitive advantages to us.

Any conflicts resulting from the patent rights of others could significantly reduce the coverage of our patents and limit our ability to obtain meaningful patent protection. We have had and will continue to have discussions with our current and potential collaborative partners regarding the scope and validity of our patents and other proprietary rights. If a collaborative partner or other party successfully establishes that our patent rights are invalid, we may not be able to continue our existing collaborations beyond their expiration. Any determination that our patent rights are invalid also could encourage our collaborative partners to seek early termination of our agreements. Such invalidation could adversely affect our ability to enter into new collaborations.

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

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

## **Table of Contents**

***We will have continuing obligations to indemnify the buyers of our commercial product lines, and may be subject to other liabilities related to the sale of our commercial product lines.***

In connection with the sale of our AVINZA product line, we have agreed to indemnify King in certain cases for a period of 30 months after the closing of the sale of the AVINZA product line in February 2007, including any breach of certain representations, warranties or covenants contained in the asset purchase agreement. In addition, we have agreed to indemnify Eisai, the purchaser of our Oncology product line, for damages suffered by Eisai arising from any breach of our representations, warranties, covenants or obligations in the asset purchase agreement. Our obligation to indemnify Eisai extends beyond the closing of the sale of our Oncology product line in October 2006 up to, in some cases, 36 months and, in other cases, until the expiration of the applicable statute of limitations. In a few instances, our obligation to indemnify Eisai survives in perpetuity.

Under certain circumstances, the asset purchase agreement for the AVINZA product line also allows King to set off indemnification claims against the royalty payments payable to us, including AVINZA royalty payments. Under the asset purchase agreements, our exposure for any indemnification claim brought by King or Eisai is limited to \$40.0 million and \$30.0 million, respectively. However, in certain matters, our indemnification obligation is not subject to the foregoing limits on liability. For example, we are obligated to indemnify King, without limitation, for all liabilities arising under certain agreements with Catalent Pharma Solutions related to the manufacture of AVINZA. Similarly, we are obligated to indemnify Eisai, without limitation, for all liabilities related to certain claims regarding promotional materials for the ONTAK and Targretin drug products. We cannot predict the liabilities that may arise as a result of these matters. Any claims related to our indemnification obligations to King or Eisai could materially and adversely affect our financial condition.

As previously disclosed, in connection with the AVINZA sale transaction, King assumed our obligation to make payments to Organon based on net sales of AVINZA (the fair value of which was \$58.5 million as of December 31, 2008). As Organon did not consent to the legal assignment of the co-promote termination obligation from us to King, we remain liable to Organon in the event King defaults on this obligation. Any requirement to pay a material amount to Organon, could adversely affect our business and the price of our securities.

The sale of our commercial product lines also exposes us to product liability risks on products we sold prior to divesting these product lines. For example, such products may need to be recalled to address regulatory issues. A successful product liability claim or series of claims brought against us could result in payment of significant amounts of money and divert management's attention from running our business.

We believe that we carry reasonably adequate insurance for product liability claims. However, we may not be able to maintain our insurance on commercially reasonable terms, or our insurance may not provide adequate protection in the case of a product liability claim. To the extent that product liability insurance, if available, does not cover potential claims, we will be required to self-insure the risks associated with such claims.

***If our partners do not reach the market with our alliance products before our competitors offer products for the same or similar uses, or if our partners are not effective in marketing our alliance products, our revenues from product sales, if any, will be reduced.***

We face intense competition in our development activities. Our competitors might succeed in obtaining regulatory approval for competitive products more rapidly than our partners can for our products. In addition, competitors might develop technologies and products that are less expensive and perceived to be safer or more effective than those being developed by us or our partners, which could impair our product development and render our technology obsolete.

## **Table of Contents**

### ***We use hazardous materials, which may expose us to significant liability.***

In connection with our research and development activities, we handle hazardous materials, chemicals and various radioactive compounds. To properly dispose of these hazardous materials in compliance with environmental regulations, we are required to contract with third parties. We believe that we carry reasonably adequate insurance for toxic tort claims. However, we cannot eliminate the risk or predict the exposure of accidental contamination or injury from the handling and disposing of hazardous materials, whether by us or our third-party contractors. Any accident in the handling and disposing of hazardous materials may expose us to significant liability.

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

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

### ***We may lose some or all of the value of some of our short term investments.***

We engage one or more third parties to manage some of our cash consistent with an investment policy that allows a range of investments and maturities. The investments are intended to maintain safety of principal while providing liquidity adequate to meet projected cash requirements. Risks of principal loss are to be minimized through diversified short and medium term investments of high quality, but the investments are not in every case guaranteed or fully insured. As a result of changes in the credit market, one of our short term investments in commercial paper is in default. We intend to pursue collection efforts, but we might not recoup some or all of our investment in the commercial paper. In addition, from time to time we may suffer other losses on our short term investment portfolio.

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

We may need to complete additional equity or debt financings to fund our operations. Our inability to obtain additional financing could adversely affect our business. Financings may not be available at all or on terms favorable to us. In addition, these financings, if completed, may not meet our capital needs and could result in substantial dilution to our stockholders.

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

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

Our drug development programs require substantial additional capital to successfully complete them, arising from costs to: conduct research, preclinical testing and human studies; establish pilot scale and commercial scale manufacturing processes and facilities; and establish and develop quality control, regulatory, marketing, sales and administrative capabilities to support these programs.

## **Table of Contents**

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

We expect our research and development expenditures over the next three years to continue to be significant. However, we base our outlook regarding the need for funds on many uncertain variables. Such uncertainties include regulatory approvals, the timing of events outside our direct control such as product launches by partners and the success of such product launches, negotiations with potential strategic partners, possible sale of assets or other transactions and other factors. Any of these uncertain events can significantly change our cash requirements.

While we expect to fund our research and development activities from cash generated from AVINZA and PROMACTA royalties and royalties and milestones from our partners in various past and future collaborations to the extent possible, if we are unable to do so, we may need to complete additional equity or debt financings or seek other external means of financing. These financings could depress our stock price. If additional funds are required to support our operations and we are unable to obtain them on terms favorable to us, we may be required to cease or reduce further development or commercialization of our products, to sell some or all of our technology or assets or to merge with another entity.

### ***Significant returns of products we sold prior to selling our commercial businesses could harm our operating results.***

Under our agreements to sell our commercial businesses, we remain financially responsible for returns of our products sold before those businesses were transferred to their respective buyers. Consequently, if returns of those products are higher than expected, we could incur substantial expenses for processing and issuing refunds for those returns which, in turn, could negatively impact our financial results. The amount of returns could be affected by a number of factors including, but not limited to, ongoing product demand, product rotation at distributors and wholesalers, and product stability issues.

### ***Our results of operations and liquidity needs could be materially negatively affected by market fluctuations and economic downturn.***

Our results of operations could be materially negatively affected by economic conditions generally, both in the U.S. and elsewhere around the world. Continuing concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, the U.S. mortgage market and a declining residential real estate market in the U.S. have contributed to increased volatility and diminished expectations for the economy and the markets going forward. These factors, combined with volatile oil prices, declining business and consumer confidence and increased unemployment, have precipitated an economic recession and fears of a possible depression. Domestic and international equity markets continue to experience heightened volatility and turmoil. These events and the continuing market upheavals may have an adverse effect on us. In the event of a continuing market downturn, our results of operations could be adversely affected by those factors in many ways, including making it more difficult for us to raise funds if necessary, and our stock price may further decline.

Our investment securities consist primarily of money market funds, corporate debt obligations and U.S. government agency securities. We do not have any auction rate securities. Recently, there has been concern in the credit markets regarding the value of a variety of mortgage-backed securities and the resultant effects on various securities markets. We cannot provide assurance that our investments are not subject to adverse changes in market value. If our investments experience adverse changes in market value, we may have less capital to fund our operations.

## **Table of Contents**

***We may be unable to successfully integrate the business of Pharmacoepia and realize the anticipated benefits of the merger.***

In December 2008, we completed our merger with Pharmacoepia. The success of the merger will depend, in part, on our ability to realize the anticipated synergies, growth opportunities and cost savings from integrating Pharmacoepia's business with our business. Our success in realizing these benefits and the timing of this realization depend upon the successful integration of the operations of Pharmacoepia. The integration of two independent companies is a complex, costly and time-consuming process. It is possible that the integration process could result in the loss of key employees, diversion of each company's management's attention, the disruption or interruption of, or the loss of momentum in, each company's ongoing business or inconsistencies in standards, controls, procedures and policies, any of which could adversely affect either company's ability to maintain relationships with licensors, collaborators, partners, suppliers and employees or our ability to achieve the anticipated benefits of the merger, or could reduce our earnings or otherwise adversely affect the business and financial results of the combined company and, as a result, adversely affect the market price of our common stock.

We expect to incur significant costs and commit significant management time integrating Pharmacoepia's business operations, technology, development programs, products and personnel with those of ours. If we do not successfully integrate the business of Pharmacoepia, the expenditure of these costs will reduce our cash position.

***Impairment charges pertaining to goodwill, identifiable intangible assets or other long-lived assets from the merger with Pharmacoepia could have an adverse impact on our results of operations and the market value of our common stock.***

The total purchase price pertaining to our merger with Pharmacoepia has been allocated to Pharmacoepia's net tangible assets, identifiable intangible assets, in process research and development and goodwill. To the extent the value of goodwill or identifiable intangible assets or other long-lived assets become impaired, we will be required to incur material charges relating to the impairment. Any impairment charges could have a material adverse impact on our results of operations and the market value of our common stock.

***We may undertake strategic acquisitions in the future and any difficulties from integrating such acquisitions could adversely affect our stock price, operating results and results of operations.***

We may acquire companies, businesses and products that complement or augment our existing business. We may not be able to integrate any acquired business successfully or operate any acquired business profitably. Integrating any newly acquired business could be expensive and time-consuming. Integration efforts often take a significant amount of time, place a significant strain on managerial, operational and financial resources and could prove to be more difficult or expensive than we predict. The diversion of our management's attention and any delay or difficulties encountered in connection with any future acquisitions we may consummate could result in the disruption of our on-going business or inconsistencies in standards and controls that could negatively affect our ability to maintain third-party relationships. Moreover, we may need to raise additional funds through public or private debt or equity financing, or issue additional shares, to acquire any businesses or products, which may result in dilution for stockholders or the incurrence of indebtedness.

As part of our efforts to acquire companies, business or product candidates or to enter into other significant transactions, we conduct business, legal and financial due diligence with the goal of identifying and evaluating material risks involved in the transaction. Despite our efforts, we ultimately may be unsuccessful in ascertaining or evaluating all such risks and, as a result, might not realize the intended advantages of the transaction. If we fail to realize the expected benefits from acquisitions we may consummate in the future, whether as a result of unidentified risks, integration difficulties, regulatory setbacks and other events, our business, results of operations and financial condition could be adversely affected. If we acquire product candidates, we will also need to make certain assumptions about, among other things, development costs, the likelihood of receiving regulatory approval and the market for such product candidates. Our assumptions may prove to be incorrect, which could cause us to fail to realize the anticipated benefits of these transactions.

## **Table of Contents**

In addition, we will likely experience significant charges to earnings in connection with our efforts, if any, to consummate acquisitions. For transactions that are ultimately not consummated, these charges may include fees and expenses for investment bankers, attorneys, accountants and other advisors in connection with our efforts. Even if our efforts are successful, we may incur, as part of a transaction, substantial charges for closure costs associated with elimination of duplicate operations and facilities and acquired in-process research and development charges. In either case, the incurrence of these charges could adversely affect our results of operations for particular quarterly or annual periods.

*The drug research and development industry is highly competitive and subject to technological change, and we may not have the resources necessary to compete successfully.*

Many of our competitors have access to greater financial, technical, research, marketing, sales, distribution, service and other resources than we do. Moreover, the pharmaceutical and biotechnology industries are characterized by continuous technological innovation. We anticipate that we will face increased competition in the future as new companies enter the market and our competitors make advanced technologies available. Technological advances or entirely different approaches that we or one or more of our competitors develop may render our products, services and expertise obsolete or uneconomical. Additionally, the existing approaches of our competitors or new approaches or technologies that our competitors develop may be more effective than those we develop. We may not be able to compete successfully with existing or future competitors.

*We have excess space available for sublease at our facilities and we may not be able to find qualified sublease tenants.*

We have entered into long-term, non-cancellable real estate arrangements for space which, as a result of reductions in our workforce and our acquisition of Pharmacopeia, are considered to be in excess of our current requirements. We currently have a tenant who is subleasing one of our facilities and we are actively looking for additional sublease tenants to sublease up to approximately 80,000 square feet of vacant space or space that could be made available through changes in the current layout of our operations. We will continue to be responsible for all carrying costs of these facilities until such time as we can sublease these facilities or terminate the applicable leases based on the contractual terms of the lease agreements. However, the commercial real estate market conditions in the United States have resulted in a surplus of business facilities making it difficult to sublease properties. If we are unable to find additional sublease tenants we may not meet our expected estimated levels of sublease income or we may be required to terminate these leases at a substantial cost, and, accordingly, our results of operations could be materially and adversely affected.

### **Item 1B. Unresolved Staff Comments**

None.

### **Item 2. Properties**

We currently occupy an 82,500 square foot office and laboratory facility in San Diego, California leased through November 2021, which is a building we previously owned and sold and leased back on November 9, 2006. We lease approximately 99,000 square feet in three facilities in Cranbury, New Jersey under leases that expire in 2016. We believe these facilities are adequate to meet our space requirements for the foreseeable future.

We also lease a 52,800 square foot facility in San Diego that is leased through July 2015. In January 2008, we began subleasing the 52,800 square foot facility under a sublease through July 2015. We fully vacated this facility in February 2008.

## **Table of Contents**

### **Item 3. Legal Proceedings**

#### *SEC Investigation*

The SEC issued a formal order of private investigation dated September 7, 2005, to investigate the circumstances surrounding restatement of our consolidated financial statements for the years ended December 31, 2002 and 2003, and for the first three quarters of 2004. The SEC's investigation is ongoing and we are cooperating with the investigation.

#### *Other Matters*

We and Seragen, Inc., our subsidiary, were named parties to *Sergio M. Oliver, et al. v. Boston University, et al.*, a shareholder class action filed on December 17, 1998 in the Court of Chancery in the State of Delaware. We and Seragen were dismissed from the action, but such dismissal is subject to appeal and we and Seragen may have possible indemnification obligations with respect to certain defendants. As of December 31, 2008, we have not accrued an indemnification obligation based on our assessment that our responsibility for any such obligation is not probable or estimable.

On March 4, 2008, Rockefeller filed suit in the United States District Court for the Southern District of New York, against us alleging, among other things, a breach by us of our September 30, 1992 license agreement with Rockefeller, as well as other causes of action for unjust enrichment, quantum meruit, specific performance to perform an audit and declaratory relief. In February 2009, we reached a settlement with Rockefeller whereby the parties resolved all disputes that have arisen between them, including Rockefeller's primary claim relating to the development of PROMACTA as well our counterclaims. As part of the settlement, the parties executed mutual releases and agreed to jointly seek dismissal with prejudice of all claims, demands and causes of action, whether known or unknown, arising out of or based upon the license agreement, the ongoing litigation, PROMACTA, LGD-4665, and any other compound developed by us that was subject to the license agreement. We also agreed to pay Rockefeller, \$5.0 million immediately upon settlement, \$1.0 million on or before February 10, 2010, \$1.0 million on or before February 10, 2011, and 50% of any milestone payment and 5.88% to 7.0% of certain royalties, in each case received by us pursuant to an agreement with SmithKline Beecham Corporation (now known as GlaxoSmithKline) entered into on December 29, 1994. We also agreed to pay Rockefeller 1.5% of world-wide net sales of LGD-4665 as certain payments are received by us pursuant to our agreement with SmithKline Beecham Corporation entered into on December 17, 2008. As of December 31, 2008, we have recorded a liability of \$7.0 million related to the settlement.

On October 10, 2008, we received notice that a putative class action complaint was filed in the Superior Court of New Jersey, Mercer County (Equity Division) by Allen Heilman, one of Pharmacoepia's stockholders, against Pharmacoepia, the members of its Board of Directors, us and two of our wholly owned subsidiaries. The complaint generally alleges that Pharmacoepia's Board of Directors' decision to enter into the proposed transaction with us on the terms contained in the proposed merger agreement constitutes a breach of fiduciary duty and gives rise to other unspecified state law claims. The complaint also alleges that we and two of our wholly owned subsidiaries aided and abetted Pharmacoepia's Board of Directors' breach of fiduciary duty. In addition, the complaint alleges that the named plaintiff will seek equitable relief, including among other things, an order preliminarily and permanently enjoining the proposed transaction. While we believe that neither Ligand nor Pharmacoepia engaged in any wrongful acts, in an effort to minimize the cost and expense of any litigation, in December 2008, we entered into a memorandum of understanding, or MOU, with the named plaintiff providing for the settlement of the lawsuit. Subject to court approval and further definitive documentation, the MOU provides a release and settlement by the purported class of all claims against Pharmacoepia, us, and our affiliates and agents in connection with the complaint. Pursuant to the MOU we have agreed not to oppose any fee application by plaintiffs' counsel that does not exceed \$0.2 million, which has been recorded as a liability at December 31, 2008.

## **Table of Contents**

In addition, from time to time we are subject to various lawsuits and claims with respect to matters arising out of the normal course of our business. Due to the uncertainty of the ultimate outcome of these matters, the impact on future financial results is not subject to reasonable estimates.

### **Item 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, 2008.

### **Executive Officers of the Registrant**

The names of the executive officers of the Company and their ages, titles and biographies as of March 1, 2008 are set forth below.

*John L. Higgins*, 38, joined the Company in January 2007 as President and Chief Executive Officer and he was also appointed to the Board in March 2007. Prior to joining the Company, Mr. Higgins served as Chief Financial Officer at Connetics Corporation, a specialty pharmaceutical company, since 1997, and also served as Executive Vice President, Finance and Administration and Corporate Development at Connetics since January 2002 until its acquisition by Stiefel Laboratories, Inc. in December 2006. Before joining Connetics, he was a member of the executive management team at BioCryst Pharmaceuticals, Inc., a biopharmaceutical company. Currently, he is a Director of BioCryst and serves as Chairperson of its Audit Committee. Before joining BioCryst in 1994, Mr. Higgins was a member of the healthcare banking team of Dillon, Read & Co. Inc., an investment banking firm. Mr. Higgins serves as chairman of CoMentis, Inc, a biopharmaceutical company, and has served as a director of numerous public and private companies. He received his A.B. from Colgate University, graduating Magna Cum Laude.

*Martin D. Meglasson, Ph.D.*, 58, joined the Company in February 2004 as Vice President, Discovery Research. Prior to joining the Company, Dr. Meglasson was Director of Preclinical Pharmacology at Pharmacia, Inc. where he engaged in research and development of drugs for central nervous system and infectious diseases from 1998 to 2003. From 1996 to 1998, Dr. Meglasson served as Director of Endocrine and Metabolic Research, engaged in diabetes and obesity research, and was a member of the Exploratory Development Committee at Pharmacia & Upjohn. From 1988 to 1996, he was a researcher in the fields of diabetes and obesity at The Upjohn Co. Dr. Meglasson has participated in the discovery and development of two marketed drugs, is an inventor of 18 U.S. patents, and author of 70 scientific publications. Dr. Meglasson received his Ph.D. in pharmacology from the University of Houston and post-doctoral training at the University of Pennsylvania School of Medicine.

*Zofia E. Dziewanowska, M.D., Ph.D.*, 67, has served as our Vice President, Clinical Research and Regulatory since February 2008. Dr. Dziewanowska joined the Company in April 2002 and previously served as the Vice President in charge of the Clinical Research Department, responsible for evaluation of all drugs. Her work in the industry began as an Associate Director of International Clinical Pharmacology at Merck Company, N.J. and subsequently at Hoffmann-La Roche Inc., the last few years until 1994 as Vice President and the Head of Clinical Research and Development for the United States. Since 1994, she held successive positions as Senior Vice President of Global Clinical Research and Development at Genta, Inc, Cypros Pharma and MAXIA, Inc. Dr. Dziewanowska also served as Vice Chair of a Medical Section Steering Committee for PhRMA. She has also served as Chair of an International Sub-committee and a Chair of Education Committee for physicians in Pharmaceutical Medicine at AAPP. Dr. Dziewanowska obtained her M.D. from the Medical School University of Warsaw and Ph.D. from the Polish Academy of Science. Academic affiliations include faculty membership at The Medical School of Cornell University, Rockefeller University, and The Medical School of the University of London. Her name is listed in several current Marquis Who is Who .

*Syed Kazmi, Ph.D., MBA*, 51, has served as our Vice President, Business Development & Strategic Planning since July 2007. Dr. Kazmi has more than 18 years of Pharmaceutical R&D and Business development

## **Table of Contents**

experience. From 1995 until June 2007, he held various positions at Ligand, including Senior Scientist in Molecular Endocrinology, Director of Project Management and leader of multiple drug development teams, and Senior Director of Business Development. Prior to joining Ligand, Dr. Kazmi worked in discovery research at Johnson & Johnson from 1988 to 1995, where his most recent position was Principal Scientist in endocrinology and inflammation drug development programs. From 1985 to 1988, he held his postdoctoral research positions at McMaster University, Hamilton. Dr. Kazmi received a Ph.D. in biochemistry from J.N. University, New Delhi, and an executive MBA from San Diego State University.

*John Sharp, CPA*, 44, joined the Company in April 2007 as our Vice President, Finance and Chief Financial Officer. From November 2004 to April 2007, Mr. Sharp served as Vice President of Finance of Sequenom, Inc. and served as its Principal Accounting Officer since October 2005. From August 2000 to November 2004, Mr. Sharp served as Director of Accounting at Diversa Corporation, a publicly traded biotech company, where he was responsible for managing the overall accounting function, including financial reporting, internal controls, and corporate governance, during a period of significant company growth. From January 1994 until August 2000, Mr. Sharp was at the public accounting firm PricewaterhouseCoopers, most recently as a Senior Audit Manager. He received a B.S. from San Diego State University, and is a certified public accountant and a member of the Association of BioScience Financial Officers.

*Charles S. Berkman, J.D.*, 40, has served as our Vice President, General Counsel and Secretary since April 2007. Mr. Berkman joined the Company in November 2001 and previously served as Associate General Counsel and Chief Patent Counsel for the Company (and Secretary since March 2007). Prior to joining the Company, Mr. Berkman was an attorney at the international law firm of Baker & McKenzie from November 2000 to November 2001. Before that he served as an attorney at the law firm of Lyon & Lyon from 1993 to November 2000, where he specialized in intellectual property law. Mr. Berkman earned a BS in chemistry from the University of Texas and a JD from the University of Texas School of Law.

**Table of Contents****PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities**  
**Market Information**

Our common stock is traded on the NASDAQ Global Market (formerly NASDAQ National Market) under the symbol LGND .

The following table sets forth the high and low intraday sales prices for our common stock on the NASDAQ Global Market and on the Pink Sheets, as applicable, for the periods indicated:

	<b>Price Range</b>	
	<b>High</b>	<b>Low</b>
<b>Year Ended December 31, 2008:</b>		
1st Quarter	\$ 5.00	\$ 3.31
2nd Quarter	4.55	2.16
3rd Quarter	3.82	2.58
4th Quarter	2.94	1.10
<b>Year Ended December 31, 2007:</b>		
1st Quarter	\$ 13.03	\$ 8.86
2nd Quarter	10.30	6.37
3rd Quarter	7.36	5.19
4th Quarter	6.21	3.87

As of February 27, 2009, the closing price of our common stock on the NASDAQ Global Market was \$2.71.

**Holders**

As of February 27, 2009, there were approximately 1,672 holders of record of the common stock.

**Dividends**

On March 22, 2007, we declared a cash dividend on our common stock of \$2.50 per share. As we have an accumulated deficit, the dividend was recorded as a charge against additional paid-in capital. The aggregate amount of \$252.7 million was paid on April 19, 2007 to shareholders of record as of April 5, 2007. We had previously never declared or paid any cash dividends on our capital stock. We do not intend to pay any additional cash dividends in the foreseeable future. We currently intend to retain future earnings, if any, to finance future growth.

## **Table of Contents**

### **Performance Graph**

The graph below shows the five-year cumulative total stockholder return assuming the investment of \$100 and the reinvestment of dividends (a one-time dividend of \$2.50 was declared on the common stock in April 2007) and is based on the returns of the component companies weighted monthly according to their market capitalizations. The graph compares total stockholder returns of the Company's common stock, of all companies traded on the NASDAQ Stock market, as represented by the NASDAQ Composite® Index, and of the NASDAQ Biotechnology Stock Index, as prepared by The NASDAQ Stock Market Inc. The NASDAQ Biotechnology Stock Index tracks approximately 168 domestic biotechnology stocks.

The stockholder return shown on the graph below is not necessarily indicative of future performance and the Company will not make or endorse any predictions as to future stockholder returns.

	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
Ligand	100%	79%	76%	75%	44%	24%
NASDAQ Composite	100%	109%	110%	121%	132%	79%
NASDAQ Biotechnology Stocks	100%	106%	109%	110%	115%	101%

## Table of Contents

### Item 6. Selected Consolidated Financial Data

The following selected historical consolidated financial and other data are qualified by reference to, and should be read in conjunction with, our consolidated financial statements and the related notes thereto appearing elsewhere herein and Management's Discussion and Analysis of Financial Condition and Results of Operations. Our selected statement of operations data set forth below for each of the years ended December 31, 2008, 2007, 2006, 2005, and 2004 and the balance sheet data as of December 31, 2008, 2007, 2006, 2005, and 2004 are derived from our consolidated financial statements.

	2008	2007	Years Ended December 31, 2006 (2)		2005	2004
	(in thousands, except share data)					
<b>Consolidated Statement of Operations Data:</b>						
Royalties	\$ 20,305	\$ 11,409	\$	\$		\$
Sale of royalty rights, net						31,342
Collaborative research and development and other revenues	7,000	1,485		3,977	10,217	11,300
Research and development expenses	30,770	44,623		41,546	30,710	30,742
General and administrative expenses	23,785	30,410		43,908	23,134	12,580
Write-off of acquired in-process research and development	72,000					
Gain on sale leaseback	1,964	1,964		3,397		
Loss from operations	(97,276)	(60,175)		(78,080)	(43,627)	(680)
Income (loss) from continuing operations	(97,460)	(34,759)		(56,590)	(36,035)	2,684
Discontinued operations (1)	(654)	316,447		24,847	(364)	(47,825)
Net income (loss)	(98,114)	281,688		(31,743)	(36,399)	(45,141)
<b>Basic per share amounts:</b>						
Income (loss) from continuing operations	\$ (1.02)	\$ (0.35)	\$	(0.70)	\$ (0.49)	\$ 0.04
Discontinued operations (1)	(0.01)	3.22		0.31		(0.65)
Net income (loss)	\$ (1.03)	\$ 2.87	\$	(0.39)	\$ (0.49)	\$ (0.61)
<b>Weighted average number of common shares</b>						
	95,505,421	98,124,731		80,618,528	74,019,501	73,692,987
<b>Diluted per share amounts:</b>						
Income (loss) from continuing operations	\$ (1.02)	\$ (0.35)	\$	(0.70)	\$ (0.49)	\$ 0.03
Discontinued operations (1)	(0.01)	3.22		0.31		(0.48)
Net income (loss)	\$ (1.03)	\$ 2.87	\$	(0.39)	\$ (0.49)	\$ (0.45)
<b>Weighted average number of common shares</b>						
	95,505,421	98,124,731		80,618,528	74,019,501	100,402,063

**Table of Contents**

	2008	2007	December 31, 2006 (in thousands)	2005	2004
<b>Consolidated Balance Sheet Data:</b>					
Cash, cash equivalents, short-term investments and restricted cash and investments	\$ 82,012	\$ 95,819	\$ 212,488	\$ 88,756	\$ 114,870
Working capital (deficit) (3)	23,315	58,975	64,747	(102,244)	(48,505)
Total assets	171,448	173,278	326,053	314,619	332,466
Current portion of deferred revenue, net	10,301		57,981	157,519	152,528
Current portion of deferred gain	1,964	1,964	1,964		
Long-term obligations (excludes long-term portions of deferred revenue, net and deferred gain)	58,743	53,048	85,780	173,280	174,214
Long-term portion of deferred revenue, net	16,819	2,546	2,546	4,202	4,512
Long-term portion of deferred gain	23,292	25,256	27,220		
Common stock subject to conditional redemption	12,345	12,345	12,345	12,345	12,345
Accumulated deficit	(679,626)	(581,512)	(862,802)	(831,059)	(794,660)
Total stockholders' equity (deficit)	(10,365)	29,115	27,352	(110,419)	(75,317)

- (1) We sold our Oncology Product Line ( Oncology ) on October 25, 2006 and our AVINZA Product Line ( AVINZA ) on February 26, 2007. The operating results for Oncology and AVINZA have been presented in our consolidated statements of operations as Discontinued Operations.
- (2) Effective January 1, 2006, we adopted Statement of Financial Accounting Standards 123(R), *Share-Based Payment*, or SFAS 123(R), using the modified prospective transition method. The implementation of SFAS123(R) resulted in additional employee stock compensation expense of \$4.8 million in 2006.
- (3) Working capital (deficit) includes deferred product revenue recorded under the sell-through revenue recognition method.

## Table of Contents

### Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

**Caution:** This discussion and analysis may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed in Item 1A. *Risk Factors.* This outlook represents our current judgment on the future direction of our business. These statements include those related to our AVINZA royalty revenues, product returns, and product development. Actual events or results may differ materially from Ligand's expectations. For example, there can be no assurance that our revenues or expenses will meet any expectations or follow any trend(s), that we will be able to retain our key employees or that we will be able to enter into any strategic partnerships or other transactions. We cannot assure you that we will receive expected AVINZA royalties to support our ongoing business or that our internal or partnered pipeline products will progress in their development, gain marketing approval or achieve success in the market. In addition, our ongoing SEC investigation, ongoing or future arbitration, or litigation or disputes with third parties may have a material adverse effect on us. Such risks and uncertainties, and others, could cause actual results to differ materially from any future performance suggested. We undertake no obligation to release publicly the results of any revisions to these forward-looking statements to reflect events or circumstances arising after the date of this annual report. This caution is made under the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, as amended.

Our trademarks, trade names and service marks referenced herein include Ligand. Each other trademark, trade name or service mark appearing in this annual report belongs to its owner.

References to Ligand Pharmaceuticals Incorporated, Ligand, the Company, we or our include our wholly owned subsidiaries Ligand Pharmaceuticals International, Inc.; Seragen, Inc., or Seragen; Pharmacopeia, LLC; and Nexus Equity VI LLC, or Nexus.

### Overview

We are a biotechnology company that focuses on drug discovering and early-stage development of pharmaceuticals that address critical unmet medical needs or that are more effective and/or safer than existing therapies, more convenient to administer and are cost effective. Our goal is to build a profitable company by generating income from research, milestone, and royalty revenues resulting from our collaborations with pharmaceutical partners.

On September 7, 2006, we announced the sale of ONTAK, Targretin capsules, Targretin gel, and Panretin gel to Eisai, Inc., or Eisai, and the sale of AVINZA to King Pharmaceuticals, Inc., or King. The Eisai sales transaction subsequently closed on October 25, 2006. The AVINZA sale transaction subsequently closed on February 26, 2007. Accordingly, the results for the Oncology and AVINZA Product Lines have been presented in our consolidated statements of operations as Discontinued Operations.

