

LIGAND PHARMACEUTICALS INC  
Form 10-K  
February 23, 2015  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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FORM 10-K

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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, 2014

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

(State or other jurisdiction of incorporation or organization)

(IRS Employer Identification No.)

11119 North Torrey Pines Rd., Suite 200

92037

La Jolla, CA

(Zip Code)

(Address of Principal Executive Offices)

Registrant's telephone number, including area code: (858) 550-7500

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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). 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.

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

Large Accelerated Filer  Accelerated Filer  Non-accelerated Filer  Smaller reporting company   
(Do not check if a smaller reporting company)

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 \$1.0 billion 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, 2014. 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 17, 2015, the Registrant had 19,577,556 shares of Common Stock outstanding.

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DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Registrant's 2015 Annual Meeting of Stockholders to be filed with the Commission on or before April 30, 2015 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.

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## AVAILABLE INFORMATION:

We file electronically with the Securities and Exchange Commission, or the 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 such documents 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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PART I

Cautionary Note Regarding Forward-Looking Statements:

You should read the following together with the more detailed information regarding our company, our common stock and our financial statements and notes to those statements appearing elsewhere in this document or incorporated by reference. The SEC allows us to “incorporate by reference” information that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this report.

This report and the information incorporated herein by reference contain forward-looking statements that involve a number of risks and uncertainties. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, these forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements.

Forward-looking statements can be identified by the use of forward-looking words such as “believes,” “expects,” “hopes,” “may,” “will,” “plan,” “intends,” “estimates,” “could,” “should,” “would,” “continue,” “seeks,” “pro forma,” or “anticipates,” or words (including their use in the negative), or by discussions of future matters such as those related to our royalty revenues, collaborative revenues and milestones, and product development, as well as other statements that are not historical. These statements include but are not limited to statements under the captions “Business,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” as well as other sections in this report. You should be aware that the occurrence of any of the events discussed under the caption “Risk Factors” and elsewhere in this report could substantially harm our business, results of operations and financial condition and that if any of these events occurs, the trading price of our stock could decline and you could lose all or a part of the value of your investment in our stock.

The cautionary statements made in this report are intended to be applicable to all related forward-looking statements wherever they may appear in this report. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. Except as required by law, we assume no obligation to update our forward-looking statements, even if new information becomes available in the future. 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,” “our” and “us” include Ligand Pharmaceuticals Incorporated and our wholly owned subsidiaries.

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Item 1. Business

Overview

We are a biotechnology company that develops and acquires revenue generating assets and couples them with a lean corporate cost structure. Our goal is to generate substantial cash flow and profits. Since a portion of our business model is based on the goal of partnering with other pharmaceutical companies to commercialize and market our assets, a significant amount of our revenue is based largely on payments made to us by partners for royalties, milestones and license fees. We recognized the important role of the drug reformulation segment in the pharmaceutical industry and in 2011 added Captisol<sup>®</sup> to our technology portfolio. Captisol is a formulation technology that has enabled seven FDA approved products, including Amgen, Inc.'s Kyprolis<sup>®</sup> and Merck's Noxafil-IV<sup>®</sup> and is currently being developed in a number of clinical-stage partner programs. In comparison to our peers, we believe we have assembled one of the largest and most diversified asset portfolios in the industry with the potential to generate significant revenue in the future. The therapies in our development portfolio address the unmet medical needs of patients for a broad spectrum of diseases including hepatitis, multiple myeloma, muscle wasting, Alzheimer's disease, dyslipidemia, diabetes, anemia, epilepsy, focal segmental glomerulosclerosis, or FSGS and osteoporosis. We have established multiple alliances with the world's leading pharmaceutical companies including GlaxoSmithKline (GSK), Amgen, Inc., Merck, Pfizer, Baxter International, and Eli Lilly and Co.

We were incorporated in Delaware in 1987. Our principal executive offices are located at 11119 North Torrey Pines Road, Suite 200, La Jolla, California, 92037. Our telephone number is (858) 550-7500. Our website is [www.ligand.com](http://www.ligand.com). Our email address is [investors@ligand.com](mailto:investors@ligand.com).

Business Strategy

Our business model creates value for stockholders by assembling a diversified portfolio of biotech and pharmaceutical revenue streams and operating that business with an efficient and low corporate cost structure. Our goal is to offer investors an opportunity to participate in the promise of the biotech industry in a profitable, diversified and lower-risk business than a typical biotech company. Our business model is based on the concept of doing what we do best: drug discovery, reformulation and partnering. We partner with other pharmaceutical companies to leverage what they do best (late-stage development, regulatory management and commercialization) to ultimately generate our revenue. Our revenue consists mostly of license fees, milestones and royalties from the partners that license our drugs and technologies, and Captisol material sales. In addition to discovering our own proprietary drugs, we use an aggressive acquisition strategy to bring in new assets, pipelines, and technologies to aid in generating additional potential new revenue streams. The principal elements of our strategy are set forth below.

We are assembling a large portfolio of fully-funded programs through acquisition and licensing to drive future profitability. We have assembled a portfolio of over 100 fully-funded partner programs that are in all stages of development, from preclinical research to commercialization. Fully-funded programs are those for which our partners pay all of the development and commercialization costs. We assemble this portfolio either by licensing out our own proprietary drug development programs, licensing our Captisol technology to partners for use with their proprietary programs or acquiring existing partnered programs from other companies. For our internal programs, we generally plan to advance drug candidates through early-stage drug development and/or clinical proof-of-concept. We believe partnerships are not only a source of research funding, license fees, future milestone payments and royalties, but they also position our assets with companies that have the expertise to obtain regulatory approval and successfully launch and commercialize these assets. 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.

We sell Captisol material to a broad range of customers. We provide our proprietary formulation technology known as Captisol to our customers. Captisol is a well validated chemically-modified cyclodextrin that improves the solubility, stability, and pharmacokinetics of many drugs. We generate revenue by selling Captisol material to our partners that have either licensed our proprietary Captisol-enabled drugs or have taken a license to use Captisol with their own internal programs.



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We discover and develop compounds that are promising drug candidates. We discover, synthesize and test numerous compounds to identify and focus upon 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 seek to eliminate unpromising candidates from consideration sooner without incurring substantial clinical costs. Our goal and strategy is to partner our programs early in the development and regulatory life-cycle.

**Our Asset Portfolio**

We have a large portfolio of current and future potential revenue-generating programs, over 100 of which are fully-funded by our partners. Approximately 43% of our 2014 revenue was derived from our Promacta® and Kyprolis royalties. In addition, approximately 44% of our revenue was derived from selling Captisol material to over 100 companies.

**Commercial Programs**

We have multiple partnered programs in our portfolio that have products that are already being commercialized. These programs represent key components of our current portfolio of revenue-generating assets and potential for near-term growth in royalty and other revenue.

**Promacta (GSK)**

GSK's Promacta (eltrombopag) is an oral medicine that increases the number of platelets in the blood. Platelets are one of the three components of blood and facilitate clotting in the blood. Individuals with low platelets can be at significant risk of bleeding or death. Because of the importance of having a sufficient number of platelets, Promacta has broad potential applicability to a number of medical situations where low platelets exist.

Promacta was first approved by the U.S. Food and Drug Administration, or FDA, in 2008 under an accelerated approval 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. Following the initial approval in 2008, and given Promacta's broad medical applicability, GSK has developed and currently received approvals for the drug in three different indications. The currently approved indications for Promacta are ITP, Hepatitis-C associated thrombocytopenia and severe aplastic anemia.

The timing of the approvals for Promacta in the US and Europe is summarized in the table below. Promacta is known as Revolade in the EU.

INDICATION (TERRITORY)	INITIAL APPROVAL
Adult ITP (US)	2008
Adult ITP (EU)	2010
Hepatitis C-associated Thrombocytopenia (US)	2012
Hepatitis C-associated Thrombocytopenia (EU)	2013
Severe Aplastic Anemia (US)	2014
Severe Aplastic Anemia (EU)*	Under Review
Pediatric ITP (US)	Under Review
Pediatric ITP (EU)	Under Review

\*In November of 2014, GSK announced the EU submission for severe aplastic anemia

GSK has been and continues to pursue globalization of the brand and currently markets Promacta in multiple countries for the three approved indications. Specifically, ITP is currently approved in 95 countries, the Hepatitis C-related indication is currently approved in 53 countries, and the severe aplastic anemia indication is approved in 3 countries. Beyond the currently approved indications, GSK is also performing development activities to expand the brand into new indications, including pediatric ITP and a number of oncology-related indications.



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As of February 2015, there are 43 open clinical trials related to Promacta (listed as recruiting or open, and not yet recruiting) on the clinicaltrials.gov website.

In June of 2014, GSK announced positive Phase 3 data for Promacta in pediatric ITP. In December 2014, GSK reported the submission of a sNDA to the FDA for Promacta, seeking an additional indication in pediatric patients six years old and older with chronic ITP who have had an insufficient response to corticosteroids, immunoglobulins or splenectomy. In February of 2015, GSK announced submission to the European Medicines Agency, or EMA, of a variation to the Marketing Authorization for Revolade<sup>®</sup>, seeking an additional indication for the treatment of pediatric patients (age 1 year and above) with chronic ITP who have had an insufficient response to corticosteroids or immunoglobulins.

Promacta is currently in clinical development for a number of additional indications in oncology including myelodysplastic syndromes (MDS), acute myeloid leukemia (AML) and chemotherapy-induced thrombocytopenia (CIT).

In April of 2014, GSK and Novartis announced that Novartis was acquiring the Promacta franchise from GSK in a \$14.5 billion transaction for GSK's oncology business. Subject to regulatory reviews, it is expected that the transaction will complete in the first half of 2015 and Promacta will transition to Novartis.

We entered into a Research, Development and License Agreement with SmithKline Beecham Corporation (now GSK) in 1994 to discover and/or design small molecule compounds which act as modulators of certain signal transducers and activators of transcription, or STATS, to develop pharmaceutical products from such compounds and to commercialize products resulting from the joint research and development. We granted an exclusive license under our patent rights to any product developed from the joint research.

We are entitled to receive royalties related to Promacta during the life of the relevant patents or at a reduced rate for ten years from the first commercial sale, whichever is longer, on a country-by-country basis. GSK has listed a patent in the FDA's Orange Book for Promacta with an expiration date in 2027, and absent early termination for bankruptcy or material breach, the term of the agreement expires upon expiration of the obligation to pay royalties. Either party may terminate the agreement in the event of bankruptcy or material breach. There are no remaining milestones to be paid under the agreement. We are entitled to receive royalties on annual net sales of Promacta as set forth in the following table:

AGGREGATE NET SALES IN EACH CALENDAR YEAR	ROYALTY RATE*	
On portion of sales less than \$100 million	4.7	%
On portion of sales in range of \$100 million to \$200 million	6.6	%
On portion of sales in range of \$200 million to \$400 million	7.5	%
On portion of sales in range of \$400 million to \$1.5 billion	9.4	%
On portion of sales greater than \$1.5 billion	9.3	%

\*Net royalties due Ligand after payment to Rockefeller University.

Any such royalties may be subject to reduction (e.g., in the event of no patent coverage for the product) and/or may be subject to other terms and conditions set forth in our license agreement with GSK.

#### Kyprolis (Amgen)

Ligand supplies Captisol to Amgen, Inc. under a 2005 agreement pursuant to an agreement whereby we sell Captisol for use with carfilzomib, and granted an exclusive product-specific license under our patent rights with respect to Captisol. In July 2012, Kyprolis was approved by the FDA under accelerated review. Kyprolis is formulated with Ligand's Captisol technology and is used for the treatment of patients with multiple myeloma who have received at least two prior therapies, including bortezomib and an immunomodulatory agent, and have demonstrated disease progression on or within 60 days of completion of the last therapy. This indication for Kyprolis is based on response rate.

In 2014, Amgen announced positive results from the Phase 3 ASPIRE trial. ASPIRE enrolled 792 relapsed or refractory multiple myeloma patients from 20 countries. Patients had received one to three prior regimens (on average, two). The addition of carfilzomib to lenalidomide and dexamethasone led to significantly improved outcomes in



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patients with relapsed multiple myeloma, with a clinically relevant 31% decrease in the risk of disease progression or death and an increase of 8.7 months in the median progression free survival (26.3 months in the carfilzomib group vs. 17.6 months in the control group).

In 2015, based on the results from the ASPIRE trial, Amgen announced submissions in the United States and EU for Kyprolis® for relapsed multiple myeloma. The U.S. submission is designed to support conversion from accelerated approval to full FDA approval and also expand the current approved indication for the drug. Amgen also announced that Kyprolis® received Orphan Designation and Accelerated Assessment by the EMA.

Amgen's obligation to pay royalties does not expire until four years after the expiration of the last-to-expire patent covering Captisol. Our patents and applications relating to the Captisol component of Kyprolis are not expected to expire until 2033. Our agreement with Amgen may be terminated by either party in the event of material breach or bankruptcy, or unilaterally by Amgen with prior written notice, subject to certain surviving obligations such as placing orders under any binding forecasts. Absent early termination, the agreement will terminate upon expiration of the obligation to pay royalties. Under this agreement, we are entitled to receive remaining milestones of up to \$2.5 million, revenue from clinical and commercial Captisol material sales and royalties on annual net sales of Kyprolis as set forth in the following table:

AGGREGATE NET SALES IN EACH CALENDAR YEAR	ROYALTY RATE	
Up to, and including \$250 million	1.5	%
Above \$250 million to \$500 million	2.0	%
Above \$500 million to \$750 million	2.5	%
Above \$750 million	3.0	%

Duavee or Duavive (bazedoxifene/conjugated estrogens) and Viviant/Conbriza (Pfizer)

In 2010, our partner Pfizer launched Viviant® (bazedoxifene) in Japan for the treatment of postmenopausal osteoporosis. The drug is also marketed in Spain under the brand name Conbriza® through a co-promotion with Almirall, an international pharmaceutical company based in Spain. Viviant was approved in 2009 by the European Commission (under the trade name Conbriza) for the treatment of postmenopausal osteoporosis in women at increased risk of fracture. The drug has also been launched in Germany, Italy, Greece, Switzerland, Netherlands, and South Korea. Viviant, a selective estrogen receptor modulator, or SERM, is a result of the successful research collaboration between Wyeth (now a subsidiary of Pfizer) and us that began in 1994. Pfizer is responsible for the registration and worldwide marketing of bazedoxifene, a synthetic drug specifically designed to reduce the risk of osteoporotic fractures while also protecting uterine tissue.

Pfizer has combined bazedoxifene (discussed above) with the active ingredient in Premarin® to create Duavee®, a combination therapy for the treatment of post-menopausal symptoms in women. Pfizer obtained FDA approval for Duavee in the United States in October 2013 and filed an approval submission with the EMA in 2012. Pfizer launched Duavee in the United States in the first quarter of 2014. Pfizer received EMA approval for Duavive in December of 2014.

Net royalties on annual net sales of Viviant and Duavee are each payable to us at a rate shown in the table below and are payable through the life of the relevant patents or ten years from the first commercial sale, whichever is longer, on a country by country basis.

AGGREGATE NET SALES IN EACH CALENDAR YEAR	ROYALTY RATE *	
On portion of sales less than \$400 million	0.5	%
On portion of sales in range of \$400 million to \$1 billion	1.5	%
On portion of sales greater than \$1 billion	2.5	%

\* Net royalties due Ligand after payment to Royalty Pharma.

Any such royalties may be subject to reduction or offset for past milestone payments and/or may be subject to other terms and conditions set forth in our license agreement with Pfizer.

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Captisol-enabled Noxafil-IV (Merck)

We and Merck entered into a Captisol supply agreement in June 2011 for Captisol-enabled Noxafil-IV. Merck's NOXAFIL®-IV, which is a new Captisol-enabled formulation of posaconazole for intravenous (IV) use, was approved by the FDA, EMA and Health Canada in 2014. We will receive our commercial compensation for this program through the sale of Captisol, and we will not receive a royalty on this program.

Nexterone (Baxter International)

In 2006, we out-licensed Nexterone, an injectable formulation combining amiodarone and Captisol, to Baxter International, Inc. or Baxter (which acquired Prism Pharmaceuticals, Inc., the original licensee, in 2011). Under the terms of the agreement, Baxter is responsible, under an exclusive worldwide license, for all development and commercialization of Nexterone at its sole expense. In 2010, Nexterone was approved by the FDA and launched in the United States in 2011. We are supplying Captisol to Baxter for use in accordance with the terms of the license agreement under a separate supply agreement. Baxter has paid milestone payments and is obligated to pay royalties to us on sales of Nexterone through early 2033.

Avinza (Pfizer)

We have received royalties of 5% from Pfizer on sales of the pain therapeutic Avinza®. In February 2014, Actavis launched a generic form of Avinza which resulted in a significant decrease in product sales. Pfizer has informed us that they have stopped selling Avinza to wholesalers. We expect future royalties from Avinza to stop in the second quarter of 2015 and that any remaining royalty payments for Avinza will be minimal.

Late-Stage Development Programs

We have multiple partnered programs in our portfolio that are either in or nearing the regulatory approval process. These programs represent the next series of potential royalty generating assets in our portfolio:

Captisol-enabled Melphalan IV (Spectrum Pharmaceuticals, FDA Review, Stem Cell Transplant Conditioning)

In March 2013, we licensed the full world-wide rights to Captisol-enabled melphalan IV to Spectrum Pharmaceuticals, Inc., or Spectrum. The Captisol-enabled, PG-free melphalan program uses a new intravenous formulation of melphalan for the multiple myeloma transplant setting, and has been granted Orphan Designation by the FDA. The formulation avoids the use of propylene glycol, which has been reported to cause renal and cardiac side-effects that limit the ability to deliver higher quantities of therapeutic compounds. The use of the Captisol technology to reformulate melphalan is anticipated to allow for longer administration durations and slower infusion rates, potentially enabling clinicians to safely achieve a higher dose intensity of pre-transplant chemotherapy. Under the terms of the license agreement, we granted an exclusive license to Spectrum under our patent rights to Captisol relating to the melphalan product. We are eligible to receive over \$50 million in potential milestone payments under this agreement, and we are also eligible to receive royalties on future net sales of the Captisol-enabled melphalan product at a royalty rate of 20%. Spectrum's obligation to pay royalties will expire at the end of the life of the relevant patents or when a competing product is launched, whichever is earlier, but in no event within ten years of the commercial launch. Our patents and applications relating to the Captisol component of melphalan are not expected to expire until 2033. Absent early termination, the agreement will terminate upon expiration of the obligation to pay royalties. The agreement may be terminated by either party for an uncured material breach or unilaterally by Spectrum by prior written notice. Spectrum Pharmaceuticals submitted a New Drug Application, or NDA, under a 505 (b)-(2) application for the program in December 2014. Spectrum anticipates the review will be completed in approximately 10 months.

MK-8931 Beta-Secretase Inhibitor (Merck, Phase 3, Alzheimer's Disease)

We have a development agreement with Merck (formerly Schering-Plough) for a beta-secretase, or BACE, inhibitor program for the treatment of Alzheimer's disease. This disease is characterized by plaques of the toxic amyloid-beta protein within the brain. BACE is believed to be a key enzyme in the production of amyloid-beta protein. Amyloid-beta is formed when the larger amyloid precursor protein (APP) is cleaved by two enzymes, BACE and gamma-secretase, which releases the amyloid-beta fragment. A BACE inhibitor is expected to reduce amyloid-beta generation in Alzheimer's disease patients.



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In December 2012, Merck initiated a Phase 2/3 clinical trial for its lead BACE inhibitor product candidate, MK-8931, evaluating its safety and efficacy in patients with mild-to-moderate Alzheimer's disease. In December 2013, Merck announced progression of the program to Phase 3 by advancing the Phase 2/3 trial to Phase 3 and also initiated a second Phase 3 trial in earlier-stage or prodromal patients. We are entitled to a royalty on potential future sales by Merck.

Captisol-enabled SAGE-547 (SAGE Therapeutics, Phase 1/2, Various CNS Disorders)

In 2011, we entered into a Captisol license agreement with SAGE Therapeutics, Inc. (SAGE) for the development and commercialization of Captisol-enabled(R) therapeutics for a broad range of debilitating central nervous system (CNS) conditions. Under the agreement, Ligand has received upfront and research support payments and has the potential to receive milestone payments and royalties for Captisol-enabled programs. SAGE's lead clinical program, Captisol-enabled SAGE-547 is an allosteric modulator of both synaptic and extra-synaptic GABAA receptors that is in clinical development as an adjunctive therapy, a therapy combined with current therapeutic approaches, for the treatment of super-refractory status epilepticus, or SRSE. SAGE-547 was granted Fast Track designation by the FDA in July 2014 for SRSE. Fast track designation is granted by the FDA to facilitate the development and expedite the review of drug candidates that are intended to treat serious or life-threatening conditions and demonstrate the potential to address unmet medical needs. SAGE-547 also received orphan drug designation, which is intended to facilitate drug development for rare diseases, from the FDA in April 2014. In January of 2015, SAGE reported updated data from an ongoing Phase 1/2 clinical trial and its emergency use program of SAGE-547 in patients with SRSE. The data showed a greater than 70% response rate, observed in two patient groups. Also in January of 2015, SAGE announced the initiation of an exploratory Phase 2a trial of SAGE-547 in severe postpartum depression, in addition to its ongoing exploratory trial of SAGE-547 for the treatment of essential tremor.

Sparsentan (formerly RE-021) (Retrophin, Phase 2, FSGS)

In early 2012, we licensed the world-wide rights to Sparsentan (formerly known as RE-021 and DARA-a Dual Acting Receptor Antagonist of Angiotension and Endothelin receptors) to Retrophin, Inc., or Retrophin. Retrophin is developing Sparsentan for orphan indications of severe kidney diseases including FSGS as well as conduct proof-of-concept studies in resistant hypertension and diabetic nephropathy. Certain patient groups with severely compromised renal function exhibit extreme proteinuria resulting in progression to dialysis and a high mortality rate. Sparsentan, with its unique dual blockade of angiotensin and endothelin receptors, is expected to provide meaningful clinical benefits in mitigating proteinuria in indications where there are no approved therapies. Retrophin is currently conducting a potentially pivotal Phase 2 clinical trial for Sparsentan and has received orphan drug designation.

In late 2012, we received a milestone payment of 620,000 shares of common stock in Retrophin. Bristol Myers Squibb is entitled to receive 15% of the proceeds received upon sale of this stock. Under our license agreement with Retrophin we are entitled to receive over \$75 million in net milestones, as well as 9% in net royalties on future worldwide sales by Retrophin through the life of the relevant patents, which we currently expect to be through at least 2019 and may be extended until 2024. In 2013 we received a net \$1.2 million milestone payment from Retrophin.

Captisol-enabled Delafloxacin-IV (Melinta, Phase 3, Infection)

We supply Captisol to Melinta Therapeutics, Inc. (formerly Rib-X Pharmaceuticals), or Melinta, under a 2008 development and commercialization agreement for Captisol-enabled delafloxacin-IV. The agreement permits the use of Captisol in the intravenous formulation of delafloxacin. Delafloxacin is a novel hospital-focused fluoroquinolone antibiotic candidate with potency against a variety of quinolone-resistant Gram-positive and Gram-negative bacteria, including quinolone-resistant, methicillin-resistant Staphylococcus aureus, or MRSA. In 2015, Melinta reported positive top-line results on the first of two planned Phase 3 clinical trials of delafloxacin for the treatment of acute bacterial skin and skin structure infections (ABSSSI), including infections caused by MRSA. Melinta has made certain milestone payments to us already and may be required to pay us an aggregate of an additional \$3.6 million upon the achievement of specified development and regulatory approval milestones. We are entitled to a royalty on potential future sales by Melinta.

Captisol-enabled Carbamazepine-IV (Lundbeck, NDA, Epilepsy)

We have a development and commercialization agreement for Captisol-enabled carbamazepine-IV with Lundbeck (formerly Ovation Pharmaceuticals) for the use of Captisol in the formulation of CE carbamazepine-IV. Lundbeck is developing CE carbamazepine-IV for the management of acute seizure disorder for hospital or emergency settings and

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the FDA accepted the NDA submission in 2014. Lundbeck is in the process of responding to a request of Chemistry, Manufacturing and Controls, or CMC, data from the FDA's Complete Response Letter received in late 2014.

### IRAK4 Inhibitor Program (TG Therapeutics, Preclinical)

We entered into an exclusive global license agreement with TG Therapeutics, Inc. for the development and commercialization of our Interleukin-1 Receptor Associated Kinase-4 or IRAK-4 inhibitors. The IRAK-4 program is in preclinical development for potential use in certain cancers and autoimmune diseases. Under the terms of the agreement, we received 125,000 shares of TG Therapeutics common stock, valued at approximately \$1.2 million at date of signing, and we are eligible to receive \$207.0 million in potential milestone payments. We are also eligible to receive tiered royalties of 6% to 9.5% on future net sales of licensed products containing patented IRAK-4 inhibitors.

### LTP Technology with Omega-3 Fatty Acids (Omthera, a Division of AstraZeneca, Preclinical)

In 2014, we entered into a partnership with Omthera, a division of AstraZeneca focused on LTP therapies for dyslipidemia. The partnership is centered on improving targeted lipid-lowering activity of Omega-3 fatty acids. Lipid-lowering is a major therapeutic area with growing, global unmet needs. The agreement includes over \$44.5 million in potential milestones to us and tiered mid- to high- single digit royalties on potential future sales.

### Biologic Therapeutics Platform (Various Stages of Development)

In April 2013, we acquired a portfolio of possible future royalty and milestone payment rights from Selexis SA, based on over 15 Selexis commercial license agreement programs with various pharmaceutical companies. Under the terms of our Royalty Stream and Milestone Payments Purchase Agreement with Selexis, we are eligible to receive approximately \$17 million in milestones and potentially over \$40 million in estimated annual royalties from these assets. The payment obligations for the particular programs are set forth in the various underlying commercial license agreements between Selexis and various third parties, which have remaining terms tied to the life of the underlying patents, which we currently expect to be maintained until at least 2026. In return for the rights to these payment streams, we paid Selexis \$4.5 million. Neither we nor Selexis have any ongoing termination rights with respect to our acquisition agreement.

The programs that we acquired in this transaction are based on Selexis' technology platform for cell line development and scale-up to manufacturing of therapeutic proteins, and relate to pre-commercialized drugs that are currently being developed; the programs should thus require no funding or technological support from us. Selexis retained ownership of the underlying intellectual property for each of these programs. The programs covered by the Selexis transaction include novel biologics programs with Merrimack (MM-121, MM-111, MM-302 and MM-151), Baxter (BAX69), Aveo, CSL and Glenmark and biosimilar programs with Coherus and Biocad.

### Captisol-enabled Topiramate IV (CURx, Phase 1, Epilepsy)

In July 2013, the FDA granted orphan-drug designation for our proprietary Captisol-enabled Topiramate Injection for the treatment of partial onset or primary generalized tonic-clonic seizures in hospitalized epilepsy patients who are unable to take oral topiramate. In August 2013, we entered a global license agreement with CURx Pharmaceuticals, Inc., or CURx, for the development and commercialization of Topiramate. CURx has made certain milestone payments to us already and may be required to pay us an aggregate of an additional \$19.6 million, net of amounts owed to third parties upon the achievement of specified milestones. Additionally, we are owed net tiered royalties on future sales of 6.0% to 7.5%.

