HALOZYME THERAPEUTICS INC
Form 10-K
February 29, 2016

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2015

OR

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

For the transition period from _____ to _____

Commission File Number: 001-32335

Halozyme Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	88-0488686
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
11388 Sorrento Valley Road, San Diego, California	92121
(Address of principal executive offices)	(Zip Code)

(858) 794-8889
(Registrant's Telephone Number, Including Area Code)

Securities registered under Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.001 Par Value	The NASDAQ Stock Market, LLC

Securities registered under 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. x Yes ¨ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. ¨ Yes x 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. x 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). x 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. o

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2015 was approximately $2.4 billion based on the closing price on the NASDAQ Global Select Market reported for such date. Shares of common stock held by each officer and director and by each person who is known to own 10% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates of the registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 22, 2016, there were 129,061,401 shares of the registrant’s common stock issued, $0.001 par value per share, and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s definitive Proxy Statement to be filed subsequent to the date hereof with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the registrant’s 2016 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report.

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This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of the "safe harbor" provisions of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended. All statements, other than statements of historical fact, included herein, including without limitation those regarding our future product development and regulatory events and goals, product collaborations, our business intentions and financial estimates and anticipated results, are forward-looking statements. Words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "estimate," "think," "may," "could," "will," "would," "should," "co "likely," "opportunity" and similar expressions or variations of such words are intended to identify forward-looking statements, but are not the exclusive means of identifying forward-looking statements in this Annual Report. Additionally, statements concerning future matters such as the development or regulatory approval of new products, enhancements of existing products or technologies, third party performance under key collaboration agreements, revenue and expense levels and other statements regarding matters that are not historical are forward-looking statements.

Although forward-looking statements in this Annual Report reflect the good faith judgment of our management, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties and actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include without limitation those discussed under the heading "Risk Factors" in Part I, Item 1A below, as well as those discussed elsewhere in this Annual Report. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report. We undertake no obligation to revise or update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this Annual Report. Readers are urged to carefully review and consider the various disclosures made in this Annual Report, which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects.

References to "Halozyme," "the Company," "we," "us," and "our" refer to Halozyme Therapeutics, Inc. and its wholly owned subsidiary, Halozyme, Inc., and Halozyme, Inc.'s wholly owned subsidiaries, Halozyme Holdings Ltd. and Halozyme Royalty LLC. References to "Notes" refer to the Notes to Consolidated Financial Statements included herein (refer to Part II, Item 8).

PART I

Item 1. Business

Overview

Halozyme Therapeutics, Inc. is a biotechnology company focused on developing and commercializing novel oncology therapies. We are seeking to translate our unique knowledge of the tumor microenvironment to create therapies that have the potential to improve cancer patient survival. Our research primarily focuses on human enzymes that alter the extracellular matrix and tumor microenvironment. The extracellular matrix is a complex matrix of proteins and carbohydrates surrounding the cell that provides structural support in tissues and orchestrates many important biological activities, including cell migration, signaling and survival. Over many years, we have developed unique technology and scientific expertise enabling us to pursue this target-rich environment for the development of therapies.

Our proprietary enzymes are used to facilitate the delivery of injected drugs and fluids, potentially enhancing the efficacy and the convenience of other drugs or can be used to alter tissue structures for potential clinical benefit. We exploit our technology and expertise using a two pillar strategy that we believe enables us to manage risk and cost by: (1) developing our own proprietary products in therapeutic areas with significant unmet medical needs, with a focus on oncology, and (2) licensing our technology to biopharmaceutical companies to collaboratively develop products that combine our technology with the collaborators' proprietary compounds.

The majority of our approved product and product candidates are based on rHuPH20, our patented recombinant human hyaluronidase enzyme. rHuPH20 is the active ingredient in our first commercially approved product, Hylenex® recombinant, and it works by temporarily breaking down hyaluronan (or HA), a naturally occurring complex carbohydrate that is a major component of the extracellular matrix in tissues throughout the body such as skin and cartilage. We believe this temporary degradation creates an opportunistic window for the improved subcutaneous delivery of injectable biologics, such as monoclonal antibodies and other large therapeutic molecules, as well as small molecules and fluids. We refer to the application of rHuPH20 to facilitate the delivery of other drugs or fluids as our ENHANZE™ Technology. We license the ENHANZE Technology to form collaborations with biopharmaceutical companies that develop or market drugs requiring or benefiting from injection via the subcutaneous route of administration.