On December 23, 2008, we acquired all of the outstanding common shares of Pharmacopeia, Inc., or Pharmacopeia. As consideration, we issued 18.0 million shares of our common stock to Pharmacopeia stockholders, or 0.5985 shares for each outstanding Pharmacopeia share, as well as approximately \$9.3 million in cash. Security holders of Pharmacopeia also received contingent value rights, under which they could receive an aggregate cash payment of \$15.0 million under certain circumstances. Pharmacopeia was a clinical development stage biopharmaceutical company dedicated to discovering and developing novel small molecule therapeutics to address significant medical needs. Pharmacopeia's strategy was to retain the rights to product candidates at least to clinical validation, and to continue development on its own New Drug Application, or NDA, filings and commercialization for selected indications. Pharmacopeia had a broad portfolio of clinical and preclinical candidates under development internally or by partners.

Our business strategy includes a targeted internal drug research and early-stage development capabilities. We believe that we have promising product candidates throughout our internal development programs. We also

## **Table of Contents**

have research and development collaborations for our product candidates with numerous global pharmaceutical companies. We aim to create value for shareholders by advancing our internally developed programs through early clinical development and then entering licensing agreements with larger pharmaceutical and biotechnology companies with substantially greater development and commercialization infrastructure. In addition to advancing our R&D programs, we expect to collect licensing fees and royalties from existing and future license agreements. We aim to build a profitable company by generating income from our corporate licenses.

We currently receive royalty revenues from King Pharmaceuticals, or King, and GSK. In February 2007, we completed the sale of our AVINZA product line to King. As a result of the sale, we received the right to future royalties on the net sales of AVINZA through 2017. Through October 2008, we received a 15% royalty on AVINZA net sales. Subsequent royalty payments will be based upon calendar year net sales. If calendar year net sales are less than \$200.0 million, the royalty payment will be 5% of all net sales. If calendar year net sales are greater than \$200.0 million, the royalty payment will be 10% of all net sales less than \$250.0 million, plus 15% of net sales greater than \$250.0 million.

In December 2008, the U.S. Food and Drug Administration, or FDA, granted accelerated approval of GSK's PROMACTA for the treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenic purpura, or ITP, who have had an insufficient response to corticosteroids, immunoglobulins or splenectomy. PROMACTA is the first oral thrombopoietin, or TPO, receptor agonist therapy for the treatment of adult patients with chronic ITP. As a result of the FDA's approval of PROMACTA, we will be entitled to receive tiered royalties in the range of 5%-10% on annual net sales of PROMACTA. As part of a settlement agreement and mutual release we entered into on February 11, 2009 with The Rockefeller University, or Rockefeller, we agreed to pay a share of such royalties to Rockefeller. See Item 3. Legal Proceedings

We also have the potential to receive near-term royalties on product candidates resulting from our research and development collaboration arrangements with third party pharmaceutical companies if and when any such product candidate is ultimately approved by the FDA and successfully marketed. Our near-term product candidates are discussed below.

In addition to the accelerated approval granted for GSK's PROMACTA for the treatment of thrombocytopenia in patients with chronic ITP, GSK also reported positive Phase II data in patients with thrombocytopenia associated with hepatitis C and initiated two Phase III trials in patients with hepatitis C in the fourth quarter of 2007 and a Phase III trial in patients with chronic liver disease (CLD) in early 2008. A Phase II study in patients with oncology-related thrombocytopenia is ongoing and a Phase I study is ongoing in patients with sarcoma receiving the adriamycin and ifosfamide regimen. In December 2008, GSK submitted a marketing authorization application in the EU and international for Revolade (Eltrombopag) for the treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenic purpura, or ITP.

Bazedoxifene (VIVANT) is a product candidate that resulted from a collaboration with Wyeth. Bazedoxifene is a synthetic drug that was specifically designed to reduce the risk of osteoporotic fractures while at the same time protecting breast and uterine tissue. In June 2006, Wyeth submitted an NDA for bazedoxifene to the FDA for the prevention of postmenopausal osteoporosis. The FDA issued an approvable letter for bazedoxifene for this indication in April 2007. Wyeth received a second approvable letter in December 2007 and plans to have further discussions with the FDA to discuss the issues raised for the prevention indication. Wyeth also submitted a second NDA for bazedoxifene in the United States in July 2007 for the treatment of osteoporosis and an MAA to EMEA in September 2007 for the prevention and treatment of osteoporosis. Wyeth received a third approvable letter in the second quarter of 2008 for bazedoxifene for the treatment of osteoporosis. In the letter, the FDA requested information similar to that outlined in its approvable letter for bazedoxifene's NDA for the prevention of postmenopausal osteoporosis issued in December 2007. This included further analyses concerning the incidence of stroke and venous thrombotic events. Wyeth indicated that it will file a complete response in 2009 and expects the FDA will convene an advisory committee to review the pending NDAs for both the treatment and prevention of postmenopausal osteoporosis with VIVANT. In February 2009, VIVANT

## **Table of Contents**

received a positive Committee for Medicinal Products for Human Use (CHMP) opinion in Europe for the treatment of postmenopausal osteoporosis in women at increased risk of fracture.

Wyeth is also developing bazedoxifene in combination with PREMARIN (Aprela) as a progesterone-free treatment for menopausal symptoms. Two Phase III studies with bazedoxifene/conjugated estrogens (Aprela), showed reduced number and severity of hot flashes in symptomatic postmenopausal women by up to 80 percent, when compared with placebo. Wyeth expects to file an initial NDA no earlier than the first half of 2010.

We previously sold to Royalty Pharma AG, or Royalty Pharma, the rights to a total of 3.0% of net sales of bazedoxifene for a period of ten years following the first commercial sale of each product. After giving effect to the royalty sale, we will receive 0.5% of the first \$400.0 million in net annual sales. If net annual sales are between \$400.0 million and \$1.0 billion, we will receive a net royalty of 1.5% on the portion of net sales between \$400.0 million and \$1.0 billion, and if annual sales exceed \$1.0 billion, we will receive a net royalty of 2.5% on the portion of net sales exceeding \$1.0 billion. Additionally, the royalty owed to Royalty Pharma may be reduced by one third if net product sales exceed certain thresholds across all indications.

Lasofoxifene (FABLYN) is a product candidate that resulted from our collaboration with Pfizer. In April 2007, Pfizer announced completion of the Postmenopausal Evaluation and Risk Reduction with lasofoxifene (PEARL) Phase III study with favorable efficacy and safety. Pfizer submitted an NDA and an MAA for osteoporosis treatment in December 2007 and January 2008, respectively. The FDA Advisory Committee in early September 2008 voted 9-3 in favor of approval of this drug and in January 2009, Pfizer received a complete response letter from the FDA requesting additional information for FABLYN. Pfizer is reviewing the letter and will work with the FDA to determine the appropriate next steps regarding its application. In December 2008 an EU Drug Panel granted a positive opinion for the approval of lasofoxifene in the EU for the treatment of osteoporosis in postmenopausal women at increased risk of fracture. Pfizer has also submitted NDAs for osteoporosis prevention and vaginal atrophy, and the FDA issued non-approvable letters for both NDAs.

Under the terms of our agreement with Pfizer, we are entitled to receive royalty payments equal to 6% of worldwide net sales of lasofoxifene for any indication. We previously sold to Royalty Pharma the rights to a total of 3% of net sales of lasofoxifene for a period of ten years following the first commercial sale of lasofoxifene. Accordingly, we will receive approximately 3% of worldwide net annual sales of lasofoxifene.

In December 2008, we entered into an exclusive, worldwide license agreement with SmithKline Beecham Corporation, doing business as GSK. Pursuant to the terms of the GSK agreement, we granted GSK the exclusive right to develop, manufacture and commercialize our LGD-4665 product candidate, as well as all other TPO-related molecules discovered by us. LGD-4665 is currently in a Phase II trial for treatment of thrombocytopenia, a condition of low-platelet levels commonly associated with a diverse range of clinical disorders. Under the terms of the GSK agreement, GSK paid us \$5 million as an upfront license fee and agreed to pay us up to \$158.0 million in development and commercial milestones and a royalty on net sales. In the first year of sales, royalties will be one-half of the regular royalty rate. GSK has the exclusive right to develop, manufacture and commercialize LGD-4665, as well as other TPO-related molecules discovered by us. GSK will direct all product development and commercialization and will be responsible for all costs going forward for development, patent maintenance and prosecution, and commercialization. We reported at the December 2008 American Society of Hematology annual meeting that LGD-4665 has the potential for weekly dosing, has differentiated clinical pharmacology from other products on the market and has promising potential efficacy in ITP, based on interim clinical study results.

## **Results of Operations**

Total revenues for 2008 were \$27.3 million, compared to \$12.9 million in 2007 and \$4.0 million in 2006. Our loss from continuing operations for 2008 was \$97.5 million, or \$1.02 per share, compared to \$34.8 million, or \$0.35 per share, in 2007 and \$56.6 million, or \$0.70 per share, in 2006.

**Table of Contents***AVINZA Royalty Revenue*

In connection with the sale of AVINZA, King is required to pay us a royalty on net sales of AVINZA. In accordance with the AVINZA purchase agreement, royalties are required to be reported and paid to us within 45 days of quarter-end during the 20 month period following the closing of the sale transaction (February 26, 2007). Thereafter, royalties will be paid on a calendar year basis. Such royalties are recognized in the quarter reported. Since there is a one quarter lag from when King recognizes AVINZA net sales to when King reports those sales and the corresponding royalties to us, we recognized AVINZA royalty revenues beginning in the second quarter of 2007. Royalty revenues were \$20.3 million in 2008 and \$11.4 million in 2007.

*Collaborative Research and Development and Other Revenue*

Collaborative research and development and other revenues for 2008 were \$7.0 million compared to \$1.5 million in 2007 and \$4.0 million for 2006. Collaborative research and development and other revenues include reimbursement for ongoing research activities, earned milestones, and recognition of prior years' up-front fees previously deferred in accordance with Staff Accounting Bulletin, or SAB No. 104 *Revenue Recognition* (SAB104). Revenue from distribution agreements includes recognition of up-front fees collected upon contract signing and deferred over the life of the distribution arrangement and milestones achieved under such agreements.

A comparison of collaborative research and development and other revenues is as follows (in thousands):

	<b>Year Ended December 31,</b>		
	<b>2008</b>	<b>2007</b>	<b>2006</b>
Collaborative research and development	\$	\$	\$ 1,678
License fees	5,000		
Milestones and other	2,000	1,485	2,299
	\$ 7,000	\$ 1,485	\$ 3,977

*Collaborative Research and Development.* The decrease in collaborative research and development revenue is due to the completion of the research phase of our collaborative arrangement with TAP, which concluded in June 2006.

*License fees.* During 2008, we received a \$5.0 million up-front license fee as a result of entering into an agreement with GSK under which we have licensed worldwide exclusive rights to Ligand's LGD-4665 product candidate and its other thrombopoietin (TPO)-related molecules to GSK.

*Milestones and Other.* Milestones in 2008 reflect \$2.0 million received from GSK as a result of FDA approval of eltrombopag. Milestones in 2007 reflect \$1.0 million received from GSK in connection with the filing of an NDA for eltrombopag and \$0.5 million earned from Wyeth. Milestones in 2006 reflect \$2.0 million received from GSK in connection with the commencement of Phase III studies of eltrombopag and \$0.3 million received from Wyeth in connection with the filing of an NDA for Viviant (also known as bazedoxifene).

## Table of Contents

### Research and Development Expenses

Research and development expenses were \$30.8 million in 2008 compared to \$44.6 million in 2007 and \$41.5 million in 2006. The major components of research and development expenses are as follows (in thousands):

	Years Ended December 31,		
	2008	2007	2006
Research performed under collaboration agreements	\$	\$	\$ 1,968
Internal research programs	21,626	21,954	22,110
Total research	21,626	21,954	24,078
Development costs	9,144	22,669	17,468
Total research and development	\$ 30,770	\$ 44,623	\$ 41,546

Research and development expenses for 2007 included one-time severance benefits and stock compensation charges of \$6.6 million incurred in connection with our restructuring and one-time stock compensation charges of \$0.8 million incurred in connection with the equitable adjustment of stock options.

Spending for research expenses was \$21.6 million for 2008 compared to \$22.0 million for 2007. Research expenses for 2008 included \$7.0 million related to a settlement agreement and mutual release we entered into with The Rockefeller University, or Rockefeller. Excluding the impact of the litigation settlement costs incurred in 2008 and one-time severance benefits and stock compensation charges incurred in connection with our restructuring and one-time stock compensation charges incurred in connection with the equitable adjustment of stock options incurred in 2007, internal research program expenses decreased in 2008 when compared to 2007 due to lower headcount related expenses in connection with our restructuring and reduced outside service costs associated with our thrombopoietin (TPO) agonists program.

Spending for research expenses was \$22.0 million for 2007 compared to \$24.1 million for 2006. Excluding the impact of one-time severance benefits and stock compensation charges incurred in 2007, the decrease in internal research program expenses for 2007 compared to 2006 reflects reduced costs primarily due to lower headcount related expenses in connection with our restructuring.

Spending for development expenses decreased to \$9.1 million for 2008 compared to \$22.7 million for 2007. Excluding the impact of one-time severance benefits and stock compensation charges, expenses decreased for 2008 when compared to 2007 due to lower headcount related expenses in connection with our restructuring and reduced outside service costs associated with our thrombopoietin (TPO) agonists program.

Spending for development expenses increased to \$22.7 million for 2007 compared to \$17.5 million for 2006. Excluding the impact of one-time severance benefits and stock compensation charges, the increase primarily reflects increased spending on Phase I clinical trials for LGD-4665 TPO, which was our leading drug candidate.

## Table of Contents

A summary of our significant internal research and development programs as of December 31, 2008 is as follows:

Program	Disease/Indication	Development Phase
Dual-Acting angiotensin and endothelin Receptor Antagonist (DARA)	Diabetic Nephropathy*	Phase II
Selective Androgen Receptor Modulators (SARMs) (agonists)	Muscle wasting and frailty	Pre-clinical
Chemokine Receptor (CCR1)	Inflammatory and autoimmune diseases	Pre-clinical
Small molecule Erythropoietin (EPO) receptor agonists	Chemotherapy-induced anemia and anemia due to kidney failure	Research
Selective Glucocorticoid Receptor Modulators (SGRMs)	Inflammation and cancer	Research
Androgen-independent Prostate Cancer (AiPC)	Prostate cancer	Research

\* Phase II clinical trials conducted so far have studied patients with hypertension

We do not provide forward-looking estimates of costs and time to complete our ongoing research and development projects, as such estimates would involve a high degree of uncertainty. Uncertainties include our inability to predict the outcome of complex research, our inability to predict the results of clinical studies, regulatory requirements placed upon us by regulatory authorities such as the FDA and EMEA, our inability to predict the decisions of our collaborative partners, our ability to fund research and development programs, competition from other entities of which we may become aware of in future periods, predictions of market potential from products that may be derived from our research and development efforts, and our ability to recruit and retain personnel or third-party research organizations with the necessary knowledge and skills to perform certain research. Refer to Item 1A. Risks Factors for additional discussion of the uncertainties surrounding our research and development initiatives.

### General and Administrative Expenses

General and administrative expenses were \$23.8 million for 2008, compared to \$30.4 million for 2007 and \$43.9 million for 2006. General and administrative costs for 2008 were lower when compared to 2007 primarily due to lower headcount related expenses of \$7.1 million (which included a one-time severance benefits \$3.9 million in connection with our restructuring, and stock compensation charges of \$1.0 million incurred in connection with the equitable adjustment of stock options), reduced outside consulting and audit fees of \$3.6 million and reduced occupancy cost of \$1.7 million. These reductions were partially offset by a \$4.1 million charge for exit costs when we fully ceased use of one of our leased facilities in the first quarter of 2008 and increased legal expenses of \$1.1 million primarily related to litigation with The Salk Institute for Biological Studies, or Salk, and Rockefeller.

The decrease for 2007 compared to 2006 is due to lower headcount in connection with our restructuring and reduced legal costs (as we incurred significant costs during 2006 in connection with the ongoing SEC investigation, shareholder litigation and our strategic initiative process) and consultant fees incurred in connection with our 2006 SOX compliance program. General and administrative expenses for 2007 include one-time severance benefits and stock compensation charges of \$4.1 million incurred in connection with our restructuring and one-time stock compensation charges of \$1.0 million incurred in connection with the equitable adjustment of stock options. General and administrative expenses for 2007 also include \$2.1 million of legal and

## **Table of Contents**

related costs incurred in connection with the ongoing SEC investigation of our financial statement restatement (See Part I, Item 3 – Legal Proceedings ).

### *Write-off of in-process research and development*

For acquisitions prior to January 1, 2009, the fair value of acquired In-Process Research and Development (IPR&D) projects, which have no alternative future use and which have not reached technological feasibility at the date of acquisition were immediately expensed. We wrote-off \$72.0 million of acquired in-process research and development related to the acquisition of Pharmacoepia, Inc. in 2008. The amount is related to internal and partnered product candidates targeting a variety of indications and currently in various stages of development ranging from preclinical to Phase II. Of the total amount, \$29.0 million relates to product candidates currently in the preclinical stage of development, \$9.0 million relates to product candidates currently in Phase I clinical trials and \$34.0 million relates to product candidates currently in Phase II clinical trials.

We used the income method to determine the estimated fair values of acquired in-process research and development, which uses a discounted cash flow model and applies a probability weighting based on estimates of successful product development and commercialization to estimated future net cash flows resulting from projected revenues and related costs. These success rates take into account the stages of completion and the risks surrounding successful development and commercialization of the underlying product candidates. These cash flows were then discounted to present value using a discount rate of 40% for product candidates in the preclinical stage, 35% for product candidates currently in Phase I clinical trials and 30% for product candidates currently in Phase II clinical trials.

The above assumptions were used solely for the purposes of estimating fair values of these product candidates as of the date of their acquisition. However, we cannot provide assurance that the underlying assumptions used to forecast the cash flows or the timely and successful completion of development and commercialization will materialize, as estimated. Consequently, the eventual realized value of the acquired in-process research and development may vary from its estimated value at the date of acquisition.

### *Accretion of Deferred Gain on Sale Leaseback*

On October 25, 2006, we, along with our wholly-owned subsidiary Nexus, entered into an agreement with Slough for the sale of our real property located in San Diego, California for a purchase price of \$47.6 million. This property, with a net book value of \$14.5 million, includes one building totaling approximately 82,500 square feet, the land on which the building is situated, and two adjacent vacant lots. As part of the sale transaction, we agreed to lease back the building for a period of 15 years. The sale transaction subsequently closed on November 9, 2006.

In accordance with SFAS 13, *Accounting for Leases*, we recognized an immediate pre-tax gain on the sale transaction of \$3.1 million in the fourth quarter of 2006 and deferred a gain of \$29.5 million on the sale of the building. The deferred gain is recognized as an offset to operating expense on a straight-line basis over the 15 year term of the lease at a rate of approximately \$2.0 million per year.

### *Interest Income*

Interest income was \$2.1 million for 2008, compared to \$8.7 million for 2007 and \$3.8 million for 2006. The decrease from 2007 to 2008 is due to lower cash and investment balances as a result of the \$252.7 million cash dividend paid on April 19, 2007, as well as lower interest rates. The increase from 2006 to 2007 is primarily due to higher cash and investment balances as a result of the proceeds from the sale of the Oncology Product Line in October 2006, the sale and leaseback of the corporate headquarters in November 2006 and the sale of the AVINZA Product Line in February 2007.

## **Table of Contents**

### *Income Taxes*

During 2008, we had losses from continuing operations and discontinued operations. For 2007 and 2006, we had losses from continuing operations and income from discontinued operations. Our overall 2008 net income tax benefit consists of an income tax benefit of \$0.4 million from discontinued operations and an income tax benefit of \$0.06 million from continuing operations. The net tax benefit reflects current federal and state tax refunds and a foreign tax receivable. In accordance with SFAS No. 109, *Accounting for Income Taxes*, the losses from continuing operations in 2007 and 2006 generated benefits of \$18.7 million and \$18.8 million, respectively. This income tax benefit captures the deemed use of losses from continuing operations used to offset the income and gain from our AVINZA Product Line and Oncology Product Line that were sold in 2007 and 2006, respectively.

At December 31, 2008, we have federal net operating loss carryforwards of \$398.4 million, \$130.0 million of state net operating loss carryforwards and \$22.4 million of federal research and development credit carryforwards. Federal research and development credit carryforwards of \$1.0 million expired at the beginning of 2009 with the remainder expiring through 2028, and we have \$13.0 million of California and New Jersey research and development credit carryforwards that have no expiration date.

Pursuant to Internal Revenue Code Sections 382 and 383, use of net operating loss and credit carryforwards may be limited if there were changes in ownership of more than 50%. We have completed a Section 382 study for Ligand, excluding Glycomed, and have determined that Ligand had an ownership change in 2005 and 2007. As a result of these ownership changes, utilization of Ligand's net operating losses and credits are subject to limitations under Internal Revenue Code Sections 382 and 383. The information necessary to determine if an ownership change related to Glycomed occurred prior to its acquisition by Ligand is not currently available. Accordingly, such tax net operating loss and credit carryforwards are not reflected in our deferred tax assets. If information becomes available in the future to substantiate the ability to utilize these net operating losses not limited by Sections 382, we will record the deferred tax assets at such time.

Our research and development credits pertain to federal, California and New Jersey jurisdictions. These jurisdictions require that we create minimal documentation and support. We completed a formal study and believe that we maintains sufficient documentation to support the amounts of the research and development credits.

### *Discontinued Operations*

#### *Oncology Product Line*

On September 7, 2006, we and Eisai entered into the Oncology purchase agreement pursuant to which Eisai agreed to acquire all of our worldwide rights in and to our oncology products, or Oncology Product Line, including, among other things, all related inventory, equipment, records and intellectual property, and assume certain liabilities as set forth in the Oncology purchase agreement. The Oncology Product Line included our four marketed oncology drugs: ONTAK, Targretin capsules, Targretin gel and Panretin gel. Pursuant to the Oncology purchase agreement, at closing on October 25, 2006, we received \$185.0 million in net cash proceeds, which is net of \$20.0 million that was funded into an escrow account to support any potential indemnification claims made by Eisai following the closing of the sale. Of the escrowed amount, \$10.0 million was released to us on April 25, 2007, and the remaining \$10.0 million, plus interest of \$0.8 million, was released to us on October 25, 2007. We also recorded \$1.7 million in transaction fees and costs associated with the sale that are not reflected in net cash proceeds. We recorded a pre-tax gain on the sale of \$135.8 million in the fourth quarter of 2006. In 2007, we recognized a \$20.8 million pre-tax gain resulting from the release of funds from the escrow account partially offset by a \$2.8 million pre-tax loss due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date. In 2008, we recognized a \$10.6 million pre-tax loss resulting from the Salk settlement for \$13.0 million partially offset by a \$2.4 million pre-tax gain due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date.

## **Table of Contents**

Additionally, \$38.6 million of the proceeds received from Eisai were deposited into an escrow account to repay a loan received from King Pharmaceuticals, Inc., or King, the proceeds of which were used to pay our co-promote termination obligation to Organon in October 2006. The escrow amounts were released and the loan repaid to King in January 2007.

In connection with the Oncology purchase agreement with Eisai, we entered into a transition services agreement whereby we agreed to perform certain transition services for Eisai, in order to effect, as rapidly as practicable, the transition of purchased assets from Ligand to Eisai. In exchange for these services, Eisai paid us a monthly service fee through June 25, 2007. Fees earned under the transition services agreement during 2007 and 2006, which were recorded as an offset to operating expenses, were \$2.7 million and \$1.9 million, respectively.

Prior to the Oncology sale, we recorded accruals for rebates, chargebacks, and other discounts related to Oncology products when product sales were recognized as revenue under the sell-through method. Upon the Oncology sale, we accrued for rebates, chargebacks, and other discounts related to Oncology products in the distribution channel which had not sold-through at the time of the Oncology sale and for which we retained the liability subsequent to the Oncology sale. These products expired at various dates through July 31, 2008. Our accruals for Oncology rebates, chargebacks, and other discounts total \$0.4 million and \$1.2 million as of December 31, 2008 and 2007, respectively, and they are included in accrued liabilities in the accompanying consolidated balance sheet.

Additionally, and pursuant to the terms of the Oncology purchase agreement, we retained the liability for returns of product from wholesalers that had been sold by us prior to the close of the transaction. Accordingly, as part of the accounting for the gain on the sale of the Oncology Product Line, we recorded a reserve for Oncology product returns. Under the sell-through revenue recognition method, we previously did not record a reserve for returns from wholesalers. Oncology products sold by us may be returned through a specified period subsequent to the product expiration date, but no later than July 31, 2009. Our reserve for Oncology returns was \$0.9 million and \$4.4 million as of December 31, 2008 and 2007, respectively, and is included in accrued liabilities in the accompanying consolidated balance sheet.

### *AVINZA Product Line*

On September 6, 2006, we and King entered into the AVINZA purchase agreement pursuant to which King agreed to acquire all of our rights in and to AVINZA in the United States, its territories and Canada, including, among other things, all AVINZA inventory, records and related intellectual property, and assume certain liabilities as set forth in the AVINZA purchase agreement, which we collectively refer to as the Transaction. In addition, King, subject to the terms and conditions of the AVINZA purchase agreement, agreed to offer employment following the closing of the Transaction, or Closing, to certain of our existing AVINZA sales representatives or otherwise reimburse us for agreed upon severance arrangements offered to any such non-hired representatives.

Pursuant to the AVINZA purchase agreement, at Closing on February 26, 2007, or Closing Date, we received \$280.4 million in net cash proceeds, which is net of \$15.0 million that was funded into an escrow account to support any potential indemnification claims made by King following the Closing. Of the escrowed amount, \$7.5 million was released to us on August 26, 2007, and the remaining \$7.5 million, plus interest of \$0.5 million, was released to us on February 26, 2008.

The net cash received also includes reimbursement of \$47.8 million for co-promote termination payments which had previously been paid to Organon, \$0.9 million of interest we paid King on a loan that was repaid in January 2007 and \$0.5 million of severance expense for AVINZA sales representatives not offered positions with

## Table of Contents

King. A summary of the final net cash proceeds, exclusive of \$6.6 million in transaction costs and adjusted to reflect the final results of the retail inventory study, is as follows (in thousands):

Purchase price	\$ 265,000
Reimbursement of Organon payments	47,750
Repayment of interest on King loan	883
Reimbursement of sales representative severance costs	453
	314,086
Less retail pharmacy inventory adjustment	(11,225)
Less cost of goods manufacturing adjustment	(6,000)
Net cash proceeds	\$ 296,861

King also assumed our co-promote termination obligation to make payments to Organon based on net sales of AVINZA (\$58.5 million and \$59.5 million as of December 31, 2008 and 2007, respectively). As Organon has not consented to the legal assignment of the co-promote termination obligation from us to King, we remain liable to Organon in the event of King's default of this obligation. We also incurred \$6.6 million in transaction fees and other costs associated with the sale that are not reflected in the net cash proceeds, of which \$3.6 million was recognized in 2006. We recorded a pre-tax gain on the sale of \$310.1 million in the first quarter of 2007. We recorded a \$0.3 million pre-tax increase to the gain on the sale in the second quarter of 2007 due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date partially offset by an adjustment to investment banking fees. In the third quarter of 2007, we recognized a \$7.5 million pre-tax gain resulting from the release of funds from the escrow account partially offset by a \$0.6 million pre-tax loss due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date. We recorded a \$2.1 million pre-tax decrease to the gain on the sale in the fourth quarter of 2007 due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date. In 2008, we recognized an \$8.1 million pre-tax gain resulting from the release of funds from the escrow account. In addition, during 2008 we recognized a \$1.5 million pre-tax gain due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date.

Also on September 6, 2006, we entered into a contract sales force agreement, or sales call agreement, with King, pursuant to which King agreed to conduct a sales detailing program to promote the sale of AVINZA for an agreed upon fee, subject to the terms and conditions of the sales call agreement. Pursuant to the Sales Call Agreement, King agreed to perform certain minimum monthly product details (i.e. sales calls), which commenced effective October 1, 2006 and continued until the Closing Date. Co-promotion expense recognized under the sales call agreement for 2007 and 2006 was \$2.8 million and \$3.8 million, respectively. No amount was due to King under the sales call agreement as of December 31, 2007. The sales call agreement terminated effective on the Closing Date.

Prior to the AVINZA sale, we recorded accruals for rebates, chargebacks, and other discounts related to AVINZA products when product sales were recognized as revenue under the sell-through method. Upon the AVINZA sale, we accrued for rebates, chargebacks, and other discounts related to AVINZA products in the distribution channel which had not sold-through at the time of the AVINZA sale and for which we retained the liability subsequent to the sale. These products expire at various dates through June 30, 2009. Our accruals for AVINZA rebates, chargebacks, and other discounts total \$0.1 million and \$1.0 million as of December 31, 2008 and 2007, respectively, and are included in accrued liabilities in the accompanying consolidated balance sheets.

Additionally, and pursuant to the terms of the AVINZA purchase agreement, we retained the liability for returns of product from the distribution channel that had been sold by us prior to the close of the transaction. Accordingly, as part of the accounting for the gain on the sale of AVINZA, we recorded a reserve for AVINZA product returns. Under the sell-through revenue recognition method, we previously did not record a reserve for returns. AVINZA products sold by us may be returned through a specified period subsequent to the product

**Table of Contents**

expiration date, but no later than December 31, 2009. Our reserve for AVINZA returns is \$8.2 million and \$10.7 million as of December 31, 2008 and 2007, respectively, and is included in accrued liabilities in the accompanying consolidated balance sheet.

*Summary of Results from Discontinued Operations*

There were no activities related to discontinued operations in 2008. Income from discontinued operations before income taxes was \$6.0 million in 2007 compared to a loss from discontinued operations before income taxes of \$91.4 million in 2006.

The following table summarizes the 2007 results from discontinued operations included in the 2007 consolidated statement of operations (in thousands):

	<b>AVINZA Product Line</b>
Product sales	\$ 18,256
Operating costs and expenses:	
Cost of products sold	3,608
Research and development	120
Selling, general and administrative	3,709
Co-promotion	2,814
Co-promote termination charges	2,012
Total operating costs and expenses	12,263
Income from operations	5,993
Interest expense	
Income before income taxes	\$ 5,993

The following table summarizes the 2006 results from discontinued operations included in the 2006 consolidated statement of operations (in thousands):

	<b>Oncology Product Line</b>	<b>AVINZA Product Line</b>	<b>Total</b>
Product sales	\$ 47,512	\$ 136,983	\$ 184,495
Collaborative research and development and other revenues	208		208
Total revenues	47,720	136,983	184,703
Operating costs and expenses:			
Cost of products sold	13,410	22,642	36,052
Research and development	12,895	380	13,275
Selling, general and administrative	13,891	36,118	50,009
Co-promotion		37,455	37,455
Co-promote termination charges		131,078	131,078
Total operating costs and expenses	40,196	227,673	267,869
Income (loss) from operations	7,524	(90,690)	(83,166)

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Interest expense	(51)	(8,187) (1)	(8,238)
Income (loss) before income taxes	\$ 7,473	\$ (98,877)	\$ (91,404)

- (1) As part of the terms of the AVINZA purchase agreement, we were required to redeem its outstanding convertible subordinated notes. All of the notes converted into shares of common stock in 2006 prior to redemption. In accordance with EITF 87-24, *Allocation of Interest to Discontinued Operations*, the interest on the notes was allocated to discontinued operations because the debt was required to be repaid in connection with the disposal transaction.