### Lasofoxifene (Azure Biotech, Ethicor, and Sermonix, Estrogen Receptor Modulator)

In July 2013, we entered into a license agreement with Azure Biotech, Inc., or Azure. Under the agreement, we granted to Azure an exclusive worldwide license to develop and market a novel formulation of lasofoxifene. We are entitled to receive up to \$2.6 million in potential development and regulatory milestones as well as a 5% royalty on future net sales through the later of the life of the relevant patents (currently expected to be at least until 2027) or 10 years after regulatory approval. Azure may terminate the license agreement at any time upon six months' prior notice. Lasofoxifene is an estrogen partial agonist for osteoporosis treatment and other diseases, discovered through the research collaboration between us and Pfizer. Under the terms of the license agreement with Azure, we retained the



rights to the oral formulation of lasofoxifene originally developed by Pfizer.

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In July 2013, we also entered into a license agreement with Ethicor for the manufacture and distribution of the oral formulation of lasofoxifene in the European Economic Area, Switzerland and the Indian Subcontinent. Under the terms of the agreement, we are entitled to receive potential sales milestones of up to \$16 million and a 25% royalty on future net sales. Ethicor plans to supply oral lasofoxifene as an unlicensed medicinal product, which may be requested by healthcare professionals to meet the clinical needs of patients when authorized medicines are unsuitable or contraindicated. In the European Union, there are approximately 37 million women with osteoporosis.

In February 2015, we entered into a license agreement with Sermonix for oral lasofoxifene for the United States and additional territories. Under the terms of the agreement, we are entitled to receive up to \$45 million in potential regulatory and commercial milestone payments and tiered royalties of 6% to 10% on future net sales.

**Captisol-enabled Lamotrigine IV (CURx, Phase 1, Hospital-Based Seizures)**

In September 2014, we expanded our global license agreement with CURx to also include the development and commercialization of our Captisol-enabled Lamotrigine program. Under the terms of the expanded license, we are eligible to receive up to \$22 million in potential milestone payments, revenue from the sales of Captisol, and tiered royalties on future net sales in the range of 4% to 7% for Captisol-enabled™ Lamotrigine. CURx will be responsible for all development costs related to the program.

**Viking Therapeutics**

In May 2014, we entered into an exclusive global license agreement with Viking Therapeutics Inc. or Viking for the rights to five programs. The therapeutic programs covered in the license agreement include our Selective Androgen Receptor Modulator or SARM program for acute rehabilitation post-hip fracture, a Thyroid Hormone Receptor-β (TRβ) Agonist program for metabolic and lipid disorders such as X-linked adrenoleukodystrophy and hypercholesterolemia, an FBPase inhibitor program for type 2 diabetes, an Erythropoietin Receptor or EPOR Agonist program for anemia, and an Enterocyte-Directed Diacylglycerol Acyltransferase-1 or DGAT-1 inhibitor program for metabolic disorders. The FBPase Inhibitor program was the subject of an option originally granted to Viking in 2012. Viking is a clinical-stage biopharmaceutical company focused on the development of novel, first-in-class or best-in-class therapies for metabolic and endocrine disorders. Each licensed program includes a fee to be paid to us in Viking equity at the time of a private or public financing, milestone payments and royalties on future net sales. Viking is responsible for all development activities under the license. We have the right to terminate the license agreement on or after April 30, 2015 if Viking has neither completed an IPO nor received aggregate net proceeds of at least \$20.0 million in one or more private financings. We also have the right to terminate the license agreement in the event of insolvency or bankruptcy of Viking.

**Internal Product Development Programs**

As summarized in the table below, we are developing several proprietary products for a variety of indications. These programs represent our future licensing opportunities to expand our partnered asset portfolio.

Program	Disease/Indication	Development Phase
Glucagon Receptor Antagonist	Diabetes	Phase 1b
Oral Human Granulocyte Colony Stimulating Factor	Neutropenia	Preclinical
LTP Platform	Metabolic and Cardiovascular	Preclinical
Kinase Inhibitors	Multiple	Preclinical
HepDirect	Liver Diseases	Preclinical

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Glucagon Receptor Antagonist Program

We are currently developing small molecule glucagon receptor antagonists for the treatment of Type II diabetes mellitus. Compounds that block the action of glucagon may reduce the hyperglycemia that is characteristic of this disease. Glucagon stimulates the production of glucose by the liver and its release into the blood stream. In diabetic patients, glucagon secretion is abnormally elevated and contributes to hyperglycemia in these patients. Clinical proof of concept studies with glucagon receptor antagonists in Type 2 diabetic patients were reported at the American Diabetes Association Annual Meeting in 2011 and 2012, supporting the potential benefit of this therapeutic target. Our advanced glucagon antagonist compound blocks glucagon action in human hepatocytes in vitro, reduces blood glucose in animal models of Type 1 and Type 2 diabetes, has demonstrated good oral bioavailability in rodents, and has a safety profile in preclinical studies suitable for further clinical development.

In October 2013, the FDA accepted our Investigational New Drug, or IND, application for our proprietary Glucagon receptor antagonist product (LGD-6972) candidate for the treatment of diabetes. LGD-6972 was acquired in connection with our acquisition of Metabasis and we may be required to remit payment to the contingent value right, or CVR, holders upon the sale or partnering of the asset. We initiated a Phase 1 clinical trial in the fourth quarter of 2013 and announced positive results from that trial in June of 2014. In the fourth quarter of 2014, we initiated a Phase 1b trial, and expect results in the second quarter of 2015.

Oral Human Granulocyte Colony Stimulating Factor (GCSF) Program

We have discovered a novel series of small molecules that selectively activate human granulocyte colony stimulating factor, or GCSF, receptor function in a manner distinct from GCSF, but similar to the mechanism of small-molecule human thrombopoietin receptor (hTPOR) agonists, such as eltrombopag (Promacta). The goal of our GCSFR agonist program is to develop a non-peptide, small molecule, oral GCSFR agonist that is a convenient, cost-effective alternative as compared to recombinant human GCSF for the treatment of neutropenia and other related indications. The lead compound, LG7455, activates the GCSF-GCSFR signaling pathway and induces the differentiation of human bone marrow cells into granulocytes. It also significantly increases peripheral blood neutrophils and demonstrated the first reported proof-of-concept for a small molecule GCSF receptor antagonist in a primate model. Further optimization of the LG7455 structure series could lead to a first-in-class, once-daily, oral medication for the treatment of congenital, chronic or chemotherapy-induced neutropenia.

LTP Platform (Unpartnered, Preclinical, Metabolic and Cardiovascular)

Ligand scientists developed a novel pro-drug technology designed to selectively deliver a broad range of pharmaceutical agents to the liver. The LTP technology is designed to improve the activity and/or safety of existing drugs, develop new agents to treat certain liver disease, and treat diseases caused by homeostasis imbalance of circulating molecules controlled by the liver and is especially applicable to metabolic and cardiovascular indications, among others.

Kinase Inhibitors (Unpartnered, Preclinical, Multiple)

Ligand is pursuing a series of Kinase Inhibitors preclinically that may have the potential for broad therapeutic applications in areas such as oncology or inflammatory conditions potentially including diseases like arthritis, gout, inflammatory bowel disease, and asthma.

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### HepDirect HCV Inhibitor Program

We are developing novel small molecule inhibitors of the Hepatitis C virus using our HepDirect technology platform. Data from current lead molecules suggest that directing these molecules to the liver using the HepDirect technology could produce fewer side effects and has the potential for an overall superior risk-benefit ratio compared to non-HepDirect therapies.

Other Internal Programs Eligible for Further Development Funding, Either Through Ligand or a Partner

● Captisol-enabled Ready-to-Use Fosphenytoin formulation (Phase 3, Seizures)

● Captisol-enabled Clopidogrel (Phase 3, Anti-coagulant)

▲ Aplindore (Phase 2, Restless Leg/Parkinson's)

● Captisol-enabled Nasal Budesonide (Phase 1, Allergic Rhinitis)

♠ Histamine H3 Receptor Antagonist (Preclinical, Cognitive Disorders)

● Glucokinase Activator (Preclinical, Diabetes)

● CCR1 Inhibitor (Preclinical, Oncology)

● CRTH2 Inhibitor (Preclinical, Inflammation)

♠ Topical JAK3 (Preclinical, Inflammation)

● Captisol-enabled Meloxicam (Preclinical, Pain)

● Captisol-enabled Busulfan (Preclinical, Oncology)

● Others

### Technology

We employ various 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.

Our discovery work is based 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 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 us, some are trade secrets, and some are 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.

In connection with our merger with Metabasis, we acquired certain HepDirect technology. HepDirect technology supplements our core drug discovery technology platform of ligand-dependent gene expression. HepDirect is a prodrug technology that targets delivery of certain drugs to the liver by using a proprietary chemical modification that renders a drug biologically inactive until cleaved by a liver-specific enzyme.

In connection with our acquisition of CyDex, we acquired the Captisol drug formulation platform technology. We use this technology to improve the solubility, stability, and/or pharmacokinetics of drugs, whether in our own internal development pipeline or those of our partners.

### Manufacturing

We currently have no manufacturing facilities and rely on third parties, including our collaborative partners, for clinical production.

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We currently outsource the production of Captisol to Hovione FarmaCiencia SA, or Hovione, a major global supplier with over 50 years of experience in the development and compliant manufacture of Active Pharmaceutical Ingredients and Drug Product Intermediates. In 2002, CyDex entered into a Captisol supply agreement with Hovione, under which Hovione is our exclusive supplier of Captisol and is restricted from supplying Captisol to third parties, so long as specified conditions are met. Hovione operates FDA-inspected sites in the US, Ireland and Portugal. Manufacturing operations for Captisol are currently performed in both of Hovione's Portugal and Ireland sites. Distribution operations for Captisol are currently performed from Hovione's US, Portugal and Ireland sites.

We have ongoing minimum purchase commitments under the agreement and are required to pay Hovione an aggregate minimum amount during the agreement term.

We pay Hovione unit prices, in U.S. dollars, for all Captisol supplied, which prices may be adjusted for fluctuation in currency exchange rates, change in raw material prices and change in the Portuguese consumer price index.

Additionally, prices may be adjusted based on requested changes to the Captisol manufacturing process or specifications.

Once manufactured, Captisol has a shelf life of 60 months (5 years).

In the event of a Captisol supply interruption, we are permitted to designate and, with Hovione's assistance, qualify one or more alternate suppliers. If the supply interruption continues beyond a designated period, we may terminate the agreement. In addition, if Hovione cannot supply our requirements of Captisol due to an uncured force majeure event or if the unit price of Captisol exceeds a set figure, we may obtain Captisol from an additional third party.

In 2011, the contract was amended to allow storage of bulk Captisol and to allow Captisol to be distributed from Hovione's US, Portugal and Ireland sites directly to our customers, under our instruction. In addition, we also distribute and store bulk quantities of Captisol ourselves, utilizing subterranean warehouse space located in Lenexa, Kansas.

The initial term of the agreement with Hovione expires in December 2019. The agreement will automatically renew for successive two year renewal terms unless either party gives written notice of its intention to terminate the agreement no less than two years prior to the expiration of the initial term or renewal term. In addition, either party may terminate the agreement for the uncured material breach or bankruptcy of the other party or an extended force majeure event. We may terminate the agreement for extended supply interruption, regulatory action related to Captisol or other specified events. For further discussion of these items, see below under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

### Competition

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



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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 on us.

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.

Patents are issued or pending for the following key products or product families. The scope and type of patent protection provided by each patent family is defined by the claims in the various patents. The nominal patent expiration dates have been provided. The actual patent term may vary by jurisdiction and depend on a number of factors including potential patent term adjustments, patent term extensions, and terminal disclaimers. For each product or product family, the patents and/or applications referred to are in force in at least the United States, and for most products and product families, the patents and/or applications are also in force in European jurisdictions, Japan and other jurisdictions.

#### Promacta

Patents covering Promacta are owned by GSK. The United States patent listed in the FDA’s listing of Approved Drug Products with Therapeutic Equivalence Evaluations (the “Orange Book”) relating to Promacta with the latest expiration date is not expected to expire until 2027. The type of patent protection (e.g., composition of matter or use) for each patent listed in the Orange Book and the expiration date for each patent listed in the Orange Book are provided in the following table. In addition, certain related patents in the commercially important jurisdictions of Europe and Japan are identified in the following table.

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U.S. Patent No.	U.S. Expiration Date	Type of Protection	Jurisdiction (Expiration Date)§
U.S. 6,280,959	Oct. 30, 2018	composition of matter and use	
U.S. 7,160,870	Nov. 20, 2022	composition of matter and use	EP 1864981 (05/24/21) EP 1294378 (05/24/21) JP 3813875 (05/24/21)
U.S. 7,332,481	May 24, 2021	use	EP 1889838 (05/24/21) JP 4546919 (05/24/21)
U.S. 7,452,874	May 24, 2021	composition of matter and use	EP 1889838 (05/24/21) JP 4546919 (05/24/21)
U.S. 7,473,686	May 24, 2021	composition of matter and use	EP 1864981 (05/24/21) EP 1294378 (05/24/21) JP 3813875 (05/24/21)
U.S. 7,547,719	Jul. 13, 2025	composition of matter and use	EP 1534390 (05/21/23) JP 4612414 (05/21/23)
U.S. 7,790,704	May 24, 2021	use	
U.S. 7,795,293	May 21, 2023	use	
U.S. 8,052,993	Aug. 1, 2027	composition of matter and use	
U.S. 8,052,994	Aug. 1, 2027	composition of matter and use	
U.S. 8,052,995	Aug. 1, 2027	composition of matter and use	
U.S. 8,062,665	Aug. 1, 2027	composition of matter and use	
U.S. 8,071,129	Aug. 1, 2027	composition of matter and use	

Expiration dates of European and Japanese patents are calculated as 20 years from the earliest nonprovisional filing date to which priority is claimed, and do not take into account extensions that are or may be available in these jurisdictions.

## Kyprolis

Patents protecting Kyprolis include those owned by Amgen and those owned by Ligand. The United States patent listed in the Orange Book relating to Kyprolis with the latest expiration date is not expected to expire until 2027.

Patents and applications owned by Ligand relating to the Captisol component of Kyprolis are not expected to expire until 2033. The type of patent protection (e.g., composition of matter or use) for each patent listed in the Orange Book and the expiration dates for each patent listed in the Orange Book are provided in the following table. In addition, certain related patents in the commercially important jurisdictions of Europe and Japan are identified in the following table.

U.S. Patent No.	U.S. Expiration Date	Type of Protection	Jurisdiction (Expiration Date)§
U.S. 7,232,818	Apr. 14, 2025	composition of matter	EP 1745064 (04/14/25)
U.S. 7,417,042	Jun. 7, 2026	composition of matter	EP 1781688 (08/08/25) JP 4743720 (08/08/25)
U.S. 7,491,704	Apr. 14, 2025	use	EP 1745064 (04/14/25) EP 1819353 (12/07/25)
U.S. 7,737,112	Dec. 7, 2027	composition of matter	EP 2260835 (12/07/25) JP 4990155 (12/07/25) JP 5108509 (05/09/25)
U.S. 8,129,346	Dec. 25, 2026	use	EP 1745064 (04/14/25)
U.S. 8,207,125	Apr. 14, 2025	composition of matter	EP 1781688 (08/08/25) JP 4743720 (08/08/25)
U.S. 8,207,126	Apr. 14, 2025	composition of matter and use	
U.S. 8,207,127	Apr. 14, 2025	use	
U.S. 8,207,297	Apr. 14, 2025	composition of matter and use	



Expiration dates of European and Japanese patents are calculated as 20 years from the earliest nonprovisional filing date to which priority is claimed, and do not take into account extensions that are or may be available in these jurisdictions.

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## Captisol

Patents and pending patent applications covering Captisol are owned by Ligand. Other patents and pending patent applications covering methods of making Captisol are owned by Ligand or by Pfizer. The patents covering the Captisol product, if issued, with the latest expiration date would not be set to expire until 2033 (see, e.g., WO 2013/130666 (contains composition of matter and use claims; filed Feb. 27, 2013)). Ligand also owns several patents and pending patent applications covering drug products containing Captisol as a component. The type of patent protection (e.g., composition of matter or use) and the expiration dates for several issued patents covering Captisol are provided in the following table. In addition, certain related patents and applications in the commercially important jurisdictions of Europe and Japan are listed in the following table.

U.S. Patent No.	U.S. Expiration Date	Type of Protection	Jurisdiction (Expiration Date) <sup>‡</sup>
U.S. 8,114,438	Mar. 19, 2028	composition of matter	EP 1755551 (pending) JP 2013028645 (pending)
U.S. 7,629,331	Oct. 26, 2025	composition of matter	EP 1945228 (10/26/25) EP 2581078 (pending)
U.S. 8,049,003	Dec. 19, 2026	use	EP 2583668 (pending) EP 2335707 (pending) EP 2268269 (pending)
U.S. 7,635,773	Mar. 13, 2029	composition of matter and use	JP 4923144 (04/28/29) JP 2012072160 (pending) EP 2268269 (pending)
U.S. 8,410,077	Mar. 13, 2029*	composition of matter	JP 4923144 (04/28/29) JP 2012072160 (pending)

<sup>‡</sup>Expiration date of European and Japanese patents are calculated as 20 years from the earliest nonprovisional filing date to which priority is claimed, and do not take into account extensions that are or may be available in these jurisdictions.

Subject to compliance with the terms of the respective agreements, our rights to receive royalty payments under our licenses with our exclusive licensors typically 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 1, 2015, we had 19 full-time employees, of whom six are involved directly in scientific research and development activities.

## 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.

Revenues based on Promacta and Kyprolis represent a substantial portion of our overall current and/or expected future revenues.

GSK is obligated to pay us royalties on its sales of Promacta and we receive revenue from Amgen based on both sales of Kyprolis and purchases of Captisol material for clinical and commercial uses. These payments are expected to be a substantial portion of our ongoing revenues for some time. As a result, any setback that may occur with respect to Promacta or Kyprolis could significantly impair our operating results and/or reduce the market price of our stock. Setbacks for Promacta and Kyprolis could include problems with shipping, distribution, manufacturing, product safety, marketing, government regulation or reimbursement, licenses and approvals, intellectual property rights,

competition with existing or new products and physician or patient acceptance of the product, as well as higher than expected total rebates, returns or discounts or unfavorable exchange rate changes.

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Revenue from sales of Captisol material to our collaborative partners represents a significant portion of our current revenue and our continued development and supply of Captisol is subject to a number of risks.

In January 2011, we completed our merger with CyDex. All of CyDex's products and product candidates, as well as the technology that it outlicenses, are based on Captisol. As a result, any setback that may occur with respect to Captisol could significantly impair our operating results and/or reduce the market price of our stock. Setbacks for Captisol could include problems with shipping, distribution, manufacturing, product safety, marketing, government regulation or reimbursement, licenses and approvals, intellectual property rights, competition with existing or new products and physician or patient acceptance of the products using Captisol, as well as higher than expected total rebates, returns or discounts for such products.

If products or product candidates incorporating Captisol technology were to cause any unexpected adverse events, the perception of Captisol safety could be seriously harmed. If this were to occur, we may not be able to market Captisol products unless and until we are able to demonstrate that the adverse event was unrelated to Captisol, which we may not be able to do. Further, whether or not the adverse event was a result of Captisol, we could be required by the FDA to submit to additional regulatory reviews or approvals, including extensive safety testing or clinical testing of products using Captisol, which would be expensive and, even if we were to demonstrate that the adverse event was unrelated to Captisol, would delay our marketing of Captisol-enabled products and receipt of revenue related to those products, which could significantly impair our operating results and/or reduce the market price of our stock.

We obtain Captisol from a sole source supplier, and if this supplier were to cease to be able, for any reason, to supply Captisol to us in the amounts we require, or decline to supply Captisol to us, we would be required to seek an alternative source, which could potentially take a considerable length of time and impact our revenue and customer relationships.

We currently depend on our arrangements with our outlicensees to sell products using our Captisol technology. These agreements generally provide that outlicensees may terminate the agreements at will. If our outlicensees discontinue sales of products using our Captisol technology, fail to obtain regulatory approval for products using our Captisol technology, fail to satisfy their obligations under their agreements with us, or choose to utilize a generic form of Captisol should it become available, or if we are unable to establish new licensing and marketing relationships, our financial results and growth prospects would be materially affected. We maintain inventory of Captisol, which has a five year shelf life, at three geographically spread storage locations in the United States and Europe. If we were to encounter problems maintaining our inventory, such as natural disasters, at one or all three of these locations, it could lead to supply interruptions. Further, under most of our Captisol outlicenses, the amount of royalties we receive will be reduced or will cease when the relevant patent expires. Our high purity patents, U.S. Patent Nos. 7,635,773 and 8,410,077 and foreign equivalents, are not expected to expire until 2029 and our morphology patents, U.S. Patent Nos. 7,629,331 and 8,049,003 and foreign equivalents, are not expected to expire until 2025, but the initially filed patents relating to Captisol expired starting in 2010 in the United States and will expire by 2016 in most countries outside the United States. If our other intellectual property rights are not sufficient to prevent a generic form of Captisol from coming to market and if in such case our outlicensees choose to terminate their agreements with us, our Captisol revenue may decrease significantly.

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The product candidates of our partners and us face significant development and regulatory hurdles prior to partnering and/or marketing which could delay or prevent licensing, sales and/or milestone revenue.

Before we or our partners obtain the approvals necessary to sell any of our unpartnered assets or partnered programs, we must show through preclinical studies and human testing that each potential product is safe and effective. We and/or our partners have a number of partnered programs and unpartnered assets moving toward or currently awaiting regulatory action. 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 drug development and 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. 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 rates at which we complete our scientific studies and clinical trials depends on many factors, including, but are 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, the eligibility criteria for the trial and other potential drug candidates being studied. 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 our 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 collaboration agreements with corporate partners and others. These agreements 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 unpartnered assets.

For instance, our collaboration with Viking includes a \$2.5 million loan that we made to Viking to be repaid upon Viking's completion of an initial public offering or additional private financings of at least \$20.0 million. Our ability to collect on our loan to Viking is uncertain. Viking has not yet completed an initial public offering or otherwise obtained additional private funding. Under our master license agreement with Viking, we have the right to terminate upon giving notice after April 30, 2015 if Viking has not been able to raise such additional funding by that time. On or after April 30, 2015, we may decide to extend the term of our loan to Viking, invest additional capital, or terminate our agreements with Viking. We cannot make any assurances on the collectability of our loan to Viking.

In addition, our collaborators may develop drugs, either alone or with others that compete with the types of drugs they are developing with us (or that we are developing on our own). This would result in increased competition for our or our partners' 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 at will or under specified circumstances. If any of our collaborative partners breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully (for example, by not making required payments when due, or at all), our product development under these agreements will be delayed or terminated. Disputes or litigation may also arise with our collaborators (with us and/or with one or more third parties), including those 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. 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.

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Expirations of, challenges to or failure to secure patents and other proprietary rights may significantly hurt our business.

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 this 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.

Generally, 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. For example, our European patent related to Agglomerated forms of Captisol was limited during an opposition proceeding, and the rejection of our European patent application related to High Purity Captisol is currently being appealed.

We have obtained patent protection in the United States through 2025 on one or more Agglomerated forms of Captisol and through 2029 on one or more High Purity forms of Captisol. We also have filed patent applications covering the Captisol product that if issued, would not be set to expire until 2033 (for example, our patent WO 2013/130666, filed February 27, 2013, contains composition of matter and use claims). There is no guarantee that our patents will be sufficient to prevent competitors from creating a generic form of Captisol and competing against us, or from developing combination patents for products that will prevent us from developing products using those APIs. In addition, most of the agreements in our Captisol outlicensing business provide that once the relevant patent expires, the amount of royalties we receive will be reduced or eliminated.

Our collaborative partners may change their strategy or the focus of their development and commercialization efforts with respect to our partnered programs, and the success of our partnered programs could be adversely affected.

If our collaborative partners terminate their collaborations with us or do not commit sufficient resources to the development, manufacture, marketing or distribution of our partnered programs, we could be required to devote

additional resources to our partnered programs, seek new collaborative partners or abandon such partnered programs, all of which could have an adverse effect on our business. For example, because Pfizer recently informed us that they have stopped selling Avinza to wholesalers, we expect future revenues for Avinza to be minimal.

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 Captisol, Promacta, Kyprolis, Avinza, Duavee, Viviant, Conbriza, Nexterone, and other products or potential products.



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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, U.S. 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.

Disputes 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 possible disputes 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 occurrence or 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.

If we are unable to maintain the effectiveness of our internal controls, our financial results may not be accurately reported.

The Sarbanes-Oxley Act of 2002 requires, among other things, that we maintain effective internal controls for financial reporting and disclosure controls and procedures. While we anticipate maintaining the integrity of our internal controls over financial reporting and all other aspects of Sarbanes-Oxley Act of 2002, we cannot be certain that a material weakness will not be identified when we test the effectiveness of our control systems in the future. The existence of one or more material weaknesses or significant deficiencies in our internal control over financial reporting 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 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.

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

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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 or have consummated in the past, whether as a result of unidentified risks, integration difficulties, regulatory setbacks, litigation with current or former employees 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.

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, or IPR&D, charges. In either case, the incurrence of these charges could adversely affect our results of operations for particular quarterly or annual periods.

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 our key management and scientific personnel. If we fail to retain such key employees, it could materially and adversely affect our business, financial condition, results of operations or the market price of our stock.

Aggregate revenues based on sales of our other products may not meet expectations.

Revenues based on Avinza, Duavee, Conbriza, Noxafil IV and Nexterone may not meet expectations. Any setback that may occur with respect to these products could impair our operating results and/or reduce the market price of our stock. Setbacks for these products could include problems with shipping, distribution, manufacturing, product safety, marketing, government regulation or reimbursement, licenses and approvals, intellectual property rights, competition with existing or new products and physician or patient acceptance of the product, as well as higher than expected total rebates, returns or discounts. These products also are or may become subject to generic competition. Any such setback could reduce our revenue.

If plaintiffs bring product liability lawsuits against us or our partners, we or our partners may incur substantial liabilities and may be required to limit commercialization of our approved products and product candidates, and we may be subject to other liabilities related to the sale of our prior commercial product lines.

As is common in our industry, our partners and we face an inherent risk of product liability as a result of the clinical testing of our product candidates in clinical trials and face an even greater risk for commercialized products. Although we are not currently a party to product liability litigation, if we are sued, we may be held liable if any product or product candidate we develop causes injury or is found otherwise unsuitable during product testing, manufacturing, marketing or sale. Regardless of merit or eventual outcome, liability claims may result in decreased demand for any product candidates or products that we may develop, injury to our reputation, discontinuation of clinical trials, costs to defend litigation, substantial monetary awards to clinical trial participants or patients, loss of revenue and the inability to commercialize any products that we develop. We have product liability insurance that covers our clinical trials up to a \$10.0 million annual limit. If we are sued for any injury caused by our product candidates or any future products, our liability could exceed our total assets.

In addition, we have agreed to indemnify Eisai and King Pharmaceuticals (now a subsidiary of Pfizer), under certain circumstances pursuant to the asset purchase agreements we entered into in connection with the sale of our prior commercial product lines. Some of our indemnification obligations still remain and our potential liability in certain circumstances is not limited to specific dollar amounts. We cannot predict the liabilities that may arise as a result of these matters. Any claims related to our indemnification obligations to Pfizer or Eisai could materially and adversely affect our financial condition. In addition, Pfizer assumed our obligation to make payments to Organon based on net sales of Avinza (the fair value of which was \$0.3 million as of December 31, 2014). We remain liable to Organon in the event Pfizer 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 prior commercial product lines does not relieve us of exposure to product liability risks on products we sold prior to divesting these product lines. A successful product liability claim or series of claims brought against us may not be insured against and could result in payment of significant amounts of money and divert management's attention from our business.

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If our partners do not reach the market with our partnered programs before our competitors offer products for the same or similar uses, or if our partners are not effective in marketing our partnered programs, 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 partnered programs. 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.