We currently have ENHANZE collaborations with F. Hoffmann-La Roche, Ltd. and Hoffmann-La Roche, Inc. (Roche), Baxalta US Inc. and Baxalta GmbH (Baxalta), Pfizer Inc. (Pfizer), Janssen Biotech, Inc. (Janssen), AbbVie, Inc. (AbbVie), and Eli Lilly and Company (Lilly). We receive royalties from two of these collaborations, including royalties from sales of one product approved in both the United States and outside the United States from the Baxalta collaboration and from sales of two products approved for marketing outside the United States from the Roche collaboration. Future potential revenues from the sales and/or royalties of our approved products, product candidates, and ENHANZE collaborations will depend on the ability of Halozyme and our collaborators to develop, manufacture, secure and maintain regulatory approvals for approved products and product candidates and commercialize product candidates.

Our proprietary development pipeline consists primarily of clinical stage product candidates in oncology. Our lead oncology program is PEGPH20 (PEGylated recombinant human hyaluronidase), a molecular entity we are developing for the systemic treatment of tumors that accumulate HA. When HA accumulates in a tumor, it can cause higher pressure in the tumor, reducing blood flow into the tumor and with that, reduced access of cancer therapies to the tumor. PEGPH20 works by temporarily degrading HA surrounding cancer cells resulting in reduced pressure and increased blood flow to the tumor thereby enabling increased amounts of anticancer treatments administered concomitantly gaining access to the tumor. We are currently in Phase 2 and Phase 3 clinical testing for PEGPH20 in stage IV pancreatic ductal adenocarcinoma (PDA) (Studies 109-202 and 109-301), in Phase 1b clinical testing in non-small cell lung cancer (Study 107-201) and in Phase 1b clinical testing in non-small cell lung cancer and gastric cancer (Study 107-101).

Our principal offices and research facilities are located at 11388 Sorrento Valley Road, San Diego, California 92121. Our telephone number is (858) 794-8889 and our e-mail address is info@halozyme.com. Our website address is www.halozyme.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this Annual Report on Form 10-K. Our periodic and current reports that we filed with the SEC are available on our website at www.halozyme.com, free of charge, as soon as reasonably practicable after we have electronically filed such material with, or furnished them to, the SEC, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports. Further copies of these reports are located at the SEC's Public Reference Room at 100 F Street, N.W., Washington, D.C. 20549, and online at http://www.sec.gov.

Technology

rHuPH20 can be applied as a drug delivery platform to increase dispersion and absorption of other injected drugs and fluids that are injected under the skin or in the muscle thereby potentially enhancing efficacy or convenience. For example, rHuPH20 has been used to convert drugs that must be delivered intravenously into subcutaneous injections or to reduce the number of subcutaneous injections needed for effective therapy. When ENHANZE Technology is applied subcutaneously, the rHuPH20 acts locally and has a tissue half-life of less than 15 minutes. HA at the local site reconstitutes its normal density within a few days and, therefore, we anticipate that any effect of rHuPH20 on the architecture of the subcutaneous space is temporary.

Additionally, we are expanding our scientific work to develop other enzymes and agents that target the extracellular matrix's unique aspects, giving rise to potentially new molecular entities with a particular focus on oncology. We are developing a PEGylated version of the rHuPH20 enzyme (PEGPH20), that lasts for an extended period in the

bloodstream (half-life of one to two days), and may therefore better target solid tumors that accumulate HA by degrading the surrounding HA and reducing the interstitial fluid pressure within malignant tumors to allow better penetration by co-administered agents.

Strategy

During 2015, we continued our strategy of focusing on developing our PEGPH20 product candidate for oncology as well as entering into new collaborations for ENHANZE Technology. This business model allows for growth in which revenue garnered from collaboration products helps fund our investment in PEGPH20 clinical development, with the goal of a future product approval that will support sustained growth.