## **Table of Contents**

Product sales were \$18.3 million in 2007 compared to \$184.5 million in 2006. Total operating costs were \$12.3 million in 2007 compared to \$267.9 million in 2006. The decrease in product sales and total operating costs and expenses in 2007 compared to 2006 was primarily due to the sales of the Oncology and AVINZA Product Lines effective October 25, 2006 and February 26, 2007, respectively.

Co-promotion expense of \$2.8 million in 2007 represents fees paid to King for contract sales expenses incurred under the sales call agreement prior to the closing of the Transaction on February 26, 2007. This compares to \$37.5 million of co-promotion expense recognized under our co-promotion arrangement with Organon in 2006 that concluded September 30, 2006.

In 2006, we recognized \$131.1 million of co-promote termination costs in connection with the termination of our AVINZA co-promote arrangement with Organon effective January 1, 2006. In 2007, we recognized \$2.0 million of co-promote termination expense which represents the accretion of the termination liability to fair value as of February 26, 2007, the closing of the AVINZA Product Line sale Transaction.

Interest expense in 2006 of \$8.2 million primarily represented interest on our then outstanding convertible subordinated notes. As part of the terms of the AVINZA purchase agreement, we were required to redeem the outstanding notes. All of the notes converted into shares of common stock in 2006 prior to redemption. In accordance with EITF 87-24, *Allocation of Interest to Discontinued Operations*, the interest on the notes was allocated to discontinued operations because the debt was required to be repaid in connection with the disposal transaction.

## **Liquidity and Capital Resources**

We have financed our operations through private and public offerings of our equity securities, collaborative research and development and other revenues, issuance of convertible notes, product sales and the subsequent sales of our commercial assets, capital and operating lease transactions, accounts receivable factoring and equipment financing arrangements and investment income. In March 2007, we announced that our board of directors authorized a stock repurchase program under Rule 10b-18 of the Securities Exchange Act of 1934, as amended, of up to \$100 million of shares of our common stock in the open market and negotiated purchases over a period of 12 months. In 2008 and 2007, we repurchased 0.3 million and 6.2 million shares, respectively, of our common stock in open market transactions at varying prices for an aggregate purchase price of \$1.6 million and \$39.6 million.

Working capital was \$23.3 million at December 31, 2008 compared with \$59.0 million at December 31, 2007. Cash, cash equivalents and short-term investments total \$80.7 million as of December 31, 2008 compared with \$94.4 million as of December 31, 2007. We primarily invest our cash in United States government and investment grade corporate debt securities.

On July 19, 2007, we purchased \$5.0 million of commercial paper issued by Golden Key Ltd. While the investment was highly-rated and within our investment policy at the time of purchase, during the third quarter of 2007, large credit rating agencies downgraded the quality of this security. In addition, as a result of not meeting certain liquidity covenants, the assets were assigned to a trustee who established a committee of the largest senior credit holders to determine the next steps. Subsequently, Golden Key defaulted on its obligation to settle the security on the stated maturity date of October 10, 2007. Based on available information, we estimate that we will be able to recover approximately \$1.7 million on this security. Accordingly, we adjusted the carrying value by recording impairment losses of \$2.0 million and \$1.3 million during the years ended December 31, 2008 and 2007, respectively. Further, liquidity in the capital markets has continued to be volatile. Accordingly, we may be exposed to additional impairment for this investment until it is fully recovered.

## **Table of Contents**

Based on our current business outlook, we believe our currently available cash, cash equivalents, and short-term investments as well as our current and future royalty revenues will be sufficient to satisfy our anticipated operating and capital requirements through at least the next twelve months. Our future operating and capital requirements will depend on many factors, including, but not limited to: the pace of scientific progress in our research and development programs; the magnitude of these programs; the scope and results of preclinical testing and clinical trials; the time and costs involved in obtaining regulatory approvals; the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims; competing technological and market developments; the amount of royalties on sales of AVINZA and PROMACTA; and the efforts of our collaborative partners. We will also consider additional equipment financing arrangements similar to arrangements currently in place.

### *Operating Activities*

Operating activities used cash of \$20.6 million, \$97.7 million and \$138.5 million in 2008, 2007 and 2006, respectively. The use of cash in 2008 reflects a net loss of \$98.1 million, adjusted by \$0.7 million of loss from discontinued operations and \$82.7 million of non-cash items to reconcile the net loss to net cash used in operations. These reconciling items primarily reflect the write-off of acquired in-process research and development of \$72.0 million, non-cash exit and restructuring costs of \$5.3 million, the recognition of \$3.6 million of stock-based compensation expense, depreciation of assets of \$1.1 million, realized loss on investment of \$2.0 million, and the write-off of assets of \$0.7 million, partially offset by the accretion of deferred gain on the sale leaseback of the building of \$2.0 million. The use of cash in 2008 is further impacted by changes in operating assets and liabilities due primarily to decreases in accounts payable and accrued liabilities of \$7.3 million partially offset by decreases in other current assets of \$4.9 million and an increase in other liabilities of \$1.3 million. Net cash used in operating activities of discontinued operations was \$4.6 million in 2008.

The use of cash in 2007 reflects net income of \$281.7 million, adjusted by \$316.4 million of gain from discontinued operations and \$11.0 million of non-cash items to reconcile net income to net cash used in operations. These reconciling items primarily reflect deferred gain on the sale leaseback of the building of \$2.0 million, the recognition of \$7.6 million of stock-based compensation expense, depreciation and amortization of assets of \$2.6 million, a realized loss on investment of \$1.3 million, and the write-off of assets of \$1.0 million. The use of cash in 2007 is further impacted by changes in operating assets and liabilities due primarily to decreases in accounts payable and accrued liabilities of \$54.5 million and to deferred revenue of \$8.7 million and an increase in the restricted indemnity account of \$10.1 million, partially offset by decreases in accounts receivable, net of \$11.5 million, other current assets of \$1.4 million, and inventories, net of \$0.9 million. The increase in the restricted indemnity account is primarily due to the funding of \$10.0 million to support our existing indemnification obligations to continuing and departing directors in connection with the ongoing SEC investigation and related matters. Net cash used in operating activities from discontinued operations was \$15.6 million in 2007.

The use of cash in 2006 reflects a net loss of \$31.7 million, adjusted by \$24.8 million of gain from discontinued operations and \$18.3 million of non-cash items to reconcile the net loss to net cash used in operations. These reconciling items include depreciation and amortization of assets of \$16.2 million and the recognition of \$5.3 million of stock-based compensation expense partially offset by gain on sale leaseback of \$3.1 million. The use of cash in 2006 is further impacted by changes in operating assets and liabilities due primarily to decreases in accounts payable and accrued liabilities of \$26.6 million partially offset

## **Table of Contents**

by decreases in accounts receivable, net of \$9.4 million; inventories of \$1.6 million; and other current assets of \$6.6 million. Net cash used in operating activities of discontinued operations was \$91.3 million in 2006.

### *Investing Activities*

Investing activities used cash of \$24.4 million in 2008 and provided cash of \$343.8 million and \$196.9 million in 2007 and 2006, respectively. Cash used in investing activities in 2008 primarily reflects the net purchases of short-term investments of \$36.4 million partially offset by \$4.1 million of net cash acquired from our merger with Pharmacoepia. Net cash provided by investing activities of discontinued operations was \$8.1 million in 2008.

Cash provided by investing activities in 2007 primarily reflects the net purchases of short-term investments of \$5.4 million partially offset by the decrease in restricted cash and investments of \$1.5 million. Net cash provided by investing activities of discontinued operations was \$347.9 million in 2007.

Cash provided by investing activities in 2006 includes proceeds from the sale leaseback of our corporate headquarters of \$46.9 million and net proceeds from the sale of short-term investments of \$7.2 million. These amounts were partially offset by an increase in restricted cash and investments of \$1.1 million and purchases of property and equipment of \$1.8 million. Net cash provided by investing activities of discontinued operations was \$145.6 million in 2006.

### *Financing Activities*

Financing activities used cash of \$3.0 million and \$327.7 million in 2008 and 2007, respectively, and provided cash of \$33.3 million in 2006. Cash used in financing activities in 2008 primarily reflects repurchase of our common stock of \$1.6 million and payments under equipment financing obligations of \$1.5 million.

Cash used in financing activities in 2007 primarily reflects the \$252.7 million cash dividend payment, \$39.6 million in repurchases of our common stock, and payments under equipment financing obligations of \$2.2 million. These amounts are partially offset by proceeds from the issuance of common stock, related primarily to the exercise of employee stock options, of \$4.4 million. Net cash used in financing activities of discontinued operations was \$37.8 million in 2007.

**Table of Contents**

Cash provided by financing activities in 2006 includes the repayment of the mortgage note payable due on our corporate headquarters of \$11.8 million in connection with the sale of that building in November 2006, and net payments under equipment financing arrangements of \$1.5 million partially offset by proceeds from the exercise of employee stock options and stock purchases of \$9.1 million. Net cash provided by financing activities of discontinued operations was \$37.8 million in 2006.

*Other*

As part of our alliances with GSK, Wyeth, Cephalon and Schering-Plough and our discovery collaboration agreement with BMS, we have received up-front cash payments and licenses to certain product candidates. In connection with these agreements, we are obligated to perform significant research and development activities over multiple years and as such, expect to incur significant costs performing such activities. The following table provides the period over which these research and development activities are to be provided, as well as the deferred revenue currently recorded for each agreement as of December 31, 2008:

<b>Collaborative Agreement</b>	<b>Expiration of Initial Research Term</b>	<b>Deferred Revenue</b>
2007 Schering-Plough Agreement	February 2012	\$ 3,492
BMS Discovery Collaboration Agreement	December 2011	13,003
GSK Agreement	March 2011	6,250
Wyeth Agreement	December 2009	1,510
Cephalon Agreement	May 2009	319

On March 22, 2007, we announced a return of cash on our common stock in the form of a \$2.50 per share special cash dividend. The aggregate amount of \$252.7 million was paid on April 19, 2007 to shareholders of record as of April 5, 2007. In addition to the cash dividend, the Board of Directors authorized up to \$100.0 million in share repurchases over the subsequent 12 months. In 2007, we repurchased 6.2 million shares of our common stock totaling \$39.6 million. Subsequent to December 31, 2007 and through February 28, 2008, we repurchased an additional 0.3 million shares of our common stock totaling \$1.6 million. We currently have no plans of issuing any dividends or repurchasing additional shares of our common stock in the near future.

Certain of our property and equipment is pledged as collateral under various equipment financing arrangements. As of December 31, 2008, \$4.0 million was outstanding under such arrangements with \$1.8 million classified as current. During January 2009, we paid off the remaining \$3.4 million of financing obligations acquired through our acquisition of Pharmacopeia.

On July 19, 2007, we purchased \$5.0 million of commercial paper issued by Golden Key Ltd. While the investment was highly-rated and within our investment policy at the time of purchase, during the third quarter of 2007, large credit rating agencies downgraded the quality of this security. In addition, as a result of not meeting certain liquidity covenants, the assets were assigned to a trustee who established a committee of the largest senior credit holders to determine the next steps. Subsequently, Golden Key defaulted on its obligation to settle the security on the stated maturity date of October 10, 2007. Based on available information, we estimate that we will be able to recover approximately \$1.7 million on this security. Accordingly, we adjusted the carrying value by recording an impairment loss of \$2.0 million and \$1.3 million in December 2008 and 2007, respectively. Further, liquidity in the capital markets has continued to be volatile. Accordingly, we may be exposed to additional impairment for this investment until it is fully recovered.

The noteholders of our 6% convertible subordinated notes, in the aggregate principal amount of \$155.3 million, converted all of the notes into approximately 25.1 million shares of our common stock in 2006. Accrued interest and unamortized debt issue costs related to the converted notes of \$0.5 million and \$1.4 million, respectively, were recorded as additional paid-in capital.

## Table of Contents

In connection with the acquisition of Pharmacoepia on December 23, 2008, Pharmacoepia security holders received a contingent value right that entitles them to an aggregate cash payment of \$15.0 million under certain circumstances.

### Leases and Off-Balance Sheet Arrangements

We lease our office and research facilities under operating lease arrangements with varying terms through November 2021. The agreements provide for increases in annual rents based on changes in the Consumer Price Index or fixed percentage increases ranging from 3% to 7%. Commencing January 2008, we also sublease a portion of our facilities through July 2015. The sublease agreement provides for a 3% increase in annual rents.

### Contractual Obligations

As of December 31, 2008, future minimum payments due under our contractual obligations are as follows (in thousands):

	Total	Payments Due by Period			
		Less than 1 year	1-3 years	3-5 years	More than 5 years
Equipment financing obligations (1)	\$ 4,506	\$ 2,141	\$ 2,349	\$ 16	\$
Operating lease obligations (2)	83,154	7,815	16,094	16,743	42,502
Severance obligation	846	846			
Consulting / License Agreements	1,369	1,019	200	150	
Co-promote termination liability (3)					
Total contractual obligations	\$ 89,875	\$ 11,821	\$ 18,643	\$ 16,909	\$ 42,502

- (1) Includes interest payments as follows: \$ 500 \$ 313 \$ 187 \$
- (2) We lease an office and research facility under an operating lease arrangement through July 2015. Commencing January 2008, we sublet this facility through July 2015. The sublease agreement provides for a 3% increase in annual rents. As of December 31, 2008, we expect to receive aggregate future minimum lease payments totaling \$5.7 million (nondiscounted) over the duration of the sublease agreement as follows and not included in the table above: less than one year, \$0.8 million; one to three years, \$1.7 million; three to five years, \$1.8 million; and more than five years, \$1.4 million.
- (3) Our co-promote termination obligation to Organon was assumed by King pursuant to the AVINZA purchase agreement. However, as Organon did not consent to the legal assignment of the obligation to King, Ligand remains liable to Organon in the event of King's default of the obligation. As of December 31, 2008, the total estimated amount of the obligation is \$58.5 million on an undiscounted basis. We do not expect to make any cash payments related to this obligation.

As of December 31, 2008, we have net open purchase orders (defined as total open purchase orders at year end less any accruals or invoices charged to or amounts paid against such purchase orders) totaling approximately \$7.4 million. We plan to spend approximately \$0.8 million on capital expenditures in 2009.

## **Table of Contents**

### **Critical Accounting Policies**

Certain of our policies require the application of management judgment in making estimates and assumptions that affect the amounts reported in the consolidated financial statements and disclosures made in the accompanying notes. Those estimates and assumptions are based on historical experience and various other factors deemed to be applicable and reasonable under the circumstances. The use of judgment in determining such estimates and assumptions is by nature, subject to a degree of uncertainty. Accordingly, actual results could differ materially from the estimates made. Our critical accounting policies are as follows:

#### *Revenue Recognition*

Royalties on sales of AVINZA and PROMACTA are recognized in the quarter reported by the respective partner.

Revenue from research funding under our collaboration agreements is earned and recognized on a percentage of completion basis as research hours are incurred in accordance with the provisions of each agreement.

Revenue earned related to up-front product and technology license fees is recognized in accordance with Staff Accounting Bulletin 104 issued by the SEC and Emerging Issue Task Force (EITF) Issue 00-21, *Revenue Arrangements with Multiple Deliverables* issued by the Financial Accounting Standards Board, or the FASB. Accordingly, amounts received under multiple-element arrangements requiring ongoing services or performance by us are recognized over the period of such services or performance.

Revenue from milestones is recognized when earned, as evidenced by written acknowledgement from the collaborator, provided that (i) the milestone event is substantive and its achievability was not reasonably assured at the inception of the agreement, (ii) we have no further performance obligations relating to that event, and (iii) collectibility is reasonably assured. If these criteria are not met, the milestone payment is recognized over the remaining minimum period of our performance obligations under the arrangement.

#### *Co-Promote Termination Accounting*

As part of the termination and return of co-promotion rights agreement that we entered into with Organon in January 2006, we agreed to make quarterly payments to Organon, effective for the fourth quarter of 2006, equal to 6.5% of AVINZA net sales through December 31, 2012 and thereafter 6% through patent expiration, currently anticipated to be November 2017. The estimated fair value of the amounts to be paid to Organon after the termination (\$95.2 million as of January 2006), based on the future estimated net sales of the product, was recognized as a liability and expensed as a cost of the termination as of the effective date of the agreement, January 2006.

In connection with the AVINZA sale transaction, King assumed our obligation to make payments to Organon based on net sales of AVINZA (the fair value of which approximated \$58.5 million as of December 31, 2008). As Organon has not consented to the legal assignment of the co-promote termination obligation from us to King, we remain liable to Organon in the event of King's default of this obligation. Therefore, we recorded an asset on February 26, 2007 to recognize King's assumption of the obligation, while continuing to carry the co-promote termination liability in our consolidated financial statements to recognize our legal obligation as primary obligor to Organon as required under SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*. This asset represents a non-interest bearing receivable for future payments to be made by King and is recorded at its fair value. As of December 31, 2008 and thereafter, the receivable and liability will remain equal and adjusted each quarter for changes in the fair value of the obligation. On a quarterly basis, management reviews the carrying value and assesses the co-promote termination receivable for impairment (e.g. in the event King defaults on the assumed obligation to pay Organon). Annually

## **Table of Contents**

management also reviews the carrying value of the co-promote termination liability. Due to assumptions and judgments inherent in determining the estimates of future net AVINZA sales through November 2017, the actual amount of net AVINZA sales used to determine the amount of the asset and liability for a particular period may be materially different from current estimates. Any resulting changes to the co-promote termination liability will have a corresponding impact on the co-promote termination payments receivable. As of December 31, 2008 and 2007, the fair value of the co-promote termination liability (and the corresponding receivable) was determined using a discount rate of 15%.

### *Impairment of Long-Lived Assets*

We review long-lived assets for impairment annually or whenever events or circumstances indicate that the carrying amount of the assets may not be recoverable. We measure the recoverability of assets to be held and used by comparing the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets. Fair value of our long-lived assets is determined using the expected cash flows discounted at a rate commensurate with the risk involved. As of December 31, 2008, we believe that the future undiscounted cash flows to be received from our long-lived assets will exceed the assets' carrying value.

### *Income Taxes*

Income taxes are accounted for under the liability method. This approach requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of differences between the tax basis of assets or liabilities and their carrying amounts in the consolidated financial statements. A valuation allowance is provided for deferred tax assets if it is more likely than not that these items will either expire before we are able to realize their benefit or if future deductibility is uncertain. As of December 31, 2008 and 2007, we have provided a full valuation allowance against the deferred tax asset as recoverability was uncertain. Developing the provision for income taxes requires significant judgment and expertise in federal and state income tax laws, regulations and strategies, including the determination of deferred tax assets and liabilities and, if necessary, any valuation allowances that may be required for deferred tax assets. Our judgments and tax strategies are subject to audit by various taxing authorities. While we believe we have provided adequately for our income tax liabilities in our consolidated financial statements, adverse determinations by these taxing authorities could have a material adverse effect on our consolidated financial condition and results of operations.

### *Stock-Based Compensation*

We have employee compensation plans under which various types of stock-based instruments are granted. We account for our share-based payments in accordance with SFAS No. 123(R), *Share-Based Payment*. This statement requires all share-based payments to employees, including grants of employee stock options, to be recognized in the Consolidated Statements of Income as compensation expense (based on their estimated fair values) generally over the vesting period of the awards.

Stock-based compensation cost for awards to employees and non-employee directors is recognized on a straight-line basis over the vesting period until the last tranche vests. Compensation cost for consultant awards is recognized over each separate tranche's vesting period. We recognized compensation expense of \$3.6 million, \$7.6 million and \$5.3 million for 2008, 2007 and 2006, respectively, associated with option awards, restricted stock and an equitable adjustment of employee stock options. Of the total compensation expense associated with option awards, \$0.3 million related to options granted to non-employee consultants for 2006. Of the total compensation expense associated with the option awards for 2007, \$1.8 million related to the \$2.50 equitable adjustment of the exercise price for all options outstanding as of April 3, 2007 that was measured for financial reporting purposes effective March 28, 2007, the date our Compensation Committee of our Board of Directors approved the adjustment.

**Table of Contents**

The fair-value for options that were awarded to employees and directors was estimated at the date of grant using the Black-Scholes option valuation model with the following weighted average assumptions:

	Years Ended December 31,		
	2008	2007	2006
Risk-free interest rate	3.0%	4.9%	4.8%
Dividend yield			
Expected volatility	65%	66%	70%
Expected term	6 years	6 years	6 years

The expected term of the employee and non-employee director options is the estimated weighted-average period until exercise or cancellation of vested options (forfeited unvested options are not considered). SAB 107 guidance permits companies to use a safe harbor expected term assumption for grants up to December 31, 2007 based on the mid-point of the period between vesting date and contractual term, averaged on a tranche-by-tranche basis. We used the safe harbor in selecting the expected term assumption in 2008 and 2007. The expected term for consultant awards is the remaining period to contractual expiration.

Volatility is a measure of the expected amount of variability in the stock price over the expected life of an option expressed as a standard deviation. SFAS 123(R) requires an estimate of future volatility. In selecting this assumption, we used the historical volatility of our stock price over a period equal to the expected term. Changes in the assumptions used to estimate the fair value of stock-based compensation would impact the amount of compensation expenses recognized during the period.

**New Accounting Pronouncements**

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*, or SFAS 157. SFAS 157 defines fair value, establishes a framework for measuring fair value under GAAP, and expands disclosures about fair value measurements. SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements and is effective for financial statements issued for fiscal years beginning after November 15, 2007. In February 2008, the FASB issued FASB FSP 157-2 which delays the effective date of SFAS 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually), until fiscal years beginning after November 15, 2008, and interim periods within those fiscal years. These nonfinancial items include assets and liabilities such as reporting units measured at fair value in a goodwill impairment test and nonfinancial assets acquired and liabilities assumed in a business combination. Effective January 1, 2008, we adopted SFAS 157 for financial assets and liabilities recognized at fair value on a recurring basis. The adoption of SFAS 157 did not have a material impact on our consolidated results of operations or financial position.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations*, or SFAS 141R. SFAS 141R requires an acquirer to (i) recognize the assets acquired, liabilities assumed, contractual contingencies, and contingent consideration at fair value at the acquisition date, (ii) recognize acquisition-related costs separately from the acquisition, (iii) to recognize negative goodwill in earnings as a gain attributable to the acquisition, and (iv) to recognize changes in the amount of its deferred tax benefits that are recognizable because of the business combination either in earnings in the period of the combination or directly in contributed capital, depending on the circumstances. SFAS 141R is effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008 and, as such, will be applied prospectively for business combinations that occur on or after January 1, 2009.

In December 2007, the FASB issued Statement No. 160, *Noncontrolling Interests in Consolidated Financial Statements - an amendment of ARB No. 51*, or SFAS 160. SFAS 160 requires entities to present ownership

## **Table of Contents**

interests in subsidiaries held by parties other than the parent entity within the equity section of the consolidated balance sheet, to present the amount of consolidated net income attributable to the parent and to the noncontrolling interest in the consolidated statement of operations, to recognize any changes in ownership interests as equity transactions, and to measure at fair value any retained noncontrolling equity investment upon deconsolidation of a subsidiary. We will adopt SFAS 160 in the first interim period of fiscal 2009, and management is evaluating the impact, if any, that the adoption of this statement will have on its consolidated results of operations and financial position.

In March 2008, the FASB issued Statement No. 161, *Disclosures about Derivative Instruments and Hedging Activities* an amendment of FASB Statement No. 133, or SFAS 161. SFAS 161 requires entities to disclose the objectives for using derivative instruments in terms of underlying risk and accounting designation, to disclose the fair values of derivative instruments and their gains and losses in a tabular format, and to disclose information about credit-risk-related contingent features. We will adopt SFAS 161 in the first interim period of fiscal 2009, and management is evaluating the impact, if any, that the adoption of this statement will have on its consolidated results of operations and financial position.

### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

At December 31, 2008, our investment portfolio included fixed-income securities of \$53.3 million. These securities are subject to interest rate risk and will decline in value if interest rates increase. However, due to the short duration of our investment portfolio, an immediate 10% change in interest rates would have no material impact on our financial condition, results of operations or cash flows. At December 31, 2008, we also have certain equipment financing arrangements with variable rates of interest. Due to the relative insignificance of such arrangements, however, an immediate 10% change in interest rates would have no material impact on our financial condition, results of operations, or cash flows. Declines in interest rates over time will, however, reduce our interest income, while increases in interest rates over time will increase our interest expense.

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

**Table of Contents**

**Item 8. Consolidated Financial Statements and Supplementary Data**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

	<b>Page</b>
<u>Report of Independent Registered Public Accounting Firm Grant Thornton LLP</u>	58
<u>Report of Independent Registered Public Accounting Firm BDO Seidman, LLP</u>	59
<u>Consolidated Balance Sheets</u>	60
<u>Consolidated Statements of Operations</u>	61
<u>Consolidated Statements of Stockholders' Equity (Deficit) and Comprehensive Income (Loss)</u>	62
<u>Consolidated Statements of Cash Flows</u>	63
<u>Notes to Consolidated Financial Statements</u>	64

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders

Ligand Pharmaceuticals Incorporated

We have audited the accompanying consolidated balance sheet of Ligand Pharmaceuticals Incorporated (the Company) as of December 31, 2008, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive income (loss) and cash flows for the year then ended. Our audit of the basic consolidated financial statements included the financial statement schedule listed in the index appearing under Item 15(4)(d). These consolidated financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Ligand Pharmaceuticals Incorporated as of December 31, 2008, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Ligand Pharmaceuticals Incorporated's internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 13, 2009 expressed an unqualified opinion.

/s/ Grant Thornton LLP

San Diego, California

March 13, 2009

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders

Ligand Pharmaceuticals Incorporated

San Diego, California

We have audited the accompanying consolidated balance sheet of Ligand Pharmaceuticals Incorporated and subsidiaries (the Company) as of December 31, 2007, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive income (loss), and cash flows for each of the two years in the period ended December 31, 2007. We have also audited Schedule II Valuation and Qualifying Accounts for the two years ended December 31, 2007. These consolidated financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and schedule based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Ligand Pharmaceuticals Incorporated and subsidiaries as of December 31, 2007, and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2007, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, Schedule II Valuation and Qualifying Accounts presents fairly, in all material respects, the information set forth therein for the two years ended December 31, 2007.

/s/ BDO Seidman, LLP

San Diego, California

February 28, 2008

**Table of Contents****LIGAND PHARMACEUTICALS INCORPORATED****CONSOLIDATED BALANCE SHEETS**

(in thousands, except share data)

	December 31,	
	2008	2007
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 28,753	\$ 76,812
Short-term investments	51,918	17,596
Other current assets	2,300	5,068
Current portion of co-promote termination payments receivable	10,958	10,467
Total current assets	93,929	109,943
Restricted investments	1,341	1,411
Property and equipment, net	12,903	2,865
Goodwill and other identifiable intangible assets	5,375	
Long-term portion of co-promote termination payments receivable	47,524	48,989
Restricted indemnity account	10,232	10,070
Other assets	144	
Total assets	\$ 171,448	\$ 173,278
<b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>		
Current liabilities:		
Accounts payable	\$ 14,627	\$ 12,682
Accrued liabilities	12,665	7,052
Allowances for loss on returns, rebates and chargebacks related to discontinued operations	9,590	17,275
Current portion of accrued litigation settlement costs	8,680	
Current portion of deferred gain	1,964	1,964
Current portion of co-promote termination liability	10,958	10,467
Current portion of equipment financing obligations	1,829	1,528
Current portion of deferred revenue	10,301	
Total current liabilities	70,614	50,968
Long-term portion of co-promote termination liability	47,524	48,989
Long-term portion of equipment financing obligations	2,178	627
Long-term portion of deferred revenue, net	16,819	2,546
Long-term portion of deferred gain	23,292	25,256
Other long-term liabilities	9,041	3,432
Total liabilities	169,468	131,818
Commitments and contingencies		
Common stock subject to conditional redemption; 997,568 shares issued and outstanding at December 31, 2008 and 2007, respectively	12,345	12,345
Stockholders' equity (deficit):		
Convertible preferred stock, \$0.001 par value; 5,000,000 shares authorized; none issued		
Common stock, \$0.001 par value; 200,000,000 shares authorized; 118,562,748 and 100,543,370 shares issued at December 31, 2008 and 2007, respectively	119	101

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Additional paid-in capital	711,195	651,038
Accumulated other comprehensive income	81	9
Accumulated deficit	(679,626)	(581,512)
Treasury stock, at cost; 6,607,905 and 6,263,151 shares at December 31, 2008 and 2007, respectively	(42,134)	(40,521)
Total stockholders' equity (deficit)	(10,365)	29,115

\$ 171,448      \$ 173,278

See accompanying notes to these consolidated financial statements.

**Table of Contents**

**LIGAND PHARMACEUTICALS INCORPORATED**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

(in thousands, except share data)

	2008	Years Ended December 31, 2007	2006
Revenues:			
Royalties	\$ 20,315	\$ 11,409	\$
Collaborative research and development and other revenues	7,000	1,485	3,977
Total revenues	27,315	12,894	3,977
Operating costs and expenses:			
Research and development	30,770	44,623	41,546
General and administrative	23,785	30,410	43,908
Write-off of acquired in-process research and development	72,000		
Total operating costs and expenses	126,555	75,033	85,454
Accretion of deferred gain on sale leaseback	1,964	1,964	3,397
Loss from operations	(97,276)	(60,175)	(78,080)
Other income (expense):			
Interest income	2,161	8,655	3,780
Interest expense	(202)	(735)	(2,427)
Other, net	(2,198)	(1,201)	1,331
Total other income (expense), net	(239)	6,719	2,684
Loss from continuing operations before income taxes	(97,515)	(53,456)	(75,396)
Income tax benefit from continuing operations	55	18,697	18,806
Loss from continuing operations	(97,460)	(34,759)	(56,590)
Discontinued operations:			
Income (loss) from discontinued operations before income taxes		5,993	(91,404)
Gain on sale of AVINZA Product Line before income taxes	9,584	315,184	
Gain (loss) on sale of Oncology Product Line before income taxes	(10,630)	18,037	135,778
Income tax benefit (expense) on discontinued operations	392	(22,767)	(19,527)
Income (loss) from discontinued operations	(654)	316,447	24,847
Net income (loss)	\$ (98,114)	\$ 281,688	\$ (31,743)
Basic and diluted per share amounts:			
Loss from continuing operations	\$ (1.02)	\$ (0.35)	\$ (0.70)
Income (loss) from discontinued operations	(0.01)	3.22	0.31
Net income (loss)	\$ (1.03)	\$ 2.87	\$ (0.39)

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Weighted average number of common shares	95,505,421	98,124,731	80,618,528
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See accompanying notes to these consolidated financial statements.