If our business does not perform according to our expectations, we may not have sufficient resources to operate our business as currently contemplated.

We believe that our capital resources, including our currently available cash, cash equivalents, and short-term investments as well as our current and future royalty revenues, will be adequate to fund our operations at their current levels at least for the next 12 months. However, changes may occur that would cause us to consume available capital resources before that time and 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.

We recently sold \$245.0 million aggregate principal amount of 0.75% Convertible Senior Notes, which may impact our financial results, result in the dilution of existing stockholders, and restrict our ability to take advantage of future opportunities.

In August of 2014, we sold \$245.0 million aggregate principal amount of 0.75% Convertible Senior Notes due 2019, or the 2019 Convertible Senior Notes. We will be required to pay interest on the 2019 Convertible Senior Notes until they come due or are converted, and the payment of that interest will reduce our net income. The sale of the 2019 Convertible Senior Notes may also affect our earnings per share figures, as accounting procedures require that we include in our calculation of earnings per share the number of shares of our common stock into which the 2019 Convertible Senior Notes are convertible. The 2019 Convertible Senior Notes may be converted, under the conditions and at the premium specified in the 2019 Convertible Senior Notes, into cash and shares of our common stock, if any (subject to our right to pay cash in lieu of all or a portion of such shares). If shares of our common stock are issued to the holders of the 2019 Convertible Senior Notes upon conversion, there will be dilution to our shareholders equity. Upon certain circumstances, holders of the 2019 Convertible Senior Notes may require us to purchase all or a portion of their notes for cash, which may require the use of a substantial amount of cash. If such cash is not available, we may be required to sell other assets or enter into alternate financing arrangements at terms that may or may not be desirable. The existence of the 2019 Convertible Senior Notes and the obligations that we incurred by issuing them may restrict our ability to take advantage of certain future opportunities, such as engaging in future debt or equity financing activities. As of December 31, 2014, no events have occurred which would trigger settlement of the notes in cash.

Our ability to use our net operating losses, or NOLs, to offset taxes that would otherwise be due could be limited or lost entirely.

Our ability to use our NOLs to offset taxes that would otherwise be due is dependent upon our generation of future taxable income before the expiration dates of the NOLs, and we cannot predict with certainty whether we will be able to generate future taxable income. In addition, even if we generate taxable income, realization of our NOLs to offset taxes that would otherwise be due could be restricted by annual limitations on use of NOLs triggered by a past or future “ownership change” under Section 382 of the Internal Revenue Code and similar state provisions. An “ownership change” may occur when there is a 50% or greater change in total ownership of our company by one or more 5% shareholders within a three-year period. The loss of some or all of our NOLs could materially and adversely affect our business, financial condition and results of operations. In addition, California and certain states have suspended use of NOLs for certain taxable years, and other states may consider similar measures. As a result, we may incur higher state income tax expense in the future. Depending on our future tax position, continued suspension of our ability to use NOLs in states in which we are subject to income tax could have an adverse impact on our operating results and financial condition. The calculation of the amount of our net operating loss

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carryforwards may be changed as a result of a challenge by the IRS or other governmental authority or our learning of new information about the ownership of, and transactions in, our securities.

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, concentration of ownership 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 common or preferred stock without any further action by the stockholders. Our directors and certain of our institutional investors, collectively beneficially own a significant portion of our outstanding common stock. We have in the past granted waivers to investors allowing them to increase their ownership level above the limit set forth in our shareholder rights agreement. Such restrictions, circumstances 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.

Funding of our drug development programs may not result in future revenues.

Our drug development programs may require substantial additional capital to successfully complete, 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. While we expect to fund our research and development activities from cash generated from 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.

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 United States and elsewhere around the world. Continuing concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, and the U.S. financial markets have contributed to increased volatility and diminished expectations for the economy and the markets going forward. Domestic and international equity markets periodically experience heightened volatility and turmoil. These events may have an adverse effect on us. In the event of a 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. 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.

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

The market prices for securities of biotechnology and pharmaceutical companies have historically been highly volatile, and the market has recently experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. Continued volatility in the overall capital markets could reduce the market price of our common stock in spite of our operating performance. Further, high stock price volatility could result in higher stock-based compensation expense.



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Our common stock has experienced significant price and volume fluctuations and may continue to experience volatility in the future. 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 price and volume fluctuations in the overall stock market.

Impairment charges pertaining to goodwill, identifiable intangible assets or other long-lived assets from our mergers and acquisitions 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 acquisitions in recent years of Pharmacoepia, Neurogen, Metabasis and CyDex have been allocated to 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.

The occurrence of a catastrophic disaster could damage our facilities beyond insurance limits or we could lose key data which could cause us to curtail or cease operations.

We are vulnerable to damage and/or loss of vital data from natural disasters, such as earthquakes, tornadoes, power loss, fire, floods and similar events, as well as from accidental loss or destruction. If any disaster were to occur, our ability to operate our business could be seriously impaired. We have property, liability, and business interruption insurance which may not be adequate to cover our losses resulting from disasters or other similar significant business interruptions, and we do not plan to purchase additional insurance to cover such losses due to the cost of obtaining such coverage. Any significant losses that are not recoverable under our insurance policies could seriously impair our business, financial condition and prospects.

We rely on information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cyber security incidents, could harm our ability to operate our business effectively.

Our business is increasingly dependent on critical, complex and interdependent information technology systems, including internet-based systems, to support business processes as well as internal and external communications. Despite the implementation of security measures, our internal computer systems and those of our collaborative partners are vulnerable to damage from cyber-attacks, computer viruses, security breaches, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. System failures, accidents or security breaches could cause interruptions in our operations, could lead to the loss of trade secrets or other intellectual property, could lead to the public exposure of personal information of our employees and others, and could result in a material disruption of our clinical and commercialization activities and business operations, in addition to possibly requiring substantial expenditures to remedy. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and our business and financial condition could be harmed.

Item 1B. Unresolved Staff Comments  
None.

Item 2. Properties

We currently occupy premises consisting of approximately 16,500 square feet of office and laboratory space in San Diego, leased through June 2019 which serves as our corporate headquarters. We believe this facility is adequate to meet our space requirements for the foreseeable future.

We lease approximately 1,500 square feet of laboratory space located at the Bioscience and Technology Business Center in Lawrence, Kansas, leased through December 2017.

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We lease approximately 99,000 square feet in three facilities in Cranbury, New Jersey under leases that expire in 2016. We also sublease approximately 11,666 square feet of these facilities with subleases expiring in 2016. We fully vacated these facilities in September 2010.

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 agreement through July 2015. We fully vacated this facility in February 2008.

Item 3. Legal Proceedings

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.

Securities Litigation

On June 8, 2012, a federal securities class action and shareholder derivative lawsuit was filed in the Eastern District of Pennsylvania against Genaera Corporation and its officers, directors, major shareholders and trustee, or the Genaera Defendants for allegedly breaching their fiduciary duties to Genaera shareholders. The lawsuit also names us and our CEO as additional defendants for allegedly aiding and abetting the Genaera Defendants' various breaches of fiduciary duties based on our purchase of a licensing interest in a development-stage pharmaceutical drug program from the Genaera Liquidating Trust in May 2010 and our subsequent sale of half of our interest in the transaction to Biotechnology Value Fund, Inc. Following an amendment to the complaint and a round of motions to dismiss, the court dismissed the amended complaint with prejudice on August 12, 2013. The plaintiff appealed that dismissal on September 10, 2013, and the Third Circuit reversed on October 17, 2014. The plaintiff has indicated that he intends to move to file a second amended complaint, which we plan to oppose later this month. We intend to continue to vigorously defend against the claim against us and our CEO. Due to the complex nature of the legal and factual issues involved, however, the outcome of this matter is not presently determinable.

Other Litigation

On June 19, 2014, a complaint was filed in California Superior Court seeking attorneys' fees in connection with certain claims related to executive compensation matters that were described in our June 6, 2013 supplemental proxy materials. On August 1, 2014 we filed an answer denying all of the allegations in the complaint and asserting several affirmative defenses. The parties have executed a settlement agreement to resolve the matter, pursuant to which we are currently awaiting the dismissal of the lawsuit. Because the parties have reached agreement, we believe the litigation presents a remote likelihood of material loss.

Item 4. Mine Safety Disclosures

Not applicable.

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 under the symbol "LGND."

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

	Price Range	
	High	Low
Year Ended December 31, 2014:		
1st Quarter	\$80.42	\$50.73
2nd Quarter	71.44	55.90
3rd Quarter	65.66	46.32
4th Quarter	58.48	41.99
Year Ended December 31, 2013:		
1st Quarter	\$26.93	\$19.03
2nd Quarter	38.06	23.50
3rd Quarter	50.85	36.82
4th Quarter	58.48	43.20

As of February 17, 2015, the closing price of our common stock on the NASDAQ Global Market was \$57.18  
 Holders

As of February 17, 2015, there were approximately 687 holders of record of the common stock.

#### Purchases of Equity Securities By the Issuer and Affiliated Purchasers

The following table presents information regarding repurchases by us of our common stock during the quarter ended December 31, 2014 under the stock repurchase program approved by our board of directors on August 11, 2014, under which we may acquire up to \$200.0 million of our common stock in open market and negotiated purchases for a period of one year.

#### ISSUER PURCHASES OF EQUITY SECURITIES

	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Program (in thousands)
October 1 -October 31, 2014	110,000	\$ 45.45	802,800	\$ 156,478
November 1 -November 30, 2014	140,000	54.65	942,800	148,827
December 1 - December 31, 2014	310,625	53.98	1,253,425	132,060
Total	560,625			

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## Performance Graph

The graph below shows the five-year cumulative total stockholder return assuming the investment of \$100 and is based on the returns of the component companies weighted monthly according to their market capitalizations. The graph compares total stockholder returns of our common stock, of all companies traded on the NASDAQ Stock market, as represented by the NASDAQ Composite<sup>®</sup> Index, and of the NASDAQ Biotechnology Stock Index, as prepared by The NASDAQ Stock Market Inc. The NASDAQ Biotechnology Stock Index tracks approximately 151 domestic biotechnology stocks.

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

	12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014
Ligand	100	% (31 )%	33	% 75	% 154	% 1
NASDAQ Market (U.S. Companies) Index	100	% 18	% (1 )%	17	% 40	% 15
NASDAQ Biotechnology Stocks	100	% 16	% 12	% 33	% 66	% 34

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## 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, 2014, 2013, 2012, 2011 and 2010 and the balance sheet data as of December 31, 2014, 2013, 2012, 2011 and 2010 are derived from our consolidated financial statements.

	Year Ended December 31,				
	2014	2013	2012	2011	2010
Consolidated Statements of Operations Data: (in thousands, excluding per-share data)					
Royalties	\$29,994	\$23,584	\$14,073	\$9,213	\$7,279
Material sales	28,488	19,072	9,432	12,123	—
Collaborative research and development and other revenues	6,056	6,317	7,883	8,701	16,259
Total revenues	64,538	48,973	31,388	30,037	23,538
Cost of material sales	9,136	5,732	3,601	4,909	—
Research and development expenses	12,122	9,274	10,790	10,291	22,067
General and administrative expenses	22,570	17,984	15,782	14,583	12,829
Lease exit and termination costs	1,084	560	1,022	552	16,894
Write-off of acquired in-process research and development	—	480	—	2,282	2,754
Total operating costs and expenses	44,912	34,030	31,195	32,617	54,544
Accretion of deferred gain on sale leaseback	—	—	—	1,702	1,702
Income (loss) from operations	19,626	14,943	193	(878	) (29,304
Income (loss) from continuing operations including noncontrolling interests	10,892	8,832	(2,674	) 9,712	(12,786
Loss attributable to noncontrolling interests	(1,132	) —	—	—	—
Income (loss) from continuing operations	12,024	8,832	(2,674	) 9,712	(12,786
Discontinued operations (1)	—	2,588	2,147	3	2,413
Net income (loss)	12,024	11,420	(527	) 9,715	(10,373
Basic per share amounts:					
Income (loss) from continuing operations	\$0.59	\$0.43	\$(0.14	) \$0.49	\$(0.65
Discontinued operations (1)	—	0.13	0.11	—	0.12
Net income (loss)	\$0.59	\$0.56	\$(0.03	) \$0.49	\$(0.53
Weighted average number of common shares-basic	20,418,569	20,312,395	19,853,095	19,655,632	19,613,201
Diluted per share amounts:					
Income (loss) from continuing operations	\$0.56	\$0.43	\$(0.14	) \$0.49	\$(0.65
Discontinued operations (1)	—	0.12	0.11	—	0.12
Net income (loss)	\$0.56	\$0.55	\$(0.03	) \$0.49	\$(0.53
Weighted average number of common shares-diluted	21,433,177	20,745,454	19,853,095	19,713,320	19,613,201

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	2014	December 31,		2011	2010
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash, cash equivalents, short-term investments and restricted cash and investments	\$ 168,597	\$ 17,320	\$ 15,148	\$ 18,382	\$ 24,038
Working capital	162,379	(4,058 )	(11,616 )	(11,413 )	3,531
Total assets	258,029	104,713	104,260	120,583	75,559
Current portion of deferred revenue, net	150	116	486	1,240	—
Current portion of deferred gain	—	—	—	—	1,702
Long-term obligations (excludes long-term portions of deferred revenue, net and deferred gain)	208,757	24,076	39,967	56,945	36,030
Long-term portion of deferred revenue, net	2,085	2,085	2,369	3,466	2,546
Common stock subject to conditional redemption	—	—	—	8,344	8,344
Accumulated deficit	(659,315 )	(671,339 )	(682,759 )	(682,232 )	(691,947 )
Total stockholders' equity (deficit)	26,318	49,613	26,485	8,185	(4,849 )

We sold our Oncology product line (“Oncology”) on October 25, 2006 and we sold our Avinza product line (“Avinza”) (1) on February 26, 2007. The operating results for the Oncology and Avinza product lines have been presented in our consolidated statements of operations as “Discontinued Operations.”

#### 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 Captisol related revenue, our Promacta, Kyprolis, and other product royalty revenues, product returns, and product development. Actual events or results may differ materially from our expectations. For example, there can be no assurance that our revenues or expenses will meet any expectations or follow any trends, 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 Promacta, Kyprolis, Captisol and other product revenues 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, 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 make 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 Ligand Pharmaceuticals Incorporated and our wholly owned subsidiaries.

We are a biotechnology company that develops and acquires revenue generating assets and couples them with a lean corporate cost structure. Our goal is to generate substantial cash flow and profits. Since a portion of our business model is based on the goal of partnering with other pharmaceutical companies to commercialize and market our assets, a significant amount of our revenue is based on payments made to us by partners for royalties, milestones and license fees. We recognized the important role of the drug reformulation segment in the pharmaceutical industry and in 2011 added Captisol® to our technology portfolio. Captisol is a formulation technology that has enabled seven FDA approved products, including Amgen's Kyprolis® and Merck's Noxafil-IV® and is currently being developed in a number of clinical-stage partner programs. In comparison to our peers, we believe we have assembled one of the

largest and most diversified asset portfolios in the industry with the potential to generate significant revenue in the future. The therapies in our development portfolio address the unmet medical needs of patients for a broad spectrum of diseases including hepatitis, multiple myeloma, muscle wasting, Alzheimer's disease, dyslipidemia, diabetes, anemia, epilepsy, FSGS and osteoporosis. We have established multiple alliances with the



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world's leading pharmaceutical companies including GlaxoSmithKline, Amgen Inc., Merck, Pfizer, Baxter International and Eli Lilly and Co.

Highlights from 2014 and early 2015 include:

We received a \$1.0 million commercial sales-based contingent payment from Amgen. The payment was triggered by the achievement of over \$250.0 million of annual product sales of Kyprolis in 2013.

We received a \$1.0 million milestone payment as a result of the recent FDA approval of Merck's NOXAFIL® which is a new Captisol-enabled formulation of NOXAFIL for intravenous (IV) use. Additionally, we earned a \$0.6 million milestone payment upon approval for Captisol-enabled NOXAFIL® (posaconazole) from the EMA. We also generate revenue from Captisol material sales to Merck for this product under a commercial supply agreement.

Our partner Lundbeck LLC announced that the FDA accepted for review a New Drug Application or NDA for its investigational therapy intravenous carbamazepine, an intravenous formulation of the anti-epileptic drug carbamazepine. With acceptance of the NDA filing, we earned a \$0.2 million milestone payment.

We completed the dosing of the last patient in its Glucagon Receptor Agonist Phase 1 Single Ascending Dose or SAD clinical trial and also presented positive data from that trial at the American Diabetes Association Scientific Sessions meeting.

We received a license fee of \$0.2 million in connection with an amendment to our license agreement with Sage Therapeutics, Inc. for the addition of a new subfield.

We received a \$0.1 million project development fee as a result of entering into a licensing agreement and research collaboration with Omthera Pharmaceuticals. The research collaboration will target the development of novel products that utilize the proprietary Ligand-developed LTP TECHNOLOGY™ to improve lipid-lowering activity of certain omega-3 fatty acids. Under the terms of the agreement, we are eligible to receive payments of up to \$44.5 million upon the achievement of specific events, as well as tiered royalties ranging from mid-to-high single digit percentages of net sales.

We entered into a master license agreement with Viking covering the following five programs: FBPase inhibitor program for type 2 diabetes, a SARM program for muscle wasting, a TRβ Agonist program for dyslipidemia, an EPOR Agonist program for anemia, and a DGAT-1 Inhibitor program for dyslipidemia. The FBPase Inhibitor program was the subject of an option originally granted to Viking in 2012. As part of the transaction, we agreed to extend a \$2.5 million convertible loan facility to Viking that will be used to pay Viking's operating and financing-related expenses.

We received 125,000 upfront shares of common stock of our partner TG Therapeutics, Inc., as a result of entering into a license agreement for the IRAK-4 Inhibitor Program. The shares were initially valued at \$1.2 million. Additionally, we entered into a research agreement with TG Therapeutics and we are currently receiving R&D service payments associated with that agreement.

We licensed our Captisol-enabled Lamotrigine program to CURx Pharmaceuticals. Under the terms of the agreement, we are eligible to receive up to \$22 million in potential milestone payments, revenue from sales of Captisol and tiered royalties on future net sales in the range of 4% to 7%.

In the third quarter we entered into new Captisol clinical-stage agreements with Avion Pharmaceuticals, Inc., Marinus Pharmaceuticals Inc., Boston Strategic Group and Amgen Inc., for Captisol-enabled programs.

We completed an offering of \$245.0 million aggregate principal amount of 0.75% convertible senior notes due 2019 in a private offering to qualified institutional buyers. The conversion rate for the notes is initially equivalent to a conversion price of approximately \$75 per share of common stock, and is subject to adjustment under the terms of the notes. Additionally, we entered into a convertible bond hedge and warrant transaction which increases the effective conversion price of the notes to approximately \$125.08 per share. Concurrent with the close of the transaction, we repurchased approximately \$37.8 million of our common stock, or approximately 680,800 shares.

Subsequent to the close of the convertible debt transaction, we repurchased \$30.1 million of our common stock, or 572,625 shares. In total, we repurchased \$68 million of our common stock, or 1.3 million shares.

In the fourth quarter, Ligand entered into a new clinical-stage agreement for a Captisol-enabled program with Novogen Ltd.

In February 2015, Ligand announced a license agreement with Sermonix for oral lasofoxifene for the United States and additional territories. Under the terms of the agreement, Ligand is entitled to receive up to \$45 million in potential regulatory and commercial milestone payments and tiered royalties of 6% to 10% on future net sales.

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### Results of Operations

Total revenues for 2014 were \$64.5 million compared to \$49.0 million in 2013 and \$31.4 million in 2012. Our income from continuing operations for 2014 was \$12.0 million, or \$0.56 per diluted share, compared to income from continuing operations of \$8.8 million in 2013, or \$0.43 per diluted share, and a net loss from continuing operations of \$2.7 million, or a loss of \$0.14 per diluted share, in 2012.

### Royalty Revenue

Royalty revenues were \$30.0 million in 2014, compared to \$23.6 million in 2013 and \$14.1 million in 2012. The increases in royalty revenue of \$6.4 million and \$9.5 million for the years ended December 31, 2014 and 2013, respectively are primarily due to increases in Promacta and Kyprolis royalties.

### Material Sales

We recorded material sales of Captisol of \$28.5 million in 2014 compared to \$19.1 million in 2013 and \$9.4 million in 2012. The increase in material sales of \$9.4 million for the year ended December 31, 2014 compared to 2013 is due to increased demand from customers for Captisol for both clinical and commercial uses. The increase in material sales of \$9.7 million for the year ended December 31, 2013 compared to 2012 is due to timing of customer purchases of Captisol as well as an increase in customer purchases for clinical use.

### Collaborative Research and Development and Other Revenues

We recorded collaborative research and development and other revenues of \$6.1 million in 2014 compared to \$6.3 million in 2013 and \$7.9 million in 2012. The decrease of \$0.2 million for the year ended December 31, 2014, compared to the same period in 2013 is due to the achievement and timing of certain milestones and licensing payments. The decrease in collaborative research and development and other revenues of \$1.6 million for the year ended December 31, 2013, compared to 2012 is primarily due to achievement and timing of milestones as well as licensing payments.

### Cost of Material Sales

Cost of material sales were \$9.1 million in 2014 compared to \$5.7 million in 2013 and \$3.6 million in 2012. The increase of \$3.4 million for the year ended December 31, 2014, compared to the same period in 2013 is due to the increase in material sales of Captisol. The increase of \$2.1 million for the year ended December 31, 2013, compared to 2012 is also primarily due to an increase in material sales of Captisol.

### Research and Development Expenses

Research and development expenses for 2014 were \$12.1 million compared to \$9.3 million in 2013 and \$10.8 million in 2012. The increase of \$2.8 million is primarily due to the timing of costs associated with internal programs and an increase in non-cash stock based compensation expense. The decrease in research and development expenses of \$1.5 million for the year ended December 31, 2013 compared to 2012 is primarily due to timing of costs associated with internal programs.

As summarized in the table below, we are developing several proprietary products for a variety of indications. Our programs are not limited to the following, but are representative of a range of future licensing opportunities to expand our partnered asset portfolio.

Program	Disease/Indication	Development Phase
Glucagon Receptor Antagonist	Diabetes	Phase 1b
Oral Human Granulocyte Colony Stimulating Factor	Neutropenia	Preclinical
LTP Platform	Metabolic and Cardiovascular	Preclinical
Kinase Inhibitors	Multiple	Preclinical
HepDirect	Liver Diseases	Preclinical

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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 EMA, 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 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. Risk Factors” for additional discussion of the uncertainties surrounding our research and development initiatives.

### General and Administrative Expenses

General and administrative expenses were \$22.6 million for the year ended December 31, 2014 compared to \$18.0 million for 2013 and \$15.8 million for 2012. The increase of \$4.6 million in general and administrative expenses for the year ended December 31, 2014 compared with 2013 is primarily due to an increase in non-cash stock-based compensation and costs incurred for business development activities in 2014. The increase in expenses for the year ended December 31, 2013 compared with 2012 of \$2.2 million is primarily due to an increase in non-cash stock based compensation expense and patent and other legal expenses.

### Lease Exit and Termination Costs

For the years ended December 31, 2014 and 2013, we had lease exit obligations of \$3.3 million and \$5.9 million, respectively. The lease exit obligations are related to facilities in San Diego, California and Cranbury, New Jersey. The San Diego facility is under an operating lease through July 2015. We fully vacated this facility in February 2008 and sublet it through the remainder of the lease term. Additionally, we ceased use of our facility located in Cranbury, New Jersey in September 2010. The remaining lease obligations run through August 2016. Portions of the facility are subleased with such subleases expiring August 2016. We recorded lease exit and termination costs of \$1.1 million for the year ended December 31, 2014, compared to \$0.6 million for 2013, and \$1.0 million in 2012. Lease exit and termination costs for the years ended December 31, 2014, 2013, and 2012 consisted of accretion costs and adjustments to the liability for lease exit costs due to changes in leasing assumptions.

### Write-off of In-Process Research and Development

For the years ended December 31, 2014 and December 31, 2012, there was no write-off of in-process research and development recorded. For the year ended December 31, 2013, we recorded a non-cash impairment charge of \$0.5 million for the write-off of in-process research and development for Captisol-enabled intravenous Clopidogrel. Captisol-enabled intravenous Clopidogrel is an intravenous formulation of the anti-platelet medication designed for situations where the administration of oral platelet inhibitors is not feasible or desirable.

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### Interest Expense, Net

Interest expense was \$4.9 million for the year ended December 31, 2014 compared to \$2.1 million in 2013 and \$2.9 million in 2012. The increase in interest expense of \$2.8 million for the year ended December 31, 2014 compared with 2013 is due to interest expense and non-cash debt related costs related to the 2019 Convertible Senior Notes, partially offset by a decrease in interest expense related to the term loan facility that we paid off in July 2014. The decrease in interest expense of \$0.8 million for the year ended December 31, 2013 compared to 2012 was primarily due to a lower principal balance related to our \$7.0 million prepayment of principal in March 2013 as well as scheduled principal amortization from March 2013 through December 2013.

### Change in Contingent Liabilities

We recorded an increase in contingent liabilities of \$5.1 million for the year ended December 31, 2014 compared to \$3.6 million in 2013 and \$1.7 million in 2012. The increase in contingent liabilities for the year ended December 31, 2014 is due primarily to the increase in CyDex related contingent liabilities of \$5.7 million, partially offset by a decrease in the fair value of the Metabasis CVR liability of \$0.5 million. The Metabasis CVR liability is marked-to-market at each reporting period based upon the quoted market prices of the underlying CVR. The increase in contingent liabilities for the year ended December 31, 2013 is due primarily to the increase in the Metabasis CVR liability of \$4.2 million. This was partially offset by a decrease of \$0.6 million in CyDex contingent liabilities, primarily due to a decrease in amounts potentially due to CyDex CVR holders and former license holders related to Captisol-enabled Clopidogrel, partially offset by an increase in the revenue-sharing CVR liability to former CyDex shareholders. The increase in contingent liabilities for the year ended December 31, 2012 is due to increases in amounts owed to CyDex CVR holders and former license holders of \$3.4 million, partially offset by decreases in amounts owed to Metabasis and Neurogen shareholders of \$1.1 million and \$0.7 million, respectively.

### Other, Net

We recorded other income of \$1.7 million for the year ended December 31, 2014 compared to other expense of \$0.1 million in 2013 and other income of \$0.5 million in 2012. Other income for the year ended December 31, 2014 is primarily due to the gain on the sale of short-term investments, partially offset by a decrease in amounts owed to sublicensees. Other expense for 2013 is primarily due to an increase in amounts owed to sublicensees, partially offset by changes in certain liabilities. Other income for 2012 is primarily due to changes in certain liabilities.

### Income Taxes

We recorded income tax expense from continuing operations of \$0.4 million for the year ended December 31, 2014 compared to an income tax expense from continuing operations of \$0.4 million for the year ended December 31, 2013 and an income tax benefit of \$1.2 million for the year ended December 31, 2012. The income tax expense recognized in 2014 and 2013 is primarily attributable to deferred taxes associated with the amortization of acquired IPR&D assets for tax purposes. The income tax benefit in 2012 is principally due to a requirement under Accounting Standards Codification, or ASC, 740, Accounting for Income Taxes, that a Company to consider all sources of income in order to determine the tax benefit resulting from a loss from continuing operations. As a result of the requirement under ASC 740-20-45-7, the pretax income which we generated from discontinued operations was a source of income which resulted in the partial realization of the current year loss from continuing operations. Thus, we recorded an approximate \$1.5 million tax benefit to continuing operations and an offsetting \$1.5 million charge to discontinued operations. In addition, we realized a tax benefit as a result of California voters approving legislation in November 2012 which required a single sales factor income apportionment methodology beginning in 2013 and resulted in a decrease in our future California deferred income tax obligations.