Key aspects of our corporate strategy include the following:

- Focus on developing PEGPH20, our investigational new drug candidate, in multiple different tumors that accumulate high levels of HA. PEGPH20 is in Phase 2 and Phase 3 development in stage IV PDA and in Phase 1b development in non-small cell lung cancer and gastric cancer. Over time, it is our goal to study additional types of cancer and to advance this program toward regulatory approval and commercial launch.
- Focus on ENHANZE collaborations. We currently have six collaborations with three current product approvals and additional product candidates in development. We intend to work with our existing collaborators to expand our collaborations to add new targets and product candidates under the terms of the operative agreements. In addition, we will continue our efforts to enter into new collaborations to further exploit and derive additional value from our proprietary technology.

Product and Product Candidates

We have one marketed proprietary product and one proprietary product candidate targeting several indications in various stages of development. The following table summarizes our proprietary product and product candidate as well as products and product candidates under development with our collaborators:

Proprietary Pipeline

Hylenex Recombinant (hyaluronidase human injection)

Hylenex recombinant is a formulation of rHuPH20 that has received FDA approval to facilitate subcutaneous fluid administration for achieving hydration, to increase the dispersion and absorption of other injected drugs and, in subcutaneous urography, to improve resorption of radiopaque agents. Hylenex recombinant is currently the number one prescribed branded hyaluronidase.

PEGPH20

We are developing PEGPH20 as a candidate for the systemic treatment of tumors that accumulate HA in combination with currently approved cancer therapies. 'PEG' refers to the attachment of polyethylene glycol to rHuPH20, thereby creating PEGPH20. One of the novel properties of PEGPH20 is that it lasts for an extended duration in the bloodstream and, therefore, can be administered systemically to maintain its therapeutic effect to treat disease. Cancer malignancies, including pancreatic, lung, breast, gastric, colon and prostate cancers can accumulate high levels of HA and therefore we believe that PEGPH20 has the potential to help patients with these types of cancer when used with currently approved cancer therapies. Among solid tumors, PDA has been reported to be associated with the highest frequency of HA accumulation. Approximately 90,000 patients in the United States and the European Union will be diagnosed with PDA in 2016.

The pathologic accumulation of HA, along with other matrix components, creates a unique microenvironment for the growth of tumor cells compared to normal cells. We believe that depleting the HA component of the tumor microenvironment with PEGPH20 remodels the tumor microenvironment, resulting in tumor growth inhibition in animal models. Removal of HA from the tumor microenvironment results in expansion of previously constricted blood vessels allowing increased blood flow, potentially increasing the access of activated immune cells and factors in the blood into the tumor microenvironment. If PEGPH20 is administered in conjunction with other anti-cancer therapies, the increase in blood flow may allow anti-cancer therapies to have greater access to the tumor, which may enhance the treatment effect of therapeutic modalities like chemotherapies, monoclonal antibodies and other agents.

Study Halo 109-201:

In January 2015, we presented the final results from Study 109-201, a multi-center, international open label dose escalation Phase 1b clinical study of PEGPH20 in combination with gemcitabine for the treatment of patients with stage IV PDA at the 2015 Gastrointestinal Cancers Symposium (also known as ASCO-GI meeting). This study enrolled 28 patients with previously untreated stage IV PDA. Patients were treated with one of three doses of PEGPH20 (1.0, 1.6 and 3.0 μg/kg twice weekly for four weeks, then weekly thereafter) in combination with gemcitabine 1000 mg/m2 administered intravenously. In this study, the confirmed overall response rate (complete response + partial response confirmed on a second scan as assessed by an independent radiology review) was 29 percent (7 of 24 patients) for those treated at therapeutic dose levels of PEGPH20 (1.6 and 3.0 μg/kg). Median progression-free survival (PFS) was 154 days (95% CI, 50-166) in the efficacy-evaluable population (n = 24). Among efficacy-evaluable patients with baseline tumor HA staining (n = 17), the median PFS in patients with high baseline tumor HA staining (6/17 patients) was substantially longer, 219 days, than in the patients with low baseline tumor HA staining (11/17 patients), 108 days. Median overall survival (OS) was 200 days (95% CI, 123-370) in the efficacy-evaluable population (n = 24). Among efficacy-evaluable patients with baseline tumor HA staining (n = 17), the median OS in patients with high baseline tumor HA staining (6/17 patients) was substantially longer, 395 days, than in the patients with low baseline tumor HA staining (11/17 patients), 174 days. The most common treatment-emergent adverse events (occurring in ≥ 15% of patients) were peripheral edema, muscle spasms, thrombocytopenia, fatigue, myalgia, anemia, and nausea. Thromboembolic (TE) events were reported in 8 patients (28.6%) and musculoskeletal events were reported in 21 patients (75%) which were generally grade 1/2 in severity.