**Table of Contents****LIGAND PHARMACEUTICALS INCORPORATED****CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT) AND COMPREHENSIVE INCOME (LOSS)**

(in thousands, except share data)

	Common stock		Additional paid-in capital	Accumulated other comprehensive income		Treasury stock		Total stockholders' equity (deficit)	Comprehensive income (loss)
	Shares	Amount		income (loss)	Accumulated deficit	Shares	Amount		
Balance at January 1, 2006	73,136,340	\$ 73	\$ 720,988	\$ 490	\$ (831,059)	(73,842)	\$ (911)	\$ (110,419)	
Issuance of common stock under employee stock compensation plans	1,268,159	2	10,820					10,822	
Issuance of common stock on conversion of debt	25,149,005	25	154,300					154,325	
Unrealized net loss on available-for-sale securities				(748)				(748)	\$ (748)
Stock-based compensation			5,338					5,338	
Foreign currency translation adjustments				(223)				(223)	(223)
Net loss					(31,743)			(31,743)	(31,743)
Balance at December 31, 2006	99,553,504	100	891,446	(481)	(862,802)	(73,842)	(911)	27,352	\$ (32,714)
Effect of adopting FIN 48					(398)			(398)	
Balance at January 1, 2007	99,553,504	100	891,446	(481)	(863,200)	(73,842)	(911)	26,954	
Issuance of common stock under employee stock compensation plans	989,866	1	4,569					4,570	
Repurchase of Company common stock						(6,189,309)	(39,610)	(39,610)	
Unrealized net gain on available-for-sale securities				14				14	\$ 14
Stock-based compensation			7,580					7,580	
Foreign currency translation adjustments				476				476	476
Cash dividend paid, net			(252,557)					(252,557)	
Net income					281,688			281,688	281,688
Balance at December 31, 2007	100,543,370	101	651,038	9	(581,512)	(6,263,151)	(40,521)	29,115	\$ 282,178
Issuance of common stock under employee stock compensation plans	22,339		130					130	
Repurchase of Company common stock						(344,754)	(1,613)	(1,613)	
Unrealized net gain on available-for-sale securities				72				72	\$ 72
Stock-based compensation			3,607					3,607	

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Issuance of common stock for acquisition of Pharmacopeia	17,997,039	18	56,420						56,438	
Net loss					(98,114)				(98,114)	(98,114)
Balance at December 31, 2008	118,562,748	\$ 119	\$ 711,195	\$ 81	\$ (679,626)	(6,607,905)	\$ (42,134)	\$ (10,365)	\$ (98,042)	

See accompanying notes to these consolidated financial statements.

**Table of Contents****LIGAND PHARMACEUTICALS INCORPORATED****CONSOLIDATED STATEMENTS OF CASH FLOWS****(in thousands)**

	<b>Years Ended December 31,</b>		
	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Operating activities</b>			
Net income (loss)	\$ (98,114)	\$ 281,688	\$ (31,743)
Less: gain (loss) from discontinued operations	(654)	316,447	24,847
Loss from continuing operations	(97,460)	(34,759)	(56,590)
Adjustments to reconcile net income (loss) to net cash used in operating activities, including effects of business acquired:			
Write-off of acquired in-process research and development	72,000		
Gain on sale leaseback			(3,099)
Accretion of deferred gain on sale leaseback	(1,964)	(1,964)	(298)
Amortization of acquired technology and royalty and license rights		909	12,154
Depreciation and amortization of property and equipment	1,052	1,706	3,227
Amortization of debt discount and issuance costs			836
Loss on asset write-offs	746	1,029	998
Realized loss (gain) on investment	2,038	1,300	(1,205)
Stock-based compensation	3,607	7,580	5,338
Non-cash exit and restructuring costs	5,255		
Non-cash interest expense			561
Other	(16)	487	(179)
Changes in operating assets and liabilities, net of acquisition:			
Accounts receivable, net		11,537	9,433
Inventories, net		930	1,584
Other current assets	4,942	1,404	6,581
Restricted indemnity account	(162)	(10,070)	
Accounts payable and accrued liabilities	(7,338)	(54,476)	(26,599)
Other liabilities	1,252	913	
Deferred revenue		(8,657)	
Net cash used in operating activities of continuing operations	(16,048)	(82,131)	(47,258)
Net cash used in operating activities of discontinued operations	(4,577)	(15,596)	(91,263)
Net cash used in operating activities	(20,625)	(97,727)	(138,521)
<b>Investing activities</b>			
Cash acquired from acquisition of Pharmacopeia	4,135		
Purchases of property and equipment	(495)	(440)	(1,783)
Proceeds from sale of property and equipment and building	92	322	46,886
Purchases of short-term investments	(68,370)	(25,565)	(18,383)
Proceeds from sale of short-term investments	32,015	20,116	25,554
Decrease (increase) in restricted cash and investments	70	1,479	(1,064)
Other, net	71	36	73
Net cash provide by (used in) investing activities of continuing operations	(32,482)	(4,052)	51,283
Net cash provided by investing activities of discontinued operations	8,058	347,889	145,582
Net cash provided by (used in) investing activities	(24,424)	343,837	196,865
<b>Financing activities</b>			
Proceeds from equipment financing arrangements			1,030
Principal payments on equipment financing obligations	(1,527)	(2,169)	(2,537)
Net proceeds from issuance of common stock	130	4,387	9,050
Dividend paid		(252,742)	
Dividend received on treasury stock held by company		185	
Repurchase of common stock	(1,613)	(39,610)	

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Decrease in other long-term liabilities			(153)
Repayment of debt			(11,839)
Net cash used in financing activities of continuing operations	(3,010)	(289,949)	(4,449)
Net cash provided by (used in) financing activities of discontinued operations		(37,750)	37,750
Net cash provided by (used in) financing activities	(3,010)	(327,699)	33,301
Net increase (decrease) in cash and cash equivalents	(48,059)	(81,589)	91,645
Cash and cash equivalents at beginning of year	76,812	158,401	66,756
Cash and cash equivalents at end of year	\$ 28,753	\$ 76,812	\$ 158,401
<b>Supplemental disclosure of cash flow information</b>			
Interest paid	\$ 229	\$ 1,511	\$ 9,792
Taxes paid	140	8,371	
<b>Supplemental schedule of non-cash investing and financing activities</b>			
Conversion of 6% convertible subordinated notes into common stock:			
Conversion of principal amount of convertible notes			155,250
Conversion of unamortized debt issue costs			(1,357)
Conversion of unpaid accrued interest			(454)
Employee stock option exercises		228	1,770
Issuance of common stock for acquisition	56,438		

See accompanying notes to these consolidated financial statements.

## **Table of Contents**

### **LIGAND PHARMACEUTICALS INCORPORATED**

### **NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

#### **1. The Company and Its Business**

Ligand Pharmaceuticals Incorporated, a Delaware corporation (the "Company" or "Ligand"), is a biotechnology company that focuses on drug discovery and early-stage development of pharmaceuticals that address critical unmet medical needs or that are more effective and/or safer than existing therapies, more convenient to administer and are cost effective. The consolidated financial statements include the Company's wholly owned subsidiaries, Ligand Pharmaceuticals International, Inc., Ligand Pharmaceuticals (Canada) Incorporated, Seragen, Inc. ("Seragen"), Nexus Equity VI LLC ("Nexus") and Pharmacopeia LLC ("Pharmacopeia"). As further discussed in Note 3, the Company acquired Pharmacopeia on December 23, 2008. As further discussed in Note 4, the Company sold its Oncology Product Line ("Oncology") and AVINZA Product Line ("AVINZA") on October 25, 2006 and February 26, 2007, respectively. The operating results for Oncology and AVINZA have been presented in the accompanying consolidated financial statements as "Discontinued Operations".

The Company's other potential products are in various stages of development. Potential products that are promising at early stages of development may not reach the market for a number of reasons. Prior to generating revenues from these products, the Company or its collaborative partners must complete the development of the products in the human health care market. No assurance can be given that: (1) product development efforts will be successful, (2) required regulatory approvals for any indication will be obtained, (3) any products, if introduced, will be capable of being produced in commercial quantities at reasonable costs or, (4) patient and physician acceptance of these products will be achieved. The Company faces risks common to 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 has incurred significant losses since its inception. At December 31, 2008, the Company's accumulated deficit was \$679.6 million. Management expects that the Company will continue to incur substantial research and development expenses.

#### **2. Significant Accounting Policies**

##### *Principles of Consolidation*

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

##### *Use of Estimates*

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, including disclosure of contingent assets and contingent liabilities, at the date of the consolidated financial statements and the reported amounts of revenues and expenses, in-process research and development, goodwill, deferred revenues and income tax net operating losses during the reporting period. The Company's critical accounting policies are those that are both most important to the Company's consolidated financial condition and results of operations and require the most difficult, subjective or complex judgments on the part of management in their application, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Because of the uncertainty of factors surrounding the estimates or judgments used in the preparation of the consolidated financial statements, actual results may materially vary from these estimates.

##### *Cash, Cash Equivalents and Short-term Investments*

Cash and cash equivalents consist of cash and highly liquid securities with maturities at the date of acquisition of three months or less. Non-restricted equity and debt security investments with a maturity of more

## Table of Contents

than three months are considered short-term investments and have been classified by management as available-for-sale. Such investments are carried at fair value, with unrealized gains and losses included as a separate component of stockholders' equity. The Company determines the cost of investments based on the specific identification method.

### *Restricted Cash and Investments*

Restricted cash and investments consist of certificates of deposit held with a financial institution as collateral under equipment financing and third-party service provider arrangements. The certificates of deposit have been classified by management as held-to-maturity and are accounted for at amortized cost.

### *Concentrations of Credit Risk*

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash equivalents and investments.

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. Except as described in Note 5, the Company has not experienced any significant losses on its cash equivalents, short-term investments or restricted investments.

### *Property and Equipment*

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

	December 31,	
	2008	2007
Equipment and leasehold improvements	\$ 54,664	\$ 40,577
Less accumulated depreciation and amortization	(41,761)	(37,712)
	\$ 12,903	\$ 2,865

Depreciation of equipment is computed using the straight-line method over the estimated useful lives of the assets which range from three to ten years. Leasehold improvements are amortized using the straight-line method over their estimated useful lives or their related lease term, whichever is shorter.

### *Goodwill*

Goodwill represents the excess purchase price of net tangible and intangible assets acquired in business combinations over their estimated fair value. In accordance with Statement of Financial Accounting Standards No. 141, Business Combinations (SFAS 141) and Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets (SFAS 142), goodwill is tested for impairment on an annual basis and earlier if there is an indicator of impairment. Furthermore, SFAS 142 requires purchased intangible assets other than goodwill to be amortized over their useful lives unless these lives are determined to be indefinite.

Management expects to perform its goodwill impairment test annually and whenever an event or circumstance indicates that impairment has occurred.

### *Other Intangible Assets*

Intangible assets are amortized using the straight-line method over their estimated useful lives. There was no amortization expense related to other intangibles assets recorded for the year ended December 31, 2008.



## **Table of Contents**

### *Acquired in-process research and development*

For acquisitions prior to January 1, 2009, the estimated fair value of acquired in-process R&D (IPR&D) projects, which have not reached technological feasibility at the date of acquisition and which do not have an alternative future use, are immediately expensed. In 2008, the Company wrote off \$72.0 million of acquired IPR&D related to the acquisition of Pharmacopeia, Inc.

### *Impairment of Long-Lived Assets*

Management reviews long-lived assets for impairment annually or whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets. Fair value for the Company's long-lived assets is determined using the expected cash flows discounted at a rate commensurate with the risk involved. In 2006, the Company recorded an impairment charge of \$1.0 million to reflect the discontinuation of certain operational software. In 2007, the Company recorded an impairment charge of \$1.0 million to reflect the abandonment or disposal of certain equipment items that are no longer used in the Company's ongoing operations following the sale of the Company's AVINZA product line and the reduction in workforce. As of December 31, 2008, management believes that the future undiscounted cash flows to be received from its long-lived assets will exceed the assets' carrying value.

### *Fair Value of Financial Instruments*

In September 2006, the Financial Accounting Standards Board (FASB) issued SFAS No. 157, Fair Value Measurements (SFAS 157). SFAS 157 establishes a framework for measuring fair value in accordance with generally accepted accounting principles and expands disclosures about fair value measurements. The statement defines fair value as the exit price that would be received to sell an asset or paid to transfer a liability. Fair value is a market-based measurement that should be determined using assumptions that market participants would use in pricing an asset or liability. The statement establishes a three-level hierarchy to prioritize the inputs used in measuring fair value. The levels are described in the table below with Level 1 having the highest priority and Level 3 having the lowest.

In February 2008, the FASB issued FASB Staff Position (FSP) 157-b which delayed the effective date of SFAS 157 for one year for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). SFAS 157 and FSP 157-b are effective for financial statements issued for fiscal years beginning after November 15, 2007. Management has elected a partial deferral of Statement 157 under the provisions of FSP 157-b and, effective January 1, 2008, the Company adopted SFAS 157 for those assets and liabilities that are remeasured at fair value on a recurring basis. This partial adoption of SFAS 157 did not have a material effect on the Company's consolidated financial statements as of and for the year ended December 31, 2008.

**Table of Contents**

The following table provides a summary of the assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2008:

	Fair Value Measurements at Reporting Date Using			
	Quoted Prices in Active			
	Markets for			
	Identical			
	Assets			
	(Level 1)			
	Significant Other			
	Observable Inputs			
	(Level 2)			
	Significant			
	Unobservable			
	Inputs			
	(Level 3)			
	Total			
Assets:				
Fixed income available-for-sale securities	\$ 51,918	\$	50,255	\$ 1,663
Total assets	\$ 51,918	\$	50,255	\$ 1,663
Liabilities:				
Warrant liability	\$ 670	\$		\$ 670
Total liabilities	\$ 670	\$		\$ 670

The Company's short-term investments are fixed income available-for-sale securities and include U.S. Government Notes and Corporate Discount Commercial Paper. The fair value of the Company's short-term investments are determined using quoted market prices in active markets. The fair value of the warrant liability is determined using the Black-Scholes option-pricing model, which uses certain significant observable inputs, including stock price (quoted market prices in active market), warrant exercise price (defined in warrant agreement), expected life of warrant (defined in warrant agreement), dividend yields (determined by the Company), and risk-free interest rate (quoted market prices based on expected life assumption).

*Revenue Recognition*

Royalties on sales of AVINZA and PROMACTA are recognized in the quarter reported by the respective partner.

Revenue from research funding under the Company's collaboration agreements is earned and recognized on a percentage of completion basis as research hours are incurred in accordance with the provisions of each agreement.

Revenue earned related to up-front product and technology license fees is recognized in accordance with Staff Accounting Bulletin (SAB) 104 issued by the Securities and Exchange Commission (SEC), Emerging Issue Task Force (EITF) No. 00-21, Revenue Arrangements with Multiple Deliverables (EITF 00-21), EITF No. 07-1, Accounting for Collaborative Arrangements (EITF 07-1) and EITF No. 07-3, Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities (EITF 07-3) issued by the FASB. Accordingly, amounts received under multiple-element arrangements requiring ongoing services or performance by the Company are recognized over the period of such services or performance.

Revenue from milestones is recognized when earned, as evidenced by written acknowledgement from the collaborator, provided that (i) the milestone event is substantive, its achievability was not reasonably assured at the inception of the agreement, and the Company has no further performance obligations relating to that event, and (ii) collectibility is reasonably assured. If these criteria are not met, the milestone payment is recognized over the remaining period of the Company's performance obligations under the arrangement.

The composition of collaborative research and development and other revenues is as follows (in thousands):

	Year Ended December 31,		
	2008	2007	2006
Collaborative research and development	\$	\$	\$ 1,678
License fees	5,000		
Development milestones and other	2,000	1,485	2,299

\$ 7,000      \$ 1,485      \$ 3,977

## **Table of Contents**

### *Preclinical Study and Clinical Trial Accruals*

Substantial portions of the Company's preclinical studies and all of the Company's clinical trials have been performed by third-party laboratories, contract research organizations, or other vendors (collectively CROs). Some CROs bill monthly for services performed, while others bill based upon milestone achievement. The Company accrues for each of the significant agreements it has with CROs on a monthly basis. For preclinical studies, accruals are estimated based upon the percentage of work completed and the contract milestones achieved. For clinical studies, accruals are estimated based upon a percentage of work completed, the number of patients enrolled and the duration of the study. The Company monitors patient enrollment, the progress of clinical studies and related activities to the extent possible through internal reviews of data reported to it by the CROs, correspondence with the CROs and clinical site visits. The Company's estimates are dependent upon the timelines and accuracy of the data provided by its CROs regarding the status of each program and total program spending. The Company periodically evaluates its estimates to determine if adjustments are necessary or appropriate based on information it receives concerning changing circumstances, and conditions or events that may affect such estimates. No material adjustments to preclinical study and clinical trial accrued expenses have been recognized to date.

### *Warrant Liability*

The Company, in accounting for its warrants, follows EITF No. 00-19, "Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock" (EITF 00-19), which provides guidance for distinguishing between permanent equity, temporary equity and assets and liabilities. Under EITF 00-19, to qualify as permanent equity, an equity derivative, including warrants, must permit the Company to settle in unregistered shares. Under securities law, if the warrants were issued in connection with a public offering and have a cash settlement feature at the holder's option, the Company does not have the ability to settle in unregistered shares. Therefore, the warrants cannot be classified as permanent equity and are instead classified as a liability. The warrants that the Company issued as part of its equity financing in October 2006 meet this criteria, and their fair value has been recorded as a liability in the accompanying balance sheets. Other warrants the Company had previously issued qualify as permanent equity and do not require remeasurement.

The Company records its warrant liabilities at fair value using a Black-Scholes option-pricing model and remeasures at each reporting date until the warrants are exercised or have expired. Changes in the fair value of the warrants are reported in the statements of operations as income or expense. The fair value of the warrants is subject to significant fluctuation based on changes in the Company's stock price, expected volatility, expected life, the risk-free interest rate and dividend yield. The market price for the Company's common stock has been and may continue to be volatile. Consequently, future fluctuations in the price of the Company's common stock may cause significant increases or decreases in the fair value of the warrants.

### *Assets and Liabilities Related to Discontinued Operations*

### *Medicaid Rebates*

The Company's products related to the commercial operations that were sold were subject to state government-managed Medicaid programs whereby discounts and rebates are provided to participating state governments. The Company is still obligated to pay for these rebates for products in the distribution channel that were not sold-through at the time of the sale of the Company's commercial operations. Medicaid rebates are accounted for by establishing an accrual in an amount equal to the Company's estimate of Medicaid rebate claims attributable to sales recognized in that period. The estimate of the Medicaid rebates accrual is determined primarily based on historical experience regarding Medicaid rebates, as well as current and historical prescription activity provided by external sources, current contract prices and any expected contract changes. Management additionally considers any legal interpretations of the applicable laws related to Medicaid and qualifying federal

## **Table of Contents**

and state government programs and any new information regarding changes in the Medicaid programs' regulations and guidelines that would impact the amount of the rebates. Management adjusts the accrual periodically throughout each period to reflect actual experience, expected changes in future prescription volumes and any changes in business circumstances or trends.

### *Government Chargebacks*

The Company's products related to the commercial operations that were sold were subject to certain programs with federal government entities and other parties whereby pricing on products is extended below wholesaler list price to participating entities. The Company is still obligated to pay for these chargebacks for products in the distribution channel that were not sold-through at the time of the sale of the Company's commercial operations. These entities purchase products through wholesalers at the lower vendor price, and the wholesalers charge the difference between their acquisition cost and the lower vendor price back to the Company. Chargebacks are accounted for by establishing an accrual in an amount equal to the estimate of chargeback claims. Management determines estimates of the chargebacks primarily based on historical experience regarding chargebacks and current contract prices under the vendor programs. Management considers vendor payments and claim processing time lags and adjusts the accrual periodically throughout each period to reflect actual experience and any changes in business circumstances or trends.

### *Managed Health Care Rebates and Other Contract Discounts*

The Company previously offered rebates and discounts on certain products related to the commercial operations that were sold to managed health care organizations and to other contract counterparties such as hospitals and group purchasing organizations in the U.S. The Company is still obligated to pay for these rebates and discounts for products in the distribution channel that were not sold-through at the time of the sale of the Company's commercial operations. Managed health care rebates and other contract discounts are accounted for by establishing an accrual in an amount equal to the estimate of managed health care rebates and other contract discounts. Estimates of the managed health care rebates and other contract discounts accruals are determined primarily based on historical experience regarding these rebates and discounts and current contract prices. Management also considers the current and historical prescription activity provided by external sources, current contract prices and any expected contract changes and adjusts the accrual periodically throughout each period to reflect actual experience and any changes in business circumstances or trends.

### *Product Returns*

In connection with the sale of the Company's product lines, the Company retained the obligation for returns of product that were shipped to wholesalers prior to the close of the transactions. The accruals for product returns, which were recorded as part of the accounting for the sales transactions, are based on historical experience. Any subsequent changes to the Company's estimate of product returns are accounted for as a component of discontinued operations.

### *Costs and Expenses*

Collaborative research and development expense consists of the labor, material, equipment and allocated facilities cost of the Company's scientific staff who are working pursuant to the Company's collaborative agreements. From time to time, collaborative research and development expense includes costs related to research efforts in excess of those required under certain collaborative agreements. Management has the discretion to set the scope of such excess efforts and may increase or decrease the level of such efforts depending on the Company's strategic priorities.

Proprietary research and development expense consists of intellectual property in-licensing costs, labor, materials, contracted services, and allocated facility costs that are incurred in connection with internally funded drug discovery and development programs.

## **Table of Contents**

Research and development costs are expensed as incurred. Research and development expenses from continuing operations were \$30.8 million, \$44.6 million, and \$41.5 million in 2008, 2007, and 2006, respectively, of which 100%, 100%, and 95%, respectively, were sponsored by Ligand, and the remainder of which was funded pursuant to collaborative research and development arrangements.

### *Income Taxes*

The Company recognizes liabilities or assets for the deferred tax consequences of temporary differences between the tax bases of assets or liabilities and their reported amounts in the financial statements in accordance with SFAS No. 109, *Accounting for Income Taxes* (SFAS 109). These temporary differences will result in taxable or deductible amounts in future years when the reported amounts of the assets or liabilities are recovered or settled. SFAS 109 requires that a valuation allowance be established when management determines that it is more likely than not that all or a portion of a deferred tax asset will not be realized. Management evaluates the realizability of its net deferred tax assets on a quarterly basis and valuation allowances are provided, as necessary. During this evaluation, management reviews its forecasts of income in conjunction with other positive and negative evidence surrounding the realizability of its deferred tax assets to determine if a valuation allowance is required. Adjustments to the valuation allowance will increase or decrease the Company's income tax provision or benefit. Management also applies the guidance of SFAS 109 to determine the amount of income tax expense or benefit to be allocated among continuing operations, discontinued operations, and items charged or credited directly to stockholders' equity (deficit).

Due to the adoption of SFAS No. 123R, *Share-Based Payment* (SFAS 123R) beginning January 1, 2006, the Company recognizes windfall tax benefits associated with the exercise of stock options directly to stockholders' equity only when realized. Accordingly, deferred tax assets are not recognized for net operating loss carryforwards resulting from windfall tax benefits occurring from January 1, 2006 onward. A windfall tax benefit occurs when the actual tax benefit realized by the Company upon an employee's disposition of a share-based award exceeds the deferred tax asset, if any, associated with the award that the Company had recorded.

The Company adopted the provisions of FASB Interpretation No. 48 (FIN 48), *Accounting for Uncertainty in Income Taxes*, on January 1, 2007. FIN 48 clarifies the accounting for income taxes by prescribing a minimum probability threshold that a tax position must meet before a financial statement benefit is recognized. The minimum threshold is defined in FIN 48 as a tax position that is more likely than not to be sustained upon examination by the applicable taxing authority, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense.

### *Income (Loss) Per Share*

Net income (loss) per share is computed using the weighted average number of common shares outstanding. Basic and diluted income (loss) per share amounts are equivalent for the periods presented as the inclusion of potential common shares in the number of shares used for the diluted computation would be anti-dilutive to loss per share from continuing operations. In accordance with SFAS No. 128, *Earnings Per Share*, no potential common shares are included in the computation of any diluted per share amounts, including income (loss) per share from discontinued operations, as the Company reported a net loss from continuing operations for all periods presented. Potential common shares, the shares that would be issued upon the conversion of convertible notes, the exercise of outstanding warrants and stock options, and the vesting of restricted shares, were 4.5 million, 2.2 million, and 5.8 million at December 31, 2008, 2007, and 2006, respectively.

### *Accounting for Stock-Based Compensation*

The Company has employee compensation plans under which various types of stock-based instruments are granted. The Company accounts for its share-based payments in accordance with SFAS 123R. This statement

## **Table of Contents**

requires all share-based payments to employees, including grants of employee stock options, to be recognized in the Consolidated Statements of Operations as compensation expense (based on their estimated fair values) generally over the vesting period of the awards using the straight-line method.

Additionally, the Company accounts for the fair value of options granted to non-employee consultants under Emerging Issues Task Force EITF 96-18, Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services.

### *Employee Stock Purchase Plan*

The Company also has an employee stock purchase plan (the 2002 ESPP). The 2002 ESPP was originally adopted July 1, 2001 and amended through June 30, 2003 to allow employees to purchase a limited amount of common stock at the end of each three month period at a price equal to the lesser of 85% of fair market value on a) the first trading day of the period, or b) the last trading day of the Lookback period (the Lookback Provision). The 15% discount and the Lookback Provision make the 2002 ESPP compensatory under SFAS 123R. There were 46,217, 29,139 and 24,763 shares of common stock issued under the 2002 ESPP in 2008, 2007 and 2006, respectively, resulting in an expense of \$0.03 million, \$0.04 million and \$0.1 million, respectively. For shares purchased under the Company's employee stock purchase plan (ESPP), a weighted-average expected volatility of 60%, 38%, and 50% was used for 2008, 2007 and 2006, respectively. The expected term for shares issued under the ESPP is three months. As of December 31, 2008, 462,857 shares of common stock had been issued under the 2002 ESPP to employees and 47,391 shares are available for future issuance.

### *Foreign Currency Translation*

The Company's foreign subsidiaries maintain their accounts in their functional currency. The functional currency financial statements are translated into U.S. dollars in accordance with SFAS 52. Assets and liabilities of foreign operations are translated using period-end exchange rates. Revenues and expenses are translated using average exchange rates during each period. Translation gains and losses are classified as a component of stockholders' equity (deficit). Transaction gains and losses resulting from the settlement of assets and liabilities in a currency other than the functional currency are charged to the Statement of Operations.

### *Comprehensive Income (Loss)*

Comprehensive income (loss) represents net income (loss) adjusted for the change during the periods presented in unrealized gains and losses on available-for-sale securities less reclassification adjustments for realized gains or losses included in net income (loss), as well as foreign currency translation adjustments for the 2007 and 2006 periods. The accumulated unrealized gains or losses and cumulative foreign currency translation adjustments are reported as accumulated other comprehensive income (loss) as a separate component of stockholders' equity.

### *Segment Reporting*

The Company currently operates in a single operating segment. The Company generates revenue from various sources that result primarily from its underlying research and development activities. In addition, financial results are prepared and reviewed by management as a single operating segment. Management continually evaluates the benefits of operating in distinct segments and will report accordingly when such distinction is made.

### *Guarantees and Indemnifications*

The Company accounts for and discloses guarantees in accordance with FASB Interpretation No. 45 (FIN 45), Guarantor's Accounting and Disclosure Requirements for Guarantees Including Indirect Guarantees of

## **Table of Contents**

Indebtedness of Others, an interpretation of FASB Statements No. 5, 57 and 107 and rescission of FIN 34. The following is a summary of the Company's agreements that the Company has determined are within the scope of FIN 45:

Under its bylaws, the Company has agreed to indemnify its officers and directors for certain events or occurrences arising as a result of the officer's or director's serving in such capacity. The term of the indemnification period is for the officer's or director's lifetime. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited. The Company has a directors and officers liability insurance policy that limits its exposure and enables it to recover a portion of any future amounts paid. These insurance policies, however, do not cover the ongoing legal costs or the fines, if any, that may become due in connection with the ongoing SEC investigation of the Company, following the use of prior directors and officers liability insurance policy limits to settle certain shareholder litigation matters (see discussion of SEC investigation at Note 9). The SEC investigation is ongoing, and management is currently unable to assess the duration, extent, and cost of such investigation. Further, management is unable to assess the amount of such costs that may in turn be required to be reimbursed to any individual director or officer under the Company's indemnification agreements as the scope of the investigation cannot be apportioned amongst the Company and the indemnified officers and directors. Accordingly, a liability has not been recorded for the fair value of the ongoing and ultimate obligations, if any, related to the SEC investigation.

### *Reclassifications*

Certain reclassifications have been made to the 2007 and 2006 financial statements to conform to the 2008 presentation.

### *New Accounting Pronouncements*

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements (SFAS 157). SFAS 157 defines fair value, establishes a framework for measuring fair value under GAAP, and expands disclosures about fair value measurements. SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements and is effective for financial statements issued for fiscal years beginning after November 15, 2007. In February 2008, the FASB issued FASB FSP 157-2 which delays the effective date of SFAS 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually), until fiscal years beginning after November 15, 2008, and interim periods within those fiscal years. These nonfinancial items include assets and liabilities such as reporting units measured at fair value in a goodwill impairment test and nonfinancial assets acquired and liabilities assumed in a business combination. Effective January 1, 2008, the Company adopted SFAS 157 for financial assets and liabilities recognized at fair value on a recurring basis. The adoption of SFAS 157 did not have a material impact on the Company's consolidated results of operations or financial position.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), Business Combinations (SFAS 141R). SFAS 141R requires an acquirer to (i) recognize the assets acquired, liabilities assumed, contractual contingencies, and contingent consideration at fair value at the acquisition date, (ii) recognize acquisition-related costs separately from the acquisition, (iii) to recognize negative goodwill in earnings as a gain attributable to the acquisition, and (iv) to recognize changes in the amount of its deferred tax benefits that are recognizable because of the business combination either in earnings in the period of the combination or directly in contributed capital, depending on the circumstances. SFAS 141R is effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. Management is evaluating the impact, if any, that SFAS 141R may have on its consolidated results of operations and financial position.

In December 2007, the FASB issued Statement No. 160, Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51 (SFAS 160). SFAS 160 requires entities to present ownership interests in subsidiaries held by parties other than the parent entity within the equity section of the

**Table of Contents**

consolidated balance sheet, to present the amount of consolidated net income attributable to the parent and to the noncontrolling interest in the consolidated statement of operations, to recognize any changes in ownership interests as equity transactions, and to measure at fair value any retained noncontrolling equity investment upon deconsolidation of a subsidiary. The Company will adopt SFAS 160 in the first interim period of fiscal 2009, and management does not believe that the adoption of this statement will have a material impact on its consolidated results of operations and financial position.

In March 2008, the FASB issued Statement No. 161, *Disclosures about Derivative Instruments and Hedging Activities* an amendment of FASB Statement No. 133 (SFAS 161). SFAS 161 requires entities to disclose the objectives for using derivative instruments in terms of underlying risk and accounting designation, to disclose the fair values of derivative instruments and their gains and losses in a tabular format, and to disclose information about credit-risk-related contingent features. The Company will adopt SFAS 161 in the first interim period of fiscal 2009, and management does not believe that the adoption of this statement will have a material impact on its consolidated results of operations and financial position.