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### Discontinued Operations, net

#### Avinza Product Line

On September 6, 2006, we and King Pharmaceuticals, now a subsidiary of Pfizer, entered into a purchase agreement, or the Avinza Purchase Agreement, pursuant to which Pfizer 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 to assume certain liabilities as set forth in the Avinza Purchase Agreement.

Pursuant to the terms of the Avinza Purchase Agreement, we retained the liability for returns of product from wholesalers that had been sold by us prior to the close of this transaction. Accordingly, as part of the accounting for the gain on the sale of Avinza, we recorded a reserve for Avinza product returns. For the years ended December 31, 2014, 2013 and 2012, we recognized pre-tax gains of \$0, \$2.6 million and \$3.7 million, respectively, due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date.

#### Income Tax Expense on Discontinued Operations

In 2012, we recorded income tax expense on discontinued operations of \$1.5 million (please see the discussion on income taxes above). There was no income tax expense on discontinued operations for the years ended December 31, 2014 and 2013.

#### Net Loss Attributable to Noncontrolling Interests

We recorded \$1.1 million as net loss attributable to noncontrolling interests due to our determination that we hold a variable interest in Viking as a result of a transaction that we entered into with Viking in May 2014. We recorded 100% of the losses incurred since May 21, 2014, the effective date of the transaction, as net loss attributable to noncontrolling interest due to the fact that we are considered a primary beneficiary with no equity interest in the variable interest entity.

#### Liquidity and Capital Resources

We have financed our operations through offerings of our equity securities, borrowings from long-term debt, issuance of convertible notes, product sales and the subsequent sales of our commercial assets, royalties, collaborative research and development and other revenues, capital and operating lease transactions.

We have incurred significant losses since inception. At December 31, 2014, our accumulated deficit was \$659.3 million and we had working capital of \$162.4 million. We believe that our currently available cash, cash equivalents and short term investments, as well as our current and future royalty, license and milestone revenues and Captisol material sales will be sufficient to fund our anticipated operating and capital requirements, at a minimum, for the next twelve months. However, our projected revenue may decrease or our expenses may increase, which could lead to our resources being consumed earlier than expected. Although we do not believe that we will need to raise additional funds to finance our current operations through the next twelve months, if we are required to seek additional financing, there can be no assurance that such financing will be available on terms acceptable to management, or at all. We believe that cash flows from operations will increase due to Captisol sales, an increase in royalty revenues driven primarily from continued increases in Promacta and Kyprolis sales, recent product approvals and regulatory developments, as well as revenues from anticipated new licenses and milestones. We expect to build cash in future months as we continue to generate significant cash flows from operations. 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 potential success 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 the commercial products of our partners; the efforts of our collaborative partners; obligations under our operating lease agreements; and the capital requirements of any companies we acquire. While we believe in the viability of our strategy to generate sufficient operating cash flow and in our ability to raise additional funds, there can be no assurances to that effect. Our ability to achieve our operational targets is dependent upon our ability to further implement our business plan and generate sufficient operating cash flow.

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### Investments

We invest our excess cash principally in U.S. government debt securities, investment-grade corporate debt securities and certificates of deposit. We have established guidelines relative to diversification and maturities of our investments in order to provide both safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates. Additionally, we own certain securities which are classified as short-term investments that we received in December 2012 and June 2014 as a result of an event-based payment and an upfront license payment, respectively, under licenses.

### Borrowings and Other Liabilities

#### Term Loan Facility

In January 2011, we entered into a \$20.0 million secured term loan credit facility with Oxford Financial Group. The loan was amended in January 2012 to increase the secured credit facility to \$27.5 million. The original \$20.0 million borrowed under the facility bore interest at a fixed rate of 8.6%. The additional \$7.5 million bore interest at a fixed rate of 8.9%. Under the terms of the secured debt, we made interest-only payments through February 2013.

Subsequent to the interest-only payments, the note amortized with principal and interest payments through the remaining term of the loan. We were required to make an additional final payment equal to 6% of the total amount borrowed at maturity, which was accreted over the life of the loan. The maturity date of the term loan was August 1, 2014, and we fully repaid the loan on July 31, 2014.

#### 0.75% Convertible Senior Notes Due 2019

We have convertible debt outstanding as of December 31, 2014 related to our 0.75% Convertible Senior Notes due 2019. In August 2014, we issued \$245.0 million aggregate principal amount of convertible senior unsecured notes. The Notes are convertible into common stock upon satisfaction of certain conditions. Interest of 0.75% per year is payable semi-annually on August 15th and February 15th through the maturity of the notes in August 2019.

#### Repurchases of Common Stock

In August 2014, our Board of Directors authorized the repurchase of up to \$200.0 million of our common stock in privately negotiated and open market transactions, from time to time over a period of up to one year, subject to an evaluation of market conditions, applicable legal requirements and other factors. We are not obligated to acquire common stock under this program and the program may be suspended at any time. Through December 31, 2014, we repurchased 1,253,425 common shares at a weighted average price of \$54.20 per share pursuant to the repurchase plan, or approximately \$68.0 million of common shares.

### Public Offerings

In October 2013, we filed a universal shelf registration statement with the SEC. In 2014, this registration statement provided additional financial flexibility for us to sell shares of common stock or other equity or debt securities as needed, including through our at-the-market equity issuance program. During the year ended December 31, 2014, we did not issue any common shares through this at-the-market equity issuance program.

### Contingent liabilities

#### CyDex

In connection with the acquisition of CyDex in January 2011, we issued a series of CVRs and also assumed certain contingent liabilities. In 2011, \$0.9 million was paid to the CyDex shareholders upon completion of a licensing agreement with the Medicines Company for the Captisol-enabled intravenous formulation of Clopidogrel. An additional \$2.0 million was paid to the CyDex shareholders upon acceptance by the FDA of Amgen's (formerly Onyx) NDA, \$4.3 million was paid in January 2012 under the terms of the agreement, and an additional \$3.5 million was paid upon approval by the FDA of Kyprolis for the potential treatment of patients with relapsed and refractory

multiple myeloma. We recorded a cash payment of \$0.1 million for the Topiramate orphan drug designation milestone to former license holders. We may be required to make additional payments upon achievement of certain clinical and regulatory milestones to the CyDex shareholders and former license holders. In addition, we will pay CyDex shareholders, for each respective year from 2014 through 2016, 20% of all CyDex-related revenue, but only to the extent that, and beginning only when, CyDex-related revenue for such year exceeds \$15.0 million; plus

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an additional 10% of all CyDex-related revenue recognized during such year, but only to the extent that, and beginning only when aggregate CyDex-related revenue for such year exceeds \$35.0 million. We have paid \$4.3 million to the CyDex shareholders for revenue sharing payments under the terms of the CVRs. The estimated fair value of the contingent liabilities recorded as part of the CyDex acquisition at December 31, 2014, 2013 and 2012 was \$11.5 million, \$9.3 million and \$10.9 million, respectively.

Metabasis

In January 2010, we completed our acquisition of Metabasis. In addition to cash consideration, we issued four tradable CVRs, one CVR from each of four respective series of CVRs, for each Metabasis share. The CVRs will entitle the holder to cash payments as frequently as every six months as cash is received by us from the sale or partnering of any of the Metabasis drug development programs, among other triggering events. Additionally, there were spending requirement obligations related to development funding on the Metabasis programs which have been fulfilled. The fair value of the liability at December 31, 2014, 2013 and 2012 was \$3.7 million, \$4.2 million and \$0, respectively.

Leases and Off-Balance Sheet Arrangements

We lease our office and research facilities under operating lease arrangements with varying terms through November 2019. The agreements provide for increases in annual rents based on changes in the Consumer Price Index or fixed percentage increases ranging from 3.0% to 3.5%. We also sublease a portion of our facilities through leases which expire between 2015 and 2016. The sublease agreements provide for a 3% increase in annual rents. We had no off-balance sheet arrangements at December 31, 2014, 2013 and 2012.

Contractual Obligations

As of December 31, 2014, future minimum payments due under our contractual obligations are as follows (in thousands):

	Payments Due by Period				
	Total	Less than 1 year	2-3 years	4-5 years	More than 5 years
Co-promote termination obligations (1)	\$322	\$322	\$—	\$—	\$—
Purchase obligations (2)	\$15,400	\$15,400	\$—	\$—	\$—
Contingent liabilities (3)	\$3,183	\$3,183	\$—	\$—	\$—
Note and interest payment obligations	\$254,188	\$1,838	\$3,675	\$248,675	\$—
Operating lease obligations (4)	\$8,145	\$3,907	\$3,127	\$1,111	\$—

(1) Co-promote termination obligations represent our legal obligation as primary obligor to Organon due to the fact that Organon did not consent to the legal assignment of the co-promote termination obligation to Pfizer. The liability is offset by an asset which represents a non-interest bearing receivable for future payments to be made by Pfizer.

(2) Purchase obligations represent our commitments under our supply agreement with Hovione for Captisol purchases.

(3) Contingent liabilities to former shareholders and licenseholders are subjective and affected by changes in inputs to the valuation model including management's assumptions regarding revenue volatility, probability of commercialization of products, estimates of timing and probability of achievement of certain revenue thresholds and developmental and regulatory milestones and affect amounts owed to former license holders and CVR holders. As of December 31, 2014, only those liabilities for revenue sharing payments achieved as a result of 2014 income are included in the table above.

(4) We lease office and research facilities that we have fully vacated under operating lease arrangements expiring in July 2015 and August 2016. We sublet portions of these facilities through the end of our lease. As of December 31, 2014, we expect to receive aggregate future minimum lease payments totaling \$0.9 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 and two to three years \$0.1 million.

We are also required under our CyDex CVR Agreement to invest at least \$1.5 million per year, inclusive of employee expenses, in the acquired business through 2015. As of December 31, 2014, we had exceeded that amount.

Operating Activities

Operating activities provided cash of \$20.6 million, \$20.7 million and \$0.2 million in 2014, 2013 and 2012, respectively.

The cash provided in 2014 reflects net income of \$10.9 million and \$20.6 million of non-cash items to reconcile the net income to net cash used in operations. These reconciling items primarily reflect a non-cash change in estimated value of

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contingent liabilities of \$5.1 million, depreciation and amortization of \$2.7 million, stock-based compensation of \$11.3 million, amortization of debt discount and issuance fees of \$3.7 million, accretion of notes payable of \$0.2 million, a non-cash milestone payment received of \$1.2 million, realized gain on investments of \$1.5 million and net deferred tax assets and liabilities of \$0.4 million. The cash provided by operations in 2014 is further impacted by changes in operating assets and liabilities due primarily to an increase in accounts receivable of \$10.4 million, an increase in other assets of \$1.9 million and a decrease in accounts payable and accrued liabilities of \$3.2 million. Partially offsetting this, inventory decreased \$4.4 million and restricted cash decreased \$0.1 million.

The cash provided in 2013 reflects net income of \$11.4 million, adjusted by \$2.6 million of gain from discontinued operations and \$13.2 million of non-cash items to reconcile the net income to net cash used in operations. These reconciling items primarily reflect a non-cash change in estimated value of contingent liabilities of \$3.6 million, depreciation and amortization of \$2.7 million, stock-based compensation of \$5.7 million, write-off of in-process research and development \$0.5 million, accretion of notes payable of \$0.4 million, and net deferred tax assets and liabilities of \$0.4 million. The cash provided by operations in 2013 is further impacted by changes in operating assets and liabilities due primarily to a decrease in accounts receivable of \$2.4 million, a decrease in inventory of \$0.6 million, and a decrease in other assets of \$0.1 million. Partially offsetting this, accounts payable and accrued liabilities decreased \$2.8 million, other liabilities decreased \$0.4 million and deferred revenue decreased \$0.7 million. Net cash used in operating activities of discontinued operations was \$0.6 million in 2013.

The cash provided in 2012 reflects a net loss of \$0.5 million, adjusted by \$2.1 million of gain from discontinued operations and \$6.5 million of non-cash items to reconcile the net income to net cash used in operations. These reconciling items primarily reflect a non-cash change in estimated value of contingent liabilities of \$1.7 million, depreciation and amortization of \$2.7 million, stock-based compensation of \$4.1 million and other changes of \$0.5 million, partially offset by an increase in net deferred tax assets and liabilities of \$1.2 million, and receipt of a non-cash milestone of \$1.2 million. The cash provided by operations in 2012 is further impacted by changes in operating assets and liabilities due primarily to a decrease in accounts receivable of \$1.5 million, a decrease in inventory of \$1.0 million, a decrease in other current assets of \$0.5 million, a decrease in other long term assets of \$0.3 million, and an increase in other liabilities of \$0.5 million. Partially offsetting this, accounts payable and accrued liabilities decreased \$4.8 million and deferred revenue decreased \$1.9 million. Net cash used in operating activities of discontinued operations was \$0.9 million in 2012.

**Investing Activities**

Investing activities used cash of \$2.0 million in 2014, used cash of \$5.0 million in 2013, and provided cash of \$1.3 million in 2012.

Cash used by investing activities in 2014 primarily reflects the purchase of commercial license rights of \$1.0 million and payments to CyDex CVR holders and other contingency payments of \$3.5 million, partially offset by proceeds from the sale of short-term investments of \$2.3 million and proceeds from sale of property, building and equipment of \$0.1 million.

Cash used by investing activities in 2013 primarily reflects the purchase of commercial license rights of \$3.6 million, payments to CyDex CVR holders of \$1.0 million, and purchases of property, building and equipment of \$0.4 million. Cash provided by investing activities in 2012 primarily reflects the sale of short-term investments of \$10.0 million, partially offset by payments to CyDex CVR holders of \$8.0 million and purchases of property, building and equipment of \$0.6 million.

**Financing Activities**

Financing activities provided cash of \$130.0 million in 2014, used cash of \$16.5 million in 2013 and provided cash of \$3.9 million in 2012.

Cash provided by financing activities in 2014 primarily reflects the gross proceeds received from the issuance of an aggregate \$245.0 million of the 2019 Convertible Senior Notes, proceeds from issuance of warrants of \$11.6 million, and \$4.6 million of proceeds received from stock option exercises and our employee stock purchase plan, partially offset by repayment of debt of \$9.4 million, purchase of convertible bond hedge of \$48.1 million, payment for share

repurchases of \$68.0 million and payment of debt issuance costs of \$5.7 million.

Cash used in financing activities in 2013 primarily reflects the repayment of debt of \$19.6 million, partially offset by proceeds of \$3.1 million received from stock option exercises and purchases under our employee stock purchase plan.

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Cash provided by financing activities in 2012 primarily reflects proceeds from issuance of debt of \$7.5 million and proceeds from issuance of shares of \$6.4 million, partially offset by repayment of debt of \$10 million. None of the cash used in financing activities for 2012 related to discontinued operations.

### 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 products commercialized by our partners are recognized in the quarter reported by the respective partner. Generally, we receive royalty reports from our licensees approximately one quarter in arrears due to the fact that our agreements require partners to report product sales between 30-60 days after the end of the quarter. We recognize royalty revenues when we can reliably estimate such amounts and collectability is reasonably assured.

Under this accounting policy, the royalty revenues reported are not based upon estimates and such royalty revenues are typically reported in the same period in which payment is received.

Revenue from material sales of Captisol is recognized upon transfer of title, which normally passes upon shipment to the customer, provided all other revenue recognition criteria have been met; however, we do not recognize revenue until all substantive customer acceptance requirements have been met, when applicable. Our credit and exchange policy includes provisions for the return of product between 30 to 90 days, depending on the specific terms of the individual agreement, when that product (1) does not meet specifications, (2) is damaged in shipment (in limited circumstances where title does not transfer until delivery), or (3) is exchanged for an alternative grade of Captisol. All product returns are subject to approval and a 20% restocking fee. To date, product returns by customers have not been material to net material sales in any related period. We record revenue net of product returns, if any, and sales tax collected and remitted to government authorities during the period.

We analyze our revenue arrangements and other agreements to determine whether there are multiple elements that should be separated and accounted for individually or as a single unit of accounting. For multiple element contracts, arrangement consideration is allocated at the inception of the arrangement to all deliverables on the basis of relative selling price, using a hierarchy to determine selling price. Management first considers vendor-specific objective evidence, or VSOE, then third-party evidence, or TPE, and if neither VSOE nor TPE exist, we use our best estimate of selling price.

Many of our Captisol license arrangements involve the bundling of a license with the option to purchase Captisol material. Licenses are granted to pharmaceutical companies for the use of Captisol in the development of pharmaceutical compounds. The licenses may be granted for the use of the Captisol product for all phases of clinical trials and through commercial availability of the host drug or may be limited to certain phases of the clinical trial process. We believe that our licenses have stand-alone value at the outset of an arrangement because the customer obtains the right to use Captisol in its formulations without any additional input by us, and in a hypothetical stand-alone transaction, the customer would be able to procure inventory from another manufacturer in the absence of contractual provisions for exclusive supply by us.

Other nonrefundable, up-front license fees and milestone payments with standalone value that are not dependent on any future performance by us under our collaboration agreements are recognized as revenue upon the earlier of when payments are received or collection is assured. In contrast, such fees and payments are deferred if we have continuing performance obligations. Amounts received under multiple-element arrangements requiring ongoing services or performance by us are recognized over the period of such services or performance. We occasionally have sub-license obligations related to arrangements for which we receive license fees, milestones and royalties. We evaluate the determination of gross versus net reporting based on each individual agreement.



Sales-based milestone revenue is accounted for similarly to royalties, with revenue recognized upon achievement of the milestone assuming all other revenue recognition criteria for milestones are met. Revenue from development and regulatory 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 we have no further performance obligations relating to that event, and (ii) collectability is reasonably assured. If these criteria are not met, the milestone payment is recognized over the remaining period of our performance obligations under the arrangement.

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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.

### Inventory

Inventory is stated at the lower of cost or market value. We determine cost using the first-in, first-out method. We analyze our inventory levels periodically and write down inventory to its net realizable value if it has become obsolete, has a cost basis in excess of its expected net realizable value or is in excess of expected requirements.

### Goodwill and Other Identifiable Intangible Assets

Amortization of intangible assets with finite lives is computed using the straight-line method over the estimated useful life of the asset of 20 years.

In accordance with Accounting Standards Codification, or ASC 350, Goodwill and Other Intangibles, we perform an impairment analysis for goodwill and certain non-amortizing intangibles on at least an annual basis. We use the income approach and the market approach, each weighted at 50%, for goodwill impairment analysis. For the income approach, we consider the present value of future cash flows and the carrying value of its assets and liabilities, including goodwill. The market approach is based on an analysis of revenue multiples of guideline public companies. If the carrying value of the assets and liabilities, including goodwill, were to exceed our estimation of the fair value, we would record an impairment charge in an amount equal to the excess of the carrying value of goodwill over the implied fair value of the goodwill. We perform an evaluation of goodwill as of December 31 of each year, absent any indicators of earlier impairment, to ensure that impairment charges, if applicable, are reflected in the Company's financial results before December 31 of each year. When it is determined that impairment has occurred, a charge to operations is recorded. Goodwill and other intangible asset balances are included in the identifiable assets of the business segment to which they have been assigned. Any goodwill impairment, as well as the amortization of other purchased intangible assets, is charged against the respective business segments' operating income. As of December 31, 2014, 2013, and 2012 there has been no impairment of goodwill for continuing operations.

### Acquired in-process research and development

Intangible assets related to acquired IPR&D are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts. During the period the assets are considered to be indefinite-lived, they will not be amortized but will be tested for impairment on an annual basis and between annual tests if we become aware of any events occurring or changes in circumstances that would indicate a reduction in the fair value of the IPR&D projects below their respective carrying amounts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time.

### 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 beginning in 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, 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.

In connection with the Avinza sale transaction, King Pharmaceuticals, now a subsidiary of Pfizer, assumed our obligation to make payments to Organon based on net sales of Avinza (the fair value of which approximated \$0.3 million as of December 31, 2014). As Organon has not consented to the legal assignment of the co-promote termination obligation from us to Pfizer, we remain liable to Organon in the event of Pfizer's default of this obligation. Therefore, we recorded an asset on February 26, 2007 to recognize Pfizer'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. This asset represents a non-interest bearing receivable for future payments to be made by Pfizer and is recorded at its fair value. As of December 31, 2014 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 Pfizer defaults on the assumed obligation to pay Organon). Annually 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

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termination payments receivable. As of December 31, 2014 and 2013, the fair value of the co-promote termination liability (and the corresponding receivable) was determined using a discount rate of 15%.

## Contingent Liabilities

In connection with our acquisition of CyDex in January 2011, we recorded contingent liabilities for amounts potentially due to holders of the CyDex CVR's and certain other contingency payments. The initial fair value of the liability was determined using the income approach incorporating the estimated future cash flows from potential milestones and revenue sharing. These cash flows were then discounted to present value using a discount rate of 21.6%. The liability is periodically assessed based on events and circumstances related to the underlying milestones, and the change in fair value will be recorded in our consolidated statements of operations. The carrying amount of the liability may fluctuate significantly and actual amounts paid may be materially different than the carrying amount of the liability.

In connection with our acquisition of Metabasis in January 2010, we issued Metabasis stockholders four tradable CVRs, one CVR from each of four respective series of CVR, for each Metabasis share. The CVRs entitle Metabasis stockholders to cash payments as frequently as every six months as cash is received by us from proceeds from Metabasis' partnership with Roche (which has been terminated) or the sale or partnering of any of the Metabasis drug development programs, among other triggering events. The fair values of the CVRs are remeasured at each reporting date through the term of the related agreement. Changes in the fair values are reported in the statement of operations as income (decreases) or expense (increases). The carrying amount of the liability may fluctuate significantly based upon quoted market prices and actual amounts paid under the agreements may be materially different than the carrying amount of the liability.

## Income Taxes

Income taxes are accounted for under the asset and 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, 2014, we have provided a full valuation allowance against our deferred tax assets 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. Our ending deferred tax liability represents liabilities for which we cannot estimate the reversal period and therefore cannot be used as support for our deferred tax assets.

## Stock-Based Compensation

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 \$11.3 million, \$5.7 million and \$4.1 million for 2014, 2013 and 2012, respectively, associated with option awards, restricted stock and our employee stock purchase plan.

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:

	Year Ended December 31,		
	2014	2013	2012
Risk-free interest rate	1.9%	1.13%-1.82%	0.83%-1.14%
Dividend yield	—	—	—

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Expected volatility	62%-69%	69%	69%
Expected term	6 years	6 years	6 years
Forfeiture rate	8.6%-9.7%	8.4%-9.8%	8.0%-11.2%

The risk-free interest rate is based on the U.S. Treasury yield curve at the time of the grant. 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) based on historical experience. The expected term for consultant awards

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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. In making this assumption, we used the historical volatility of our stock price over a period equal to the expected term. The forfeiture rate is based on historical data at the time of the grant.

### Consolidation of Variable Interest Entities

We identify an entity as a variable interest entity, or VIE, if either: (1) the entity does not have sufficient equity investment at risk to permit the entity to finance its activities without additional subordinated financial support, or (2) the entity's equity investors lack the essential characteristics of a controlling financial interest. We perform ongoing qualitative assessments of its VIEs to determine whether we have a controlling financial interest in any VIE and therefore is the primary beneficiary. If we are the primary beneficiary of a VIE, it is consolidated under applicable accounting guidance. We determined that we hold a variable interest in Viking based on management's assessment that it does not have sufficient resources to carry out its principal activities without our support. Our variable interests in Viking are a loan provided to Viking and a license agreement executed concurrently. As of December 31, 2014, our total assets include \$3.0 million related to Viking and our total liabilities include \$5.0 million related to Viking. Viking's consolidated assets are owned by Viking, and Viking's consolidated liabilities are without recourse against Ligand.

### New Accounting Pronouncements

In February 2013, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU 2013-02, Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income. Under ASU 2013-02, an entity is required to provide information about the amounts reclassified out of Accumulated Other Comprehensive Income, or AOCI, by component. In addition, an entity is required to present, either on the face of the financial statements or in the notes, significant amounts reclassified out of AOCI by the respective line items of net income, but only if the amount reclassified is required to be reclassified in its entirety in the same reporting period. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. Implementing ASU 2013-02 did not change the current requirements for reporting net income or other comprehensive income in the financial statements. The amendments in this ASU are effective for us for fiscal years, and interim periods within those years, beginning after January 1, 2014. Our adoption of this standard did not materially affect the consolidated financial statements.

In July 2013, FASB issued ASU 2013-11, Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. ASU 2013-11 requires the netting of unrecognized tax benefits, or UTBs, against a deferred tax asset for a loss or other carryforward that would apply in settlement of the uncertain tax positions. UTBs are required to be netted against all available same-jurisdiction loss or other tax carryforwards that would be utilized, rather than only against carryforwards that are created by the UTBs. ASU 2013-11 is effective for us for interim and annual periods beginning after December 15, 2013. Our adoption of this standard did not materially affect the consolidated financial statements.

In April 2014, FASB issued ASU 2014-08, Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity. ASU 2014-08 raises the threshold for a disposal to qualify as a discontinued operation and modifies the related disclosure requirements. Under the new guidance, only disposals resulting in a strategic shift that will have a major effect on an entity's operations and financial results will be reported as discontinued operations. ASU 2014-08 also removes the requirement that an entity not have any significant continuing involvement in the operations of the component after disposal to qualify for reporting of the disposal as a discontinued operation. The guidance is effective for annual and interim periods beginning after December 15, 2014, with early adoption permitted

for any disposal transaction not previously reported. Management does not believe the adoption of this guidance will have a material impact on our consolidated financial statements.

In May 2014, FASB issued ASU 2014-09, Revenue from Contracts with Customers. ASU 2014-09 is effective for annual periods beginning after December 15, 2016 and interim periods within those annual periods. The revenue standard's core principle is built on the contract between a vendor and a customer for the provision of goods and services. It attempts to depict the exchange of rights and obligations between the parties in the pattern of revenue recognition based on the consideration to which the vendor is entitled. To accomplish this objective, the standard requires five basic steps: (1) identify the contract with the customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, (5) recognize revenue when (or as) the entity satisfies a performance obligation. Management is currently evaluating the effect the adoption of this standard will have on our financial statements.

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In June 2014, FASB issued ASU 2014-12, Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period. The amendments in this update require that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. A reporting entity should apply existing guidance in ASC 718, Compensation - Stock Compensation, as it relates to awards with performance conditions that affect vesting to account for such awards. The amendments in this update will be effective for the Company as of January 1, 2016. Earlier adoption is permitted. Entities may apply the amendments in this update either: (1) prospectively to all awards granted or modified after the effective date; or (2) retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. If a retrospective transition is adopted, the cumulative effect of applying this update as of the beginning of the earliest annual period presented in the financial statements should be recognized as an adjustment to the opening retained earnings balance at that date. In addition, if a retrospective transition is adopted, an entity may use hindsight in measuring and recognizing the compensation cost. Management is currently assessing the impact of this update, and believes that its adoption on January 1, 2016 will not have a material impact on our consolidated financial statements.

In August 2014, FASB issued ASU 2014-15, Presentation of Financial Statements - Going Concern. The amendments in this update require management to assess an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. Specifically, the amendments (1) provide a definition of the term substantial doubt, (2) require an evaluation every reporting period, including interim periods, (3) provide principles for considering the mitigating effect of management's plans, (4) require certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans, (5) require an express statement and other disclosures when substantial doubt is not alleviated, and (6) require an assessment for a period of one year after the date that the financial statements are issued (or available to be issued). The amendments in this update are effective for us as of January 1, 2017. Early application is permitted. Management is currently assessing the impact of this update on our future discussions of our liquidity position in the Management's Discussion and Analysis.