Study Halo 109-202:

In the second quarter of 2013, we initiated Study 109-202, a Phase 2 multicenter randomized clinical trial evaluating PEGPH20 as a first-line therapy for patients with stage IV PDA. The study was designed to enroll patients who would receive gemcitabine and nab-paclitaxel (ABRAXANE®) either with or without PEGPH20. The primary endpoint is to measure the improvement in PFS in patients receiving PEGPH20 plus gemcitabine and nab-paclitaxel compared to those who are receiving gemcitabine and nab-paclitaxel alone. In April 2014, after 146 patients had been enrolled, the

trial was put on clinical hold by Halozyme and the

FDA to assess a question raised by the Data Monitoring Committee regarding a possible difference in the TE events rate between the group of patients treated with PEGPH20, nab-paclitaxel and gemcitabine (PAG arm) versus the group of patients treated with nab-paclitaxel and gemcitabine without PEGPH20 (AG arm). This portion of the study and patients in this portion are now referred to as Stage 1. It should be noted that at the time of the clinical hold all patients remaining in the study continued on gemcitabine and nab-paclitaxel. In July 2014, the Study 109-202 was reinitiated (Stage 2) under a revised protocol, which excludes patients that are expected to be at a greater risk for TE events. The revised protocol provides for thromboembolism prophylaxis of all patients in both arms of the study with low molecular weight heparin, and adds evaluation of the TE events rate in Stage 2 PEGPH20-treated patients as a co-primary end point. Stage 2 of Study 109-202 enrolled an additional 133 patients, to add to the 146 patients already accrued in the clinical trial, with a 2:1 randomization for PAG compared to AG. We project to present mature PFS data and overall response rate in the fourth quarter of 2016.

In May 2015, interim findings from the ongoing Phase 2 clinical study of PEGPH20 for the potential treatment of patients with stage IV PDA were presented at the American Society of Clinical Oncology annual meeting. The trial included 135 treated patients in Stage 1, of whom a total of 44 patients -- 23 receiving PEGPH20 in combination with ABRAXANE® and gemcitabine (PAG treatment arm) and 21 receiving ABRAXANE and gemcitabine alone (AG treatment arm) -- had available biopsies that were determined utilizing the Halozyme prototype HA assay in a retrospective analysis to have high levels of hyaluronan. PEGPH20 targets HA to help improve cancer therapy access to tumor cells. Results reported include:

- A more than doubling of median PFS of 9.2 months versus 4.3 months in high-HA patients treated with PAG vs. AG (hazard ratio of 0.39; p-value of 0.05);
- A more than doubling of overall response rate of 52 percent versus 24 percent (p-value of 0.038) and a duration of response of 8.1 months compared to 3.7 months in high-HA patients treated with PAG versus AG;
- In the 30 high-HA patients (15 PAG treatment arm versus 15 AG treatment arm) who were evaluated for response prior to the April 2014 clinical hold and subsequent PEGPH20 treatment discontinuation, the overall response rate was 73 percent versus 27 percent (p-value of 0.01), respectively, consistent with findings presented in January;
- A trend toward improvement in median overall survival of 12 months compared to 9 months in high-HA patients treated with PAG versus AG (hazard ratio of 0.62) despite discontinuation of PEGPH20 in more than half of the PAG-treated patients at the time of the clinical hold in April 2014.