**3. Acquisition of Pharmacoepia**

On December 23, 2008, the Company completed the acquisition of Pharmacoepia, Inc., a clinical development stage biopharmaceutical company dedicated to discovering and developing novel small molecule therapeutics to address significant medical needs, under which the Company acquired all outstanding shares of Pharmacoepia in a cash and stock transaction. The acquisition was accounted for as a business combination. In connection with the acquisition, the Company issued 17,997,039 shares of common stock to Pharmacoepia stockholders, or 0.5985 shares for each outstanding Pharmacoepia share, as well as \$9.3 million in cash. The value of the common stock issued was derived from the number of Ligand common shares issued at a price of \$3.14 per share determined by the average closing price of Ligand shares for the two days prior, the day of, and the two days subsequent to the public announcement on September 24, 2008. In addition, Pharmacoepia security holders received a contingent value right (CVR) that entitles each holder the right to receive a proportionate share of an aggregate of \$15.0 million if Ligand enters into a license, sale, development, marketing or option agreement with respect to any product candidate from Pharmacoepia's DARA program (other than any agreement with Bristol-Meyers Squibb or any of its affiliates) on or prior to December 31, 2011. The estimated fair value of the CVRs is not included in the total purchase price as the Company's management has deemed, based on currently available information, that the likelihood of payment is not probable. The results of Pharmacoepia's operations have been included in the consolidated financial statements commencing December 23, 2008.

The components of the preliminary purchase price allocation for Pharmacoepia are as follows:

<b>Purchase Consideration:</b>	
<b>(in thousands)</b>	
Fair value of common stock issued to Pharmacoepia shareholders	\$ 56,439
Cash paid to Pharmacoepia shareholders	9,337
Transaction costs	4,344
 Total purchase consideration	 \$ 70,120
 <b>Allocation of Purchase Price:</b>	
<b>(in thousands)</b>	
Cash acquired	\$ 17,754
Other current assets	1,390
Property and equipment	11,500
Acquired intangible assets	2,000
In-process research and development	72,000
Goodwill	3,375
Other assets	144
Liabilities assumed	(38,043)
	 \$ 70,120



**Table of Contents**

The acquired identified intangible assets with definite lives from the acquisition with Pharmacoepia are as follows:

<b>Acquired Intangible Assets</b>	
<b>(in thousands)</b>	
Collaborative research and development with Schering-Plough	\$ 2,000

The weighted-average amortization period for the collaborative research and development with Schering Plough is 3 years.

The Company has allocated \$72.0 million of the purchase price of Pharmacoepia to acquired In-Process Research and Development (IPR&D). This amount represents the estimated fair value of various acquired in-process projects that have not yet reached technological feasibility and do not have future alternative use as of the date of the merger. The amount is related to internal and partnered product candidates targeting a variety of indications and currently in various stages of development ranging from preclinical to Phase II. Of the total amount, \$29.0 million relates to product candidates currently in the preclinical stage of development, \$9.0 million relates to product candidates currently in Phase I clinical trials and \$34.0 million relates to product candidates currently in Phase II clinical trials.

Management used the income method to determine the estimated fair values of acquired IPR&D, which uses a discounted cash flow model and applies a probability weighting based on estimates of successful product development and commercialization to estimated future net cash flows resulting from projected revenues and related costs. These success rates take into account the stages of completion and the risks surrounding successful development and commercialization of the underlying product candidates. These cash flows were then discounted to present value using a discount rate of 40% for product candidates in the preclinical stage, 35% for product candidates currently in Phase I clinical trials and 30% for product candidates currently in Phase II clinical trials.

Had the merger with Pharmacoepia been completed as of the beginning of 2007, the Company's pro forma results for 2008 and 2007 would have been as follows:

<b>(in thousands, except per share data)</b>	<b>2008</b>	<b>2007</b>
Revenue	\$ 51,351	\$ 34,300
Operating (loss)	(151,503)	(185,435)
Net income (loss)	(145,220)	142,190
Basic and diluted earnings per share:		
Continuing operations	\$ (1.27)	\$ (1.50)
Discontinued operations	\$ (0.01)	\$ 2.73
Net income (loss)	\$ (1.28)	\$ 1.22
Basic and diluted weighted average shares	113,060	116,122

The primary adjustments relate to the purchase accounting impact of the write-off of IPR&D and the amortization of the acquired collaborative research and development collaboration with Schering-Plough. The above pro forma information was determined based on historical GAAP results adjusted for the purchase price allocation and estimated related changes in income associated with the merger of Pharmacoepia.

## **Table of Contents**

### **4. Discontinued Operations**

#### *Oncology Product Line*

On September 7, 2006, the Company, Eisai Inc., a Delaware corporation and Eisai Co., Ltd., a Japanese company (together with Eisai Inc., Eisai), entered into a purchase agreement (the "Oncology Purchase Agreement") pursuant to which Eisai agreed to acquire all of the Company's worldwide rights in and to the Company's oncology products, including, among other things, all related inventory, equipment, records and intellectual property, and assume certain liabilities as set forth in the Oncology Purchase Agreement. The Oncology Product Line included the Company's four marketed oncology drugs: ONTAK, Targretin capsules, Targretin gel and Panretin gel. Pursuant to the Oncology Purchase Agreement, at closing on October 25, 2006, Ligand received \$185.0 million in net cash proceeds, net of \$20.0 million that was funded into an escrow account to support any potential indemnification claims made by Eisai following the closing of the sale as further discussed below. The Company also incurred \$1.7 million in transaction fees and costs associated with the sale that are not reflected in net cash proceeds. The Company recorded a pre-tax gain on the sale of \$135.8 million in the fourth quarter of 2006. In 2007, the Company recognized a \$20.8 million pre-tax gain resulting from the release of funds from the escrow account partially offset by a \$2.8 million pre-tax loss due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date. In 2008, the Company recognized a \$10.6 million pre-tax loss resulting from the settlement of litigation for \$13.0 million partially offset by a \$2.4 million pre-tax gain due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date.

Additionally, \$38.6 million of the proceeds received from Eisai were deposited into an escrow account to repay a loan received from King Pharmaceuticals, Inc. ("King"), the proceeds of which were used to pay the Company's co-promote termination obligation to Organon in October 2006. The escrow amounts were released and the loan repaid to King in January 2007.

In connection with the Oncology Purchase Agreement with Eisai, the Company entered into a transition services agreement whereby the Company agreed to perform certain transition services for Eisai, in order to effect, as rapidly as practicable, the transition of purchased assets from Ligand to Eisai. In exchange for these services, Eisai paid the Company a monthly service fee through June 25, 2007. Fees earned under the transition services agreement during 2007 and 2006, which were recorded as an offset to operating expenses, were \$2.7 million and \$1.9 million, respectively.

The Company agreed to indemnify Eisai, after the closing, for damages suffered by Eisai arising from any breach of any of the Company's representations, warranties, covenants or obligations in the Oncology Purchase Agreement. The Company's obligation to indemnify Eisai extends beyond the closing up to, in some cases, 18 months or 36 months and, in other cases, until the expiration of the applicable statute of limitations. In a few instances, the Company's obligation to indemnify Eisai survives in perpetuity. The Company's agreement with Eisai required that \$20.0 million of the total upfront cash payment be deposited into an escrow account to secure the Company's indemnification obligations to Eisai after the closing. Of the escrowed amount, \$10.0 million was released to the Company on April 25, 2007, and the remaining \$10.0 million, plus interest of \$0.8 million, was released to the Company on October 25, 2007. The Company's liability for any indemnification claim brought by Eisai is generally limited to \$30.0 million. However, the Company's obligation to provide indemnification on certain matters is not subject to these indemnification limits. For example, the Company agreed to retain, and provide indemnification without limitation to Eisai for, all liabilities related to certain claims regarding promotional materials for the ONTAK and Targretin drug products. Management cannot estimate the liabilities that may arise as a result of these matters and, therefore, no accrual has been recorded at December 31, 2008 and 2007.

Prior to the Oncology sale, the Company recorded accruals for rebates, chargebacks, and other discounts related to Oncology products when product sales were recognized as revenue under the sell-through method. Upon the Oncology sale, the Company accrued for rebates, chargebacks, and other discounts related to Oncology

## **Table of Contents**

products in the distribution channel which had not sold-through at the time of the Oncology sale and for which the Company retained the liability subsequent to the sale. These products expired at various dates through July 31, 2008. The Company's accruals for Oncology rebates, chargebacks, and other discounts total \$0.4 million and \$1.2 million as of December 31, 2008 and 2007, respectively, and are included in accrued liabilities in the accompanying consolidated balance sheets.

Additionally, and pursuant to the terms of the Oncology Purchase Agreement, the Company retained the liability for returns of product from wholesalers that had been sold by the Company prior to the close of the transaction. Accordingly, as part of the accounting for the gain on the sale of the Oncology Product Line, the Company recorded a reserve for Oncology product returns. Under the sell-through revenue recognition method, the Company previously did not record a reserve for returns from wholesalers. Oncology products sold by the Company may be returned through a specified period subsequent to the product expiration date, but no later than July 31, 2009. The Company's reserve for Oncology returns is \$0.9 million and \$4.4 million as of December 31, 2008 and 2007, respectively, and is included in accrued liabilities in the accompanying consolidated balance sheets.

### *AVINZA Product Line*

On September 6, 2006, Ligand and King Pharmaceuticals, Inc. (King), entered into a purchase agreement (the "AVINZA Purchase Agreement"), pursuant to which King agreed to acquire all of the Company's rights in and to AVINZA in the United States, its territories and Canada, including, among other things, all AVINZA inventory, records and related intellectual property, and assume certain liabilities as set forth in the AVINZA Purchase Agreement (collectively, the "Transaction"). In addition, King, subject to the terms and conditions of the AVINZA Purchase Agreement, agreed to offer employment following the closing of the Transaction (the "Closing") to certain of the Company's existing AVINZA sales representatives or otherwise reimburse the Company for agreed upon severance arrangements offered to any such non-hired representatives.

Pursuant to the AVINZA Purchase Agreement, at Closing on February 26, 2007 (the "Closing Date"), the Company received \$280.4 million in net cash proceeds, which is net of \$15.0 million that was funded into an escrow account to support any potential indemnification claims made by King following the Closing. The purchase price reflected a reduction of \$12.7 million due to the preliminary estimate of retail inventory levels of AVINZA at the Closing Date exceeding targeted levels. After final studies and review by King, the final retail inventory-level adjustment was determined to be \$11.2 million. The Company received the additional \$1.5 million in proceeds in April 2007. The purchase price also reflects a reduction of \$6.0 million for anticipated higher cost of goods for King related to the Catalent Pharma Solutions (formerly Cardinal Health PTS, LLC), or Catalent, manufacturing and packaging agreement. At the closing, Ligand agreed to not assign the Catalent agreement to King, wind down the contract, and remain responsible for any resulting liabilities. Subsequent to the closing, on April 30, 2007, the Company entered into a letter agreement with Catalent which terminated, without penalty to either party, the manufacturing and packaging agreement and certain related quality agreements with Catalent. In connection with the termination, the Company and Catalent agreed that certain provisions of the manufacturing and packaging agreement would survive and Catalent would continue to perform limited services. Catalent will also continue to manufacture LGD-4665 capsules for the Company under the terms of a separate agreement. The letter agreement with Catalent also contained a mutual general release of all claims arising from or related to the manufacturing and packaging agreement. The Company paid \$0.3 million to a former Ligand executive in connection with the negotiation of the termination of the Catalent manufacturing and packaging agreement.

## Table of Contents

The net cash received also includes reimbursement of \$47.8 million for co-promote termination payments which had previously been paid to Organon, \$0.9 million of interest Ligand paid King on a loan that was repaid in January 2007 and \$0.5 million of severance expense for AVINZA sales representatives not offered positions with King. A summary of the net cash proceeds received, exclusive of \$6.6 million in transaction costs and adjusted to reflect the final results of the retail inventory study, is as follows (in thousands):

Purchase price	\$ 265,000
Reimbursement of Organon payments	47,750
Repayment of interest on King loan	883
Reimbursement of sales representative severance costs	453
	314,086
Less retail pharmacy inventory adjustment	(11,225)
Less cost of goods manufacturing adjustment	(6,000)
Net cash proceeds	\$ 296,861

King also assumed Ligand's co-promote termination obligation to make payments to Organon based on net sales of AVINZA (\$58.5 million and \$59.5 million as of December 31, 2008 and 2007, respectively). As Organon has not consented to the legal assignment of the co-promote termination obligation from Ligand to King, Ligand remains liable to Organon in the event of King's default of this obligation. The Company also incurred \$6.6 million in transaction fees and other costs associated with the sale that are not reflected in the net cash proceeds, of which \$3.6 million was recognized in 2006. The Company recognized \$3.6 million in the first quarter of 2007 for investment banking services and related expenses. The Company disputed the amount of the fees owed to the investment banking firm and as a result, the parties agreed to settle the matter for \$3.0 million, which was paid in June 2007. The Company recorded a pre-tax gain on the sale of \$310.1 million in the first quarter of 2007. The Company recorded an additional \$0.3 million pre-tax gain on the sale in the second quarter of 2007 due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date partially offset by the adjustment to the investment banking fees discussed above.

In addition to the assumption of existing royalty obligations, King is required to pay Ligand a 15% royalty on AVINZA net sales during the first 20 months after Closing. Subsequent royalty payments will be based upon calendar year net sales. If calendar year net sales are less than \$200.0 million, the royalty payment will be 5% of all net sales. If calendar year net sales are greater than \$200.0 million, the royalty payment will be 10% of all net sales less than \$250.0 million, plus 15% of net sales greater than \$250.0 million. Royalty revenues were \$20.3 million and \$11.4 million in 2008 and 2007, respectively.

In connection with the sale, the Company has agreed to indemnify King for a period of 16 months after the closing of the Transaction for a number of specified matters, including any breach of the Company's representations, warranties or covenants contained in the asset purchase agreement. In certain defined cases, the Company's obligation to indemnify King extends for a period of 30 months following the closing of the Transaction. Under the Company's agreement with King, \$15.0 million of the total upfront cash payment was deposited into an escrow account to secure the Company's indemnification obligations to King following the closing. Of the escrowed amount, \$7.5 million was released to the Company on August 26, 2007, and the remaining \$7.5 million, plus interest of \$0.5 million, was released to the Company on February 26, 2008.

Under certain circumstances, the Company's liability to King under the indemnification obligations of the asset purchase agreement may be in excess of the amounts deposited in the escrow account. The AVINZA asset purchase agreement also allows King, under certain circumstances, to offset indemnification claims against the royalty payments payable to the Company. Under the asset purchase agreement, the Company's liability for any indemnification claim brought by King is generally limited to \$40.0 million. However, the Company's obligation to provide indemnification on certain matters is not subject to this indemnification limit. For example, the Company agreed to retain, and provide indemnification without limitation to King for all liabilities arising under

## Table of Contents

certain agreements with Catalent related to the manufacture of AVINZA. The Company cannot predict the liabilities that may arise as a result of these matters. Any liability claims related to these matters or any indemnification claims made by King could materially and adversely affect the Company's financial condition. No accrual for potential losses under the indemnification has been recorded at December 31, 2008 and 2007.

In connection with the Transaction, King loaned the Company \$37.8 million (the "Loan") which was used to pay the Company's co-promote termination obligation to Organon due October 15, 2006. This loan was drawn, and the \$37.8 million co-promote liability settled in October 2006. Amounts due under the loan were subject to certain market terms, including a 9.5% interest rate. In addition, and as a condition of the loan, \$38.6 million of the funds received from Eisai was deposited into a restricted account to be used to repay the loan to King, plus interest. The Company repaid the loan plus interest in January 2007. As noted above, King refunded the interest to the Company on the Closing Date.

Also on September 6, 2006, the Company entered into a contract sales force agreement (the "Sales Call Agreement") with King, pursuant to which King agreed to conduct a sales detailing program to promote the sale of AVINZA for an agreed upon fee, subject to the terms and conditions of the Sales Call Agreement. Pursuant to the Sales Call Agreement, King agreed to perform certain minimum monthly product details (i.e. sales calls), which commenced effective October 1, 2006 and continued until the Closing Date. Co-promotion expense recognized under the Sales Call Agreement for 2007 and 2006 was \$2.8 million and \$3.8 million, respectively. No amount was due to King under the Sales Call Agreement as of December 31, 2007. The Sales Call Agreement terminated effective on the Closing Date.

Assets and liabilities of the Company's AVINZA product line on February 26, 2007 were as follows (in thousands):

<b>ASSETS</b>	
Current assets:	
Inventories, net (1)	\$ 2,926
Other current assets (2)	2,780
Total current portion of assets disposed	5,706
Equipment, net of accumulated depreciation (1)	89
Acquired technology and product rights, net (1)	82,174
Total long-term portion of assets disposed	82,263
Total assets disposed	\$ 87,969
<b>LIABILITIES</b>	
Current liabilities:	
Deferred revenue, net (2)	\$ 49,324
Total liabilities disposed	\$ 49,324

(1) Represents assets acquired by King in accordance with the terms of the AVINZA Purchase Agreement.

(2) Represents assets or liabilities eliminated from the Company's consolidated balance sheet in connection with the AVINZA sale transaction.

Prior to the AVINZA sale, the Company recorded accruals for rebates, chargebacks, and other discounts related to AVINZA products when product sales were recognized as revenue under the sell-through method. Upon the AVINZA sale, the Company accrued for rebates, chargebacks, and other discounts related to AVINZA products in the distribution channel which had not sold-through at the time of the AVINZA sale and for which the Company retained the liability subsequent to the sale. These products expire at various dates through June 30, 2009. The Company's accruals for AVINZA rebates, chargebacks, and other discounts total \$0.1 million and \$1.0 million as of December 31, 2008 and 2007, respectively, and are included in accrued liabilities in the accompanying consolidated balance sheet.

**Table of Contents**

Additionally, and pursuant to the terms of the AVINZA Purchase Agreement, the Company retained the liability for returns of product from wholesalers that had been sold by the Company prior to the close of the transaction. Accordingly, as part of the accounting for the gain on the sale of AVINZA, the Company recorded a reserve for AVINZA product returns. AVINZA products sold by the Company may be returned through a specified period subsequent to the product expiration date, but no later than December 31, 2009. Under the sell-through revenue recognition method, the Company previously did not record a reserve for returns from wholesalers. The Company's reserve for AVINZA returns is \$8.2 million and \$10.7 million as of December 31, 2008 and 2007, respectively, and is included in accrued liabilities in the accompanying consolidated balance sheet.

*Results from Discontinued Operations*

There was no activity related to discontinued operations for the year ended December 31, 2008.

The following table summarizes the 2007 results from discontinued operations included in the 2007 consolidated statement of operations (in thousands):

	<b>AVINZA Product Line</b>
Product sales	\$ 18,256
Operating costs and expenses:	
Cost of products sold	3,608
Research and development	120
Selling, general and administrative	3,709
Co-promotion	2,814
Co-promote termination charges	2,012
Total operating costs and expenses	12,263
Income from operations	5,993
Interest expense	
Income before income taxes	\$ 5,993

The following table summarizes the 2006 results from discontinued operations included in the 2006 consolidated statement of operations (in thousands):

	<b>Oncology Product Line</b>	<b>AVINZA Product Line</b>	<b>Total</b>
Product sales	\$ 47,512	\$ 136,983	\$ 184,495
Collaborative research and development and other revenues	208		208
Total revenues	47,720	136,983	184,703
Operating costs and expenses:			
Cost of products sold	13,410	22,642	36,052
Research and development	12,895	380	13,275
Selling, general and administrative	13,891	36,118	50,009
Co-promotion		37,455	37,455
Co-promote termination charges		131,078	131,078

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Total operating costs and expenses	40,196	227,673	267,869
Income (loss) from operations	7,524	(90,690)	(83,166)
Interest expense	(51)	(8,187) (1)	(8,238)
Income (loss) before income taxes	\$ 7,473	\$ (98,877)	\$ (91,404)

**Table of Contents**

- (1) As part of the terms of the AVINZA Purchase Agreement, the Company was required to redeem its outstanding convertible subordinated notes. All of the notes converted into shares of common stock in 2006 prior to redemption. In accordance with EITF 87-24, *Allocation of Interest to Discontinued Operations*, the interest on the notes was allocated to discontinued operations because the debt was required to be repaid in connection with the disposal transaction. A comparison of sales by product for discontinued operations is as follows (in thousands):

	<b>Years Ended December 31,</b>	
	<b>2007</b>	<b>2006</b>
AVINZA	\$ 18,256	\$ 136,983
ONTAK		26,588
Targretin capsules		17,575
Targretin gel and Panretin gel		3,349
<b>Total product sales</b>	<b>\$ 18,256</b>	<b>\$ 184,495</b>

**5. Investments**

As of December 31, 2008 and 2007, all of the Company's investments have a contractual maturity of less than one year. The following table summarizes the various investment categories (in thousands):

	<b>Cost</b>	<b>Gross unrealized gains</b>	<b>Gross unrealized losses</b>	<b>Estimated fair value</b>
<b>December 31, 2008</b>				
U.S. government securities	\$ 50,174	\$ 81	\$	\$ 50,255
Corporate obligations	1,663			1,663
	51,837	81		51,918
Certificates of deposit restricted	1,341			1,341
Total debt securities	\$ 53,178	\$ 81	\$	\$ 53,259
<b>December 31, 2007</b>				
U.S. government securities	\$ 7,509	\$ 4	\$	\$ 7,513
Corporate obligations	10,078	14	(9)	10,083
	17,587	18	(9)	17,596
Certificates of deposit restricted	1,411			1,411
Total debt securities	\$ 18,998	\$ 18	\$ (9)	\$ 19,007

On July 19, 2007, the Company purchased \$5.0 million of commercial paper issued by Golden Key Ltd. While the investment was highly-rated and within the Company's investment policy at the time of purchase, during the third quarter of 2007, large credit rating agencies downgraded the quality of this security. In addition, as a result of not meeting certain liquidity covenants, the assets were assigned to a trustee who established a committee of the largest senior credit holders to determine the next steps. Subsequently, Golden Key defaulted on its obligation to settle the security on the stated maturity date of October 10, 2007. Based on available information, management estimates that it will be able to recover approximately \$1.7 million on this security. Accordingly, management adjusted the carrying value by recording an impairment loss of \$2.0 million and \$1.3 million in 2008 and 2007, respectively. This impairment is included in other income (expense) in the consolidated statement of operations. Further, liquidity in the capital markets has continued to be volatile. Accordingly, the Company may be exposed to additional impairment for this investment until it is fully recovered. There were no other material realized gains or losses on sales of available-for-sale

securities for the years ended December 31, 2008, 2007, and 2006.

**Table of Contents****6. Other Balance Sheet Details**

Other current assets consist of the following (in thousands):

	<b>December 31,</b>	
	<b>2008</b>	<b>2007</b>
Income taxes receivable	\$ 817	\$ 3,099
Prepaid expenses	1,147	1,076
Other receivables	325	738
Other	11	155
	<b>\$ 2,300</b>	<b>\$ 5,068</b>

Accrued liabilities consist of the following (in thousands):

	<b>December 31,</b>	
	<b>2008</b>	<b>2007</b>
Warrant liability	\$ 670	\$
Compensation	2,686	3,402
Legal	4,166	
Restructuring costs	848	
Other	4,295	3,650
	<b>\$ 12,665</b>	<b>\$ 7,052</b>

The following summarizes the activity in the accounts related to allowances for loss on returns, rebates, chargebacks, and other discounts (in thousands):

	<b>Charge-backs and Rebates</b>	<b>Returns</b>	<b>Total</b>
Balance at January 1, 2006	\$ 9,015	\$ 6,714	\$ 15,729
Provision	18,270	3,692	21,962
Oncology Transaction Provision (1)	2,276	10,020	12,296
Payments	(23,314)		(23,314)
Charges		(11,985)	(11,985)
Balance at December 31, 2006	6,247	8,441	14,688
Provision	3,929	(1,243) (4)	2,686
AVINZA Transaction Provision (2)	1,953	19,355	21,308
Oncology Transaction Provision (3)	810	3,856	4,666
Payments	(10,723)		(10,723)
Charges		(15,350)	(15,350)
Balance at December 31, 2007	2,216	15,059	17,275
AVINZA Transaction Provision (2)	(857)	(211)	(1,068)
Oncology Transaction Provision (3)	(49)	(2,856)	(2,905)
Payments	(802)		(802)
Charges		(2,910)	(2,910)

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Balance at December 31, 2008	\$	508	\$	9,082	\$	9,590
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- (1) The 2006 Oncology transaction provision amounts represent additional accruals recorded in connection with the sale of the Oncology Product Line to Eisai on October 25, 2006. The Company maintains the obligation for returns of product that were shipped to wholesalers prior to the close of the Eisai transaction on October 25, 2006 and chargebacks and rebates associated with product in the distribution channel as of the closing date.

## **Table of Contents**

- (2) The AVINZA transaction provision amounts represent additional accruals recorded in connection with the sale of the AVINZA Product Line to King Pharmaceuticals, Inc. on February 26, 2007. The Company maintains the obligation for returns of product that were shipped to wholesalers prior to the close of the King transaction on February 26, 2007 and chargebacks and rebates associated with product in the distribution channel as of the closing date.
- (3) The 2007 Oncology transaction provision amounts represent changes in the estimates of the accruals for chargebacks and rebates recorded in connection with the sale of the Oncology Product Line.
- (4) The credit for returns in 2007 primarily consists of a change in the estimate of ONTAK end-customer returns. The accrual for ONTAK end-customer returns is a result of the operations of the Oncology Product Line prior to its sale on October 25, 2006.

### **7. AVINZA Co-Promotion**

In February 2003, Ligand and Organon Pharmaceuticals USA Inc. (Organon) announced that they had entered into an agreement for the co-promotion of AVINZA. Subsequently in January 2006, Ligand signed an agreement with Organon that terminated the AVINZA co-promotion agreement between the two companies and returned AVINZA co-promotion rights to Ligand. The termination was effective as of January 1, 2006; however, the parties agreed to continue to cooperate during a transition period that ended September 30, 2006 (the "Transition Period") to promote the product. The Transition Period co-operation included a minimum number of product sales calls per quarter as well as the transition of ongoing promotions, managed care contracts, clinical trials and key opinion leader relationships to Ligand. During the Transition Period, Ligand paid Organon an amount equal to 23% of AVINZA net sales. Ligand also paid and was responsible for the design and execution of all clinical, advertising and promotion expenses and activities.

Additionally, in consideration of the early termination and return of rights under the terms of the agreement, Ligand agreed to and paid Organon \$37.8 million in October 2006. Ligand further agreed to and paid Organon \$10.0 million in January 2007, in consideration of the minimum sales calls during the Transition Period. In addition, following the Transition Period, Ligand agreed to make quarterly royalty payments to Organon equal to 6.5% of AVINZA net sales through December 31, 2012 and thereafter 6.0% through patent expiration, currently anticipated to be November of 2017.

The unconditional payment of \$37.8 million to Organon and the estimated fair value of the amounts to be paid to Organon after the termination (\$95.2 million as of January 1, 2006), based on the estimated net sales of the product (currently anticipated to be paid quarterly through November 2017), were recognized as liabilities and expensed as costs of the termination as of the effective date of the agreement, January 1, 2006. Additionally, the conditional payment of \$10.0 million, which represents an approximation of the fair value of the service element of the agreement during the Transition Period (when the provision to pay 23% of AVINZA net sales is also considered), was recognized ratably as additional co-promotion expense over the Transition Period.

As more fully described in Note 4, on February 26, 2007, Ligand and King executed an agreement pursuant to which King acquired all of the Company's rights in and to AVINZA, assumed certain liabilities, and reimbursed Ligand the \$47.8 million previously paid to Organon (comprised of the \$37.8 million paid in October 2006 and the \$10.0 million that the Company paid in January 2007). King also assumed the Company's co-promote termination obligation to make royalty payments to Organon based on net sales of AVINZA. For the fourth quarter of 2006 and through the closing of the AVINZA sale transaction, amounts owed by Ligand to Organon on net reported sales of AVINZA did not result in current period expense, but instead were charged against the co-promote termination liability. The liability was adjusted at each reporting period to fair value and was recognized, utilizing the interest method, as additional co-promote termination charges for that period at a rate of 15%, the discount rate used to initially value this component of the termination liability.

In connection with King's assumption of this obligation, Organon did not consent to the legal assignment of the co-promote termination obligation to King. Accordingly, Ligand remains liable to Organon in the event of

**Table of Contents**

King's default of the obligation. Therefore, Ligand recorded an asset as of February 26, 2007 to recognize King's assumption of the obligation, while continuing to carry the co-promote termination liability in the Company's consolidated financial statements to recognize Ligand's legal obligation as primary obligor to Organon as required under SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*. This asset represents a non-interest bearing receivable for future payments to be made by King and is recorded at its fair value. As of December 31, 2007 and thereafter, the receivable and liability will remain equal and adjusted each quarter for changes in the fair value of the obligation including for any changes in the estimate of future net AVINZA product sales. This receivable will be assessed on a quarterly basis for impairment (e.g. in the event King defaults on the assumed obligation to pay Organon). As of December 31, 2007, the fair value of the co-promote termination liability (and the corresponding receivable) was reduced by \$36.7 million based on revised estimated future net AVINZA product sales using a discount rate of 15%.

On an annual basis, management reviews the carrying value of the co-promote termination liability. Due to assumptions and judgments inherent in determining the estimates of future net AVINZA sales through November 2017, the actual amount of net AVINZA sales used to determine the current fair value of the Company's co-promote termination asset and liability may be materially different from current estimates.

A summary of the co-promote termination liability as of December 31, 2008 and 2007 is as follows (in thousands):

Net present value of payments based on estimated future net AVINZA product sales as of December 31, 2006	\$ 93,328
Payment made in February 2007 to Organon for net AVINZA sales from October 1, 2006 through December 31, 2006	(2,218)
Payment made in May 2007 to Organon for net AVINZA sales from January 1, 2007 through February 26, 2007	(1,187)
Assumed payments made by King or assignee in 2007	(4,943)
2007 fair value adjustments due to passage of time	11,183
December 31, 2007 adjustment based on revised estimated future payments based on revised estimated future net AVINZA product sales	(36,707)
Net present value of payments based on estimated future net AVINZA product sales as of December 31, 2007	\$ 59,456
Assumed payments made by King or assignee	(8,803)
Fair value adjustments due to passage of time	7,829
Total co-promote termination liability as of December 31, 2008	58,482
Less: remaining current portion of co-promote termination liability as of December 31, 2008	(10,958)
Long-term portion of co-promote termination liability as of December 31, 2008	\$ 47,524

**8. Note Payable**

In December 2006, Pharmacoepia entered into a loan and security agreement (the Line of Credit) with a lending institution to provide up to a total of \$5.0 million in funding in the form of term loans, from time to time through December 2008. Term loans secured by laboratory equipment have a fixed term of 48 months. Term loans secured by all other collateral categories have a fixed term of 36 months.

As of December 31, 2008, the aggregate balance of term loans originated under the Line of Credit was approximately \$3.4 million, of which approximately \$2.1 million was classified as equipment financing obligations, long-term. Interest rates on these term loans range from 10.08% to 10.28%. The Company paid off the Line of Credit in full in January 2009.

**Table of Contents****9. Warrant Liability**

In connection with the acquisition of Pharmacoepia, the Company assumed approximately 867,637 warrants (as adjusted as a result of the merger from the original 1,450,000) to purchase its common stock. Under EITF 00-19, to qualify as permanent equity, an equity derivative must permit the issuer to settle in unregistered shares. Under securities law, if the warrants were issued in connection with a public offering and have a cash settlement feature at the holder's option, a company does not have the ability to settle in unregistered shares. Therefore, the warrants cannot be classified as permanent equity and are instead classified as a liability. The warrants issued as part of Pharmacoepia's equity financing in October 2006 meet this criteria, and have been recorded as a liability in the accompanying balance sheet. The fair value of the warrants will be remeasured at each reporting date until the warrants are exercised or have expired. Changes in the fair value of the warrants are reported in the statement of operations as income (decreases) or expense (increases).