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

We are exposed to market risk from interest rates and equity prices which could affect our results of operations, financial condition and cash flows. We manage our exposure to these market risks through our regular operating and financing activities.

#### Investment Portfolio Risk

At December 31, 2014, our investment portfolio included investments in available-for-sale equity securities of \$7.1 million. These securities are subject to market risk and may decline in value based on market conditions.

#### Equity Price Risk

Our 2019 Convertible Senior Notes include conversion and settlement provisions that are based on the price of our common stock at conversion or maturity of the notes, as applicable. The minimum amount of cash we may be required to pay is \$245.0 million, but will ultimately be determined by the price of our common stock. The fair values of our 2019 Convertible Senior Notes are dependent on the price and volatility of our common stock and will generally increase or decrease as the market price of our common stock changes. In order to minimize the impact of potential dilution to our common stock upon the conversion of the 2019 Convertible Senior Notes, we entered into convertible bond hedges covering 3,264,643 shares of our common stock. Concurrently with entering into the convertible bond



hedge transactions, we entered into warrant transactions whereby we sold warrants with an exercise price of approximately \$125.08 per share, subject to adjustment. Throughout the term of the 2019 Convertible Senior Notes, the notes may have a dilutive effect on our earnings per share to the extent the stock price exceeds the conversion price of the notes. Additionally, the warrants may have a dilutive effect on our earnings per share to the extent the stock price exceeds the strike price of the warrants.

#### Foreign Currency Risk

Through our licensing and business operations, we are exposed to foreign currency risk. Foreign currency exposures arise from transactions denominated in a currency other than the functional currency and from foreign denominated revenues and profit translated into U.S. dollars. Our collaborative partners sell our products worldwide in currencies other than the U.S. dollar. Because of this, our revenues from royalty payments are subject to risk from changes in exchange rates.

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We purchase Captisol from Hovione, located in Lisbon, Portugal. Payments to Hovione are denominated and paid in U.S. dollars; however the unit price of Captisol contains an adjustment factor which is based on the sharing of foreign currency risk between the two parties. The effect of an immediate 10% change in foreign exchange rates would not have a material impact on our financial condition, results of operations or cash flows. We do not currently hedge our exposures to foreign currency fluctuations.

Interest Rate Risk

We are exposed to market risk involving rising interest rates. To the extent interest rates rise, our interest costs could increase. An increase in interest costs of 10% would not have a material impact on our financial condition, results of operations or cash flows.

Item 8. Consolidated Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

Ligand Pharmaceuticals Incorporated

We have audited the accompanying consolidated balance sheets of Ligand Pharmaceuticals Incorporated (the “Company”) as of December 31, 2014 and 2013, and the related consolidated statements of operations, comprehensive income (loss), stockholders’ equity (deficit), and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with 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 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 as of December 31, 2014 and 2013, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2014 in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of December 31, 2014, based on criteria established in the 2013 Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 23, 2015 expressed an unqualified opinion.

/s/ GRANT THORNTON LLP

Los Angeles, California

February 23, 2015

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LIGAND PHARMACEUTICALS INCORPORATED  
 CONSOLIDATED BALANCE SHEETS  
 (in thousands, except share data)

	December 31,	
	2014	2013
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents (including \$756 and \$0 related to a VIE, respectively)	\$ 160,203	\$ 11,639
Short-term investments	7,133	4,340
Accounts receivable, net	12,634	2,222
Inventory	269	1,392
Capitalized IPO expenses, VIE	2,268	—
Current debt issuance costs	809	—
Other current assets	1,520	959
Current portion of co-promote termination payments receivable	322	4,329
Total current assets	185,158	24,881
Restricted cash	1,261	1,341
Property and equipment, net	486	867
Intangible assets, net	50,723	53,099
Goodwill	12,238	12,238
Commercial license rights	4,568	4,571
Long-term portion of co-promote termination payments receivable	—	7,417
Long-term debt issuance costs	3,388	—
Other assets	207	299
Total assets	\$ 258,029	\$ 104,713
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable (including \$2,211 and \$0 related to a VIE, respectively)	\$ 7,698	\$ 3,951
Accrued liabilities	4,866	5,337
Current portion of contingent liabilities	6,796	1,712
Current portion of deferred income taxes	257	1,574
Current portion of notes payable (\$334 and \$0 related to a VIE, respectively)	334	9,109
Current portion of co-promote termination liability	322	4,329
Current portion of lease exit obligations	2,356	2,811
Current portion of deferred revenue	150	116
Total current liabilities	22,779	28,939
Long-term portion of notes payable	195,908	—
Long-term portion of co-promote termination liability	—	7,417
Long-term portion of deferred revenue, net	2,085	2,085
Long-term portion of lease exit obligations	934	3,071
Long-term portion of deferred income taxes	2,792	1,098
Long-term portion of contingent liabilities	8,353	11,795
Other long-term liabilities	770	695
Total liabilities	233,621	55,100
Commitments and contingencies		
Stockholders' equity:		
Common stock, \$0.001 par value; 33,333,333 shares authorized; 19,575,150 and 20,468,521 shares issued and outstanding at December 31, 2014 and 2013,	20	21

respectively

Additional paid-in capital	680,660	718,017
Accumulated other comprehensive income	4,953	2,914
Accumulated deficit	(659,315	) (671,339 )
Total stockholders' equity attributable to parent	26,318	49,613
Noncontrolling interests	(1,910	) —
Total stockholder's equity	24,408	49,613
Total liabilities and stockholders' equity	\$258,029	\$104,713

See accompanying notes to these consolidated financial statements.

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CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except share data)

	Year Ended December 31,		
	2014	2013	2012
Revenues:			
Royalties	\$29,994	\$23,584	\$14,073
Material Sales	28,488	19,072	9,432
Collaborative research and development and other revenues	6,056	6,317	7,883
Total revenues	64,538	48,973	31,388
Operating costs and expenses:			
Cost of material sales	9,136	5,732	3,601
Research and development	12,122	9,274	10,790
General and administrative	22,570	17,984	15,782
Lease exit and termination costs	1,084	560	1,022
Write-off of acquired in-process research and development	—	480	—
Total operating costs and expenses	44,912	34,030	31,195
Income from operations	19,626	14,943	193
Other (expense) income:			
Interest expense, net	(4,860	) (2,077	) (2,924
Increase in contingent liabilities	(5,135	) (3,597	) (1,650
Other, net	1,671	(63	) 516
Total other expense, net	(8,324	) (5,737	) (4,058
Income (loss) from continuing operations before income tax benefit	11,302	9,206	(3,865
Income tax (expense) benefit from continuing operations	(410	) (374	) 1,191
Income (loss) from continuing operations including noncontrolling interests	10,892	8,832	(2,674
Less: Net loss attributable to noncontrolling interests	(1,132	) —	—
Net income (loss) from continuing operations	12,024	8,832	(2,674
Discontinued operations:			
Gain on sale of Avinza Product Line, net	—	2,588	3,656
Income tax expense on discontinued operations	—	—	(1,509
Income from discontinued operations	—	2,588	2,147
Net income	\$12,024	\$11,420	\$(527
Basic per share amounts:			
Income (loss) from continuing operations	\$0.59	\$0.43	\$(0.14
Income from discontinued operations	—	0.13	0.11
Net income (loss)	\$0.59	\$0.56	\$(0.03
Weighted average number of common shares-basic	20,418,569	20,312,395	19,853,095
Diluted per share amounts:			
Income (loss) from continuing operations	\$0.56	\$0.43	\$(0.14
Income from discontinued operations	—	0.12	0.11
Net income (loss)	\$0.56	\$0.55	\$(0.03
Weighted average number of common shares-diluted	21,433,177	20,745,454	19,853,095

See accompanying notes to these consolidated financial statements.



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LIGAND PHARMACEUTICALS INCORPORATED  
 CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)  
 (in thousands)

	Year Ended December 31,		
	2014	2013	2012
Net income (loss)	\$12,024	\$11,420	\$(527 )
Unrealized net gain on available-for-sale securities, net of tax of \$0	3,872	2,914	—
Less: Reclassification of net realized gains included in net income, net of tax of \$0	\$(1,833 )	\$—	\$—
Comprehensive income (loss)	\$14,063	\$14,334	\$(527 )

See accompanying notes to these consolidated financial statements.



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LIGAND PHARMACEUTICALS INCORPORATED  
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT)  
(in thousands, except share data)

	Common Stock		Additional paid-in capital	Accumulated other comprehensive income (loss)		Noncontrolling interest	Treasury stock		Total stockholders' equity (deficit)
	Shares	Amount		Accumulated deficit	Shares		Amount		
Balance at December 31, 2011	20,682,506	\$ 21	\$ 732,676	\$ —	\$ (682,232)	\$ —	(1,118,222)	\$(42,280)	\$ 8,185
Issuance of common stock under employee stock compensation plans, net	180,979	—	1,103	—	—	—	—	—	1,103
Issuance of common stock, net	302,750	—	5,313	—	—	—	—	—	5,313
Stock-based compensation	—	—	4,067	—	—	—	—	—	4,067
Shares released from restriction	112,371	—	8,344	—	—	—	—	—	8,344
Net loss	—	—	—	—	(527 )	—	—	—	(527 )
Balance at December 31, 2012	21,278,606	\$ 21	\$ 751,503	\$ —	\$ (682,759)	\$ —	(1,118,222)	\$(42,280)	\$ 26,485
Issuance of common stock under employee stock compensation plans, net	308,137	1	3,127	—	—	—	—	—	3,128
Issuance of common stock, net	—	—	—	—	—	—	—	—	—
Stock-based compensation	—	—	5,666	—	—	—	—	—	5,666
Retirement of treasury shares	(1,118,222 )	(1 )	(42,279 )	—	—	—	1,118,222	42,280	—
Unrealized net gain on available-for-sale securities	—	—	—	2,914	—	—	—	—	2,914
Net income	—	—	—	—	11,420	—	—	—	11,420
Balance at December 31,	20,468,521	\$ 21	\$ 718,017	\$ 2,914	\$ (671,339)	\$ —	—	\$ —	\$ 49,613

2013									
Consolidation of variable interest entity	—	—	—	—	—	(778 )	—	—	(778 )
Issuance of common stock under employee stock compensation plans, net	360,054	—	4,561	—	—	—	—	—	4,561
Stock-based compensation	—	—	11,270	—	—	—	—	—	11,270
Repurchase of common stock	(1,253,425 )	(1 )	(67,954 )	—	—	—	—	—	(67,955 )
Sale of warrants	—	—	11,638	—	—	—	—	—	11,638
Purchase of convertible bond hedge	—	—	(48,143 )	—	—	—	—	—	(48,143 )
Equity component of convertible debt issuance, net of issuance costs	—	—	51,271	—	—	—	—	—	51,271
Unrealized net gain on available-for-sale securities	—	—	—	3,872	—	—	—	—	3,872
Realized gain on sale of investments	—	—	—	(1,833 )	—	—	—	—	(1,833 )
Net income	—	—	—	—	12,024	—	—	—	12,024
Net loss in noncontrolling interests	—	—	—	—	—	(1,132 )	—	—	(1,132 )
Balance at December 31, 2014	19,575,150	\$20	\$680,660	\$4,953	\$(659,315)	\$(1,910)	—	\$—	\$24,408

See accompanying notes to these consolidated financial statements.

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

	Year Ended December 31,		
	2014	2013	2012
Operating activities			
Net income (loss)	\$ 10,892	\$ 11,420	\$(527 )
Less: gain from discontinued operations	—	2,588	2,147
Income (loss) from continuing operations	10,892	8,832	(2,674 )
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Write-off of acquired in-process research and development	—	480	—
Change in estimated fair value of contingent liabilities	5,135	3,597	1,650
Realized gain on sale of short-term investment	(1,538 )	—	—
Depreciation and amortization	2,657	2,663	2,727
Amortization of debt discount and issuance fees	3,694	—	—
Non-cash milestone revenue	(1,211 )	—	(1,212 )
(Gain) loss on asset disposal	(16 )	5	(17 )
Stock-based compensation	11,270	5,666	4,067
Deferred income taxes	410	374	(1,204 )
Accretion of note payable	222	417	492
Changes in operating assets and liabilities, net of acquisition:			
Accounts receivable, net	(10,412 )	2,367	1,521
Inventory	4,369	646	1,030
Other current assets	(426 )	(130 )	515
Other long term assets	(1,439 )	218	334
Accounts payable and accrued liabilities	(3,155 )	(2,758 )	(4,801 )
Other liabilities	34	(391 )	484
Deferred revenue	80	(654 )	(1,851 )
Net cash provided by operating activities of continuing operations	20,566	21,332	1,061
Net cash used in operating activities of discontinued operations	—	(642 )	(900 )
Net cash provided by operating activities	20,566	20,690	161
Investing activities			
Purchase of commercial license rights	(1,000 )	(3,571 )	—
Payments to CVR holders and other contingency payments	(3,493 )	(989 )	(8,049 )
Purchases of property and equipment	(6 )	(377 )	(595 )
Proceeds from sale of property and equipment	125	3	20
Proceeds from sale of short-term investments	2,342	—	10,000
Other, net	5	(40 )	(113 )
Net cash (used in) provided by investing activities	(2,027 )	(4,974 )	1,263
Financing activities			
Proceeds from issuance of debt	—	—	7,500
Repayment of debt	(9,366 )	(19,586 )	(10,000 )
Gross proceeds from issuance of 2019 Convertible Senior Notes	245,000	—	—
Payment of debt issuance costs	(5,711 )	—	—
Proceeds from issuance of warrants	11,638	—	—
Purchase of convertible bond hedge	(48,143 )	—	—
Proceeds from issuance of common stock, net	—	—	5,313

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Net proceeds from stock option exercises	4,561	3,128	1,103
Share repurchases	(67,954	) —	—
Net cash (used in) provided by financing activities	130,025	(16,458	) 3,916
Net (decrease) increase in cash and cash equivalents	148,564	(742	) 5,340
Cash and cash equivalents at beginning of year	11,639	12,381	7,041

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Cash and cash equivalents at end of year	\$ 160,203	\$ 11,639	\$ 12,381
Supplemental disclosure of cash flow information			
Cash paid during the year:			
Interest paid	\$ 494	\$ 1,816	\$ 2,452
Taxes paid	\$ 18	\$ 26	\$ —
Supplemental schedule of non-cash investing and financing activities			
Accrued inventory purchases	\$ 3,246	\$ 341	\$ 1,426
Unrealized gain on AFS investments	\$ 3,872	\$ 2,914	\$ —
Common stock released from restriction	\$ —	\$ —	\$ 8,344
See accompanying notes to these consolidated financial statements.			

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LIGAND PHARMACEUTICALS INCORPORATED AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Basis of Presentation

Ligand Pharmaceuticals Incorporated, a Delaware corporation (the “Company” or “Ligand”) is a biopharmaceutical company with a business model that is based upon the concept of developing or acquiring royalty revenue generating assets and coupling them with a lean corporate cost structure. By diversifying the portfolio of assets across numerous technology types, therapeutic areas, drug targets and industry partners, the Company offers investors an opportunity to invest in the increasingly complicated and unpredictable pharmaceutical industry. These therapies address the unmet medical needs of patients for a broad spectrum of diseases including hepatitis, muscle wasting, Alzheimer’s disease, dyslipidemia, diabetes, anemia, asthma, focal segmental glomerulosclerosis, or FSGS, and osteoporosis. Ligand has established multiple alliances with the world’s leading pharmaceutical companies including GlaxoSmithKline, Amgen, Inc., Merck, Pfizer and Baxter International. The Company’s principle market is the United States. 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 had net income of \$12.0 million for the year ended December 31, 2014. As of December 31, 2014, the Company’s accumulated deficit was \$659.3 million and the Company had working capital of \$162.4 million. The Company believes that its currently available cash, cash equivalents and short-term investments, as well as its current and future royalty, license and milestone revenues and Captisol material sales will be sufficient to fund operating and capital requirements, at a minimum, through December 31, 2015. The Company expects to build cash in future months as it continues to generate significant cash flows from operations. The ability of the Company to achieve its operational targets is dependent upon the Company’s ability to further implement its business plan and generate sufficient operating cash flow.

Principles of Consolidation

The accompanying consolidated financial statements include Ligand and its wholly owned subsidiaries. All significant 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, definite and indefinite lived intangible assets, inventory, goodwill, co-promote termination payments receivable and co-promote termination liabilities, uncertain tax positions, deferred revenue, lease exit liability and income tax net operating loss carryforwards during the reporting period. The Company’s critical accounting policies are those that are both most important to the Company’s 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.

Reclassifications

Certain reclassifications have been made to the previously issued statement of operations for comparability purposes. These reclassifications had no effect on the reported net income, stockholders' equity and operating cash flows as previously reported.

Income (Loss) Per Share

Basic income (loss) per share is calculated by dividing net income or loss by the weighted average number of common shares and vested restricted stock units outstanding. Diluted income (loss) per share is computed by dividing net income or loss by the weighted average number of common shares and vested restricted stock units outstanding and the weighted average number of dilutive common stock equivalents, including stock options, non-vested restricted

stock units, convertible notes and warrants. Common stock equivalents are only included in the diluted earnings per share calculation when their effect is dilutive. Potential common shares, the shares that would be issued upon the exercise of outstanding stock options and warrants and the vesting of restricted shares that are excluded from the computation of diluted net income (loss) per share because their effect is anti-dilutive, were 5.1 million, 0.8 million and 1.1 million for the years ended December 31, 2014, 2013 and 2012 respectively.

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The following table sets forth the computation of basic and diluted net income (loss) per share for the periods indicated (in thousands, except per share amounts):

	Year Ended December 31,		
	2014	2013	2012
EPS Attributable to Common Shareholders			
Net income (loss) from continuing operations	12,024	\$8,832	\$(2,674 )
Discontinued operations	—	2,588	2,147
Net income (loss)	\$12,024	\$11,420	\$(527 )
Shares used to compute basic income (loss) per share	20,418,569	20,312,395	19,853,095
Dilutive potential common shares:			
Stock options	978,162	352,959	—
Restricted stock	36,446	80,100	—
Shares used to compute diluted income (loss) per share	21,433,177	20,745,454	19,853,095
Basic per share amounts:			
Income (loss) from continuing operations	\$0.59	\$0.43	\$(0.14 )
Discontinued operations	—	0.13	0.11
Net income (loss)	\$0.59	\$0.56	\$(0.03 )
Diluted per share amounts:			
Income (loss) from continuing operations	\$0.56	\$0.43	\$(0.14 )
Discontinued operations	—	0.12	0.11
Net income (loss)	\$0.56	\$0.55	\$(0.03 )

**Cash and Cash Equivalents**

Cash and cash equivalents consist of cash, money market accounts, and certificates of deposit with original maturities of three months or less from the date of purchase.

**Short-term Investments**

Securities received by the Company as a result of a milestone payment from licensees 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 in the statement of comprehensive income (loss). The Company determines the cost of investments based on the specific identification method.

**Restricted Cash**

Restricted cash and investments consist of certificates of deposit held with a financial institution as collateral under a facility lease and third-party service provider arrangements.



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The following table summarizes the various investment categories at December 31, 2014 and 2013 (in thousands):

	Cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
December 31, 2014				
Short-term investments	\$2,179	\$4,954	\$—	\$7,133
Certificates of deposit - restricted	1,261	—	—	1,261
	\$3,440	\$4,954	\$—	\$8,394
December 31, 2013				
Short-term investments	1,426	2,914	\$—	\$4,340
Certificates of deposit-restricted	1,341	—	—	1,341
	\$2,767	\$2,914	\$—	\$5,681

**Concentrations of Business 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. During 2014, the Company did not experience any significant losses on its cash equivalents, short-term investments or restricted investments. As of December 31, 2014, cash deposits held at financial institutions in excess of FDIC insured amounts of \$250,000 were approximately \$91.7 million.

A relatively small number of partners accounts for a significant percentage of our revenue. Revenue from significant partners, which is defined as 10% or more of our total revenue, was as follows:

	December 31,			
	2014	2013	2012	
Partner A	37	% 33	% 32	%
Partner B	31	% 28	% 15	%
Partner C	10	% 14	% 19	%

Accounts receivable from two customers were 64% of total accounts receivable at December 31, 2014. Accounts receivable from two customers were 75% of total accounts receivable at December 31, 2013.

The Company obtains Captisol from a single supplier, Hovione. If this supplier were not able to supply the requested amounts of Captisol, the Company would be unable to continue to derive revenues from the sale of Captisol until it obtained an alternative source, which could take a considerable length of time.

**Inventory**

Inventory, which consists of finished goods, is stated at the lower of cost or market value. The Company determines cost using the first-in, first-out method. The Company analyzes its inventory levels periodically and writes down inventory to its net realizable value if it has become obsolete, has a cost basis in excess of its expected net realizable value or is in excess of expected requirements. There were no write downs related to obsolete inventory recorded for the years ended December 31, 2014 and 2013. As of December 31, 2014, the commitment under our supply agreement with Hovione for Captisol purchases was \$15.4 million.

**Allowance for Doubtful Accounts**

The Company maintains an allowance for doubtful accounts based on the best estimate of the amount of probable losses in the Company's existing accounts receivable. Accounts receivable that are outstanding longer than their contractual payment terms, ranging from 30 to 90 days, are considered past due. When determining the allowance for doubtful accounts, several factors are taken into consideration, including historical write-off experience and review of specific customer accounts for



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collectability. Account balances are charged off against the allowance after collection efforts have been exhausted and the potential for recovery is considered remote. There was no allowance for doubtful accounts recorded as of December 31, 2014 and 2013.

## Property and Equipment, net

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

	December 31,	
	2014	2013
Lab and office equipment	\$2,232	\$3,737
Leasehold improvements	273	387
Computer equipment and software	624	616
	3,129	4,740
Less accumulated depreciation and amortization	(2,643	) (3,873
	\$486	\$867

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. Depreciation expense of \$0.3 million was recognized in each of the three years ending December 31, 2014, 2013, and 2012, and is included in operating expenses.

## Goodwill and Other Identifiable Intangible Assets

Goodwill and other identifiable intangible assets consist of the following (in thousands):

	December 31,	
	2014	2013
Indefinite lived intangible assets		
Acquired in-process research and development	\$12,556	\$12,556
Goodwill	12,238	12,238
Definite lived intangible assets		
Complete technology	15,267	15,267
Less: Accumulated amortization	(2,999	) (2,235
Trade name	2,642	2,642
Less: Accumulated amortization	(519	) (387
Customer relationships	29,600	29,600
Less: Accumulated amortization	(5,824	) (4,344
Total goodwill and other identifiable intangible assets, net	\$62,961	\$65,337

In January 2011, the Company completed its acquisition of CyDex. As a result of the transaction, the Company recorded \$47.5 million of intangible assets with definite lives. The weighted-average amortization period for the identified intangible assets with definite lives is 20 years. In addition, the Company recorded \$3.2 million of acquired In-Process Research and Development ("IPR&D") and \$11.5 million of goodwill.

Amortization of definite lived intangible assets is computed using the straight-line method over the estimated useful life of the asset of 20 years. Amortization expense of \$2.4 million was recognized in each of the three years ending December 31, 2014, 2013, and 2012, respectively. Estimated amortization expense for the years ending December 31, 2015 through 2019 is \$2.4 million per year.

The Company accounts for goodwill in accordance with Accounting Standards Codification ("ASC"), 350, Goodwill and Other Intangibles. The Company performs its impairment analysis for goodwill and certain non-amortizing intangibles on at least an annual basis. The Company uses the income approach and the market approach, each

weighted at 50%, for goodwill

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impairment analysis. For the income approach, the Company considers the present value of future cash flows and the carrying value of its assets and liabilities, including goodwill. The market approach is based on an analysis of revenue multiples of guideline public companies. If the carrying value of the assets and liabilities, including goodwill, were to exceed the Company's estimation of the fair value, the Company would record an impairment charge in an amount equal to the excess of the carrying value of goodwill over the implied fair value of the goodwill. The Company performs an evaluation of goodwill as of December 31 of each year, absent any indicators of earlier impairment, to ensure that impairment charges, if applicable, are reflected in the Company's financial results before December 31 of each year. When it is determined that impairment has occurred, a charge to operations is recorded. Goodwill and other intangible asset balances are included in the identifiable assets of the business segment to which they have been assigned. Any goodwill impairment, as well as the amortization of other purchased intangible assets, is charged against the respective business segments' operating income. As of December 31, 2014, 2013 and 2012 there has been no impairment of goodwill for continuing operations.

Acquired in-process research and development

Intangible assets related to acquired IPR&D are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts. During the period the assets are considered to be indefinite-lived, they will not be amortized but will be tested for impairment on an annual basis and between annual tests if the Company becomes aware of any events occurring or changes in circumstances that would indicate a reduction in the fair value of the IPR&D projects below their respective carrying amounts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time. For the year ended December 31, 2013, the Company recorded a non-cash impairment charge of \$0.5 million for the write-off of IPR&D for Captisol-enabled intravenous Clopidogrel. The impairment analysis was performed based on the income method using a Monte Carlo analysis. The asset was impaired upon notification from MedCo that they intended to terminate the license agreement and return the rights of the compound to the Company. Captisol-enabled intravenous Clopidogrel is an intravenous formulation of the anti-platelet medication designed for situations where the administration of oral platelet inhibitors is not feasible or desirable. For the years ended December 31, 2014 and December 31, 2012, there was no impairment of IPR&D.

Commercial license rights

Commercial license rights represent a portfolio of future milestone and royalty payment rights acquired in accordance with the Royalty Stream and Milestone Payments Purchase Agreement entered into with Selexis SA ("Selexis") in April 2013. The portfolio consists of over 15 Selexis commercial license agreement programs with various pharmaceutical-company counterparties. The purchase price was \$4.6 million, inclusive of acquisition costs. Individual commercial license rights acquired under the agreement are carried at allocated cost and approximate fair value. The carrying value of the license rights will be reduced on a pro-rata basis as revenue is realized over the term of the agreement. Declines in the fair value of individual license rights below their carrying value that are deemed to be other than temporary are reflected in earnings in the period such determination is made.

Contingent Liabilities

In connection with the Company's acquisition of CyDex in January 2011, the Company recorded a \$17.6 million contingent liability, inclusive of the \$4.3 million payment made in January 2012, for amounts potentially due to holders of the CyDex CVR's and former license holders. The initial fair value of the liability was determined using the income approach incorporating the estimated future cash flows from potential milestones and revenue sharing. These cash flows were then discounted to present value using a discount rate of 21.6%. The liability is periodically assessed based on events and circumstances related to the underlying milestones, and the change in fair value will be recorded in the Company's consolidated statements of operations. The carrying amount of the liability may fluctuate significantly and actual amounts paid under the CVR agreements may be materially different than the carrying amount of the liability. The fair value of the liability at December 31, 2014 and 2013 was \$11.5 million and \$9.3 million, respectively. The Company recorded a fair value adjustment to increase the liability for CyDex related contingent liabilities of \$5.7 million for the year ended December 31, 2014, \$0.6 million decrease in the liability for the year

ended December 31, 2013 and an increase in the liability of \$3.4 million for the year ended December 31, 2012. Contingent liabilities decreased for cash payments to CVR holders and other contingency payments by \$3.5 million during the year ended December 31, 2014, \$1.0 million during the year ended December 31, 2013 and \$8.0 million during the year ended December 31, 2012.