Data was also presented on the rate of TE events in 55 patients treated in Stage 2 of the trial, which is currently randomizing patients at a 2:1 ratio of PAG versus AG. As noted above, Stage 2 began after a protocol amendment in July 2014, excluding patients at high risk of TE events and adding prophylaxis with low molecular weight heparin (enoxaparin) to all patients in both treatment arms. Reported results included a TE event rate of 13% in 38 patients treated with PAG versus 18% in 17 patients receiving AG.

We and the Data Monitoring Committee for Study 109-202 continue to closely monitor the occurrence of TE events in enrolled patients after the revision to the protocol. The revised protocol includes pre-specified analyses to evaluate the rate of TE events. While the pre-specified TE event rate analysis established in the protocol at the time of the clinical hold in 2014 have been passed, the continuation of Study 202 may be halted again if the FDA determines that imbalances in safety findings, including TE events, occur, or for any other emergent safety concerns.

In March 2015, we met with the FDA to discuss both the interim efficacy and safety data from Study 109-202, which included the potential risk profile including TE event rate. Based on the feedback from that meeting, we proceeded with a Phase 3 clinical study (Study 109-301) of PEGPH20 in patients with stage IV PDA, using a design allowing for potential marketing application based on either PFS or overall survival. The study will enroll patients whose tumors accumulate high levels of HA using a companion diagnostic test. The FDA provided feedback on the current companion diagnostic approach and confirmed that an approved companion diagnostic strategy is required for Phase 3 related tumor biopsy.

The use of PFS as the basis for marketing approval will be subject to the overall benefit and risk associated with PEGPH20 combined with nab-paclitaxel (ABRAXANE®) and gemcitabine therapy, including the:

- Magnitude of the PFS treatment effect observed;
- Toxicity profile; and
- Interim overall survival data.

In June 2015, we received scientific advice/protocol assistance from the European Medicines Agency (EMA) regarding our Phase 3 study. The EMA agreed to the patient population, and the use of both PFS and OS as co-primary endpoints stating that OS is the preferred endpoint and that ultimate approval would require an overall positive benefit:risk balance.

In January 2016, an update on the Stage 1 PFS data utilizing the companion diagnostic that is currently in development with Ventana Medical Systems (Ventana) was presented. In a total of 43 high-HA patients, the data continued to show an improvement in median PFS when patients with high HA received PAG compared to AG (9.2 months compared to 6.3 months respectively); hazard ratio of 0.48 (95% CI: 0.16, 1.48). In addition, the overall response rate in the PAG treated patients was 55% (12 out of 22 patients) compared to 33% (7 out of 21 patients), which was not statistically significant. A modest improvement in median overall survival was seen in the PAG-treated high-HA patients. PEGPH20 was discontinued in over 40% of patients in the new companion diagnostic analysis due to the clinical hold in April 2014. We remain blinded to the efficacy results and project to present mature PFS and overall response rate from Stage 2 of Study 202 in the fourth quarter of 2016. For the secondary primary endpoint of the rate of TE events, we have passed the pre-specified analyses for TE events and are continuing with the Data Monitoring Committee to monitor the rate of TE events since implementing low-molecular weight heparin (LMWH) prophylaxis.

Additionally, an update on the rate of TE events in the PEGPH20 treatment arm in Stage 2 of Study 202 was provided. Reported results included a TE event rate with LMWH prophylaxis of 12% in 73 patients treated with PAG versus 9% in 34 patients receiving AG, and for those treated with 1mg/kg/day of LMWH, a TE event rate of 7% in 55 patients treated with PAG versus 4% in 27 patients receiving AG.

We also reported an update on the development of the companion diagnostic. Halozyme has partnered with Ventana to develop the companion diagnostic and announced the methodology and scoring algorithm have been finalized. Based on the cutpoint for the Ventana diagnostic, we now expect approximately 35 to 40 percent of stage IV PDA patients to have high-HA tumors, similar to the previously reported interim results from Stage 1 of Study 202 using the Halozyme prototype assay.

In February 2016, our partner Ventana submitted an investigational device exemption (IDE) application for our companion diagnostic test to enable patient selection in our Phase 3 Study 301 of PEGPH20 in high-HA patients.