At December 31, 2008, the fair value of the warrants was approximately \$0.7 million and included in accrued liabilities.

The fair value of the warrants was calculated using the Black-Scholes option-pricing model with the following assumptions at December 31, 2008:

Risk-free interest rate	1.0%
Dividend yield	
Expected volatility	78%
Expected term	3.3 years

**10. Commitments and Contingencies***ECLiPS® Royalties*

Under its license agreement with the Trustees of Columbia (Columbia) University and Cold Spring Harbor Laboratory (Cold Spring) (the License Agreement), the Company has an exclusive license for technology used in its proprietary combinatorial chemistry encoding technology, Encoded Combinatorial Libraries on Polymeric Support, or ECLiPS®. The License Agreement obligates the Company to pay a minimum annual license fee of \$0.1 million to both Columbia and Cold Spring. The License Agreement expires upon the later of (i) July 16, 2013 or (ii) the expiration of the last patent relating to the technology, at which time the Company will have a fully paid license to the technology. The license granted to the Company under the License Agreement can be terminated by Columbia and Cold Spring (i) upon 30 days written notice to the Company if the Company materially breaches the Agreement and the Company fails to cure such material breach in accordance with the License Agreement or (ii) if the Company commits any act of bankruptcy, becomes insolvent, files a petition under any bankruptcy or insolvency act or has any such petition filed against it that is not dismissed within 60 days. The Company is also obligated to pay royalties to Columbia and Cold Spring based on net sales of pharmaceutical products the Company develops, as well as a percentage of all other revenue the Company recognizes from collaborators that is derived from the technology licensed from Columbia and Cold Spring.

*Property Leases*

The Company leases an 82,500 square foot office and laboratory facility in San Diego, California through November 2021. Under the terms of the lease, the Company pays a basic annual rent of \$3.0 million (subject to an annual fixed percentage increase, as set forth in the agreement), plus a 1% annual management fee, property taxes and other normal and necessary expenses associated with the lease including but not limited to utilities and repairs and maintenance. The Company has the right to extend the lease for two five-year terms and will have the first right of refusal to lease, at market rates, any facilities built on the sold lots.

**Table of Contents**

The Company also leases an office and research facility in San Diego, California under an operating lease arrangement through July 2015. The Company fully vacated this facility in February 2008. The lease agreement provides for increases in annual rents based on changes in the Consumer Price Index or fixed percentage increases ranging from 3% to 7%. Commencing January 2008, the Company sublet this facility through July 2015. The sublease agreement provides for a 3% increase in annual rents. As of December 31, 2008, the Company expects to receive aggregate future minimum lease payments totaling \$5.7 million (nondiscounted) over the duration of the sublease agreement. In accordance with SFAS No. 146 (As Amended) Accounting for Costs Associated with Exit or Disposal Activities, the Company recorded a net charge to operating expenses of \$4.3 million for exit costs when it fully ceased use of this facility in the first quarter of 2008. The net charge consisted of a \$6.5 million charge for future rent payments offset by a \$2.3 million reversal of deferred rent. As of December 31, 2008, annual minimum rentals expected to be received by the Company under the sublease are as follows (in thousands):

<b>Year ending December 31,</b>	
2009	\$ 812
2010	829
2011	854
2012	879
2013	906
Thereafter	1,412
	<b>\$ 5,692</b>

The Company leases approximately 99,000 square feet in three facilities in Cranbury, New Jersey under leases that expire in 2016. The leases for the New Jersey facilities provide generally for scheduled rent increases, options to extend the leases with certain changes to the terms of the lease agreement, and refurbishment allowances.

Total rent expense under all office leases for 2008, 2007 and 2006 was \$11.0 million, \$5.4 million, and \$2.4 million, respectively. The Company recognizes rent expense on a straight-line basis. Deferred rent at December 31, 2008 and 2007 was \$1.4 million and \$3.1 million, respectively, and is included in other long-term liabilities.

*Equipment Financing*

The Company has entered into capital lease and equipment agreements that require monthly payments through September 2010 including interest ranging from 8.36% to 10.11%. The cost of equipment under these agreements at December 31, 2008 and 2007 was \$5.5 million and \$5.8 million, respectively. At December 31, 2008 and 2007, related accumulated amortization was \$4.6 million and \$3.9 million, respectively. The underlying equipment is used as collateral under the equipment financing.

In addition, as of December 31, 2008, Pharmacopeia had a \$3.4 million Line of Credit balance in the form of term loans secured by laboratory and other underlying collateral. The line of credit was paid in full as of January 2009.

**Table of Contents**

At December 31, 2008 annual minimum payments due under the Company's office and equipment lease obligations, excluding any sublease income, and equipment financing obligations are as follows (in thousands):

	Equipment financing obligations	Operating leases
2009	\$ 2,141	\$ 7,815
2010	1,583	7,968
2011	766	8,126
2012	16	8,288
2013		8,455
Thereafter		42,502
<b>Total minimum lease payments</b>	<b>4,506</b>	<b>\$ 83,154</b>
Less: amounts representing interest	(4,994)	
<b>Present value of minimum lease payments</b>	<b>4,007</b>	
Less: current portion	(1,829)	
	<b>\$ 2,178</b>	

*Product Liability*

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

*Litigation**SEC Investigation*

The SEC issued a formal order of private investigation dated September 7, 2005, to investigate the circumstances surrounding restatement of our consolidated financial statements for the years ended December 31, 2002 and 2003, and for the first three quarters of 2004. The SEC's investigation is ongoing and the Company is cooperating with the investigation.

*Other Matters*

The Company and Seragen, Inc., a subsidiary, were named parties to *Sergio M. Oliver, et al. v. Boston University, et al.*, a shareholder class action filed on December 17, 1998 in the Court of Chancery in the State of Delaware. The Company and Seragen were dismissed from the action, but such dismissal is subject to appeal and the Company and Seragen may have possible indemnification obligations with respect to certain defendants. As of December 31, 2008, the Company had not accrued an indemnification obligation based on management's assessment that its responsibility for any such obligation is not probable or estimable.

In July 2007, the Salk Institute for Biological Studies (Salk) filed a demand for arbitration with the American Arbitration Association, seeking damages for alleged breach of contract based on Salk's theory that it is entitled to a portion of the money paid by Eisai to the Company for Targetin related assets. In September 2008, the Company reached a settlement with Salk, whereby the parties resolved all disputes that had arisen.



## **Table of Contents**

between them, including Salk's primary claim in arbitration relating to the sale of Targretin to Eisai in 2006. As part of the settlement, the parties executed mutual releases and agreed to jointly seek dismissal with prejudice of all claims and counterclaims asserted in the arbitration. The Company agreed to pay Salk a total of \$13.0 million, which was recorded as research and development expense in 2008, of which \$9.5 million was due immediately upon settlement and \$3.5 million due six months from the date of settlement in return for which Salk acknowledged that no additional payments would be due from Ligand or any sublicensee for any past, present or future conduct, including development of any compound in Ligand's internal or partnered pipeline, except for any future bazedoxifene related payments. Pursuant to the parties' agreement, the American Arbitration Association dismissed the proceeding. As of December 31, 2008, the Company had recorded a liability of \$3.5 million related to the settlement, which is included in current portion of accrued litigation settlement costs in the accompanying balance sheets.

On March 4, 2008, The Rockefeller University (Rockefeller) filed suit, now proceeding in the United States District Court for the Southern District of New York, against the Company alleging, among other things, a breach by the Company of their September 30, 1992 license agreement with Rockefeller, as well as other causes of action for unjust enrichment, quantum meruit, specific performance to perform an audit and declaratory relief. In February 2009, the Company reached a settlement with Rockefeller whereby the parties resolved all disputes that have arisen between them, including Rockefeller's primary claim relating to the development of PROMACTA as well as the Company's counterclaims. As part of the settlement, the parties executed mutual releases and agreed to jointly seek dismissal with prejudice of all claims, demands and causes of action, whether known or unknown, arising out of or based upon the license agreement, the ongoing litigation, PROMACTA, LGD-4665, and any other compound developed by the Company that was subject to the license agreement. The Company also agreed to pay Rockefeller, \$5.0 million immediately upon settlement, \$1.0 million on or before February 10, 2010, \$1.0 million on or before February 10, 2011, and 50% of any milestone payment and 5.88% to 7.0% of certain royalties, in each case received by the Company pursuant to an agreement with SmithKline Beecham Corporation (now known as GlaxoSmithKline) entered into on December 29, 1994. The Company also agreed to pay Rockefeller 1.5% of world-wide net sales of LGD-4665 as certain payments are received by the Company pursuant to its agreement with SmithKline Beecham Corporation entered into on December 17, 2008. As of December 31, 2008, the Company has recorded a liability of \$7.0 million related to the settlement, of which \$5.0 million is included in current portion of accrued litigation settlement costs and \$2.0 million is included in other long term liabilities in the accompanying balance sheets.

On October 10, 2008, the Company received notice that a putative class action complaint was filed in the Superior Court of New Jersey, Mercer County (Equity Division) by Allen Heilman, one of Pharmacoepia's stockholders, against Pharmacoepia, the members of its Board of Directors, the Company and two of our wholly owned subsidiaries. The complaint generally alleges that Pharmacoepia's Board of Directors' decision to enter into the proposed transaction with the Company on the terms contained in the proposed merger agreement constitutes a breach of fiduciary duty and gives rise to other unspecified state law claims. The complaint also alleges that the Company and two of our wholly owned subsidiaries aided and abetted Pharmacoepia's Board of Directors' breach of fiduciary duty. In addition, the complaint alleges that the named plaintiff will seek equitable relief, including among other things, an order preliminarily and permanently enjoining the proposed transaction. While the Company believes that neither Ligand nor Pharmacoepia engaged in any wrongful acts, in an effort to minimize the cost and expense of any litigation, in December 2008, the Company entered into a memorandum of understanding, or MOU, with the named plaintiff providing for the settlement of the lawsuit. Subject to court approval and further definitive documentation, the MOU provides a release and settlement by the purported class of all claims against Pharmacoepia, the Company, and the Company's affiliates and agents in connection with the complaint. Pursuant to the MOU the Company has agreed not to oppose any fee application by plaintiffs' counsel that does not exceed \$180,000. As of December 31, 2008, the Company has recorded a liability of \$0.2 million related to the MOU.

In addition, from time to time the Company is subject to various lawsuits and claims with respect to matters arising out of the normal course of the Company's business. Due to the uncertainty of the ultimate outcome of these matters, the impact on future financial results is not subject to reasonable estimates.

## **Table of Contents**

### *Funding of Legacy Director Indemnity Fund*

On March 1, 2007, the Company entered into an indemnity fund agreement, which established in a trust account with Dorsey & Whitney LLP, (Dorsey) counsel to the Company's independent directors and to the Audit Committee of the Company's Board of Directors, a \$10.0 million indemnity fund to support the Company's existing indemnification obligations to continuing and departing directors in connection with the ongoing SEC investigation and related matters. Ligand has agreed to supplement the indemnity fund upon Dorsey's request should the fund become insufficient to cover liabilities and defense costs required to be paid under the Company's indemnification agreements. Upon the earlier of (i) the resolution of the SEC investigation and related matters, (ii) the expiration of 24 months after receipt of any written or oral communication initiated by the SEC regarding the investigation, (iii) written communications from the SEC that the investigation has been discontinued, or (iv) otherwise by the mutual agreement of the parties to terminate the indemnity fund agreement, Dorsey will remit the remaining balance of the fund to Ligand. The balance of this fund, amounting to \$10.2 million and \$10.1 million, has been recorded as restricted indemnity account in the consolidated balance sheets as of December 31, 2008 and 2007, respectively.

### **11. Common Stock Subject to Conditional Redemption Pfizer Settlement Agreement**

In April 1996, the Company and Pfizer entered into a settlement agreement with respect to a lawsuit filed in December 1994 by the Company against Pfizer. In connection with a collaborative research agreement the Company entered into with Pfizer in 1991, Pfizer purchased shares of the Company's common stock. Under the terms of the settlement agreement, at the option of either the Company or Pfizer, milestone and royalty payments owed to the Company can be satisfied by Pfizer by transferring to the Company shares of the Company's common stock at the exchange ratio of \$12.375 per share. In accordance with EITF D-98, the remaining common stock issued and outstanding to Pfizer following the settlement was reclassified as common stock subject to conditional redemption (between liabilities and equity) since Pfizer has the option to settle milestone and royalties payments owed to the Company with the Company's shares, and such option is not within the Company's control. At December 31, 2008 and 2007, respectively, the remaining shares of the Company's common stock that could be redeemed totaled approximately 998,000, which are reflected at the exchange ratio price of \$12.375 for a total of \$12.3 million. As of December 31, 2008, no cash payments or transfers of shares have been made.

### **12. Stockholders' Equity**

#### *Stock Plans*

The 2002 Stock Incentive Plan contains five separate equity programs: Discretionary Option Grant Program, Automatic Option Grant Program, Stock Issuance Program, Director Fee Option Grant Program and Other Stock Award Program (the "2002 Plan"). On May 31, 2007, shareholders of the Company approved an amendment and restatement of the 2002 Plan. As of December 31, 2008, 2,142,800 shares remained available for future option grant or direct issuance.

The Company grants options to employees, non-employee consultants, and non-employee directors. Non-employee directors are accounted for as employees under SFAS 123R. Options and restricted stock granted to certain directors vest in equal monthly installments over one year from the date of grant. Options granted to employees vest 1/8 on the six month anniversary of the date of grant, and 1/48 each month thereafter for forty-two months. All option awards generally expire ten years from the date of grant.

Stock-based compensation cost for awards to employees and non-employee directors is recognized on a straight-line basis over the vesting period until the last tranche vests. Compensation cost for consultant awards is recognized over each separate tranche's vesting period. The Company recognized compensation expense of \$3.6 million, \$7.6 million and \$5.3 million for 2008, 2007 and 2006, respectively, associated with option awards, restricted stock and an equitable adjustment of employee stock options. Of the total compensation expense

## **Table of Contents**

associated with option awards, \$0.3 million related to options granted to non-employee consultants for 2006. Of the total compensation expense associated with the option awards for 2007, \$1.8 million related to the \$2.50 equitable adjustment of the exercise price for all options outstanding as of April 3, 2007 that was measured for financial reporting purposes effective March 28, 2007, the date the Compensation Committee of the Company's Board of Directors approved the adjustment. There was no deferred tax benefit recognized in connection with these costs.

The fair-value for options that were awarded to employees and directors was estimated at the date of grant using the Black-Scholes option valuation model with the following weighted average assumptions:

	<b>Years Ended December 31,</b>		
	<b>2008</b>	<b>2007</b>	<b>2006</b>
Risk-free interest rate	3.0%	4.9%	4.8%
Dividend yield			
Expected volatility	65%	66%	70%
Expected term	6 years	6 years	6 years

The expected term of the employee and non-employee director options is the estimated weighted-average period until exercise or cancellation of vested options (forfeited unvested options are not considered). SAB 107 guidance permits companies to use a safe harbor expected term assumption for grants up to December 31, 2007 based on the mid-point of the period between vesting date and contractual term, averaged on a tranche-by-tranche basis. The Company used the safe harbor in selecting the expected term assumption in 2007. The expected term for consultant awards is the remaining period to contractual expiration.

Volatility is a measure of the expected amount of variability in the stock price over the expected life of an option expressed as a standard deviation. SFAS 123(R) requires an estimate of future volatility. In selecting this assumption, the Company used the historical volatility of the Company's stock price over a period equal to the expected term.

## Table of Contents

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

	Shares	Weighted Average Exercise Price	Weighted- Average Remaining Contractual Term in Years	Aggregate Intrinsic Value (In thousands)
Balance at January 1, 2006	7,001,657	\$ 11.76		
Granted	1,268,696	10.88		
Exercised	(1,227,830)	8.66		
Forfeited	(404,654)	9.89		
Cancelled	(871,483)	13.00		
Balance at December 31, 2006	5,766,386	10.43(A)	6.04	\$ 4,602
Granted	843,936	7.06		
Exercised	(648,277)	6.87		
Forfeited	(589,893)	8.25		
Cancelled	(3,149,120)	11.71		
Balance at December 31, 2007	2,223,032	8.87	5.17	304
Granted	1,304,500	3.52		
Exercised	(4,438)	3.41		
Forfeited	(107,058)	6.88		
Cancelled	(385,960)	9.64		
Balance at December 31, 2008	3,030,076	6.55	6.63	81
Exercisable at December 31, 2008	1,579,233	8.44	4.86	81
Options expected to vest as of December 31, 2008	2,854,346	6.69	6.51	81

(A) Adjusted to reflect April 2007 equitable adjustment

The weighted-average grant-date fair value of all stock options granted during 2008 was \$2.15 per share. The total intrinsic value of all options exercised during 2008 and 2007 was approximately \$3,000 and \$1.7 million, respectively. As of December 31, 2008, there was \$3.4 million of total unrecognized compensation cost related to nonvested stock options. That cost is expected to be recognized over a weighted average period of 2.7 years.

Cash received from options exercised in 2008 and 2007 was \$15,000 and \$4.2 million, respectively. As of December 31, 2007, there were approximately \$0.2 million of receivables related to stock option exercises which were subsequently received in January 2008. There is no current tax benefit related to options exercised because of Net Operating Losses (NOLs) for which a full valuation allowance has been established.

Following is a further breakdown of the options outstanding as of December 31, 2008:

		Options Outstanding		Options exercisable	
		Options outstanding	Weighted average remaining life in years	Options exercisable	Weighted average exercise price
Range of exercise prices					
\$0.01 - \$3.45		108,766	4.61	98,142	\$ 2.03

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3.46	3.50	1,242,500	8.87	3.50	238,017	3.50
3.51	7.15	659,625	7.75	6.60	273,372	6.63
7.16	10.52	615,287	3.76	8.93	565,804	8.94
10.75	14.66	403,898	2.87	13.42	403,898	13.42
0.01	14.66	3,030,076	6.63	\$ 6.55	1,579,233	\$ 8.44

**Table of Contents***Restricted Stock Activity*

The following is a summary of the Company's restricted stock activity and related information:

	Shares	Weighted-Average Grant Date Fair Value
Nonvested at December 31, 2006	1,297	\$ 11.56
Granted	320,300	9.69
Vested	(1,297)	11.56
Forfeited	(24,700)	7.15
Nonvested at December 31, 2007	295,600	9.90
Granted	434,000	3.38
Vested	(110,012)	10.92
Forfeited	(20,916)	5.43
Nonvested at December 31, 2008	598,672	5.14

Restricted stock awards generally vest over three years. As of December 31, 2008, unrecognized compensation cost related to non-vested stock awards amounted to \$1.0 million. That cost is expected to be recognized over a weighted average period of 1.6 years.

*Preferred Stock*

The Company has authorized 5,000,000 shares of preferred stock, of which 1,600,000 are designated Series A Participating Preferred Stock (the Preferred Stock). The Board of Directors of Ligand has the authority to issue the Preferred Stock in one or more series and to fix the designation, powers, preferences, rights, qualifications, limitations and restrictions of the shares of each such series, including the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), liquidation preferences and the number of shares constituting any such series, without any further vote or action by the stockholders. The rights and preferences of Preferred Stock may in all respects be superior and prior to the rights of the common stock. The issuance of the Preferred Stock could decrease the amount of earnings and assets available for distribution to holders of common stock or adversely affect the rights and powers, including voting rights, of the holders of the common stock and could have the effect of delaying, deferring or preventing a change in control of Ligand. As of December 31, 2008 and 2007, there are no preferred shares issued or outstanding.

*Shareholder Rights Plan*

In October 2006, the Company's Board of Directors renewed the Company's stockholder rights plan, which was originally adopted and has been in place since September 2002, and which expired on September 13, 2006, through the adoption of a new 2006 Stockholder Rights Plan (the 2006 Rights Plan). The 2006 Rights Plan provides for a dividend distribution of one preferred share purchase right (a Right) on each outstanding share of the Company's common stock. Each Right entitles stockholders to buy 1/1000th of a share of Ligand Series A Participating Preferred Stock at an exercise price of \$100. The Rights will become exercisable if a person or group announces an acquisition of 20% or more of the Company's common stock, or announces commencement of a tender offer for 20% or more of the common stock. In that event, the Rights permit stockholders, other than the acquiring person, to purchase the Company's common stock having a market value of twice the exercise price of the Rights, in lieu of the Preferred stock. In addition, in the event of certain business combinations, the Rights permit the purchase of the common stock of an acquiring person at a 50% discount. Rights held by the acquiring person become null and void in each case. The 2006 Rights Plan expires in 2016.

## **Table of Contents**

### *Cash Dividend*

On March 22, 2007, the Company declared a cash dividend on the common stock of the Company of \$2.50 per share. As the Company has an accumulated deficit, the dividend was recorded as a charge against additional paid-in capital in the first quarter of 2007. The aggregate amount of \$252.7 million was paid on April 19, 2007 to shareholders of record as of April 5, 2007.

### *Modification to Employee Stock Options*

In February 2007, the Company's shareholders approved a modification to the 2002 Stock Incentive Plan (the "2002 Plan") to allow equitable adjustments to be made to options outstanding under the 2002 Plan. Effective April 2007, the Company reduced the exercise price by \$2.50 (or to the par value of the stock for those options with an exercise price below \$2.50 per share), as an equitable adjustment, for all options then outstanding under the 2002 Plan to reflect the special cash dividend. Under the requirements of SFAS 123(R), the Company recognized \$1.8 million of stock compensation expense in connection with the equitable adjustment effective March 28, 2007, the date the Compensation Committee of the Company's Board of Directors approved the equitable adjustment.

### *Shares Issued in Business Combination*

On December 23, 2008, in connection with its acquisition of Pharmacoepia, the Company issued 17,997,039 shares of common stock to Pharmacoepia stockholders, or 0.5985 shares for each outstanding Pharmacoepia share.

### *Warrants*

As of December 31, 2008, warrants to purchase 867,637 shares of the Company's common stock were outstanding with an exercise price of \$8.59 per share and warrants to purchase 105,554 shares of the Company's common stock were outstanding with an exercise price of \$9.47 per share. The warrants were assumed in connection with the acquisition of Pharmacoepia, Inc. and expire in April 2012 and March 2011, respectively.

### *Share Repurchases*

In March 2007, the Board of Directors authorized up to \$100.0 million in share repurchases over the subsequent 12 months. In 2007, the Company repurchased 6.2 million shares of its common stock totaling \$39.6 million. Subsequent to December 31, 2007 and through February 28, 2008, the Company repurchased an additional 0.3 million shares of its common stock totaling \$1.6 million.

## **13. Collaboration Agreements and Royalty Matters**

### *AVINZA Royalty*

In connection with the sale of the Company's AVINZA product line to King, King is required to pay Ligand a 15% royalty on AVINZA net sales during the first 20 months after the Closing Date, February 26, 2007. Subsequent royalty payments will be based upon calendar year net sales. If calendar year net sales are less than \$200.0 million, the royalty payment will be 5% of all net sales. If calendar year net sales are greater than \$200.0 million, the royalty payment will be 10% of all net sales less than \$250.0 million, plus 15% of net sales greater than \$250.0 million.

## **Collaborative Research and Development Programs**

The Company has entered into multiple research and development collaboration arrangements with third party pharmaceutical companies. The commercial terms of such arrangements typically include some combination of the following types of fees: exclusivity fees, technology access fees, technology development fees and research support payments, as well as milestone payments, license or commercialization fees. The

## **Table of Contents**

Company may also receive royalties on product candidates resulting from its research and development collaboration arrangements if and to the extent any such product candidate is ultimately approved by the FDA and successfully marketed. The Company's collaborations are discussed below.

### ***Bristol-Myers Squibb Collaborations***

#### ***DARA Program***

In connection with the completion of the Company's acquisition of Pharmacoepia, the Company assumed an exclusive licensing agreement with BMS, originally entered into in March 2006, which provides the Company with an exclusive license under certain BMS patents with respect to worldwide development and commercialization of PS433540, as well as certain other compounds discovered by BMS that possess DARA activity.

Under the terms of the DARA license agreement, in lieu of an up-front cash payment, the Company is providing BMS a set of compound libraries, over a period of approximately three years following the execution of the DARA license agreement. In the event the Company fails to deliver such compound libraries to BMS, the Company would be required to make cash payments to BMS on a pro rata basis of up to \$0.1 million as of December 31, 2008.

Under the terms of the DARA license agreement, the Company is obligated to pay BMS milestone payments upon the achievement, if any, of further successive clinical and regulatory events in the United States and certain other jurisdictions, and a stepped royalty based on net sales of products, if any, resulting from the DARA program. BMS has a limited right of first negotiation in the event that the Company desires to license compounds that are the subject of the DARA license agreement to a third party other than BMS.

#### ***SARM Program***

In connection with the Company's acquisition of Pharmacoepia, the Company assumed an exclusive licensing agreement with BMS, originally entered into in October 2007, which provides the Company exclusive worldwide development and commercialization rights to a SARM program, including PS178990, for which a Phase I single ascending dose study had been completed. PS178990 is a non-steroidal SARM that was designed to provide the benefits of testosterone to patients without unwanted side effects on the prostate.

Under the SARM license agreement, the Company is required to make milestone payments to BMS upon the submission and approval of a therapeutic product for marketing in the United States and certain other jurisdictions and is obligated to make milestone payments to BMS upon achieving certain worldwide annual net sales of products resulting from the SARM program. The Company is also obligated to pay to BMS a stepped royalty on annual net sales on products covered by the SARM License agreement. BMS has a limited right of first negotiation in the event that the Company attempts to license compounds that are the subject of the SARM License agreement to a third party other than BMS.

The Company also assumed a discovery collaboration agreement with BMS to provide a portion of its medicinal chemistry resources to a BMS discovery program unrelated to the SARM program for a period up to three years beginning in October 2007. The discovery collaboration agreement provides that each such year, the Company is required to provide a fixed number of full-time workers for the BMS discovery program, divided between employees located at its facility in Cranbury, New Jersey and contracted headcount located outside the United States.

In addition, the Company agreed to pay milestone payments to BMS associated with the submission and approval of a therapeutic product for marketing and a stepped royalty on net sales of therapeutic products, if any, resulting from the SARM program. BMS has a limited right of first negotiation in the event that the Company desires to license compounds that are the subject of the SARM License agreement to a third party other than BMS.

As of December 31, 2008, the Company had deferred revenue of approximately \$13.0 million related to BMS agreements.

## **Table of Contents**

### ***GlaxoSmithKline Collaboration***

#### ***Agreement with Pharmacopeia***

In connection with the completion of the Company's acquisition of Pharmacopeia, the Company assumed a product development and commercialization agreement which Pharmacopeia and SmithKlineBeecham Corporation and Glaxo Group Limited (together GSK) entered into in March 2006. The Company's role in the collaboration is to identify and advance molecules in chosen therapeutic programs to development stage and, subject to certain provisions in the GSK agreement, further develop the candidates to clinical proof of concept (a demonstration of efficacy in humans). The Company agreed that it will not screen its compound library for other collaborators, or for its own account, against any target it screens under the GSK agreement for a specified period.

The GSK agreement provides GSK an exclusive option, exercisable at defined points during the development process for each program up to proof of concept, to license that program. Upon licensing a program, GSK is obligated to conduct preclinical development and/or clinical trials and commercialize pharmaceutical products, if any, resulting from such licensed programs on a worldwide basis. The Company is entitled to receive success-based milestone payments, starting in preclinical research, from GSK for each drug development program under the alliance and the potential for double-digit royalties upon the successful commercialization by GSK of any product resulting therefrom.

In the event that GSK does not exercise its option to license a program, the Company will retain all rights to that program and may continue to develop the program and commercialize any products resulting from the program, or the Company may elect to cease progressing the program and/or seek other partners for further development and commercialization. Should the Company develop or partner such a program and commercialize any products resulting from that program, it will be obligated to pay GSK success-based milestone payments and royalties upon successful commercialization, if any.

Pharmacopeia received \$15.0 million in connection with initial discovery activities which the Company is obligated to perform under the GSK agreement. The Company recognizes revenue on a percentage of completion basis as it performs the required discovery activities in an amount from time to time less than or equal to the non-refundable portion of payments received in connection with the GSK agreement. The initial research term of the GSK agreement expires in March 2011. As of December 31, 2008, the Company had deferred revenue of approximately \$6.3 million related to GSK agreements.

The Company and GSK each have the right to terminate the GSK agreement in their sole discretion under certain specified circumstances at any time during the term of the GSK agreement. In addition, the Company and GSK each have the right to terminate the GSK agreement under other circumstances that are customary in these types of agreements. If the Company exercises its discretionary termination right at any time during the first five years of the term, under certain circumstances, the Company could be required to refund to GSK a portion of the \$15.0 million referred to above which it received related to its initial discovery activities. The amount of any such refund will be calculated based upon when during the term of the GSK agreement that termination occurs and the amount of research funding the Company had received prior to such termination. However, there are no instances where the deferred revenue would be amortized below the amount that could be potentially refundable pursuant to the terms of the GSK agreement. Further, should GSK exercise its discretionary termination rights, there are no provisions in the GSK agreement that would require the Company to refund payments received relating to its performance of initial discovery activities or milestone payments received under the GSK agreement.

#### ***PROMACTA and TPO***

In December 2008, the FDA granted accelerated approval of GSK's PROMACTA® for the treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenic purpura (ITP) who have had

## **Table of Contents**

an insufficient response to corticosteroids, immunoglobulins or splenectomy. PROMACTA is the first oral TPO receptor agonist therapy for the treatment of adult patients with chronic ITP. As a result of the FDA's approval of PROMACTA, the Company will be entitled to receive tiered royalties in the range of 4.7%-9.4% on annual net sales of PROMACTA, net of payments due to Rockefeller as part of a settlement agreement and mutual release the Company entered into on February 11, 2009 with Rockefeller.

In December 2008, the Company entered into an exclusive, worldwide license agreement with SmithKline Beecham Corporation, doing business as GSK. Pursuant to the terms of the license agreement, the Company granted GSK the exclusive right to develop, manufacture and commercialize its LGD-4665 product candidate, as well as all other TPO-related molecules discovered by the Company. LGD-4665 is currently in a Phase II trial for treatment of thrombocytopenia, a condition of low-platelet levels commonly associated with a diverse range of clinical disorders. Under the terms of the license agreement, GSK paid the Company \$5.0 million as an upfront license fee which was recognized as revenue in 2008 and agreed to pay the Company up to \$158.0 million in development and commercial milestones and a 14.5% royalty on net sales, net of payments due to Rockefeller. In the first year of sales, royalties will be 6.5% on net sales, net of payments due to Rockefeller. GSK has the exclusive right to develop, manufacture and commercialize LGD-4665, as well as other TPO-related molecules discovered by the Company. GSK will direct all product development and commercialization and will be responsible for all costs going forward for development, patent maintenance and prosecution, and commercialization.

### ***Wyeth Collaborations***

#### ***JAK3 Program***

In connection with the completion of the Company's acquisition of Pharmacoepia, the Company assumed a research and license agreement with Wyeth, acting through its Wyeth Pharmaceuticals Division, providing for the formation of a new alliance based on Pharmacoepia's Janus Kinase-3, or JAK3, inhibitor program. The alliance's goal is to identify, develop and commercialize therapeutic products for the treatment of certain immunological conditions in humans.