In connection with the Company's acquisition of Metabasis in January 2010, the Company issued Metabasis stockholders four tradable CVRs, one CVR from each of four respective series of CVR, for each Metabasis share. The CVRs will entitle Metabasis stockholders to cash payments as frequently as every six months as cash is received by the Company from proceeds from Metabasis' partnership with Roche (which has been terminated) or the sale or partnering of any of the Metabasis drug

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development programs, among other triggering events. The acquisition-date fair value of the CVRs of \$9.1 million was determined using quoted market prices of Metabasis common stock in active markets. The fair values of the CVRs are remeasured at each reporting date through the term of the related agreement. Changes in the fair values are reported in the statement of operations as income (decreases) or expense (increases). The carrying amount of the liability may fluctuate significantly based upon quoted market prices and actual amounts paid under the agreements may be materially different than the carrying amount of the liability. The fair value of the liability was \$3.7 million and \$4.2 million as of December 31, 2014 and 2013, respectively. The Company recorded a decrease in the liability for CVRs of \$0.5 million during the year ended December 31, 2014, an increase of \$4.2 million during the year ended December 31, 2013 and a decrease of \$1.1 million during the year ended December 31, 2012.

In connection with the Company's acquisition of Neurogen in December 2009, the Company issued to Neurogen stockholders four CVRs; real estate, Aplindore, VR1 and H3, that entitle them to cash and/or shares of third-party stock under certain circumstances. The Company recorded the acquisition-date fair value of the CVRs as part of the purchase price. The acquisition-date fair value of the real estate CVR of \$3.2 million was estimated using the net proceeds from a pending sale transaction and recorded as a payable to stockholders at December 31, 2009. In February 2010, the Company completed the sale of the real estate and subsequently distributed the proceeds to the holders of the real estate CVR. As a result and after final settlement of all related expenses, the real estate CVR was terminated in August 2010. In 2012, the Company received a notice from a collaborative partner that it was terminating its agreement related to VR1 for convenience and subsequently the Company recorded a decrease in the fair value of the liability for the related CVR of \$0.2 million. Additionally, per the CVR agreement, no payment event date for the H3 program can occur after December 23, 2012 and the Company recorded a decrease in the fair value of the liability for the related CVR of \$0.5 million as of that date. There are no remaining CVR obligations under the agreement with the former Neurogen shareholders.

#### Fair Value of Financial Instruments

Fair value is defined 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 Company establishes a three-level hierarchy to prioritize the inputs used in measuring fair value. The levels are described in the below with level 1 having the highest priority and level 3 having the lowest:

Level 1 - Observable inputs such as quoted prices in active markets

Level 2 - Inputs other than the quoted prices in active markets that are observable either directly or indirectly

Level 3 - Unobservable inputs in which there is little or no market data, which require the Company to develop its own assumptions

The carrying amount of the Company's cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate the fair value because of their short maturities. Other assets and liabilities that are carried at fair value include short-term investments, certain license liabilities in equity securities, certain co-promote termination asset and liability, and contingent consideration liabilities. For additional information, see Note 3 Fair Value

#### Measurement

The Company evaluates its financial instruments at each reporting period to determine if any transfers between the various three-level hierarchy have occurred and appropriately reclassifies its financial instruments to the appropriate level within the hierarchy.

#### Treasury Stock

The Company may on occasion repurchase its common stock on the open market or in private transactions. When such stock is repurchased it is not constructively or formally retired and may be reissued if certain regulatory requirements are met; however, the Company may from time to time choose to retire the shares of common stock held in its treasury. The purchase price of the common stock repurchased is charged to treasury stock. During the year ended December 31, 2013, the Company retired 1,118,222 shares of its common stock held in treasury.

#### Revenue Recognition

Royalties on sales of products commercialized by the Company's partners are recognized in the quarter reported by the respective partner. Generally, the Company receives royalty reports from its licensees approximately one quarter in arrears due to the fact that its agreements require partners to report product sales between 30 and 60 days after the end of the quarter. The Company recognizes royalty revenues when it can reliably estimate such amounts and collectability is reasonably assured. Under this accounting policy, the royalty revenues reported are not based upon estimates and such royalty revenues are typically reported to the Company by its partners in the same period in which payment is received.



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Revenue from material sales of Captisol is recognized upon transfer of title, which normally passes upon shipment to the customer, provided all other revenue recognition criteria have been met; however, we do not recognize revenue until all substantive customer acceptance requirements have been met, when applicable. The Company's credit and exchange policy includes provisions for the return of product between 30 to 90 days, depending on the specific terms of the individual agreement, when that product (1) does not meet specifications, (2) is damaged in shipment (in limited circumstances where title does not transfer until delivery), or (3) is exchanged for an alternative grade of Captisol. All product returns are subject to approval by the Company and a 20% restocking fee. To date, product returns by customers have not been material to net material sales in any related period. The Company records revenue net of product returns, if any, and sales tax collected and remitted to government authorities during the period.

The Company analyzes its revenue arrangements and other agreements to determine whether there are multiple elements that should be separated and accounted for individually or as a single unit of accounting. For multiple element contracts, arrangement consideration is allocated at the inception of the arrangement to all deliverables on the basis of relative selling price, using a hierarchy to determine selling price. Management first considers vendor-specific objective evidence ("VSOE"), then third-party evidence ("TPE") and if neither VSOE nor TPE exist, the Company uses its best estimate of selling price.

Many of the Company's Captisol license arrangements involve the bundling of a license with the option to purchase Captisol material. Licenses are granted to pharmaceutical companies for the use of Captisol in the development of pharmaceutical compounds. The licenses may be granted for the use of the Captisol product for all phases of clinical trials and through commercial availability of the host drug or may be limited to certain phases of the clinical trial process. Management believes that the Company's licenses have stand-alone value at the outset of an arrangement because the customer obtains the right to use Captisol in its formulations without any additional input by the Company.

Other nonrefundable, up-front license fees are recognized as revenue upon delivery of the license, if the license is determined to have standalone value that is not dependent on any future performance by the Company under the applicable collaboration agreement. Nonrefundable contingent event-based payments are recognized as revenue when the contingent event is met, which is usually the earlier of when payments are received or collections are assured, provided that it does not require future performance by the Company. The Company occasionally has sub-license obligations related to arrangements for which it receives license fees, milestones and royalties. The Company evaluates the determination of gross versus net reporting based on each individual agreement.

Sales-based contingent payments from partners are accounted for similarly to royalties, with revenue recognized upon achievement of the sales targets assuming all other revenue recognition criteria for milestones are met. Revenue from development and regulatory milestones is recognized when earned, as evidenced by written acknowledgement from the collaborator, provided that (1) 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 (2) collectability 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.

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.

In May 2014, the Company entered into a licensing agreement and research collaboration with Omthera Pharmaceuticals. The research collaboration will target the development of novel products that utilize the proprietary Ligand developed LTP TECHNOLOGY™ to improve lipid-lowering activity of certain omega-3 fatty acids. The Company is eligible to receive compensation and reimbursement from Omthera for internal research effort and external costs incurred, as well as development and regulatory event-based payments. The completion of a proof of concept under the development program would trigger a \$1.0 million payment which is determined to be a milestone under the milestone method of accounting as (1) it is an event that can only be achieved in part on the Company's past performance, (2) there was substantive uncertainty at the date the arrangement was entered into that the event would be achieved and (3) it results in additional payment being due to the Company. None of the other event-based payments represents a milestone under the milestone method of accounting. No event based payment or milestone was

achieved during the periods presented. The Company received \$0.5 million from Omthera in 2014 under the agreement and recognized \$0.4 million as collaborative revenue based on the percentage of completion of the research program at December 31, 2014. No milestone payment or contingent payment was received in 2014.

**Cost of Material Sales**

The Company determines cost using the first-in, first-out method. Cost of material sales include all costs of purchase and other costs incurred in bringing the Captisol inventories to their present location and condition, costs to store, and distribute.

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### 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 ("CROs"). The Company accounts for a significant portion of its clinical study costs according to the terms of its contracts with CROs. The terms of its CRO contracts may result in payment flows that do not match the periods over which services are provided to us under such contracts. The Company's objective is to reflect the appropriate preclinical and clinical trial expenses in its financial statements in the same period as the services occur. As part of the process of preparing its financial statements, the Company relies on cost information provided by its CROs. The Company is also required to estimate certain of its expenses resulting from its obligations under its CRO contracts. Accordingly, the Company's preclinical study and clinical trial accrual is dependent upon the timely and accurate reporting of contract research organizations and other third-party vendors. The Company periodically evaluates its estimates to determine if adjustments are necessary or appropriate as more information becomes available 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.

### Sale of Royalty Rights

The Company previously sold to third parties the rights to future royalties of certain of its products. As part of the underlying royalty agreements, the partners have the right to offset a portion of any future royalty payments owed to the Company to the extent of previous milestone payments. Accordingly, the Company deferred a portion of the revenue associated with each tranche of royalty right sold, equal to the pro-rata share of the potential royalty offset. Such amounts associated with the offset rights against future royalty payments will reduce this balance upon receipt of future royalties from the respective partners. As of December 31, 2014 and 2013, the Company had deferred \$0 million and \$0.1 million of revenue, respectively.

### Product Returns (Avinza and Oncology product lines)

In connection with the sale of the Avinza and Oncology 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.

### Research and Development Expenses

Research and development expense consists of labor, material, equipment, and allocated facilities costs of the Company's scientific staff who are working pursuant to the Company's collaborative agreements and other research and development projects. Also included in research and development expenses are third-party costs incurred for the Company's research programs including in-licensing costs, CRO costs and costs incurred by other research and development service vendors. We expense these costs as they are incurred. When we make payments for research and development services prior to the services being rendered, we record those amounts as prepaid assets on our consolidated balance sheet and we expense them as the services are provided.

### Income Taxes

Income taxes are accounted for under the asset and 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 the Company is able to realize their benefit or if future deductibility is uncertain. As of December 31, 2014 and 2013, the Company had provided a full valuation allowance against its deferred tax assets 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. Management's judgments and tax strategies are subject to audit by various taxing authorities. While the Company believes it has provided adequately for its income tax liabilities in its consolidated financial statements, adverse determinations by these taxing authorities could have a material adverse effect on the Company's consolidated financial condition and results of operations.

The Company's ending deferred tax liability represents a future tax obligation for current tax amortization claimed on acquired IPR&D. As the Company cannot estimate when the IPR&D assets will be amortizable for financial reporting purposes, the deferred tax liability associated with the IPR&D assets cannot be used to support the realization of the Company's deferred tax assets. As a result, the Company is required to increase its valuation allowance and record a charge to deferred taxes.

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## Accounting for Stock-Based Compensation

The Company grants options and awards to employees, non-employee consultants, and non-employee directors. Only new shares of common stock are issued upon the exercise of stock options. Non-employee directors are accounted for as employees. 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 expense for awards to employees and non-employee directors is recognized on a straight-line basis over the vesting period until the last tranche vests. 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:

	Year Ended December 31,		
	2014	2013	2012
Risk-free interest rate	1.9%	1.13%-1.82%	0.83%-1.14%
Dividend yield	—	—	—
Expected volatility	62%-69%	69%	69%
Expected term	6 years	6 years	6 years
Forfeiture rate	8.6%-9.7%	8.4%-9.8%	8.0%-11.2%

The risk-free interest rate is based on the U.S. Treasury yield curve at the time of the grant. 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) based on historical experience. 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. In making this assumption, the Company used the historical volatility of the Company's stock price over a period equal to the expected term. The forfeiture rate is based on historical data at the time of the grant.

The following table summarizes stock-based compensation expense recorded as components of research and development expenses and general and administrative expenses for the periods indicated (in thousands):

	December 31,		
	2014	2013	2012
Stock-based compensation expense as a component of:			
Research and development expenses	\$3,595	\$1,705	\$1,448
General and administrative expenses	7,675	3,961	2,619
	\$11,270	\$5,666	\$4,067

## Segment Reporting

Under Accounting Standards Codification No. 280, "Segment Reporting" (ASC 280), operating segments are defined as components of an enterprise about which separate financial information is available that is regularly evaluated by the entity's chief operating decision maker, in deciding how to allocate resources and in assessing performance. The Company has evaluated ASC 280 and has identified two reportable segments: the development and commercialization of drugs using Captisol technology by CyDex Pharmaceuticals, Inc. and the biopharmaceutical company with a business model that is based upon the concept of developing or acquiring royalty revenue generating assets and coupling them with a lean corporate cost structure of Ligand Pharmaceuticals Incorporated. Intercompany transactions between operating segments have been eliminated in consolidation.

## 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). The unrealized gains or losses are reported on the Consolidated Statements of Comprehensive Income (Loss).

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### Consolidation of Variable Interest Entities

In accordance with ASC 810, Consolidations, the applicable accounting guidance for the consolidation of variable interest entities ("VIE"), the Company analyzes its interests, including agreements, loans, guarantees, and equity investments, if applicable, on a periodic basis to determine if such interests are variable interests. If variable interests are identified, then the related entity is assessed to determine if it is a VIE. The Company's analysis includes both quantitative and qualitative reviews. The Company bases its quantitative analysis on the forecasted cash flows of the entity, and its qualitative analysis on the design of the entity, its organizational structure including its decision-making authority, and relevant agreements. The Company identifies an entity as a VIE if either: (1) the entity does not have sufficient equity investment at risk to permit the entity to finance its activities without additional subordinated financial support, or (2) the entity's equity investors lack the essential characteristics of a controlling financial interest. If the Company determines that the entity is a VIE, then the Company performs ongoing assessments of its VIEs to determine whether the Company has a controlling financial interest in any VIE and therefore is the primary beneficiary. The Company's determination of whether it is the primary beneficiary is based upon qualitative and quantitative analyses, which assess the purpose and design of the VIE, the nature of the VIE's risks and the risks that the Company absorbs, the power to direct activities that most significantly impact the economic performance of the VIE, and the obligation to absorb losses or the right to receive benefits that could be significant to the VIE. If the Company is the primary beneficiary of a VIE, it consolidates the VIE under applicable accounting guidance (see Note 2, "Variable Interest Entities", for more information).

### Convertible Debt

In August 2014, the Company completed a \$245.0 million offering of convertible senior notes, which mature in 2019 and bear interest at 0.75%. The Company accounts for notes by separating the liability and equity components of the instrument in a manner that reflects the Company's nonconvertible debt borrowing rate. As a result, the Company assigned a value to the debt component of the notes equal to the estimated fair value of similar debt instruments without the conversion feature, which resulted in the Company recording the debt instrument at a discount. The Company is amortizing the debt discount over the life of the notes as additional non-cash interest expense utilizing the effective interest method.

### New Accounting Pronouncements

In February 2013, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2013-02, Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income. Under ASU 2013-02, an entity is required to provide information about the amounts reclassified out of Accumulated Other Comprehensive Income ("AOCI") by component. In addition, an entity is required to present, either on the face of the financial statements or in the notes, significant amounts reclassified out of AOCI by the respective line items of net income, but only if the amount reclassified is required to be reclassified in its entirety in the same reporting period. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. Implementing ASU 2013-02 did not change the current requirements for reporting net income or other comprehensive income in the financial statements. The amendments in this ASU are effective for the Company for fiscal years, and interim periods within those years, beginning after January 1, 2014. The Company's adoption of this standard did not materially affect the consolidated financial statements.

In July 2013, FASB issued ASU 2013-11, Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. ASU 2013-11 requires the netting of unrecognized tax benefits ("UTBs") against a deferred tax asset for a loss or other carryforward that would apply in settlement of the uncertain tax positions. UTBs are required to be netted against all available same-jurisdiction loss or

other tax carryforwards that would be utilized, rather than only against carryforwards that are created by the UTBs. ASU 2013-11 is effective for the Company for interim and annual periods beginning after December 15, 2013. The Company's adoption of this standard did not materially affect the consolidated financial statements.

In April 2014, FASB issued ASU 2014-08, Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity. ASU 2014-08 raises the threshold for a disposal to qualify as a discontinued operation and modifies the related disclosure requirements. Under the new guidance, only disposals resulting in a strategic shift that will have a major effect on an entity's operations and financial results will be reported as discontinued operations. ASU 2014-08 also removes the requirement that an entity not have any significant continuing involvement in the operations of the component after disposal to qualify for reporting of the disposal as a discontinued operation. The guidance is effective for annual and interim periods beginning after December 15, 2014, with early adoption permitted for any disposal transaction not previously reported.



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Management does not believe the adoption of this guidance will have a material impact on the Company's consolidated financial statements.

In May 2014, FASB issued ASU 2014-09, Revenue from Contracts with Customers. ASU 2014-09 is effective for annual periods beginning after December 15, 2016 and interim periods within those annual periods. The revenue standard's core principle is built on the contract between a vendor and a customer for the provision of goods and services. It attempts to depict the exchange of rights and obligations between the parties in the pattern of revenue recognition based on the consideration to which the vendor is entitled. To accomplish this objective, the standard requires five basic steps: (1) identify the contract with the customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, (5) recognize revenue when (or as) the entity satisfies a performance obligation. Management is currently evaluating the effect the adoption of this standard will have on the Company's financial statements.

In June 2014, FASB issued ASU 2014-12, Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period. The amendments in this update require that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. A reporting entity should apply existing guidance in ASC 718, Compensation - Stock Compensation, as it relates to awards with performance conditions that affect vesting to account for such awards. The amendments in this update will be effective for the Company as of January 1, 2016. Earlier adoption is permitted. Entities may apply the amendments in this update either: (1) prospectively to all awards granted or modified after the effective date; or (2) retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. If a retrospective transition is adopted, the cumulative effect of applying this update as of the beginning of the earliest annual period presented in the financial statements should be recognized as an adjustment to the opening retained earnings balance at that date. In addition, if a retrospective transition is adopted, an entity may use hindsight in measuring and recognizing the compensation cost. Management is currently assessing the impact of this update, and believes that its adoption on January 1, 2016 will not have a material impact on the Company's consolidated financial statements.

In August 2014, FASB issued ASU 2014-15, Presentation of Financial Statements - Going Concern. The amendments in this update require management to assess an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. Specifically, the amendments (1) provide a definition of the term substantial doubt, (2) require an evaluation every reporting period, including interim periods, (3) provide principles for considering the mitigating effect of management's plans, (4) require certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans, (5) require an express statement and other disclosures when substantial doubt is not alleviated, and (6) require an assessment for a period of one year after the date that the financial statements are issued (or available to be issued). The amendments in this update are effective for the Company as of January 1, 2017. Early application is permitted. Management is currently assessing the impact of this update on its future discussion of the Company's liquidity position in the Management's Discussion and Analysis.

## 2. Variable Interest Entities

In May 2014, the Company entered into a Master License Agreement to license rights to five programs to Viking, an unrelated clinical-stage biopharmaceutical company focused on the development of novel therapies for metabolic and endocrine disorders. As part of this transaction, the Company extended a \$2.5 million convertible loan facility to Viking that can be used to pay Viking's operating and financing-related expenses. Under the terms of the convertible loan facility, the principal amount outstanding accrues interest at a fixed rate equal to the lesser of 5% and the maximum interest rate permitted by law. The loan is due and payable in May 2016, unless the loans are converted into

equity prior to such time. Upon the earlier to occur of an Initial Public Offering ("IPO") or a qualified financing event, the Company may elect to be repaid in cash or equity equal to 200% of the accrued principal and interest.

As partial consideration for the grant of the rights and licenses under the license agreement, in the event Viking consummates an IPO or other qualified financing event, Viking will issue to the Company a certain amount of equity. At the closing of an IPO a number of shares of common stock having an aggregate value of \$29.0 million will be issued to the Company, subject to adjustment in certain circumstances. In the event Viking consummates a private financing prior to an IPO, the Company has the option to receive a number of shares of the same class and type of securities issued in the private financing having an aggregate value of \$29.0 million, subject to adjustment in certain circumstances. The Company has the right to terminate the license agreement on or after April 30, 2015 if Viking has neither completed an IPO nor received aggregate net proceeds of at least \$20.0 million in one or more private financings. The Company also has the right to terminate the license agreement in the event of insolvency or bankruptcy of Viking. On July 1, 2014, Viking filed an initial Form S-1

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with the Securities and Exchange Commission for an IPO. As of the date of this report, the filed Form S-1 has not been declared effective. As of December 31, 2014, no amounts have been recorded for the potential receipt of equity related to a financing transaction in accordance with authoritative guidance.

The Company determined it holds a variable interest in Viking based on management's assessment that Viking does not have sufficient resources to carry out its principal activities without the support of the Company. The Company's variable interests in Viking are a loan provided by the Company to Viking and a license agreement executed concurrently. Additionally, the Company has a shared services and sublease agreement with Viking. The Company examines specific criteria and uses judgment and determined that the Company is the primary beneficiary of the VIE and therefore required to consolidate Viking. Factors considered in determining whether the Company is the primary beneficiary include risk and reward sharing, experience and financial condition of its partner, voting rights, involvement in day-to-day operating decisions, representation on Viking's executive committee, and level of economics between the Company and Viking.

The Company has recorded 100% of the losses incurred since May 21, 2014, the effective date of the transaction, as net loss attributable to noncontrolling interest due to the fact that it is considered a primary beneficiary with no equity interest in the VIE. The advances under the loan agreement are included as notes payable by Viking and are eliminated in consolidation.

The following table represents the assets and liabilities, which are owned by and are obligations of Viking and are with no recourse to the Company, as of December 31, 2014 (in thousands):

	December 31, 2014
Cash and cash equivalents	\$756
Other current assets	18
Capitalized IPO expenses	2,268
Total current assets	3,042
Other assets	1
Total assets	\$3,043
Accounts payable	2,211
Accrued liabilities	77
Current portion of notes payable	334
Total current liabilities	2,622
Long-term portion of notes payable (eliminates in consolidation)	2,331
Total liabilities	\$4,953

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## 3. Fair Value Measurement

The Company measures certain financial assets and liabilities at fair value on a recurring basis, including available-for-sale fixed income, equity securities, and contingent liabilities. The following tables provide a summary of the assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2014 and 2013 (in thousands):

## Fair Value Measurements at Reporting Date Using

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Current portion of co-promote termination payments receivable <sup>(1)</sup>	\$322	\$—	\$—	\$322
Short-term investments <sup>(2)</sup>	7,133	7,133	—	—
Total assets	\$7,455	\$7,133	\$—	\$322
Liabilities:				
Current portion of contingent liabilities - CyDex <sup>(3)</sup>	\$6,796	\$—	\$—	\$6,796
Current portion of co-promote termination liability <sup>(1)</sup>	322	—	—	322
Long-term portion of contingent liabilities - Metabasis <sup>(4)</sup>	3,652	3,652	—	—
Long-term portion of contingent liabilities - CyDex <sup>(3)</sup>	4,701	—	—	4,701
Liability for amounts owed to former licensees <sup>(5)</sup>	773	773	—	—
Total liabilities	\$16,244	\$4,425	\$—	\$11,819

## Fair Value Measurements at Reporting Date Using

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Current portion of co-promote termination payments receivable <sup>(1)</sup>	\$4,329	\$—	\$—	\$ 4,329
Short-term investments <sup>(2)</sup>	4,340	4,340	—	—
Long-term portion of co-promote termination payments receivable <sup>(1)</sup>	7,417	—	—	7,417
Total assets	\$16,086	\$4,340	\$—	\$ 11,746
Liabilities:				
Current portion of contingent liabilities - CyDex <sup>(3)</sup>	\$1,712	\$—	\$—	\$ 1,712
Current portion of co-promote termination liability <sup>(1)</sup>	4,329	—	—	4,329
Long-term portion of contingent liabilities - Metabasis <sup>(4)</sup>	4,196	4,196	—	—
Long-term portion of contingent liabilities - CyDex <sup>(3)</sup>	7,599	—	—	7,599
Liability for amounts owed to former licensees <sup>(5)</sup>	651	651	—	—

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Long-term portion of co-promote termination liability <sup>(1)</sup>	7,417	—	—	7,417
Total liabilities	\$25,904	\$4,847	\$—	\$ 21,057

The co-promote termination payments receivable represents a non-interest-bearing receivable for future payments to be made by Pfizer related to product sales and is recorded at its fair value. The receivable and liability will remain equal, and are adjusted each quarter for changes in the fair value of the obligation including any changes in the

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estimate of future net Avinza product sales. The fair value is determined based on a valuation model using an income approach. For additional information, see Note 4 Avinza Co-Promotion.

The Company's short-term investments include investments in equity securities which the Company received as a (2) result of event-based and upfront payments from licensees. The fair value is determined using quoted market prices in active markets for the same securities.

The fair value of the liabilities for CyDex contingent liabilities were determined based on the income approach using a Monte Carlo analysis. The fair value is subjective and is affected by changes in inputs to the valuation model including management's assumptions regarding revenue volatility, probability of commercialization of (3) products, estimates of timing and probability of achievement of certain revenue thresholds and developmental and regulatory milestones which may be achieved and affect amounts owed to former license holders and CVR holders. Changes in these assumptions can materially affect the fair value estimate.

(4) The liability for CVRs for Metabasis are determined using quoted market prices in active markets for the underlying CVR.

(5) The liability for amounts owed to former licensees are determined using quoted market prices in active markets for the underlying investment received from a partner, a portion of which is owed to former licensors.

The following table represents significant unobservable inputs used in determining the fair value of contingent liabilities assumed in the acquisition of CyDex:

	December 31, 2014	2013
Range of annual revenue subject to revenue sharing (1)	\$17.2 million-\$17.3 million	\$4.2 million-\$19.8 million
Revenue volatility	25%	25%
Average of probability of commercialization	81%	68%
Sales beta	0.60	0.60
Credit rating	B	BBB
Equity risk premium	6%	6%

Revenue subject to revenue sharing represent management's estimate of the range of total annual revenue subject to (1) revenue sharing (i.e. annual revenues in excess of \$15 million) through December 31, 2016, which is the term of the CVR agreement.

A reconciliation of the level 3 financial instruments as of December 31, 2014 is as follows (in thousands):

## Assets:

Fair value of level 3 financial instruments as of December 31, 2013	\$11,746	
Assumed payments made by Pfizer or assignee	(1,243	)
Fair value adjustments to co-promote termination liability	(10,181	)
Fair value of level 3 financial instrument assets as of December 31, 2014	\$322	

## Liabilities

Fair value of level 3 financial instruments as of December 31, 2013	\$21,057	
Assumed payments made by Pfizer or assignee	(1,243	)
Payments to CVR holders and other contingency payments	(3,493	)
Fair value adjustments to contingent liabilities	5,679	
Fair value adjustments to co-promote termination liability	(10,181	)
Fair value of level 3 financial instruments as of December 31, 2014	\$11,819	

Other Fair Value Measurements-2019 Convertible Senior Notes

In August 2014, the Company issued \$245.0 million aggregate principal amount of convertible senior unsecured notes due 2019 (the "2019 Convertible Senior Notes"). The Company uses a quoted market rate in an inactive market, which is classified as a Level 2 input, to estimate the current fair value of its 2019 Convertible Senior Notes. The estimated fair value of

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the 2019 Senior Convertible Notes was \$239.2 million as of December 31, 2014. The carrying value of the notes does not reflect the market rate. See Note 7 Financing Arrangements for additional information.

#### 4. Avinza Co-Promotion

In 2003, the Company and Organon Pharmaceuticals USA Inc. (Organon) entered into an agreement for the co-promotion of Avinza. Subsequently in 2006, the Company signed an agreement with Organon that terminated the Avinza co-promotion agreement between the two companies and returned Avinza co-promotion rights to the Company. In consideration of the early termination, the Company agreed to make quarterly royalty payments to Organon equal to 6.5% of Avinza net sales through December 31, 2013 and thereafter 6% through patent expiration, currently anticipated to be November 2017.