Study Halo 109-301:

In the first quarter of 2016, we initiated Study 109-301, a Phase 3 multicenter randomized clinical trial evaluating PEGPH20 as a first-line therapy for patients with stage IV PDA. The study will explore PEGPH20 with gemcitabine and ABRAXANE in stage IV PDA patients at approximately 200 sites in 20 countries located in North America, Europe, South America and Asia Pacific. First dosing of a patient is expected to occur in March 2016.

SWOG Study S1313:

In October 2013, SWOG, a cancer research cooperative group of more than 4,000 researchers in over 500 institutions around the world, initiated a 144 patient Phase 1b/2 randomized clinical trial in some of their study centers, examining PEGPH20 in combination with modified FOLFIRINOX chemotherapy (mFOLFIRINOX) compared to mFOLFIRINOX treatment alone in patients with stage IV PDA (funded by the National Cancer Institute). This study was also placed on clinical hold temporarily at the time of the hold on Study 109-202. In September 2014, the FDA removed the clinical hold on patient enrollment and dosing of PEGPH20 in this SWOG cooperative study. The study has resumed under a revised protocol, and patient enrollment is continuing. The Phase 2 portion of the study, where up to 172 patients are planned to be enrolled, began in June 2015. As with Study 109-202, the occurrence of TE events will be closely monitored in enrolled patients, and the continuation of this study may be halted again in accordance with event rate rules established in the protocol, or for other safety reasons.

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Other indications outside of pancreatic cancer:

Study HALO 107-201, PRIMAL Study: In December 2014, we initiated a Phase 1b/2 trial, to evaluate PEGPH20 in second line in combination with docetaxel (Taxotere®) in non-small cell lung cancer patients. In this study, we expect to evaluate and identify the maximum tolerated dose (MTD) and safety of PEGPH20 plus docetaxel in previously treated patients with non-small cell lung cancer. Upon identification of the MTD we plan to expand the trial into a dose expansion phase in patients prospectively tested for HA status, and then ultimately a Phase 2 portion of the study to evaluate the safety and efficacy of PEGPH20 in second line HA-high non-small cell lung cancer patients in combination with docetaxel.

Study HALO 107-101, the immuno-oncology trial: We recently initiated a Phase 1b study exploring the combination of PEGPH20 and KEYTRUDA®, an immuno-oncology agent in relapsed non-small cell lung cancer and gastric cancer. We expect to evaluate and identify the dose and safety of PEGPH20 plus KEYTRUDA prior to embarking on dose expansion in high-HA patients in this study.

Halozyme Eisai Clinical Collaboration: We expect a Phase 1b/2 study to be initiated in the second quarter of 2016, exploring the combination of PEGPH20 and eribulin in first line HER2-negative HA-high metastatic breast cancer. Halozyme and Eisai will jointly share the costs to conduct this global study.

Regulatory:

In September 2014, the FDA granted Fast Track designation for our program investigating PEGPH20 in combination with gemcitabine and nab-paclitaxel for the treatment of patients with stage IV PDA to demonstrate an improvement in overall survival. The Fast Track designation process was developed by the FDA to facilitate the development, and expedite the review of drugs to treat serious or life-threatening diseases and address unmet medical needs.

In October 2014, the FDA granted Orphan Drug designation for PEGPH20 for the treatment of pancreatic cancer. The FDA Office of Orphan Products Development's mission is to advance the evaluation and development of products (drugs, biologics, devices, or medical foods) that demonstrate promise for the diagnosis and/or treatment of rare diseases or conditions. In December 2014, the European Committee for Orphan Medicinal Products of the EMA designated PEGPH20 an orphan medicinal product for the treatment of pancreatic cancer.

In March 2015, we met with the FDA to discuss both the interim efficacy and safety data from Study 109-202 and to discuss the Phase 3 Study 109-301 as a potential registration study in stage IV PDA patients whose tumors are determined to have high levels of HA accumulation. In June 2015, we received scientific advice/protocol assistance from the EMA regarding our Phase 3 study. In addition, we continue our dialog with the FDA regarding the development of a companion diagnostic agent for detection and quantification of hyaluronan in the tumor tissue of cancer patients.

In February 2016, our partner Ventana submitted an IDE application for our companion diagnostic test to enable patient selection in our Phase 3 Study 301 of PEGPH20 in high-HA patients.