Each of the companies has certain exclusive rights to develop and commercialize products resulting from the JAK3 program and the alliance. The Company retains the right to develop and commercialize therapeutic products for the treatment of dermatological and ocular diseases employing topical administration, and Wyeth has the right to develop human therapeutic products for all other indications and routes of delivery. Under the terms of the Wyeth agreement, Pharmacoepia received an up-front cash payment and will receive quarterly research funding through December 2009. In addition, the Company may receive up to \$175.0 million if Wyeth achieves preclinical and clinical development and regulatory and commercialization milestones, as well as double-digit royalties on the net sales of any products commercialized by Wyeth under the alliance. Each company is responsible for all development, regulatory, manufacturing and commercialization activities for any products it develops and commercializes in its field.

The revenue for this research is recognized on a percentage of completion basis, which is expected to approximate straight-line recognition of revenue over the initial three year term of the alliance. As of December 31, 2008, the Company had deferred revenue of approximately \$1.5 million related to Wyeth agreements.

Each of the companies has the right to terminate the Wyeth agreement under certain specified circumstances at any time during the term of the Wyeth agreement. In addition, Wyeth has the right, upon providing the Company six months' prior written notice, to terminate the research collaboration and/or the Wyeth agreement in its entirety or in part. Such right to termination would not apply to Wyeth's obligations with respect to any program developed by the collaboration and licensed by Wyeth. Termination will not require the Company to refund to Wyeth any or all of the cash payments described above.

## **Table of Contents**

### ***Bazedoxifene Program***

Bazedoxifene (VIVIAN) is a product candidate that resulted from another collaboration with Wyeth. Bazedoxifene is a synthetic drug that was specifically designed to reduce the risk of osteoporotic fractures while at the same time protecting breast and uterine tissue. In June 2006, Wyeth submitted an NDA for bazedoxifene to the FDA for the prevention of postmenopausal osteoporosis. The FDA issued an approvable letter for bazedoxifene for this indication in April 2007. Wyeth received a second approvable letter in December 2007 and plans to have further discussions with the FDA to discuss the issues raised for the prevention indication. Wyeth also submitted a second NDA for bazedoxifene in the United States in July 2007 for the treatment of osteoporosis and an MAA to EMEA in September 2007 for the prevention and treatment of osteoporosis. Wyeth received a third approvable letter in the second quarter of 2008 for bazedoxifene for the treatment of osteoporosis. In the letter, the FDA requested information similar to that outlined in its approvable letter for bazedoxifene's NDA for the prevention of postmenopausal osteoporosis issued in December 2007. This included further analyses concerning the incidence of stroke and venous thrombotic events. Wyeth indicated that it will file a complete response in 2009 and expects the FDA will convene an advisory committee to review the pending NDAs for both the treatment and prevention of postmenopausal osteoporosis with VIVIAN. In February 2009, VIVIAN received a positive Committee for Medicinal Products for Human Use (CHMP) opinion in Europe for the treatment of postmenopausal osteoporosis in women at increased risk of fracture.

Wyeth is also developing bazedoxifene in combination with PREMARIN (Aprela) as a progesterone-free treatment for menopausal symptoms. Two Phase III studies with bazedoxifene/conjugated estrogens (Aprela), showed reduced number and severity of hot flashes in symptomatic postmenopausal women by up to 80 percent, when compared with placebo. Wyeth expects to file an initial NDA no earlier than the first half of 2010.

The Company previously sold to Royalty Pharma AG, or Royalty Pharma, the rights to a total of 3.0% of net sales of bazedoxifene for a period of ten years following the first commercial sale of each product. After giving effect to the royalty sale, the Company will receive 0.5% of the first \$400.0 million in net annual sales. If net annual sales are between \$400.0 million and \$1.0 billion, the Company will receive a net royalty of 1.5% on the portion of net sales between \$400.0 million and \$1.0 billion, and if annual sales exceed \$1.0 billion, the Company will receive a net royalty of 2.5% on the portion of net sales exceeding \$1.0 billion. Additionally, the royalty owed to Royalty Pharma may be reduced by one third if net product sales exceed certain thresholds across all indications.

### ***Pfizer Collaboration***

Lasofoxifene (FABLYN) is a product candidate that resulted from the Company's collaboration with Pfizer. In April 2007, Pfizer announced completion of the Postmenopausal Evaluation and Risk Reduction with lasofoxifene, or PEARL, Phase III study with favorable efficacy and safety. Pfizer submitted an NDA and an MAA for osteoporosis treatment in December 2007 and January 2008, respectively. The FDA Advisory Committee in early September 2008 voted 9-3 in favor of approval of this drug and in January 2009, Pfizer received a complete response letter from the FDA requesting additional information for FABLYN. Pfizer is reviewing the letter and will work with the FDA to determine the appropriate next steps regarding its application. In December 2008 an EU Drug Panel granted a positive opinion for the approval of lasofoxifene in the EU for the treatment of osteoporosis in postmenopausal women at increased risk of fracture. Pfizer has also submitted NDAs for osteoporosis prevention and vaginal atrophy, and the FDA issued non-approvable letters for both NDAs.

Under the terms of its agreement with Pfizer, the Company is entitled to receive royalty payments equal to 6% of worldwide net sales of lasofoxifene for any indication. The Company previously sold to Royalty Pharma the rights to a total of 3% of net sales of lasofoxifene for a period of ten years following the first commercial sale of lasofoxifene. Accordingly, the Company will receive approximately 3% of worldwide net annual sales of lasofoxifene.

## **Table of Contents**

### ***Cephalon Collaboration***

In connection with the Company's acquisition of Pharmacoepia, the Company assumed a collaboration and license agreement with Cephalon, Inc., or Cephalon, providing for the formation of a new drug discovery, development and commercialization alliance. Under the Cephalon agreement, Pharmacoepia received an up-front, non-refundable payment of \$15.0 million in June 2006 to support its research efforts.

Cephalon is responsible for identifying hit and lead compounds, and the Company and Cephalon agreed to work collaboratively to advance the lead compounds to clinical candidates. The Company is principally responsible for medicinal chemistry research and Cephalon provides biology support, including preclinical disease models, as required by the Cephalon agreement. The Company has agreed that, for a specified period, it will not screen its compound library for other collaborators, or for its own account, against any target it works on under the Cephalon agreement.

Upon the nomination of any clinical candidates by the alliance, Cephalon will be primarily responsible for their development and commercialization. The Company will retain an option to develop certain candidates from the alliance, subject to Cephalon's agreeing to such development. For any preclinical development candidate advanced under the alliance, the developing company will make clinical, regulatory and sales milestone payments to the non-developing company. In addition, the company commercializing any resulting product will pay the non-commercializing company up to double-digit royalties based on the sales level achieved.

As stated above, under the Cephalon agreement, Pharmacoepia received a non-refundable payment of \$15.0 million and was principally responsible for performing medicinal chemistry research. The revenue for this research is recognized on a percentage of completion basis. As of December 31, 2008, the Company had deferred revenue of approximately \$0.3 million related to the Cephalon agreement. The initial research term of the Cephalon agreement expires in May 2009.

The Company and Cephalon each have the right to terminate the Cephalon agreement under certain specified circumstances at any time during the term of the agreement. In addition, Cephalon has the right to terminate the agreement in its sole discretion, upon ninety days written notice to the Company, during the initial three-year phase of the alliance, which phase may be extended by agreement of the parties. No such termination shall require the Company to refund to Cephalon any or all of the above research and development funding.

### ***Schering-Plough Collaboration***

In connection with the completion of the Company's acquisition of Pharmacoepia, the Company also assumed an amended and restated collaboration and license agreement with N.V. Organon, entered into in February 2007. In November 2007, Organon was acquired by, and is now a part of, Schering-Plough. Under the 2007 Schering-Plough agreement, Pharmacoepia agreed to work collaboratively with Schering-Plough to generate lead compounds at targets in mutual therapeutic areas selected by Schering-Plough and agreed upon by a joint research committee. The purpose of the agreement is to produce development-ready compounds, the potential development of which will be handled primarily by Schering-Plough. The 2007 Schering-Plough agreement provides that the Company will receive up to \$4.0 million per year from Schering-Plough in research funding over the remaining portion of the five-year term of the agreement.

Pursuant to the 2007 Schering-Plough agreement the Company has the option to purchase the right to co-develop and co-commercialize certain therapeutic candidates of mutual interest discovered through the alliance. For the therapeutic candidates that the Company does not elect to co-develop and co-commercialize, Schering-Plough will retain exclusive development and commercialization rights, and the Company will receive milestone payments as a result of Schering-Plough's successful advancement, if any, of each candidate through clinical development. The Company will also receive up to double-digit royalties on net sales, if any, of pharmaceutical products resulting from the collaboration when the lead optimization was conducted by the Company, and lower royalties when the lead optimization was conducted by Schering-Plough.

## **Table of Contents**

The Company and Schering-Plough each have the right to terminate the 2007 Schering-Plough agreement at any time during the term of the agreement under certain specified circumstances, and upon other circumstances customary for these types of agreements.

As of December 31, 2008, the Company had deferred revenue of approximately \$3.5 million related to Schering-Plough agreement.

### ***Celgene Collaboration***

In connection with the acquisition of Pharmacoepia, the Company assumed a research and license agreement (the *Celgene Agreement*) with Celgene Corporation ( *Celgene* ). As of December 31, 2008, the Company has no further research requirements under the Celgene Agreement. The Company's relationship with Celgene produced a compound that led to a clinical candidate currently being evaluated for the treatment of fibrotic and inflammatory diseases that entered a Phase I clinical trial in the first quarter of 2008. The Company is entitled to receive payments resulting from the successful achievement by Celgene of clinical milestones, as well as royalties of 2% on net sales of products resulting from the collaboration.

## **14. Income Taxes**

At December 31, 2008, the Company has federal net operating loss carryforwards of \$398.4 million and \$130.0 million of state net operating loss carryforwards. The Company has \$22.4 million of federal research and development credit carryforwards. Federal research and development credit carryforwards of \$1.0 million expired at the beginning of 2009 with the remainder expiring through 2028, and the Company has \$13.0 million of California and New Jersey research and development credit carryforwards that have no expiration date.

Pursuant to Internal Revenue Code Sections 382 and 383, use of net operating loss and credit carryforwards may be limited if there were changes in ownership of more than 50%. The Company has completed a Section 382 study for Ligand, excluding Glycomed, and has determined that Ligand had an ownership change in 2005 and 2007. As a result of these ownership changes, utilization of Ligand's net operating losses and credits are subject to limitations under Internal Revenue Code Sections 382 and 383. The information necessary to determine if an ownership change related to Glycomed occurred prior to its acquisition by Ligand is not currently available. Accordingly, such tax net operating loss and credit carryforwards are not reflected in Company's deferred tax assets. If information becomes available in the future to substantiate the ability to utilize these net operating losses not limited by Sections 382, the Company will record the deferred tax assets at such time. Included in the amounts above are \$113.8 million of federal net operating loss carryforwards, \$64.2 million of state net operating loss carryforwards and \$3.5 million of federal research and development credit carryforwards related to Pharmacoepia. The Company has not completed a 382 study for Pharmacoepia. As such, the utilization of Pharmacoepia's net operating losses and credits may be subject to limitations under Internal Revenue Code Sections 382 and 383.

The Company's research and development credits pertain to federal, California and New Jersey jurisdictions. These jurisdictions require that the Company create minimum documentation and support. The Company has completed a formal study and believes that it maintains sufficient documentation to support the amounts of the research and development credits.

**Table of Contents**

The components of the income tax benefit for continuing operations are as follows (in thousands):

	Years Ended December 31,		
	2008	2007	2006
<b>Current Benefit:</b>			
Federal	\$ 27	\$ 16,966	\$ 17,122
State		1,743	1,684
Foreign	28	(12)	
	55	18,697	18,806
<b>Deferred Benefit:</b>			
Federal			
State			
Foreign			
	\$ 55	\$ 18,697	\$ 18,806

Significant components of the Company's deferred tax assets and liabilities as of December 31, 2008 and 2007 are shown below. A valuation allowance has been recognized to fully offset the net deferred tax assets as of December 31, 2008 and 2007 as realization of such assets is not more-likely-than-not.

	December 31,	
	2008	2007
	(in thousands)	
<b>Deferred assets:</b>		
Net operating loss carryforwards	\$ 141,620	\$ 82,117
Research and AMT credit carryforwards	35,657	29,709
Capitalized research and development	300	856
Fixed assets and intangibles	6,255	4,002
Accrued expenses	6,042	6,041
Deferred revenue	8,823	
Litigation settlement reserve	2,713	
Present value of AVINZA royalties	19,703	26,680
Organon termination asset	(22,128)	(22,292)
Organon termination liability	22,128	22,292
Organon royalty obligation	818	715
Deferred sale leaseback	9,787	10,206
Other	5,085	4,390
	236,803	164,716
Valuation allowance for deferred tax assets	(236,803)	(164,716)
<b>Net deferred tax assets</b>	<b>\$</b>	<b>\$</b>

As of December 31, 2008, approximately \$6.9 million of the valuation allowance for deferred tax assets related to benefits of stock option deductions which, when recognized, will be allocated directly to paid-in capital. For 2008 and 2007, stock option deductions did not impact the valuation allowance through paid-in capital. For the years ended December 31, 2005, approximately \$0.1 million of the change in the valuation allowance is related to benefits of stock option deductions. Additionally, other changes to the valuation allowance allocated directly to accumulated other comprehensive income (loss) are related to unrealized gains and losses on foreign currency transactions of \$0.01 million, \$0.02 million and \$0.4 million for 2008, 2007, and 2006, respectively.



## Table of Contents

A reconciliation of income tax benefit for continuing operations to the amount computed by applying the statutory federal income tax rate to the loss from continuing operations is summarized as follows (in thousands):

	Years Ended December 31,		
	2008	2007	2006
Amounts computed at statutory federal rate	\$ 33,155	\$ 18,174	\$ 25,634
State taxes net of federal benefit	(2,293)	1,220	6,500
Effect of foreign operations	28	(12)	
Meals & entertainment	(7)	(19)	(113)
In process R&D from merger	(24,480)		
Stock-based compensation	(537)	(910)	(204)
Adjustment to NOLs and R&D tax credits	(678)		(49,226)
Federal research and development credits	(155)	1,287	353
Change in valuation allowance	(5,019)	(1,043)	35,862
Other	41		
	\$ 55	\$ 18,697	\$ 18,806

A reconciliation of income tax benefit (expense) for discontinued operations to the amount computed by applying the statutory federal income tax rate to income from discontinued operations is summarized as follows (in thousands):

	Years Ended December 31,		
	2008	2007	2006
Amounts computed at statutory federal rate	\$ 356	\$ (115,333)	\$ (15,087)
State taxes net of federal benefit	219	3,109	(1,807)
Effect of foreign operations			(70)
Stock-based compensation		(40)	(204)
Release of FIN 48 liability		398	
Change in valuation allowance	(204)	89,001	(2,359)
Other	21	98	
	\$ 392	\$ (22,767)	\$ (19,527)

The Company adopted the provisions of FIN 48 on January 1, 2007. FIN 48 clarifies the accounting for income taxes by prescribing a minimum probability threshold that a tax position must meet before a financial statement benefit is recognized. The minimum threshold is defined in FIN 48 as a tax position that is more likely than not to be sustained upon examination by the applicable taxing authority, including resolution of any related appeals or litigation processes, based on the technical merits of the position. As of the date of adoption, the Company's gross liability for income taxes associated with uncertain tax positions totaled \$8.9 million. As a result of the implementation of FIN 48, the Company recognized an increase of \$0.4 million to reserve for uncertain tax positions which was recorded as a cumulative effect adjustment to accumulated deficit. The Company's remaining FIN 48 liabilities are presented net of the deferred tax asset balances on the accompanying consolidated balance sheet.

## Table of Contents

A reconciliation of the amount of unrecognized tax benefits at December 31, 2008 and 2007 is as follows (in thousands):

Balance at December 31, 2006	\$ 8,520
Additions upon adoption	398
Additions based on tax positions related to the current year	947
Reductions for tax positions of prior years	(398)
Balance at December 31, 2007	9,467
Additions based on tax positions related to the current year	322
Reductions for tax positions of prior years	(262)
Balance at December 31, 2008	\$ 9,527

Included in the balance of unrecognized tax benefits at December 31, 2008 is \$9.5 million of tax benefits that, if recognized would result in adjustments to the related deferred tax assets and valuation allowance and not affect the Company's effective tax rate.

The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. As of December 31, 2008, accrued interest related to uncertain tax positions is not material.

All of the Company's tax years from 1991-2007 remain open to examination by the major taxing jurisdictions to which the Company is subject.

## 15. Summary of Unaudited Quarterly Financial Information

The following is a summary of the unaudited quarterly results of operations for the years ended December 31, 2008 and 2007 (in thousands, except per share amounts).

	March 31	June 30	Quarter ended September 30	December 31
<b>2008</b>				
Total revenues	\$ 4,874	\$ 4,804	\$ 5,248	\$ 12,389
Total operating costs and expenses	17,264	10,928	12,094	86,269
Income tax benefit (expense)	1,781	1,030	(2,990)	234
Loss from continuing operations	(9,717)	(4,889)	(9,124)	(73,730)
Discontinued operations	5,784	(1,540)	(9,001)	4,103
Net loss	\$ (3,933)	\$ (6,429)	\$ (18,125)	\$ (69,627)
Basic and diluted per share amounts:				
Loss from continuing operations	\$ (0.10)	\$ (0.05)	\$ (0.10)	\$ (0.76)
Discontinued operations	\$ 0.06	\$ 0.02	\$ (0.09)	\$ 0.04
Net loss	\$ (0.04)	\$ (0.07)	\$ (0.19)	\$ (0.72)
Weighted average number of common shares	95,047	99,056	95,068	96,841

**Table of Contents**

	March 31	Quarter ended		December 31
		June 30	September 30	
<b>2007</b>				
Total revenues	\$ 235	\$ 1,410	\$ 5,479	\$ 5,770
Total operating costs and expenses	29,769	16,267	14,694	14,303
Income tax benefit	9,194	4,225	2,360	2,918
Loss from continuing operations	(16,889)	(7,686)	(4,862)	(5,322)
Discontinued operations	291,210	7,867	6,110	11,260
Net income	\$ 274,321	\$ 181	\$ 1,248	\$ 5,938
Basic and diluted per share amounts:				
Loss from continuing operations	\$ (0.17)	\$ (0.08)	\$ (0.05)	\$ (0.06)
Discontinued operations	2.89	0.08	0.06	0.12
Net income	\$ 2.72	\$	\$ 0.01	\$ 0.06
Weighted average number of common shares	100,686	99,878	96,542	95,223

**16. Sale Leaseback**

On October 25, 2006, the Company, along with its wholly-owned subsidiary Nexus, entered into an agreement with Slough for the sale of the Company's real property located in San Diego, California for a purchase price of \$47.6 million. This property, with a net book value of \$14.5 million, included one building totaling approximately 82,500 square feet, the land on which the building is situated, and two adjacent vacant lots. As part of the sale transaction, the Company agreed to leaseback the building for a period of 15 years, as further described below. In connection with the sale transaction, on November 6, 2006, the Company also paid off the existing mortgage on the building of \$11.6 million. The early payment triggered a prepayment penalty of \$0.4 million. The sale transaction closed on November 9, 2006.

Under the terms of the lease, the Company pays a basic annual rent of \$3.0 million (subject to an annual fixed percentage increase, as set forth in the agreement), plus a 1% annual management fee, property taxes and other normal and necessary expenses associated with the lease such as utilities, repairs and maintenance, etc. The Company has the right to extend the lease for two five-year terms and will have the first right of refusal to lease, at market rates, any facilities built on the sold lots.

In accordance with SFAS 13, *Accounting for Leases*, the Company recognized an immediate pre-tax gain on the sale transaction of \$3.1 million and deferred a gain of \$29.5 million on the sale of the building. The deferred gain is recognized on a straight-line basis over the 15 year term of the lease at a rate of approximately \$2.0 million per year. The amount of the deferred gain recognized in 2008, 2007 and 2006 was \$2.0 million, \$2.0 million and \$0.3 million, respectively.

**17. Reductions in Workforce**

In December 2008, Pharmacopeia announced a reduction in its workforce of thirty positions, twenty-two of which were eliminated effective December 31, 2008 and the remaining eight of which will be eliminated effective June 30, 2009. Accrued severance costs of \$0.7 million was included in the accrued restructuring costs as of December 31, 2008. Also included in accrued restructuring costs was a \$0.2 million of costs to exit a leased facility which is comprised of the difference between the remaining lease obligations of the abandoned operating leases, which run through the year 2016, and the Company's estimate of potential future sublease income, discounted to present value.

In December 2007, the Company entered into a plan to eliminate approximately 27 employee positions, across all functional areas, which were no longer deemed necessary in connection with the Company's ongoing

## **Table of Contents**

efforts to be a highly-focused research and development and royalty-driven biotech company. The affected employees were informed of the plan in December 2007 with an effective termination date of December 31, 2007 for the majority of the affected employees. The Company completed the plan by the end of the first quarter of 2008. In connection with the termination plan, the Company recognized expenses of \$1.1 million in the fourth quarter of 2007 which was paid in the first quarter of 2008.

In the fourth quarter of 2006, following the sale of the Company's Oncology Product Line to Eisai, and in the first quarter of 2007, following the sale of AVINZA to King, the Company eliminated nearly 270 employee positions, across all functional areas, which were no longer deemed necessary as a result of the Company's decision to sell its commercial assets and refocus the Company as a smaller, highly-focused research and development and royalty-driven biotechnology company. As a result, the Company recognized expenses of \$11.3 million in 2007 and \$2.9 million in 2006.

### **18. Employment Retention Agreements and Severance Arrangements**

In March 2006, the Company entered into letter agreements with approximately 67 key employees, including a number of its executive officers. In September 2006, the Company entered into letter agreements with ten additional employees and modified existing agreements with two employees. These letter agreements provided for certain retention or stay bonus payments to be paid in cash under specified circumstances as an additional incentive to remain employed in good standing with the Company through December 31, 2006. The Compensation Committee of the Board of Directors approved the Company's expectation of these agreements. In accordance with the SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities*, the cost of the plan was ratably accrued over the term of the agreements. Since the retention or stay bonus payments generally vested at the end of 2006 and the total payments to employees was paid in January 2007, the Company recognized \$2.6 million of expense under the plan in 2006.

In August 2007, the Compensation Committee of the Company's Board of Directors approved and ratified change of control agreements with the Company's executive officers and certain of the Company's management. In the event the employment of any of the Company's executive officers is involuntarily terminated in connection with a change of control of the Company, such person, with the exception of the Chief Executive Officer, will receive one year of salary and COBRA health care benefits plus the maximum target bonus for the year. In the event the Chief Executive Officer's employment is involuntarily terminated in connection with a change of control of the Company, he will receive two years of salary and COBRA health care benefits plus two times the maximum target bonus for the year. The amounts will be payable in a lump sum following the termination of employment. The change of control agreements also accelerate the vesting of all outstanding unvested stock awards and provide that the stock awards may be exercised until nine months after termination or such longer period as may be specified in the applicable stock award agreement, except that no stock award will remain exercisable beyond the original outside expiration date of such stock award.

## **Table of Contents**

### **Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

### **Item 9A. Controls and Procedures**

#### **(a) Disclosure Controls and Procedures**

The Company is required to maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in its reports under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, including the Company's Chief Executive Officer (CEO) and Chief Financial Officer (CFO) as appropriate, to allow timely decisions regarding required disclosure.

In connection with the preparation of this Form 10-K for the year ended December 31, 2008, management, under the supervision of the CEO and CFO, conducted an evaluation of disclosure controls and procedures. Based on that evaluation, the CEO and CFO concluded that the Company's disclosure controls and procedures were effective as of December 31, 2008.

#### **(b) Management's Report on Internal Control over Financial Reporting**

Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of the Company's financial reporting for external purposes in accordance with accounting principles generally accepted in the United States of America. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect the Company's transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of the Company's financial statements; providing reasonable assurance that receipts and expenditures of company assets are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on the Company's financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of the Company's financial statements would be prevented or detected.

Management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2008.

On December 23, 2008, the Company completed the acquisition of Pharmacoepia, Inc. and, as permitted by SEC guidance, the Company excluded from its assessment of the effectiveness of its internal control over financial reporting as of December 31, 2008, the internal control over financial reporting of this entity. Total assets related to Pharmacoepia, Inc. of \$36.2 million and no revenues are included in the Company's consolidated financial statements as of and for the year ended December 31, 2008. The Company plans to integrate Pharmacoepia, Inc.'s historical internal control over financial reporting into its own internal control over financial reporting in 2009. Accordingly, certain changes will be made to the Company's internal control over financial reporting until such time as this integration is complete.

There were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2008, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting. However, we are currently reviewing our controls and procedures based upon the significant reduction in staff as a result of our most recent restructuring.

Grant Thornton LLP, the Company's independent registered public accountants, has audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2008, based on the COSO criteria; their report is included in Item 9A.

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**Table of Contents**

**Report of Independent Registered Public Accounting Firm**

Board of Directors and Shareholders

Ligand Pharmaceuticals Incorporated

We have audited Ligand Pharmaceuticals Incorporated's internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Ligand Pharmaceuticals Incorporated's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on Ligand Pharmaceuticals Incorporated's internal control over financial reporting based on our audit. Our audit of, and opinion on, the Company's internal control over financial reporting does not include internal control over financial reporting of the wholly owned subsidiary, Pharmacoceia, Inc., whose financial statements reflect total assets and revenues constituting 21 and zero percent, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2008. As indicated in Management's Report on Internal Control Over Financial Reporting, Pharmacoceia, Inc. was acquired during 2008 and therefore, management's assertion on the effectiveness of the Company's internal control over financial reporting excluded internal control over financial reporting of Pharmacoceia, Inc.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Ligand Pharmaceuticals Incorporated maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Ligand Pharmaceuticals Incorporated as of December 31, 2008 and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive income (loss), and cash flows for the year then ended and our report dated March 13, 2009, expressed an unqualified opinion.

/s/ Grant Thornton LLP

San Diego, California

March 13, 2009

## **Table of Contents**

### **Item 9B. Other Information**

None.

## **Part III**

### **Item 10. Directors, Executive Officers and Corporate Governance Code of Conduct**

The Board of Directors has adopted a Code of Conduct and Ethics Policy ( Code of Conduct ) that applies to all officers, directors and employees. The Company will promptly disclose any material amendment or waiver to the Code of Conduct which affects any corporate officer. The Code of Conduct was filed with the SEC as an exhibit to our report on Form 10-K for the year ended December 31, 2003, and can be accessed via our website (<http://www.ligand.com>), Corporate Overview page. You may also request a free copy by writing to: Investor Relations, Ligand Pharmaceuticals Incorporated, 10275 Science Center Drive, San Diego, CA 92121.

The other information under Item 10 is hereby incorporated by reference from Ligand's Definitive Proxy Statement to be filed with the Securities and Exchange Commission on or prior to April 29, 2008. See also the identification of the executive officers following Item 4 of this Annual Report on Form 10-K.

### **Item 11. Executive Compensation**

Item 11 is hereby incorporated by reference from Ligand's Definitive Proxy Statement to be filed with the Securities and Exchange Commission on or prior to April 29, 2009.

### **Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

Item 12 is hereby incorporated by reference from Ligand's Definitive Proxy Statement to be filed with the Securities and Exchange Commission on or prior to April 29, 2009.

### **Item 13. Certain Relationships and Related Transactions, and Director Independence**

Item 13 is hereby incorporated by reference from Ligand's Definitive Proxy Statement to be filed with the Securities and Exchange Commission on or prior to April 29, 2009.

### **Item 14. Principal Accountant Fees and Services**

Item 14 is hereby incorporated by reference from Ligand's Definitive Proxy Statement to be filed with the Securities and Exchange Commission on or prior to April 29, 2009.

**Table of Contents**

**PART IV**

**Item 15. Exhibits and Financial Statement Schedule**

**(a) The following documents are included as part of this Annual Report on Form 10-K.**

(1) Financial statements

Index to Consolidated Financial Statements  
 Report of Independent Registered Public Accounting Firm Grant Thornton LLP  
 Report of Independent Registered Public Accounting Firm BDO Seidman, LLP  
 Consolidated Balance Sheets  
 Consolidated Statements of Operations  
 Consolidated Statements of Stockholders' Equity (Deficit) and Comprehensive Income (Loss)  
 Consolidated Statements of Cash Flows  
 Notes to Consolidated Financial Statements

(2) Schedules not included herein have been omitted because they are not applicable or the required information is in the consolidated financial statements or notes thereto.

(3) The following exhibits are filed as part of this Form 10-K and this list includes the Exhibit Index.

<b>Exhibit Number</b>	<b>Description</b>
2.1 (1)	Agreement and Plan of Reorganization dated May 11, 1998, by and among the Company, Knight Acquisition Corp. and Seragen, Inc. (Filed as Exhibit 2.1).
2.3 (58)	Agreement and Plan of Merger, dated as of September 24, 2008, by and among Ligand Pharmaceuticals Incorporated, Pharmacopeia, Inc., Margaux Acquisition Corp. and Latour Acquisition, LLC. (Exhibit 2.1).
2.5 (1)	Form of Certificate of Merger for acquisition of Seragen, Inc. (Filed as Exhibit 2.2).
3.1 (1)	Amended and Restated Certificate of Incorporation of the Company. (Filed as Exhibit 3.2).
3.2 (1)	Bylaws of the Company, as amended. (Filed as Exhibit 3.3).
3.3 (2)	Amended Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of the Company.
3.4 (20)	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company dated June 14, 2000.
3.5 (3)	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company dated September 30, 2004.
3.6 (31)	Amendment to the Bylaws of the Company dated November 13, 2005. (Filed as Exhibit 3.1).
3.7 (56)	Amendment of Bylaws of the Company dated December 4, 2007. (Filed as Exhibit 3.1).
4.1 (4)	Specimen stock certificate for shares of Common Stock of the Company.
4.2 (24)	Pledge Agreement dated November 26, 2002, between Ligand Pharmaceuticals Incorporated and J.P. Morgan Trust Company, National Association. (Filed as Exhibit 4.5).
4.3 (24)	Control Agreement dated November 26, 2002, among Ligand Pharmaceuticals Incorporated, J.P. Morgan Trust Company, National Association and JP Morgan Chase Bank. (Filed as Exhibit 4.6).
4.4 (44)	2006 Preferred Shares Rights Agreement, by and between Ligand Pharmaceuticals Incorporated and Mellon Investor Services LLC, dated as of October 13, 2006. (Filed as Exhibit 4.1)



**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.1 (35)	Second Amendment to Non-Qualified Deferred Compensation Plan.
10.2 (35)	Letter Agreement by and between the Company and Tod G. Mertes dated as of December 8, 2005.
10.3 (4)	Form of Stock Issuance Agreement.
10.30 (4)	Form of Proprietary Information and Inventions Agreement.
10.33 (4)	License Agreement, dated November 14, 1991, between the Company and Rockefeller University (with certain confidential portions omitted).
10.34 (4)	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 (4)	Agreement, dated May 1, 1991, between the Company and Pfizer Inc (with certain confidential portions omitted).
10.38 (4)	License Agreement, dated January 5, 1990, between the Company and the University of North Carolina at Chapel Hill (with certain confidential portions omitted).
10.41 (4)	License Agreement, dated October 1, 1989, between the Company and Institute Pasteur (with certain confidential portions omitted).
10.46 (4)	Form of Indemnification Agreement between the Company and each of its directors.
10.47 (4)	Form of Indemnification Agreement between the Company and each of its officers.
10.58 (4)	Stock Purchase Agreement, dated September 9, 1992, between the Company and Glaxo, Inc.
10.59 (4)	Research and Development Agreement, dated September 9, 1992, between the Company and Glaxo, Inc. (with certain confidential portions omitted).
10.60 (4)	Stock Transfer Agreement, dated September 30, 1992, between the Company and the Rockefeller University.
10.61 (4)	Stock Transfer Agreement, dated September 30, 1992, between the Company and New York University.
10.62 (4)	License Agreement, dated September 30, 1992, between the Company and the Rockefeller University (with certain confidential portions omitted).
10.67 (4)	Letter Agreement, dated September 11, 1992, between the Company and Mr. Paul Maier.
10.73 (14)	Supplementary Agreement, dated October 1, 1993, between the Company and Pfizer, Inc. to Agreement, dated May 1, 1991.
10.78 (15)	Research, Development and License Agreement, dated July 6, 1994, between the Company and Abbott Laboratories (with certain confidential portions omitted). (Filed as Exhibit 10.75).
10.83 (15)	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). (Filed as Exhibit 10.80).
10.93 (5)	Indemnity Agreement, dated June 3, 1995, between the Company, Allergan, Inc. and Allergan Ligand Retinoid Therapeutics, Inc.
10.97 (5)	Research, Development and License Agreement, dated December 29, 1994, between SmithKline Beecham Corporation and the Company (with certain confidential portions omitted).