In February 2007, Ligand and King Pharmaceuticals, Inc. ("King"), now a subsidiary of Pfizer, executed an agreement pursuant to which Pfizer acquired all of the Company's rights in and to Avinza. Pfizer also assumed the Company's co-promote termination obligation to make royalty payments to Organon based on net sales of Avinza. In connection with Pfizer's assumption of this obligation, Organon did not consent to the legal assignment of the co-promote termination obligation to Pfizer. Accordingly, Ligand remains liable to Organon in the event of Pfizer's default of the obligation. Therefore, Ligand recorded an asset as of February 26, 2007 to recognize Pfizer'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. This asset represents a non-interest bearing receivable for future payments to be made by Pfizer and is recorded at its fair value. 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 Pfizer defaults on the assumed obligation to pay Organon).

On a quarterly basis, management reviews the carrying value of the co-promote termination liability. In February 2014, Actavis launched a generic form of Avinza which resulted in a significant decrease in estimates of future net sales used to value the co-promote termination asset and 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, 2014 and 2013 is as follows (in thousands):

Net present value of payments based on estimated future net Avinza product sales as of December 31, 2012	\$ 12,534	
Assumed payments made by Pfizer or assignee	(3,310	)
Fair value adjustments due to passage of time	2,522	
Net present value of payments based on estimated future net Avinza product sales as of December 31, 2013	11,746	
Assumed payments made by Pfizer or assignee	(1,243	)
Fair value adjustments due to passage of time	(10,181	)
Total co-promote termination liability as of December 31, 2014	\$ 322	



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## 5. Lease Obligations

The Company leases office and laboratory facilities in California, Kansas and New Jersey. These leases expire between 2014 and 2019 and are subject to annual increases which range from 3.0% to 3.5%. The Company currently subleases office and laboratory space in California and New Jersey. The following table provides a summary of operating lease obligations and payments expected to be received from sublease agreements as of December 31, 2014 (in thousands):

Operating lease obligations:	Lease Termination Date	Less than 1 year	1 year	2 years	3 years	4 years	Total
Corporate headquarters-San Diego, CA	July 2019	\$682	\$700	\$718	\$737	\$373	\$3,210
Bioscience and Technology Business Center-Lawrence, KS	December 2014	54	54	54	—	—	162
Vacated office and research facility-San Diego, CA	July 2015	1,339	—	—	—	—	1,339
Vacated office and research facility-Cranbury, NJ	August 2016	2,589	1,743	—	—	—	4,332
Total operating lease obligations		4,664	2,497	772	737	373	9,043
Sublease payments expected to be received:							
Office and research facility-San Diego, CA	July 2015	\$545	\$—	\$—	\$—	\$—	\$545
Office and research facility-Cranbury, NJ	August 2016	212	141	—	—	—	353
Net operating lease obligations		\$3,907	\$2,356	\$772	\$737	\$373	\$8,145

For the years ended December 31, 2014 and 2013, the Company had lease exit obligations of \$3.3 million and \$5.9 million, respectively. For the years ended December 31, 2014 and 2013, the Company made cash payments, net of sublease payments received of \$3.5 million and \$3.7 million, respectively. The Company recognized adjustments for accretion and changes in leasing assumptions of \$1.1 million, \$0.6 million and \$1.0 million for the years ended December 31, 2014, 2013 and 2012, respectively.

As part of the lease for the corporate headquarters, the Company received a tenant improvement allowance of \$3.2 million. The tenant improvements were used to build out the suite for general lab and office purposes. For the year ended December 31, 2012, the Company recorded a sale leaseback transaction whereby it removed all property from its balance sheet. There was no gain on the sale-leaseback.

Total rent expense under all office leases for 2014, 2013 and 2012 was \$0.7 million, \$0.7 million and \$1.1 million, respectively. The Company recognizes rent expense on a straight-line basis. Deferred rent at December 31, 2014 and 2013 was \$0.3 million and \$0.4 million, respectively, and is included in other long-term liabilities.

## 6. Segment Reporting

The Company evaluates performance based on the operating profit (loss) of the respective business segments. The segment results may not represent actual results that would be expected if they were independent, stand-alone businesses. Segment information is as follows:

## Balance Sheet Data:

	As of December 31, 2014		
	Ligand	CyDex	Total
Total Assets	\$184,215	\$73,814	\$258,029
	As of December 31, 2013		
	Ligand	CyDex	Total

Total Assets	\$38,408	\$66,305	\$104,713
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	For the year ended December 31, 2014		
	Ligand	CyDex	Total
Net revenues from external customers	\$27,174	\$37,364	\$64,538
Operating income	(2,372	) 21,998	19,626
Depreciation and amortization expense	253	2,404	2,657
Income tax (expense) benefit from continuing operations	5,106	(5,516	) (410
Interest expense, net	4,860	—	4,860
			)
	For the year ended December 31, 2013		
	Ligand	CyDex	Total
Net revenues from external customers	\$21,436	\$27,537	\$48,973
Operating (loss) income	253	14,690	14,943
Depreciation and amortization expense	233	2,430	2,663
Write-off of in-process research and development	—	480	480
Income tax benefit from continuing operations	(419	) 45	(374
Interest expense	2,077	—	2,077
Gain on sale of Avinza	2,588	—	2,588
			)
	For the year ended December 31, 2012		
	Ligand	CyDex	Total
Net revenues from external customers	\$19,582	\$11,806	\$31,388
Operating (loss) income	(919	) 1,112	\$193
Depreciation and amortization expense	222	2,505	\$2,727
Interest expense, net	2,924	—	\$2,924
Income tax benefit from continuing operations	1,096	95	\$1,191
Gain on sale of Avinza	3,656	—	\$3,656
Income tax expense from discontinuing operations	(1,509	) —	\$(1,509
			)
7. Financing Arrangements			

The Company fully repaid its secured term loan credit facility on July 31, 2014. Under the terms of the secured debt, the Company made interest-only payments through February 2013. Subsequent to the interest-only payments, the note amortized with principal and interest payments through the remaining term of the loan. Additionally, the Company made an additional final payment equal to 6% of the total amount borrowed which was due at maturity and was accreted over the life of the loan.

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## 0.75% Convertible Senior Notes Due 2019

In August 2014, the Company issued \$245.0 million aggregate principal amount of its 2019 Convertible Senior Notes, resulting in net proceeds of \$239.3 million. The 2019 Convertible Senior Notes are convertible into common stock at an initial conversion rate of 13.3251 shares per \$1,000 principal amount of convertible notes, subject to adjustment upon certain events, which is equivalent to an initial conversion price of approximately \$75.05 per share of common stock. The initial conversion price of the notes represents a premium of approximately 35% to the \$55.59 per share close price of the Company's common stock on August 12, 2014. The notes bear interest at a rate of 0.75% per year, payable semi-annually. Holders of the 2019 Convertible Senior Notes may convert the notes at any time prior to the close of business on the business day immediately preceding May 15, 2019, under any of the following circumstances: (1) during any fiscal quarter (and only during such fiscal quarter) commencing after December 31, 2014, if, for at least 20 trading days (whether or not consecutive) during the 30 consecutive trading day period ending on the last trading day of the immediately preceding fiscal quarter, the last reported sale price of the Company's common stock on such trading day is greater than 130% of the conversion price on such trading day; (2) during the five business day period immediately following any ten consecutive trading day period, in which the trading price per \$1,000 principal amount of notes was less than 98% of the product of the last reported sale price of the Company's common stock on such trading day and the conversion rate on each such trading day; or (3) upon the occurrence of certain specified corporate events as specified in the indenture governing the notes. On or after May 15, 2019 until the close of business on the second scheduled trading day immediately preceding August 15, 2019, holders of the notes may convert all or a portion of their notes at any time, regardless of the foregoing circumstances. Upon conversion, Ligand must deliver cash to settle the principal and may deliver cash or shares of common stock, at the option of the Company, to settle any premium due upon conversion.

In accordance with accounting guidance for debt related to conversion and other options, the Company separately accounted for the debt and equity components of the 2019 Convertible Senior Notes by allocating the \$245.0 million total proceeds between the debt component and the embedded conversion option, or equity component, due to Ligand's ability to settle the 2019 Convertible Senior Notes in cash for the principal portion and to settle any premium in cash or common stock, at the Company's election. The debt allocation was performed in a manner that reflected the Company's non-convertible borrowing rate for similar debt of 5.83% derived from independent valuation analysis. The initial debt value of \$192.5 million accretes at 5.83% to reach \$245.0 million at the maturity date. The equity component of the 2019 Convertible Senior Notes was recognized as a debt discount and represents the difference between the \$245.0 million proceeds at issuance of the 2019 Convertible Senior Notes and the fair value of the debt allocation on their respective issuance dates. The debt discount is amortized to interest expense using the effective interest method over the expected life of a similar liability without an equity component. The notes will have a dilutive effect to the extent the average market price per share of common stock for a given reporting period exceeds the conversion price of \$75.05. As of December 31, 2014, the "if-converted value" did not exceed the principal amount of the 2019 Convertible Senior Notes.

In connection with the issuance of the 2019 Convertible Senior Notes, the Company incurred \$5.7 million of issuance costs, which primarily consisted of underwriting, legal and other professional fees. The portions of these costs allocated to the equity components totaling \$1.2 million were recorded as a reduction to additional paid-in capital. The portions of these costs allocated to the liability components totaling \$4.5 million were recorded as assets on the balance sheet. The portions allocated to the liability components are amortized to interest expense using the effective interest method over the expected life of the 2019 Convertible Senior Notes.

The Company determined the expected life of the debt discount for the 2019 Convertible Senior Notes to be equal to the original five-year term of the notes. The carrying value of the equity component related to the 2019 Convertible Senior Notes as of December 31, 2014, net of issuance costs, was \$51.3 million.



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## Convertible Bond Hedge and Warrant Transactions

In August 2014, in connection with the issuance of the 2019 Convertible Senior Notes, to minimize the impact of potential dilution to the Company's common stock upon conversion of such notes, the Company entered into convertible bond hedges and sold warrants covering approximately 3,264,643 shares of its common stock. The convertible bond hedges have an exercise price of \$75.05 per share and are exercisable when and if the 2019 Convertible Senior Notes are converted. If upon conversion of the 2019 Convertible Senior Notes, the price of the Company's common stock is above the exercise price of the convertible bond hedges, the counterparties will deliver shares of common stock and/or cash with an aggregate value approximately equal to the difference between the price of common stock at the conversion date and the exercise price, multiplied by the number of shares of common stock related to the convertible bond hedge transaction being exercised. The convertible bond hedges and warrants described below are separate transactions entered into by the Company and are not part of the terms of the 2019 Convertible Senior Notes. Holders of the 2019 Convertible Senior Notes and warrants will not have any rights with respect to the convertible bond hedges. The Company paid \$48.1 million for these convertible bond hedges and recorded the amount as a reduction to additional paid-in capital.

Concurrently with the convertible bond hedge transactions, the Company entered into warrant transactions whereby it sold warrants to acquire approximately 3,264,643 shares of common stock with an exercise price of approximately \$125.08 per share, subject to certain adjustments. The warrants have various expiration dates ranging from November 13, 2019 to April 22, 2020. The warrants will have a dilutive effect to the extent the market price per share of common stock exceeds the applicable exercise price of the warrants, as measured under the terms of the warrant transactions. The Company received \$11.6 million for these warrants and recorded this amount to additional paid-in capital. The common stock issuable upon exercise of the warrants will be in unregistered shares, and the Company does not have the obligation and does not intend to file any registration statement with the Securities and Exchange Commission registering the issuance of the shares under the warrants.

The Company determined it holds a variable interest in Viking based on management's assessment that Viking does not have sufficient resources to carry out its principal activities without the support of the Company. Viking has convertible notes payable of \$0.3 million as of December 31, 2014 which bear interest at a rate equal to the lesser of the short-term applicable federal rate as published by the Internal Revenue Service or the maximum rate permissible by law. Interest under the convertible notes is due and payable at maturity. Unless repaid in full or converted in full, each convertible note matures two years from its date of purchase. In the event that any principal amount due is not paid in full by the maturity date, such unpaid principal amount will bear interest at the lesser of 2% or the maximum rate permissible by law. These convertible notes payable are obligations of Viking and are with no recourse to the Company

The carrying values and the fixed contractual coupon rates of the Company's financing arrangements are as follows (dollars in thousands):

	December 31, 2014	December 31, 2013
Convertible notes payable, 2.16% to 3.84%, due 2015, VIE	\$334	\$—
Current portion notes payable, 8.64%, due August 1, 2014	—	6,642
Current portion notes payable, 8.90%, due August 1, 2014	—	2,467
Total current portion of notes payable	\$334	\$9,109
2019 Convertible Senior Notes		
Principal amount outstanding	\$245,000	\$—
Unamortized discount	(49,092)	—
Net carrying amount	195,908	—
Total long-term portion of notes payable	\$195,908	\$—

The Company is required to make principal payments on long-term debt obligations of \$245.0 million in 2019.

The fair value of the Company's debt instruments approximates their carrying values as the interest is tied to or approximates market rates. As of December 31, 2014, there were no events of default or violation of any covenants under the Company's financing obligations.

8. Discontinued Operations

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## Avinza Product Line

On September 6, 2006, the Company and King, now a subsidiary of Pfizer, entered into a purchase agreement, or the Avinza Purchase Agreement, pursuant to which Pfizer acquired 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. 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 this transaction. Accordingly, as part of the accounting for the gain on the sale of Avinza, the Company recorded a reserve for Avinza product returns. For the years ended December 31, 2014, 2013 and 2012, the Company recognized pre-tax gains of \$0, \$2.6 million and \$3.7 million, respectively, due to subsequent changes in certain estimates of assets and liabilities recorded as of the sale date. Cash used in operating activities of discontinued operations related to a settlement agreement with a wholesaler for the years ended December 31, 2014, 2013 and 2012 was \$0, \$0.6 million, and \$0.9 million, respectively.

## 9. Other Balance Sheet Details

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

	December 31,	
	2014	2013
Prepaid expenses	\$835	\$786
Other receivables	685	173
	\$1,520	\$959

Accrued liabilities consist of the following (in thousands):

	December 31,	
	2014	2013
Compensation	\$1,708	\$1,929
Legal	459	697
Amounts owed to former licensees	925	651
Royalties owed to third parties	705	676
Other	1,069	1,384
	\$4,866	\$5,337

## Other Long-Term Liabilities

Other long-term liabilities consist of the following (in thousands):

	December 31,	
	2014	2013
Deferred rent	327	350
Deposits	411	345
Other	32	—
	\$770	\$695

## 10. Stockholders' Equity

## Stock Plans

In May 2009, the Company's stockholders approved the amendment and restatement of the Company's 2002 Stock Incentive Plan (the "Amended 2002 Plan"). The Company's 2002 Stock Incentive Plan was amended to (i) increase the number of shares available for issuance under the Amended 2002 Plan by 1.3 million shares, (ii) revise the list of performance criteria that may be used by the compensation committee for purposes of granting awards under the Amended 2002 Plan that are intended to qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code, as amended, and





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(iii) eliminate the automatic option grant program for non-employee directors, the director fee stock issuance program and the director fee option grant program, which programs have been superseded by the Company's amended and restated Director Compensation Policy. Additionally, in May 2012, the Company's stockholders approved an amendment and restatement of the Company's 2002 Stock Incentive Plan to increase the number of shares available for issuance by 1.8 million shares. As of December 31, 2014, there were 1.1 million shares available for future option grants or direct issuance under the Amended 2002 Plan.

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 December 31, 2013	1,746,709	\$16.79	7.57	\$62,705
Granted	389,934	72.09		
Exercised	(281,515 )	15.71		
Forfeited	(49,967 )	16.69		
Cancelled	(4,464 )	80.56		
Balance at December 31, 2014	1,800,697	28.78	7.25	51,558
Exercisable at December 31, 2014	1,127,667	20.86	6.62	38,395
Options vested and expected to vest as of December 31, 2014	1,800,697	\$28.78	7.25	\$51,558

The weighted-average grant-date fair value of all stock options granted during 2014, 2013 and 2012 was \$46.20, \$14.28 and \$9.13 per share, respectively. The total intrinsic value of all options exercised during 2014, 2013 and 2012 was approximately \$15.3 million, \$5.9 million and \$0.5 million, respectively. As of December 31, 2014, there was \$13.2 million of total unrecognized compensation cost related to non-vested stock options. That cost is expected to be recognized over a weighted average period of 2.2 years.

Cash received from options exercised, net of fees paid, in 2014, 2013 and 2012 was \$4.4 million, \$3.0 million and \$1.0 million, respectively. 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.

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Following is a further breakdown of the options outstanding as of December 31, 2014:

Range of exercise prices	Options outstanding	Weighted average remaining life in years	Weighted average exercise price	Options exercisable	Weighted average exercise price
\$8.58 – \$10.12	382,047	6.06	\$ 9.98	365,174	\$ 9.98
\$10.72 – \$13.53	52,739	7.30	12.45	49,437	12.47
\$14.47 – \$14.47	427,504	7.11	14.47	273,781	14.47
\$16.14 – \$21.92	453,177	6.97	20.79	260,375	20.05
\$32.00 – \$74.42	485,230	8.58	65.42	178,900	56.34
\$8.58 – \$74.42	1,800,697	7.25	\$ 28.78	1,127,667	\$ 20.86

## 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
Non-vested at December 31, 2013	115,386	\$ 21.93
Granted	45,571	70.20
Vested	(74,312)	) 25.21
Forfeited	(3,972)	) 18.42
Non-vested at December 31, 2014	82,673	\$ 45.76

Restricted stock awards generally vest over three years. As of December 31, 2014, unrecognized compensation cost related to non-vested stock awards amounted to \$1.9 million. That cost is expected to be recognized over a weighted average period of 1.3 years.

## Employee Stock Purchase Plan

The Company's Employee Stock Purchase Plan, as amended and restated (the "Amended ESPP") allows participants to purchase up to 1,250 shares of Ligand common stock during each offering period, but in no event may a participant purchase more than 1,250 shares of common stock during any calendar year. The length of each offering period is six months, and employees are eligible to participate in the first offering period beginning after their hire date.

The Amended ESPP allows employees to purchase a limited amount of common stock at the end of each six month period at a price equal to 85% of the lesser of fair market value on either the start date of the period or the last trading day of the period (the "Lookback Provision"). The 15% discount and the Lookback Provision make the Amended ESPP compensatory. There were 3,774, 5,016 and 10,763 shares of common stock issued under the Amended ESPP in 2014, 2013 and 2012, respectively, resulting in an expense of \$54,000, \$45,000 and \$38,000, respectively. For shares purchased under the Company's Amended ESPP, a weighted-average expected volatility of 40%, 36% and 34% was used for 2014, 2013 and 2012, respectively. The expected term for shares issued under the ESPP is 6 months. As of December 31, 2014, 212,447 shares of common stock had been issued under the Amended ESPP to employees and 75,741 shares are available for future issuance.

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### 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, 2014 and 2013, 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.

### Public Offering

During the years ended December 31, 2014 and 2013, the Company did not issue any common shares pursuant to its at-the-market equity issuance plan. During the year ended December 31, 2012, the Company issued 302,750 common shares at a weighted average price of \$18.87 per share. Total net proceeds to the Company after underwriting discounts and expenses were approximately \$5.5 million.

### Corporate Share Repurchase

In August 2014, the Company's Board of Directors authorized the Company to repurchase up to \$200.0 million of its own stock in privately negotiated and open market transactions for a period of up to one year, subject to the Company's evaluation of market conditions, applicable legal requirements and other factors. The Company is not obligated to acquire common stock under this program and the program may be suspended at any time. Through December 31, 2014, the Company repurchased 1,253,425 common shares at a weighted average price of \$54.20 per share pursuant to the repurchase plan, or \$68.0 million of common shares.

## 11. Litigation

The Company records an estimate of a loss when the loss is considered probable and estimable. Where a liability is probable and there is a range of estimated loss and no amount in the range is more likely than any other number in the range, The Company records the minimum estimated liability related to the claim in accordance with FASB ASC Topic 450 Contingencies. As additional information becomes available, the Company assesses the potential liability related to its pending litigation and revises its estimates. Revisions in the Company's estimates of potential liability could materially impact its results of operations.

### Securities Litigation

On June 8, 2012, a federal securities class action and shareholder derivative lawsuit was filed in the Eastern District of Pennsylvania against Genaera Corporation and its officers, directors, major shareholders and trustee ("Genaera Defendants") for allegedly breaching their fiduciary duties to Genaera shareholders. The lawsuit also names the Company and its CEO as additional defendants for allegedly aiding and abetting the Genaera Defendants' various breaches of fiduciary duties based on the Company's purchase of a licensing interest in a development-stage pharmaceutical drug program from the Genaera Liquidating Trust in May 2010 and the Company's subsequent sale of half of its interest in the transaction to Biotechnology Value Fund, Inc. Following an amendment to the complaint and a round of motions to dismiss, the court dismissed the

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amended complaint with prejudice on August 12, 2013. The plaintiff appealed that dismissal on September 10, 2013, and the Third Circuit reversed on October 17, 2014. The plaintiff has indicated that he intends to move to file a second amended complaint, which the Company plans to oppose within the first quarter of 2015. The Company intends to continue to vigorously defend against the claims against the Company and its CEO. Due to the complex nature of the legal and factual issues involved, however, the outcome of this matter is not presently determinable.

Other Litigation

On June 19, 2014, a complaint was filed in California Superior Court seeking attorneys' fees in connection with claims related to executive compensation matters described in the Company's June 6, 2013 supplemental proxy materials. On August 1, 2014 the Company filed an answer denying all allegations in the complaint and asserting several affirmative defenses. The parties have executed a settlement agreement to resolve the matter, pursuant to which the Company is currently awaiting the dismissal of the lawsuit. Because the parties have reached agreement, the Company believes the litigation presents a remote likelihood of material loss.

12. Income Taxes

At December 31, 2014, the Company had federal net operating loss carryforwards set to expire through 2034 of \$563.7 million and \$167.3 million of state net operating loss carryforwards. The Company also has \$18.7 million of federal research and development credit carryforwards, which expire through 2034. The Company has \$14.0 million of California research and development credit carryforwards that have no expiration date.

Sections 382 and 383 of the U.S. tax code impose limitations ("382 and 383 limitations") on the annual utilization of operating loss and credit carryforwards whenever a greater than fifty percent change in the ownership of a company occurs within a three year period. In addition to the annual limitations on operating loss and credit carryforwards, Section 382 can also restrict the utilization of certain post change losses if the tax basis in assets exceeds the fair value of assets ("net unrealized built in loss") at the date of an ownership change. Companies with operating loss and credit carryforwards are required to test the cumulative three year change whenever there is an equity transaction that impacts the ownership of holders of more than five percent of the Company's stock. During 2014, the Company completed a rollforward analysis through December 31, 2013. As a result of the rollforward analysis, it was determined that no additional ownership changes occurred since those identified in the original analysis completed through December 31, 2013. Future changes in the ownership of the Company could place additional restrictions on the Company's ability to utilize operating loss and credit carryforwards arising through December 31, 2014. The components of the income tax expense (benefit) for continuing operations are as follows (in thousands):

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	Year Ended December 31,		
	2014	2013	2012
Current expense (benefit):			
Federal	\$15	\$—	\$3
State	19	33	16
	34	33	19
Deferred expense (benefit):			
Federal	406	404	(913 )
State	(30 )	(63 )	(297 )
	\$410	\$374	\$(1,191 )

Significant components of the Company's deferred tax assets and liabilities as of December 31, 2014 and 2013 are shown below. A valuation allowance has been recognized to offset the net deferred tax assets as management believes realization of such assets is uncertain as of December 31, 2014, 2013 and 2012. The change in valuation allowance increased \$9.8 million in 2014, decreased \$5.4 million in 2013 and increased \$41.8 million in 2012.

	December 31,	
	2014	2013
	(in thousands)	
Deferred assets:		
Net operating loss carryforwards	\$193,747	\$196,421
Research and AMT credit carryforwards	28,288	30,092
Fixed assets and intangibles	13,237	17,293
Accrued expenses	1,579	1,474
Contingent liabilities	579	582
Deferred revenue	771	760
Present value of royalties	11,686	12,175
Organon termination asset	(111 )	(4,073 )
Organon termination liability	111	4,073
Royalty obligation	—	—
Deferred rent	730	1,634
Lease termination costs	—	—
Capital loss carryforwards	—	148
Other	5,780	3,701
	256,397	264,280
Valuation allowance for deferred tax assets	(240,420 )	(249,470 )
Net deferred tax assets	\$15,977	\$14,810
Deferred tax liabilities:		
Retrophin fair value adjustment	\$(1,396 )	\$(859 )
Convertible debt	(1,436 )	—
Identified intangibles	(13,146 )	(13,984 )
Identified indefinite lived intangibles	(3,048 )	(2,639 )
Total	\$(3,049 )	\$(2,672 )

As of December 31, 2014 and 2013, the Company had not recognized as a deferred tax asset \$8.1 million and \$2.4 million, respectively of unrealized excess tax benefits from share based compensation. When realized and the valuation allowance is reversed, such benefits will be credited directly to additional paid-in capital. Changes to the valuation allowance allocated directly to other comprehensive income were \$0.7 million, \$1.0 million and \$0 for 2014, 2013 and 2012, respectively.





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A reconciliation of income taxes from continuing operations to the amount computed by applying the statutory federal income tax rate to the net loss from continuing operations is summarized as follows:

	Years Ended December 31,		
	2014	2013	2012
Amounts computed at statutory federal rate	\$(3,843 )	\$(3,131 )	\$1,317
State taxes net of federal benefit	(697 )	(293 )	196
Meals & entertainment	(9 )	(10 )	(8 )
Acquisition related transaction costs	—	—	—
Imputed interest	(53 )	(285 )	(259 )
Section 162(m) limitation	(490 )		
Contingent liabilities	(1,748 )	(2,027 )	695
Stock-based compensation	(89 )	556	581
Expired NOLs	(88 )	—	(6,847 )
Research and development credits	113	4,581	(1,984 )
Change in uncertain tax positions	(7 )	(364 )	830
Rate change for changes in state law	(119 )	(901 )	(3,388 )
Increase in deferred tax assets from completion of 382 analysis	(43 )	(786 )	53,257
Change in valuation allowance	7,243	3,509	(41,768 )
Other	(580 )	(1,223 )	(1,431 )
	\$(410 )	\$(374 )	\$1,191

The Company accounts for income taxes by evaluating a probability threshold that a tax position must meet before a financial statement benefit is recognized. The minimum threshold is 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's remaining liabilities for uncertain tax positions are presented net of the deferred tax asset balances on the accompanying consolidated balance sheet. A reconciliation of the amount of unrecognized tax benefits at December 31, 2014 and 2013 is as follows (in thousands):

Balance at December 31, 2012	\$8,067
Additions based on tax positions related to the current year	417
Additions for tax positions of prior years	20
Balance at December 31, 2013	\$8,504
Additions based on tax positions related to the current year	40
Reductions for tax positions of prior years	(20 )
Balance at December 31, 2014	\$8,524

Included in the balance of unrecognized tax benefits at December 31, 2014 is \$8.5 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.

The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. As of December 31, 2014 and December 31, 2013, there was an accrual related to uncertain tax positions of \$32,000 and \$31,000. The Company files income tax returns in the United States and in various state jurisdictions with varying statutes of limitations. The federal statute of limitation remains open for the 2011 tax year to present. The state income tax returns generally remain open for the 2010 tax years through present. Changes to the valuation allowance allocated directly to equity were \$1.1 million, \$0, and \$0 for the year ended December 31, 2014, 2013, and 2012, respectively.



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## 13. Summary of Unaudited Quarterly Financial Information

The following is a summary of the unaudited quarterly results of operations for the years ended December 31, 2014 and 2013 (in thousands).