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.98 (5)	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).
10.140 (18)	Promissory Notes, General Security Agreements and a Credit Terms and Conditions letter dated March 31, 1995, between the Company and Imperial Bank (Filed as Exhibit 10.101).
10.148 (16)	Lease, dated July 6, 1994, between the Company and Chevron/Nexus partnership, First Amendment to lease dated July 6, 1994.
10.149 (17)	Successor Employment Agreement, signed May 1, 1996, between the Company and David E. Robinson.
10.150 (6)	Master Lease Agreement, signed May 30, 1996, between the Company and USL Capital Corporation.
10.151 (17)	Settlement Agreement and Mutual Release of all Claims, signed April 20, 1996, between the Company and Pfizer, Inc. (with certain confidential portions omitted).
10.152 (17)	Letter Amendment to Abbott Agreement, dated March 14, 1996, between the Company and Abbott Laboratories (with certain confidential portions omitted).
10.157 (6)	Master Lease Agreement, signed February 13, 1997, between the Company and Lease Management Services.
10.158 (6)	Lease, dated March 7, 1997, between the Company and Nexus Equity VI LLC.
10.163 (19)	Extension of Master Lease Agreement between Lease Management Services and Ligand Pharmaceuticals dated July 29, 1997.
10.167 (7)	Development and License Agreement, dated November 25, 1997, between the Company and Eli Lilly and Company (with certain confidential portions omitted).
10.168 (7)	Collaboration Agreement, dated November 25, 1997, among the Company, Eli Lilly and Company, and Allergan Ligand Retinoid Therapeutics, Inc. (with certain confidential portions omitted).
10.169 (7)	Option and Wholesale Purchase Agreement, dated November 25, 1997, between the Company and Eli Lilly and Company (with certain confidential portions omitted).
10.171 (7)	First Amendment to Option and Wholesale Purchase Agreement dated February 23, 1998, between the Company and Eli Lilly and Company (with certain confidential portions omitted).
10.172 (7)	Second Amendment to Option and Wholesale Purchase Agreement, dated March 16, 1998, between the Company and Eli Lilly and Company (with certain confidential portions omitted).
10.176 (8)	Secured Promissory Note, dated March 7, 1997, in the face amount of \$3,650,000, payable to the Company by Nexus Equity VI LLC. (Filed as Exhibit 10.1).
10.177 (8)	Amended memorandum of Lease effective March 7, 1997, between the Company and Nexus Equity VI LLC. (Filed as Exhibit 10.2).
10.178 (8)	First Amendment to Lease, dated March 7, 1997, between the Company and Nexus Equity VI LLC. (Filed as Exhibit 10.3).
10.179 (8)	First Amendment to Secured Promissory Note, date March 7, 1997, payable to the Nexus Equity VI LLC. (Filed as Exhibit 10.4).
10.184 (9)	Letter agreement, dated May 11, 1998, by and among the Company, Eli Lilly and Company and Seragen, Inc. (Filed as Exhibit 99.6).

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.185 (1)	Amendment No. 3 to Option and Wholesale Purchase Agreement, dated May 11, 1998, by and between Eli Lilly and Company and the Company. (Filed as Exhibit 10.6).
10.186 (1)	Agreement, dated May 11, 1998, by and among Eli Lilly and Company, the Company and Seragen, Inc. (Filed as Exhibit 10.7).
10.188 (9)	Settlement Agreement, dated May 1, 1998, by and among Seragen, Inc., Seragen Biopharmaceuticals Ltd./Seragen Biopharmaceutique Ltee, Sofinov Societe Financiere D Innovation Inc., Societe Innovatech Du Grand Montreal, MDS Health Ventures Inc., Canadian Medical Discoveries Fund Inc., Royal Bank Capital Corporation and Health Care and Biotechnology Venture Fund (Filed as Exhibit 99.2).
10.189 (9)	Accord and Satisfaction Agreement, dated May 11, 1998, by and among Seragen, Inc., Seragen Technology, Inc., Trustees of Boston University, Seragen LLC, Marathon Biopharmaceuticals, LLC, United States Surgical Corporation, Leon C. Hirsch, Turi Josefsen, Gerald S.J. and Loretta P. Cassidy, Reed R. Prior, Jean C. Nichols, Elizabeth C. Chen, Robert W. Crane, Shoreline Pacific Institutional Finance, Lehman Brothers Inc., 520 Commonwealth Avenue Real Estate Corp. and 660 Corporation (Filed as Exhibit 99.4).
10.191 (8)	Letter of Agreement dated September 28, 1998 among the Company, Elan Corporation, plc and Elan International Services, Ltd. (with certain confidential portions omitted), (Filed as Exhibit 10.5).
10.198 (10)	Stock Purchase Agreement by and between the Company and Warner-Lambert Company dated September 1, 1999 (with certain confidential portions omitted). (Filed as Exhibit 10.2).
10.200 (10)	Nonexclusive Sublicense Agreement, effective September 8, 1999, by and among Seragen, Inc., Hoffmann-La Roche Inc. and F. Hoffmann-La Roche Ltd. (with certain confidential portions omitted). (Filed as Exhibit 10.4).
10.203 (10)	License Agreement effective June 30, 1999 by and between the Company and X-Ceptor Therapeutics, Inc. (with certain confidential portions omitted). (Filed as Exhibit 10.7).
10.218 (11)	Royalty Stream Purchase Agreement dated as of December 31, 1999 among Seragen, Inc., the Company, Pharmaceutical Partners, L.L.C., Bioventure Investments, Kft, and Pharmaceutical Royalties, LLC. (with certain confidential portions omitted).
10.220 (12)	Research, Development and License Agreement by and between Organon Company and Ligand Pharmaceuticals Incorporated dated February 11, 2000 (with certain confidential portions omitted).
10.224 (13)	Research, Development and License Agreement by and between Bristol Myers Squibb Company and Ligand Pharmaceuticals Incorporated dated May 19, 2000 (with certain confidential portions omitted).
10.230 (20)	Amended and Restated Registration Rights Agreement, dated as of June 29, 2000 among the Company and certain of its investors.
10.242 (21)	First Addendum to Amended and Restated Registration Rights Agreement dated June 29, 2000, effective as of December 20, 2001.
10.244 (22)	Second Addendum to Amended and Restated Registration Rights Agreement dated June 29, 2000, effective as of March 28, 2002.
10.245 (22)	Purchase Agreement, dated March 6, 2002, between the Company and Pharmaceutical Royalties International (Cayman) Ltd.

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.246 (23)	Amended and Restated License Agreement Between The Salk Institute for Biological Studies and the Company (with certain confidential portions omitted).
10.247 (23)	Amendment Number 1 to Purchase Agreement, dated July 29, 2002, between the Company and Pharmaceutical Royalties International (Cayman) Ltd.
10.250 (25)	Amended and Restated License and Supply Agreement, dated December 6, 2002, between the Company, Elan Corporation, plc and Elan Management Limited (with certain confidential portions omitted).
10.252 (25)	Amendment Number 1 to Amended and Restated Registration Rights Agreement, dated November 12, 2002, between the Company and Elan Corporation plc and Elan International Services, Ltd.
10.253 (25)	Second Amendment to Purchase Agreement, dated December 19, 2002, between the Company and Pharmaceuticals Royalties International (Cayman) Ltd.
10.254 (25)	Amendment Number 3 to Purchase Agreement, dated December 30, 2002, between the Company and Pharmaceuticals Royalties International (Cayman) Ltd. (with certain confidential portions omitted).
10.255 (25)	Purchase Agreement, dated December 30, 2002, between the Company and Pharmaceuticals Royalties International (Cayman) Ltd. (with certain confidential portions omitted).
10.256 (26)	Co-Promotion Agreement, dated January 1, 2003, by and between the Company and Organon Pharmaceuticals USA Inc. (with certain confidential portions omitted).
10.258 (27)	Letter Agreement, dated May 20, 2003, between the Company and Tod G. Mertes.
10.259 (27)	Amendment No. 2 to Amended and Restated Registration Rights Agreement, dated June 25, 2003.
10.261 (28)	Letter Agreement, dated July 1, 2003, between the Company and Paul V. Maier.
10.264 (29)	Option Agreement Between Investors Trust & Custodial Services (Ireland) Ltd., as Trustee for Royalty Pharma, Royalty Pharma Finance Trust and the Company, dated October 1, 2003 (with certain confidential portions omitted).
10.265 (29)	Amendment to Purchase Agreement Between Royalty Pharma Finance Trust and the Company, dated October 1, 2003 (with certain confidential portions omitted).
10.267 (36)	2002 Stock Incentive Plan (as amended and restated through March 9, 2006).
10.268 (29)	2002 Employee Stock Purchase Plan, dated July 1, 2002 (as amended through June 30, 2003).
10.269 (29)	Form of Stock Option Agreement.
10.270 (29)	Form of Employee Stock Purchase Plan Stock Purchase Agreement.
10.271 (29)	Form of Automatic Stock Option Agreement.
10.272 (29)	Form of Director Fee Stock Option Agreement.
10.273 (30)	Letter Agreement, dated as of February 26, 2004, between the Company and Martin Meglasson.
10.274 (30)	Adoption Agreement for Smith Barney Inc. Execchoice (R) Nonqualified Deferred Compensation Plan.
10.276 (30)	Manufacturing and Packaging Agreement, dated February 13, 2004 between Cardinal Health PTS, LLC and the Company (with certain confidential portions omitted).
10.279 (32)	Form of Distribution, Storage, Data and Inventory Management Services Agreement.

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.280 (32)	Amendment Number 1 to the Option Agreement between Investors Trust & Custodial Services (Ireland) Ltd., solely in its capacity as Trustee for Royalty Pharma, Royalty Pharma Finance Trust and Ligand Pharmaceuticals Incorporated dated November 5, 2004.
10.281 (32)	Amendment to Agreement among Ligand Pharmaceuticals Incorporated, Seragen, Inc. and Eli Lilly and Company dated November 8, 2004.
10.282 (32)	Amendment to Purchase Agreement between Royalty Pharma Finance Trust, Ligand Pharmaceuticals Incorporated & Investors Trust and Custodial Services (Ireland) Ltd., solely in its capacity as Trustee of Royalty Pharma dated November 5, 2004.
10.283 (34)	Form of Management Lockup Agreement.
10.285 (34)	Confidential Interference Settlement Agreement dated March 11, 2005, by and between the Company, SRI International and The Burnham Institute.
10.287 (36)	Amended and Restated Research, Development and License Agreement dated as of December 1, 2005 between the Company and Wyeth (formerly American Home Products Corporation) (with certain confidential portions omitted).
10.288 (33)	Settlement Agreement dated as of December 2, 2005 by and among Ligand Pharmaceuticals Incorporated and Third Point LLC, Third Point Offshore Fund, Ltd., Third Point Partners LP, Third Point Ultra Ltd., Lyxor/Third Point Fund Ltd., and Third Point Partners Qualified LP. (Filed as Exhibit 10.1).
10.289 (36)	Form of Stock Issuance Agreement for non-employee directors.
10.290 (36)	Form of Amended and Restated Director Fee Stock Option Agreement for 2005 award to Alexander Cross.
10.291 (36)	Form of Amended and Restated Director Fee Stock Option Agreement for 2005 award to Henry Blissenbach, John Groom, Irving Johnson, John Kozarich, Daniel Loeb, Carl Peck, Jeffrey Perry, Brigitte Roberts and Michael Rocca.
10.292 (37)	Termination and Return of Rights Agreement between Ligand Pharmaceuticals Incorporated and Organon USA Inc. dated as of January 1, 2006
10.292A (38)	Form of Letter Agreement between the Company and certain of its officers dated as of March 1, 2006 (Filed as Exhibit 10.292).
10.293 (40)	First Amendment to the Manufacturing and Packaging Agreement between Cardinal Health PTS, LLC and Ligand Pharmaceuticals Incorporated (with certain confidential portions omitted).
10.294 (42)	Purchase Agreement, by and between Ligand Pharmaceuticals Incorporated, King Pharmaceuticals, Inc. and King Pharmaceuticals Research and Development, Inc., dated as of September 6, 2006.
10.295 (43)	Contract Sales Force Agreement, by and between Ligand Pharmaceuticals Incorporated and King Pharmaceuticals, Inc. dated as of September 6, 2006.
10.296 (42)	Purchase Agreement, by and among Ligand Pharmaceuticals Incorporated, Seragen, Inc., Eisai Inc. and Eisai Co., Ltd., dated as of September 7, 2006.
10.297 (39)	Separation Agreement dated as of July 31, 2006 by and between the Company and David E. Robinson.
10.298 (47)	Offer letter/employment agreement by and between the Company and Henry F. Blissenbach, dated as of August 1, 2006.
10.299 (41)	Form of Letter Agreement (Change of Control Severance Agreement) by and between the Company and certain officers dated as of August 25, 2006.

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.300 (41)	Form of Letter Agreement (Ordinary Severance Agreement) by and between the Company and certain officers dated as of August 25, 2006.
10.301 (53)	Stipulation of Settlement by and among Plaintiffs and Ligand Pharmaceuticals, Inc. et al., <i>In re Ligand Pharmaceuticals Inc. Securities Litigation</i> , United States District Court, District of Southern California, dated as of June 28, 2006, approved by Order dated October 16, 2006.
10.302 (53)	Stipulation of Settlement by and among Plaintiffs and Ligand Pharmaceuticals, Inc. et al., <i>In re Ligand Pharmaceuticals Inc. Derivative Litigation</i> , Superior Court of California, County of San Diego, dated as of September 19, 2006, approved by Order dated October 12, 2006.
10.303 (53)	Loan Agreement by and between Ligand Pharmaceuticals Incorporated and King Pharmaceuticals, 303 Inc. dated as of October 12, 2006.
10.304 (49)	Letter Agreement by and between Ligand and King Pharmaceuticals, Inc. effective as of December 29, 2006.
10.305 (49)	Amendment Number 1 to Purchase Agreement, Contract Sales Force Agreement and Confidentiality Agreement by and between Ligand and King Pharmaceuticals, Inc. effective as of November 30, 2006.
10.306 (46)	Purchase Agreement and Escrow Instructions by and between Nexus Equity VI, LLC, a California Limited Liability Company, and Ligand Pharmaceuticals Incorporated, a Delaware Corporation and Slough Estates USA Inc., a Delaware corporation dated October 25, 2006.
10.307 (48)	Amendment No. 1 to the Stockholders Agreement effective as of December 12, 2006, by and among Ligand Pharmaceutical Incorporated and Third Point LLC, Third Point Offshore Fund, Ltd., Third Point Partners LP, Third Point Ultra Ltd., Lyxor/Third Point Fund Ltd., and Third Point Partners Qualified LP.
10.308 (53)	2006 Employee Severance Plan dated as of October 4, 2006.
10.309 (53)	Form of Letter Agreement regarding Change of Control Severance Benefits between the Company and its officers.
10.310 (45)	Form of Letter Agreement by and between the Company and Tod G. Mertes dated as of October 19, 2006.
10.311 (49)	Letter Agreement by and between the Company and John L. Higgins dated as of January 10, 2007.
10.312 (51)	Amendment Number 2 to Purchase Agreement, by and between the Company and King Pharmaceuticals, Inc. effective as of February 26, 2007.
10.313 (52)	Indemnity Fund Agreement.
10.314 (54)	Letter Agreement by and between the Company and John P. Sharp dated as of March 30, 2007. (Filed as Exhibit 10.1).
10.315 (55)	Form of Executive Officer Change in Control Severance Agreement. (Filed as Exhibit 10.1).
10.316 (56)	Third Amendment to the Company's Nonqualified Deferred Compensation Plan effective as of December 4, 2007. (Filed as Exhibit 10.1).
10.317 (57)	Sublease Agreement between the Company and eBIOSCIENCE, INC., effective as of December 13, 2007. (Filed as Exhibit 10.1).
10.318 (59)	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under the Company's 2002 Stock Incentive Plan. (Filed as Exhibit 10.318).

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.319 (59)	Form of Amendment to Restricted Stock Agreement for executive officers other than Chief Executive Officer. (Filed as Exhibit 10.319).
10.320 (59)	Amendment to Restricted Stock Agreement between the Company and John L. Higgins. (Filed as Exhibit 10.320).
10.321 (60)	Tax Sharing and Indemnification Agreement between Pharmacoepia, Inc. and Pharmacoepia, Inc., dated April 30, 2004 (Filed as Exhibit 10.2).
10.322 (61)	Pharmacoepia Drug Discovery, Inc. Amended and Restated 2004 Stock Incentive Plan. (Filed as Appendix A).
10.323	Pharmacoepia, Inc. 2000 Stock Option Plan.
10.324	Collaboration and License Agreement, dated as of July 9, 2003 and effective August 8, 2003, between Pharmacoepia, Inc. and Schering-Plough Ltd. (with certain confidential portions omitted).
10.325	Collaboration and License Agreement, dated as of July 9, 2003 and effective August 8, 2003, between Pharmacoepia, Inc. and Schering Corporation (with certain confidential portions omitted).
10.326 (62)	Amendment No. 1, dated July 27, 2006, to the Collaboration and License Agreements, effective as of July 9, 2003, between (i) Pharmacoepia, Inc. and Schering Corporation and (ii) Pharmacoepia, Inc. and Schering-Plough Ltd. (Filed as Exhibit 10.1).
10.327	Lease, dated August 20, 2003, between Pharmacoepia, Inc. and Eastpark at 8A (Building 1000).
10.328 (63)	Amendment to Lease, dated September 10, 2007, between Eastpark at 8A and Pharmacoepia, Inc. (Building 1000). (Filed as Exhibit 10.1).
10.329	Lease, dated August 20, 2003, between Pharmacoepia, Inc. and Eastpark at 8A (Building 3000).
10.330 (63)	Amendment to Lease, dated April 18, 2007, between Eastpark at 8A and Pharmacoepia, Inc. (Building 3000). (Filed as Exhibit 10.2).
10.331 (64)	Product Development and Commercialization Agreement among SmithKlineBeecham Corporation, doing business as GlaxoSmithKline, Glaxo Group Limited and Pharmacoepia, Inc., dated as of March 24, 2006 (Filed as Exhibit 10.1).
10.332 (65)	Amendment No. 1, dated August 10, 2006, to the Product Development and Commercialization Agreement among the Company, SmithKlineBeecham Corporation, doing business as GlaxoSmithKline, and Glaxo Group Limited. (Filed as Exhibit 10.2).
10.333 (66)	License Agreement, dated as of March 27, 2006, between Pharmacoepia, Inc. and Bristol-Myers Squibb Company (Filed as Exhibit 10.2).
10.334 (67)	Collaboration and License Agreement between Pharmacoepia, Inc. and Cephalon, Inc., dated May 18, 2006. (Filed as Exhibit 10.1).
10.335 (68)	License Agreement, amended and restated as of July 1, 2003, among The Trustees of Columbia University in the City of New York, Cold Spring Harbor Laboratory and Pharmacoepia, Inc. (Filed as Exhibit 10.2).
10.336 (69)	Form of Purchase Agreement dated July 27, 2005 between Pharmacoepia, Inc. and the Purchasers set forth therein. (Filed as Exhibit 10.1).
10.337 (70)	Form of Indemnity Agreement between Pharmacoepia, Inc. and its directors and executive officers. (Filed as Exhibit 3.3).

## **Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>
10.338 (71)	Research and License Agreement, dated December 22, 2006, between Pharmacoepia, Inc. and Wyeth (Filed as Exhibit 10.43).
10.339 (72)	Master Security Agreement, dated December 26, 2006, between Oxford Finance Corporation and Pharmacoepia, Inc. (Filed as Exhibit 10.1)
10.340 (73)	Collaboration and License Agreement, amended and restated effective as of February 8, 2007, between Pharmacoepia, Inc. and N.V. Organon. (Filed as Exhibit 10.1).
10.341 (74)	License Agreement, dated October 11, 2007, between Bristol-Myers Squibb Company and Pharmacoepia, Inc. (Filed as Exhibit 10.45).
10.342 (75)	Discovery Collaboration Agreement, dated October 11, 2007, between Bristol-Myers Squibb Company and Pharmacoepia, Inc. (Filed as Exhibit 10.46).
10.343 (76)	Separation Agreement and General Release, dated May 8, 2008, between Pharmacoepia, Inc. and Leslie Johnston Browne, Ph.D. (Filed as Exhibit 10.1).
10.343 (60)	Contingent Value Rights Agreement, dated December 23, 2008, among the Company, Pharmacoepia, Inc. and Mellon Investor Services LLC. (Filed as Exhibit 10.1).
10.344 (59)	Amended and Restated Severance Plan, dated December 20, 2008, of the Company. (Filed as Exhibit 10.2).
10.345 (77)	Settlement Agreement and Mutual Release of all Claims, by and between the Company and The Salk Institute for Biological Studies, dated as of September 2, 2008 (Filed as 10.316).
10.346	License Agreement, dated of December 17, 2008, between the Company and SmithKline Beecham Corporation, doing business as GlaxoSmithKline (with certain confidential portions omitted).
14.1 (29)	Code of Business Conduct and Ethics.
21.1	Subsidiaries of Registrant (See Business ).
23.1	Consent of independent registered public accounting firm Grant Thornton LLP.
23.2	Consent of independent registered public accounting firm BDO Seidman, LLP.
24.1	Power of Attorney (See page 120).
31.1	Certification by Principal Executive Officer, Pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by Principal Financial Officer, Pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification by Principal Executive Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification by Principal Financial Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
(1)	This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Registration Statement on Form S-4 (No. 333-58823) filed on July 9, 1998.
(2)	This exhibit was previously filed as part of and is hereby incorporated by reference to same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 1999.
(3)	This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2004.

## **Table of Contents**

- (4) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Registration Statement on Form S-1 (No. 33-47257) filed on April 16, 1992 as amended.
- (5) This exhibit was previously filed as part of, and is 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.
- (6) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the period ended December 31, 1996.
- (7) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the period ended December 31, 1997.
- (8) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1998.
- (9) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Current Report on Form 8-K of Seragen, Inc. filed on May 15, 1998.
- (10) This exhibit was previously filed as part of and is hereby incorporated by reference to the numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1999.
- (11) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the period ended December 31, 1999.
- (12) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2000.
- (13) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2000.
- (14) This exhibit was 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.
- (15) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1994.
- (16) This exhibit was previously filed, and is 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.
- (17) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly report on Form 10-Q for the period ended June 30, 1996.
- (18) 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.
- (19) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended June 30, 1997.
- (20) This exhibit was 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, 2000.
- (21) This exhibit was 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, 2001.
- (22) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2002.
- (23) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2002.
- (24) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Registration Statement on Form S-3 (No. 333-102483) filed on January 13, 2003, as amended.
- (25) This exhibit was 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, 2002.
- (26) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2003.
- (27) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2003.

## **Table of Contents**

- (28) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2003.
- (29) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2003.
- (30) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2004.
- (31) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on November 14, 2005.
- (32) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2004.
- (33) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on December 5, 2005.
- (34) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2005.
- (35) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Current Report on Form 8-K filed on December 14, 2005.
- (36) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Registration Statement on Form S-1 (no. 333-131029) filed on January 13, 2006 as amended.
- (37) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with an Amendment to the Company's Registration Statement on Form S-1 (No. 333-1031029) filed on February 10, 2006.
- (38) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2006.
- (39) This exhibit was previously filed as part of, and is being incorporated by reference to the numbered exhibit filed with the Company's Current Report Form 8-K filed on August 4, 2006.
- (40) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2006.
- (41) This exhibit was previously filed as part of, and is being incorporated by reference to the numbered exhibit filed with the Company's Current Report Form 8-K filed on August 30, 2006.
- (42) This exhibit was previously filed as part of, and is being incorporated by reference to the numbered exhibit filed with the Company's Current Report Form 8-K filed on September 11, 2006.
- (43) This exhibit was previously filed as part of, and is being incorporated by reference to the numbered exhibit filed with the Company's Current Report Form 8-K filed on September 12, 2006.
- (44) This exhibit was previously filed as part of, and is being incorporated by reference to the numbered exhibit filed with the Company's Current Report Form 8-K filed on October 17, 2006.
- (45) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on October 20, 2006.
- (46) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on October 31, 2006.
- (47) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2006.
- (48) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on December 14, 2006.
- (49) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on January 5, 2007.
- (50) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on January 16, 2007.
- (51) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on February 28, 2007.
- (52) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on March 5, 2007.

## **Table of Contents**

- (53) This exhibit was 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, 2006.
- (54) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on May 4, 2007.
- (55) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on August 22, 2007.
- (56) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on December 6, 2007.
- (57) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on December 19, 2007.
- (58) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Company's Current Report on Form 8-K filed on September 26, 2008.
- (59) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Company's Annual Report on Form 10-K for the period ended December 31, 2007.
- (60) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Pharmacopeia, Inc.'s Current Report on Form 8-K filed on May 3, 2004.
- (61) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered appendix filed with the Pharmacopeia, Inc.'s Form DEF 14A filed on March 26, 2007.
- (62) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Pharmacopeia, Inc.'s Current Report on Form 8-K filed on August 2, 2006.
- (63) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended September 30, 2007.
- (64) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2006.
- (65) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended September 30, 2006.
- (66) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2006.
- (67) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2006.
- (68) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2005.
- (69) This exhibit was previously filed as part of, and is hereby incorporated by reference to the numbered exhibit filed with the Pharmacopeia, Inc.'s Current Report on Form 8-K filed on August 2, 2005.
- (70) This exhibit was previously filed as part of, and is hereby incorporated by reference to numbered exhibit filed with the Pharmacopeia, Inc.'s Registration Statement on Form 10 (Reg. No. 000-50523).
- (71) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2006.
- (72) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2006.
- (73) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2007.

## Table of Contents

- (74) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc. s Annual Report on Form 10-K for the year ended December 31, 2007.
- (75) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc. s Annual Report on Form 10-K for the year ended December 31, 2007.
- (76) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc. s Quarterly Report on Form 10-Q for the period ended March 31, 2008.
- (77) This exhibit was previously filed as part of, and is hereby incorporated by reference to the same numbered exhibit filed with the Pharmacopeia, Inc. s Quarterly Report on Form 10-Q for the period ended September 30, 2008.
- (4)(d) **Financial Statement Schedule**

Schedules not included herein have been omitted because they are not applicable or the required information is in the consolidated financial statements or notes thereto.

## Schedule II Valuation and Qualifying Accounts (in thousands)

	Balance at Beginning of Period	Charges	Deductions	Other	Balance at End of Period
December 31, 2008:					
Allowance for doubtful accounts and cash discounts	\$ 200	\$	\$	\$	\$ 200
Reserve for inventory valuation					
Valuation allowance on deferred tax assets	164,716	14,454		57,633	236,803
December 31, 2007:					
Allowance for doubtful accounts and cash discounts	\$ 530	\$ 569	\$ 899	\$	\$ 200
Reserve for inventory valuation	153	14		(167) (A)	
Valuation allowance on deferred tax assets	253,647		88,917	(14)	164,716
December 31, 2006:					
Allowance for doubtful accounts and cash discounts	\$ 854	\$ 4,167	\$ 4,491	\$	\$ 530
Reserve for inventory valuation	1,745	1,842	2,382	(1,052) (B)	153
Valuation allowance on deferred tax assets	300,630		47,363 (C)	380	253,647

(A) This reserve was adjusted in connection with the accounting for the sale of the AVINZA Product Line on February 26, 2007.

(B) This reserve was adjusted in connection with the accounting for the sale of the Oncology Product Line on October 25, 2006.

(C) Pursuant to Internal Revenue Code Sections 382 and 383, use of net operating loss and credit carryforwards may be limited if there were changes in ownership of more than 50%. The Company has completed a Section 382 study for Ligand, excluding Glycomed, and has determined that Ligand had an ownership change in 2005 and 2007. As a result of these ownership changes, utilization of Ligand s net operating losses and credits are subject to limitations under Internal Revenue Code Sections 382 and 383. The information necessary to determine if an ownership change related to Glycomed occurred prior to its acquisition by Ligand is not currently available. Accordingly, this amount includes an adjustment to reduce deferred tax assets and the related valuation allowance for such tax net operating loss and credit carryforwards. If information becomes available in the future to substantiate the amount of these net operating losses and credits not limited by Section 382 and 383, the Company will record the deferred tax assets at such time.

**Table of Contents**

**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

By: */s/ JOHN L. HIGGINS*  
**John L. Higgins,**  
**President and Chief Executive Officer**

Date: March 13, 2009

**POWER OF ATTORNEY**

Know all men by these presents, that each person whose signature appears below constitutes and appoints John L. Higgins or John P. Sharp, 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, as amended, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<i>/s/ JOHN L. HIGGINS</i> <b>John L. Higgins</b>	President, Chief Executive Officer and Director (Principal Executive Officer )	March 13, 2009
<i>/s/ JOHN P. SHARP</i> <b>John P. Sharp</b>	Vice President, Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	March 13, 2009
<i>/s/ JASON M. ARYEH</i> <b>Jason M. Aryeh</b>	Director	March 13, 2009
<i>/s/ STEVEN J. BURAKOFF</i> <b>Steven J. Burakoff</b>	Director	March 13, 2009
<i>/s/ TODD C. DAVIS</i> <b>Todd C. Davis</b>	Director	March 13, 2009
<i>/s/ DAVID M. KNOTT</i> <b>David M. Knott</b>	Director	March 13, 2009
<i>/s/ JOHN W. KOZARICH</i> <b>John W. Kozarich</b>	Director	March 13, 2009

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/s/ BRUCE A. PEACOCK

Director

March 13, 2009

**Bruce A. Peacock**

/s/ STEPHEN L. SABBA

Director

March 13, 2009

**Stephen L. Sabba**

120