	Quarter ended			
	March 31	June 30	September 30	December 31
2014				
Total revenues	\$ 15,958	\$ 10,608	\$ 14,973	\$ 22,999
Total operating costs and expenses	10,858	9,250	11,441	13,363
Income tax (expense) benefit	(53	) 47	(124	) (280
Income from continuing operations	2,097	1,288	777	6,730
Discontinued operations	—	—	—	—
Net loss attributable to noncontrolling interests	—	(304	) (503	) (325
Net income	2,097	1,592	1,280	7,055
Basic per share amounts:				
Income from continuing operations	0.10	0.08	0.06	0.35
Discontinued operations	—	—	—	—
Net income	\$0.10	\$0.08	\$0.06	\$0.35
Diluted per share amounts:				
Income from continuing operations	0.10	0.07	0.06	0.34
Income from discontinued operations	—	—	—	—
Net income	\$0.10	\$0.07	\$0.06	\$0.34
Weighted average shares—basic	20,600,683	20,738,299	20,417,187	19,878,088
Weighted average shares—diluted	21,208,023	21,780,034	21,345,311	20,792,363
2013				
Total revenues	\$ 11,651	\$ 9,580	\$ 13,005	\$ 14,737
Total operating costs and expenses	7,719	8,066	9,935	8,310
Income tax expense	(66	) (110	) (60	) (138
Income from continuing operations	1,304	3,694	1,965	1,869
Income (loss) from discontinued operations	191	2,397	—	—
Net income	1,495	6,091	1,965	1,869
Basic per share amounts:				
Income from continuing operations	0.06	0.18	0.10	0.09
Discontinued operations	0.01	0.12	—	—
Net income	\$0.07	\$0.30	\$0.10	\$0.09
Diluted per share amounts:				
Income from continuing operations	0.06	0.18	0.09	0.09
Discontinued operations	0.01	0.12	—	—
Net income	\$0.07	\$0.30	\$0.09	\$0.09
Weighted average shares—basic	20,189,378	20,258,618	20,357,558	20,442,603
Weighted average shares—diluted	20,280,030	20,427,360	20,843,742	21,056,156

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure  
None.

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Item 9A. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports we file under the Exchange Act is recorded, processed, summarized and reported within the specified time periods and accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. As of the end of the period covered by this Annual Report on Form 10-K, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on this evaluation, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, concluded that, as of December 31, 2014, our disclosure controls and procedures were effective.

Changes in Internal Controls

There have been no changes in our internal control over financial reporting that occurred in our fourth fiscal quarter that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

(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 our 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 our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements in accordance with generally accepted accounting principles; providing reasonable assurance that receipts and expenditures are made in accordance with our management and directors; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on our 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 our financial statements would be prevented or detected.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) as set forth in the 2013 Internal Control-Integrated Framework. Based on our evaluation under the 2013 framework in Internal Control - Integrated Framework, the Audit Committee, after consultation with our management concluded that our internal controls over financial reporting were effective as of December 31, 2014.

Grant Thornton LLP, an independent registered public accounting firm, has audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2014; their report is included in Item 9A.



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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

Ligand Pharmaceuticals Incorporated

We have audited the internal control over financial reporting of Ligand Pharmaceuticals Incorporated (the “Company”) as of December 31, 2014, based on criteria established in the 2013 Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company’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 (“Management’s Report”). Our responsibility is to express an opinion on the Company’s internal control over financial reporting 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 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, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on criteria established in the 2013 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 financial statements of the Company as of and for the year ended December 31, 2014, and our report dated February 23, 2015 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

Los Angeles, California

February 23, 2015

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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 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, 11119 North Torrey Pines Road, Suite 200, La Jolla, CA 92037. The other information under Item 10 is hereby incorporated by reference to Ligand’s Definitive Proxy Statement to be filed with the SEC on or prior to April 30, 2015.

Item 11. Executive Compensation

Item 11 is hereby incorporated by reference to Ligand’s Definitive Proxy Statement to be filed with the SEC on or prior to April 30, 2015.

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

Item 12 is hereby incorporated by reference to Ligand’s Definitive Proxy Statement to be filed with the SEC on or prior to April 30, 2015.

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

Item 13 is hereby incorporated by reference to Ligand’s Definitive Proxy Statement to be filed with the SEC on or prior to April 30, 2015.

Item 14. Principal Accountant Fees and Services

Item 14 is hereby incorporated by reference to Ligand’s Definitive Proxy Statement to be filed with the SEC on or prior to April 30, 2015.

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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

<u>Index to Consolidated Financial Statements</u>	<u>42</u>
<u>Report of Independent Registered Public Accounting Firm</u>	<u>43</u>
<u>Consolidated Balance Sheets</u>	<u>44</u>
<u>Consolidated Statements of Operations</u>	<u>45</u>
<u>Consolidated Statements of Comprehensive Income (Loss)</u>	<u>46</u>
<u>Consolidated Statements of Stockholders' Equity (Deficit)</u>	<u>47</u>
<u>Consolidated Statements of Cash Flows</u>	<u>48</u>
<u>Notes to Consolidated Financial Statements</u>	<u>50</u>

(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.

Exhibit Number	Description
2.1	Agreement and Plan of Merger, dated January 14, 2011 by and among the Company, CyDex Pharmaceuticals, Inc., and Caymus Acquisition, Inc., (incorporated by reference to the Company's Current Report on Form 8-K filed on January 26, 2011).
3.1	Amended and Restated Certificate of Incorporation of the Company. (incorporated by reference to the Company's Registration Statement on Form S-4 (No. 333-58823) filed on July 9, 1998).
3.2	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated June 14, 2000 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2000).
3.3	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated June 30, 2004 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2004).
3.4	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated November 17, 2010 (incorporated by reference to the Company's Current Report on Form 8-K filed on November 19, 2010).
3.5	Amended Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of the Company (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 1999).
3.6	Second Amended and Restated Bylaws of the Company (incorporated by reference to the Company's Current Report on Form 8-K filed on April 12, 2013).
4.1	Specimen stock certificate for shares of the common stock of the Company (incorporated by reference to the Company's Registration Statement on Form S-1 (No. 33-47257) filed on April 16,



1992 as amended).

4.2 2006 Preferred Shares Rights Agreement, by and between the Company and Mellon Investor Services LLC, dated October 13, 2006 (incorporated by reference to the Company's Current Report Form 8-K filed on October 17, 2006).

4.3 First Amendment to 2006 Preferred Shares Rights Agreement, by and between the Company and Computershare Shareowner Services LLC (f/k/a Mellon Investor Services LLC), dated June 19, 2013 (incorporated by reference to the Company's Current Report on Form 8-K filed on June 20, 2013).

4.4 Indenture dated August 18, 2014 between the Company and Wilmington Trust, National Association (incorporated by reference to the Company's Current Report on Form 8-K filed August 18, 2014).

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Exhibit Number	Description
10.1#	Form of Indemnification Agreement between the Company and each of its directors (incorporated by reference to the Company's Registration Statement on Form S-1 (No. 33-47257) filed on April 16, 1992 as amended).
10.2#	Form of Indemnification Agreement between the Company and each of its officers (incorporated by reference to the Company's Registration Statement on Form S-1 (No. 33-47257) filed on April 16, 1992 as amended).
10.3#	2002 Stock Incentive Plan (as amended and restated through May 31, 2012) (incorporated by reference to the Company's Registration Statement on Form S-8 filed on July 5, 2012 as amended).
10.4#	2002 Employee Stock Purchase Plan (as amended effective July 1, 2009) (incorporated by reference to the Company's Registration Statement on Form S-8 filed on June 22, 2009).
10.5#	Form of Stock Option Grant Notice and Stock Option Agreement under the Company's 2002 Stock Incentive Plan
10.6#	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under the Company's 2002 Stock Incentive Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
10.7#	Form of Stock Issuance Agreement for non-employee directors under the Company's 2002 Stock Incentive Plan (incorporated by reference to the Company's Registration Statement on Form S-1 (no. 333-131029) filed on January 13, 2006 as amended).
10.8#	Form of Letter Agreement regarding Change of Control Severance Benefits between the Company and its officers (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2006).
10.9#	Form of Executive Officer Change in Control Severance Agreement (incorporated by reference to the Company's Current Report on Form 8-K filed on August 22, 2007).
10.10#	Amended and Restated Severance Plan, dated December 20, 2008 (incorporated by reference to the Company's Current Report on Form 8-K filed on December 24, 2012).
10.11#	Amended and Restated Director Compensation and Stock Ownership Policy, effective as of June 1, 2011 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2011).
10.12#	Letter Agreement by and between the Company and John L. Higgins, dated January 10, 2007 (incorporated by reference to the Company's Current Report on Form 8-K filed on January 16, 2007).
10.13	Stock Purchase Agreement, dated September 9, 1992, between the Company and Glaxo, Inc. (incorporated by reference to the Company's Registration Statement on Form S-1 (No. 33-47257)

filed on April 16, 1992 as amended).

- 10.14† Research and Development Agreement, dated September 9, 1992, between the Company and Glaxo, Inc. (incorporated by reference to the Company's Registration Statement on Form S-1 (No. 33-47257) filed on April 16, 1992 as amended).
- 10.15† Option Agreement, dated September 2, 1994, between the Company and American Home Products Corporation, as represented by its Wyeth-Ayerst Research Division (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1994).
- 10.16† Research, Development and License Agreement, dated December 29, 1994, between SmithKline Beecham Corporation and the Company (incorporated by reference to the Registration Statement on Form S-1/S-3 (No. 33-87598 and 33-87600) filed on December 20, 1994, as amended).
- 10.17† Letter of Agreement, dated September 28, 1998, among the Company, Elan Corporation, plc and Elan International Services, Ltd. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1998).
- 10.18† Amended and Restated License and Supply Agreement, dated December 6, 2002, between the Company, Elan Corporation, plc and Elan Management Limited (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2002).
- 10.19† Stock Purchase Agreement by and between the Company and Warner-Lambert Company dated September 1, 1999 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1999).

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Exhibit Number	Description
10.20†	License Agreement, effective June 30, 1999, by and between the Company and X-Ceptor Therapeutics, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1999).
10.21	Purchase Agreement, dated March 6, 2002, between the Company and Pharmaceutical Royalties International (Cayman) Ltd. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2002).
10.22	Amendment Number 1 to Purchase Agreement, dated July 29, 2002, between the Company and Pharmaceutical Royalties International (Cayman) Ltd. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2002).
10.23	Amendment Number 2 to Purchase Agreement, dated December 19, 2002, between the Company and Pharmaceuticals Royalties International (Cayman) Ltd. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2002).
10.24†	Amendment Number 3 to Purchase Agreement, dated December 30, 2002, between the Company and Pharmaceuticals Royalties International (Cayman) Ltd. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2002).
10.25†	Purchase Agreement, dated December 30, 2002, between the Company and Pharmaceuticals Royalties International (Cayman) Ltd. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2002).
10.26†	Co-Promotion Agreement, dated January 1, 2003, by and between the Company and Organon Pharmaceuticals USA Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2003).
10.27†	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 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
10.28†	Amendment to Purchase Agreement Between Royalty Pharma Finance Trust and the Company, dated October 1, 2003 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
10.29	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 the Company, dated November 5, 2004 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2004).
10.30	Amendment to Purchase Agreement between Royalty Pharma Finance Trust, the Company and Investors Trust and Custodial Services (Ireland) Ltd., solely in its capacity as Trustee of Royalty Pharma, dated November 5, 2004 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2004).

- 10.31† Amended and Restated Research, Development and License Agreement, dated December 1, 2005, between the Company and Wyeth (formerly American Home Products Corporation) (incorporated by reference to the Company's Registration Statement on Form S-1 (no. 333-131029) filed on January 13, 2006 as amended).
- 10.32 Termination and Return of Rights Agreement between the Company and Organon USA Inc., dated January 1, 2006 (incorporated by reference to the Amendment to the Company's Registration Statement on Form S-1 (No. 333-1031029) filed on February 10, 2006).
- 10.33 Purchase Agreement, by and between the Company, King Pharmaceuticals, Inc. and King Pharmaceuticals Research and Development, Inc., dated September 6, 2006 (incorporated by reference to the Company's Current Report Form 8-K filed on September 11, 2006).
- 10.34 Loan Agreement by and between the Company and King Pharmaceuticals, 303 Inc., dated October 12, 2006 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2006).
- 10.35 Letter Agreement by and between the Company and King Pharmaceuticals, Inc. effective as of December 29, 2006 (incorporated by reference to the Company's Current Report on Form 8-K filed on January 5, 2007).

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Exhibit Number	Description
10.36	Amendment Number 2 to Purchase Agreement, by and between the Company and King Pharmaceuticals, Inc., effective February 26, 2007 (incorporated by reference to the Company's Current Report on Form 8-K filed on February 28, 2007).
10.37	Purchase Agreement, by and among the Company, Seragen, Inc., Eisai Inc. and Eisai Co., Ltd., dated September 7, 2006 (incorporated by reference to the Company's Current Report Form 8-K filed on September 11, 2006).
10.38	Purchase Agreement and Escrow Instructions by and between Nexus Equity VI, LLC, the Company and Slough Estates USA Inc., dated October 25, 2006 (incorporated by reference to the Company's Current Report on Form 8-K filed on October 31, 2006).
10.39	Lease, dated July 6, 1994, between the Company and Chevron/Nexus partnership, First Amendment to Lease dated July 6, 1994 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1995).
10.40	Sublease Agreement between the Company and eBIOSCIENCE, INC., dated as of December 16, 2007 (incorporated by reference to the Company's Current Report on Form 8-K filed on December 19, 2007).
10.41	Lease, dated August 20, 2003, between Pharmacoepia, Inc. and Eastpark at 8A (Building 1000) (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008).
10.42	Amendment to Lease, dated September 10, 2007, between Pharmacoepia, Inc. and Eastpark at 8A (Building 1000) (incorporated by reference to Pharmacoepia, Inc.'s Quarterly Report on Form 10-Q for the period ended September 30, 2007, File No. 000-50523).
10.43	Lease, dated August 20, 2003, between Pharmacoepia, Inc. and Eastpark at 8A (Building 3000) (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008).
10.44	Amendment to Lease, dated April 18, 2007, between Pharmacoepia, Inc. and Eastpark at 8A (Building 3000) (incorporated by reference to Pharmacoepia, Inc.'s Quarterly Report on Form 10-Q for the period ended September 30, 2007, File No. 000-50523).
10.45	Lease, between the Company and HCP TPSP, LLC, dated August 7, 2009 (incorporated by reference to the Company's Current Report on Form 8-K filed on August 11, 2009).
10.46	Lease Termination Agreement, between the Company and TPSC IX, LLC, dated August 7, 2009 (incorporated by reference to the Company's Current Report on Form 8-K filed on August 11, 2009).
10.47	Lease Agreement, dated September 5, 2011, between the Company and ARE-SD Region No. 24, LLC (incorporated by reference to the Company's Current Report on Form 8-K filed on September 9, 2011).

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- 10.48 Amendment to Lease Agreement, dated November 1, 2011, between the Company and HCP TPSP, LLC (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2011).
- 10.49† Collaboration and License Agreement, dated July 9, 2003 and effective August 8, 2003, between Pharmacoepia, Inc. and Schering-Plough Ltd. (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008).
- 10.50† Collaboration and License Agreement, dated July 9, 2003 and effective August 8, 2003, between Pharmacoepia, Inc. and Schering Corporation (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008).
- 10.51 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. (incorporated by reference to Pharmacoepia, Inc.'s Current Report on Form 8-K filed on August 2, 2006, File No. 000-50523).
- 10.52 License Agreement, dated March 27, 2006, between Pharmacoepia, Inc. and Bristol-Myers Squibb Company (incorporated by reference to Pharmacoepia, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2006, File No. 000-50523).
- 10.53 License Agreement, dated October 11, 2007, between Bristol-Myers Squibb Company and Pharmacoepia, Inc. (Filed as Exhibit 10.45) (File No. 000-50523) (incorporated by reference to Pharmacoepia, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2007, File No. 000-50523).

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Exhibit Number	Description
10.54	Contingent Value Rights Agreement, dated December 23, 2008, among the Company, Pharmacopeia, Inc. and Mellon Investor Services LLC (incorporated by reference to Pharmacopeia, Inc.'s Current Report on Form 8-K filed on December 23, 2008, File No. 000-50523).
10.55†	License Agreement, dated December 17, 2008, between the Company and SmithKline Beecham Corporation, doing business as GlaxoSmithKline (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008).
10.56	Settlement Agreement and Mutual Release, by and between the Company and The Rockefeller University, dated February 11, 2009 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2009).
10.57	Research Collaboration Termination Agreement, between the Company and N.V. Organon, dated July 29, 2009 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2009).
10.58	Contingent Value Rights Agreement, dated December 23, 2009, among the Company, Neurogen Corporation, Registrar and Transfer Company, and Merck CVR Registrar (incorporated by reference to the Company's Current Report on Form 8-K filed on December 24, 2009).
10.59	TR Beta Contingent Value Rights Agreement, dated January 27, 2010, among the Company, Metabasis Therapeutics, Inc., David F. Hale and Mellon Investor Services LLC (incorporated by reference to the Company's Current Report on Form 8-K filed on January 28, 2010).
10.60	Glucagon Contingent Value Rights Agreement, dated January 27, 2010, among the Company, Metabasis Therapeutics, Inc., David F. Hale and Mellon Investor Services LLC (incorporated by reference to the Company's Current Report on Form 8-K filed on January 28, 2010).
10.61	General Contingent Value Rights Agreement, dated January 27, 2010, among the Company, Metabasis Therapeutics, Inc., David F. Hale and Mellon Investor Services LLC (incorporated by reference to the Company's Current Report on Form 8-K filed on January 28, 2010).
10.62	Amendment of General Contingent Value Rights Agreement, dated January 26, 2011, among the Company, Metabasis Therapeutics, Inc., David F. Hale and Mellon Investor Services LLC (incorporated by reference to the Company's Current Report on Form 8-K filed on January 31, 2011).
10.63	Purchase and Sale Agreement, dated May 18, 2010, between the Company and The Genaera Liquidating Trust (incorporated by reference to the Company's Current Report on Form 8-K filed on May 24, 2010).
10.64	Purchase Agreement, dated May 20, 2010, between the Company and Biotechnology Value Fund, L.P., on its own behalf and on behalf of Biotechnology Value Fund II, L.P. and Investment 10, L.L.C. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2010).



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- 10.65 Asset Purchase Agreement, dated July 30, 2010, between Wyeth LLC, Pharmacoepia, Inc. and the Company (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2010).
- 10.66 Contingent Value Rights Agreement, by and among the Company, CyDex Pharmaceuticals, Inc., and Allen K. Roberson and David Poltack, acting jointly as Shareholders' Representative, dated January 14, 2011 (incorporated by reference to the Company's Current Report on Form 8-K filed on January 26, 2011).
- 10.67† Supply Agreement, dated December 20, 2002, among CyDex Pharmaceuticals, Inc., Hovione LLC, Hovione FarmaCiencia S.A., Hovione Pharmascience Limited, and Hovione International Limited (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
- 10.68† First Amendment to Supply Agreement, dated July 29, 2005, among CyDex Pharmaceuticals, Inc., Hovione LLC, Hovione FarmaCiencia S.A., Hovione Pharmascience Limited, and Hovione International Limited (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
- 10.69 2nd Amendment to Supply Agreement, dated March 1, 2007, among CyDex Pharmaceuticals, Inc., Hovione LLC, Hovione FarmaCiencia S.A., Hovione Pharmascience Limited, and Hovione International Limited (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).

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Exhibit Number	Description
10.70†	3rd Amendment to Supply Agreement, dated January 25, 2008, among CyDex Pharmaceuticals, Inc., Hovione LLC, Hovione FarmaCiencia S.A., Hovione Pharmascience Limited, and Hovione International Limited (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.71†	4th Amendment to Supply Agreement, dated September 28, 2009, among CyDex Pharmaceuticals, Inc., Hovione LLC, Hovione FarmaCiencia S.A., Hovione Pharmascience Limited, and Hovione International Limited (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.72†	License Agreement, dated September 3, 1993, between CyDex Pharmaceuticals, Inc. and The University of Kansas (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.73†	Second Amendment to the License Agreement, dated August 4, 2004, between CyDex Pharmaceuticals, Inc. and The University of Kansas (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.74†	Acknowledgement Agreement, dated March 3, 2008, between CyDex Pharmaceuticals, Inc. and The University of Kansas (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.75†	Exclusive License Agreement, dated June 4, 1996, between Pfizer, Inc. and CyDex Pharmaceuticals, Inc. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.76†	Nonexclusive License Agreement, dated June 4, 1996, between Pfizer, Inc. and CyDex Pharmaceuticals, Inc. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.77†	Addendum to Nonexclusive License Agreement, dated December 11, 2001, between CyDex Pharmaceuticals, Inc. and Pfizer, Inc. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.78†	License Agreement, dated January 4, 2006, between CyDex Pharmaceuticals, Inc. and Prism Pharmaceuticals (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.79†	Amendment to License Agreement, dated May 12, 2006, between CyDex Pharmaceuticals, Inc. and Prism Pharmaceuticals (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.80†	Supply Agreement, dated March 5, 2007, between CyDex Pharmaceuticals, Inc. and Prism Pharmaceuticals (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.81†	

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License and Supply Agreement, dated October 12, 2005, between CyDex Pharmaceuticals, Inc. and Proteolix, Inc. (Filed as Exhibit 10.22)(File No. 000-28298) (incorporated by reference to Onyx Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009, File No. 000-28298).

10.82† Amended and Restated License Agreement, dated October 31, 2012, between the Company and Chiva Pharmaceuticals, Inc. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2012).

10.83† Settlement Agreement and Mutual Release, dated October 31, 2012, between the Company and Chiva Pharmaceuticals, Inc. (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2012).

10.84† Supply Agreement, dated June 13, 2011 by and between CyDex Pharmaceuticals, Inc. and Merck (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2011).

10.85 License Agreement, dated September 5, 2011, between the Company and ARE-3535/3565 General Atomics Court, LLC (incorporated by reference to the Company's Current Report on Form 8-K filed on September 9, 2011).

10.86 Letter Agreement, dated September 29, 2011, between the Company and Biotechnology Value Fund, L.P. (incorporated by reference to the Company's Current Report on Form 8-K filed on September 30, 2011).

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Exhibit Number	Description
10.87	Amended Letter Agreement, dated June 19, 2013, between the Company and Biotechnology Value Fund, L.P. (incorporated by reference to the Company's Current Report on Form 8-K filed on June 20, 2013).
10.88†	License Agreement, by and between CyDex and Spectrum Pharmaceuticals, Inc., dated as of March 8, 2013 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended March 31, 2013).
10.89†	Supply Agreement, by and between CyDex and Spectrum Pharmaceuticals, Inc., dated as of March 8, 2013 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended March 31, 2013).
10.90†	Royalty Stream and Milestone Payments Purchase Agreement, dated April 29, 2013, between the Company and Selexis S.A. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended June 30, 2013).
10.91†	License Agreement dated July 17, 2013 between the Company and Azure Biotech, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended September 30, 2013).
10.92†	Exclusive License and Distribution Agreement dated July 23, 2013 between the Company and Ethicor Pharmaceuticals, Ltd. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended September 30, 2013).
10.93†	License Agreement dated August 12, 2013 between CyDex Pharmaceuticals, Inc. and CURx Pharmaceuticals, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended September 30, 2013).
10.94†	Supply Agreement dated August 12, 2013 between CyDex Pharmaceuticals, Inc. and CURx Pharmaceuticals, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended September 30, 2013).
10.95	Amendment of "General" Contingent Value Rights Agreement dated May 20, 2014 among the Company, Metabasis Therapeutics, Inc., David F. Hale and Computershare Inc. (incorporated by reference to the Company's Current Report on Form 8-K filed May 22, 2014).
10.96	Amendment of "TR Beta" Contingent Value Rights Agreement dated May 20, 2014 among the Company, Metabasis Therapeutics, Inc., David F. Hale and Computershare, Inc. (incorporated by reference to the Company's Current Report on Form 8-K filed May 22, 2014).
10.97†	Loan and Security Agreement dated May 21, 2014 between the Company and Viking Therapeutics, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended June 30, 2014).
10.98†	Master License Agreement dated May 21, 2014 among the Company, Metabasis Therapeutics, Inc. and Viking Therapeutics, Inc. (incorporated by reference to the Company's Quarterly Report on

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- 10.99† Research and License Agreement dated May 9, 2014 between the Company and Omthera Pharmaceuticals, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended June 30, 2014).
- 10.100† License Agreement between dated June 23, 2014 between the Company and TG Therapeutics, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended June 30, 2014).
- 10.101 Letter Agreement, dated as of August 12, 2014, between Bank of America, N.A. and the Company regarding the Base Convertible Note Hedge Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).
- 10.102 Letter Agreement, dated as of August 12, 2014, between Bank of America, N.A. and the Company regarding the Base Warrant Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).
- 10.103 Letter Agreement, dated as of August 12, 2014, between Deutsche Bank AG, London Branch and the Company regarding the Base Convertible Note Hedge Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).
- 10.104 Letter Agreement, dated as of August 12, 2014, between Deutsche Bank AG, London Branch and the Company regarding the Base Warrant Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).

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Exhibit Number	Description
10.105	Letter Agreement, dated as of August 14, 2014, between Bank of America, N.A. and the Company regarding the Additional Convertible Note Hedge Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).
10.106	Letter Agreement, dated as of August 14, 2014, between Bank of America, N.A. and the Company regarding the Additional Warrant Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).
10.107	Letter Agreement, dated as of August 14, 2014, between Deutsche Bank AG, London Branch and the Company regarding the Additional Convertible Note Hedge Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).
10.108	Letter Agreement, dated as of August 14, 2014, between Deutsche Bank AG, London Branch and the Company regarding the Additional Warrant Transactions (incorporated by reference to the Company's Current Report on Form 8-K filed on August 18, 2014).
10.109†	First Amendment to Master License Agreement dated September 6, 2014 among the Company, Metabasis Therapeutics, Inc. and Viking Therapeutics, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Period ended September 30, 2014).
21.1	Subsidiaries of the Company (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2011).
23.1	Consent of independent registered public accounting firm-Grant Thornton LLP
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	Certifications by Principal Executive Officer and Principal Financial Officer, Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

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Confidential treatment has been requested for portions of this exhibit. These portions have been omitted and submitted separately to the Securities and Exchange Commission.

#Indicates management contract or compensatory plan.

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## SIGNATURES

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

## LIGAND PHARMACEUTICALS INCORPORATED

By: /S/ JOHN L. HIGGINS  
John L. Higgins,  
Chief Executive Officer

Date: February 23, 2015

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ JOHN L. HIGGINS John L. Higgins	Chief Executive Officer and Director (Principal Executive Officer)	February 23, 2015
/s/ NISHAN DE SILVA Nishan de Silva	Vice President, Finance and Strategy and Chief Financial Officer (Principal Financial Officer)	February 23, 2015
/s/ MELANIE J. HERMAN Melanie J. Herman	Director of Accounting (Principal Accounting Officer)	February 23, 2015
/s/ JASON M. ARYEH Jason M. Aryeh	Director	February 23, 2015
/s/ TODD C. DAVIS Todd C. Davis	Director	February 23, 2015
/s/ DAVID M. KNOTT David M. Knott	Director	February 23, 2015
/s/ JOHN W. KOZARICH John W. Kozarich	Director	February 23, 2015
/s/ JOHN L. LAMATTINA John L. LaMattina	Director	February 23, 2015
/s/ SUNIL PATEL Sunil Patel	Director	February 23, 2015
/s/ STEPHEN L. SABBA Stephen L. Sabba	Director	February 23, 2015