Collaborations

Roche Collaboration

In December 2006, we and Roche entered into a collaboration and license agreement under which Roche obtained a worldwide, exclusive license to develop and commercialize product combinations of rHuPH20 and up to thirteen Roche target compounds (the Roche Collaboration). Roche initially had the exclusive right to apply rHuPH20 to only three pre-defined Roche biologic targets with the option to exclusively develop and commercialize rHuPH20 with ten additional targets. As of December 31, 2015, Roche has elected a total of five targets, two of which are exclusive, and retains the option to develop and commercialize rHuPH20 with three additional targets.

In September 2013, Roche launched a subcutaneous (SC) formulation of Herceptin (trastuzumab) (Herceptin SC) in Europe for the treatment of patients with HER2-positive breast cancer. This formulation utilizes our patented ENHANZE Technology and is administered in two to five minutes, rather than 30 to 90 minutes with the standard intravenous form. Roche received European marketing approval for Herceptin SC in August 2013. The European Commission's approval was based on data from Roche's Phase 3 HannaH study which showed that the subcutaneous formulation of Herceptin was associated with comparable efficacy

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(pathological complete response, pCR) to Herceptin administered intravenously in women with HER2-positive early breast cancer and resulted in non-inferior trastuzumab plasma levels. Overall, the safety profile in both arms of the HannaH study was consistent with that expected from standard treatment with Herceptin and chemotherapy in this setting. No new safety signals were identified. Breast cancer is the most common cancer among women worldwide. Each year, about 1.7 million new cases of breast cancer are diagnosed worldwide, and over 500,000 women will die of the disease annually. In HER2-positive breast cancer, increased quantities of the human epidermal growth factor receptor 2 (HER2) are present on the surface of the tumor cells. This is known as "HER2 positivity" and affects approximately 15% to 20% of women with breast cancer. HER2-positive cancer is reported to be a particularly aggressive form of breast cancer.

In June 2014, Roche launched MabThera SC in Europe for the treatment of patients with common forms of non-Hodgkin lymphoma (NHL). This formulation utilizes our patented ENHANZE Technology and is administered in approximately five minutes compared to the approximately 2.5 hour infusion time for intravenous MabThera. The European Commission approved MabThera SC in March 2014. The European Commission's approval was based primarily on data from Roche's Phase 3 pivotal clinical studies, which was published in The Lancet Oncology. NHL is a type of cancer that affects lymphocytes (white blood cells). NHL represents approximately 85% of all lymphomas diagnosed and was responsible for approximately 200,000 annual deaths worldwide in 2012. Lymphomas are a cancer of the lymphatic system (composed of lymph vessels, lymph nodes and organs) which helps to keep the bodily fluid levels balanced and to defend the body against invasion by disease. Lymphoma develops when white blood cells (usually B-lymphocytes) in the lymph fluid become cancerous and begin to multiply and collect in the lymph nodes or lymphatic tissues such as the spleen. Some of these cells are released into the bloodstream and spread around the body, interfering with the body's production of healthy blood cells. Roche announced that it filed MabThera SC in Europe for previously untreated chronic lymphocytic leukemia in the fourth quarter of 2014.

Additional information about the Phase 3 Herceptin SC and Phase 3 MabThera SC clinical trials can be found at www.clinicaltrials.gov and www.roche-trials.com. Information available on these websites is not incorporated into this report.

Baxalta Collaboration

In September 2007, we and Baxalta entered into a collaboration and license agreement under which Baxalta obtained a worldwide, exclusive license to develop and commercialize product combinations of rHuPH20 with GAMMAGARD LIQUID (HYQVIA) (the Baxalta Collaboration). GAMMAGARD LIQUID is a current Baxalta product that is indicated for the treatment of primary immunodeficiency disorders associated with defects in the immune system.

In October 2014, Baxalta announced the launch and first shipments of Baxalta's HYQVIA product for treatment of adult patients with primary immunodeficiency in the U.S. HYQVIA was approved by the FDA in September 2014 and is the first subcutaneous immune globulin (IG) treatment approved for adult primary immunodeficiency patients with a dosing regimen requiring only one infusion up to once per month (every three to four weeks) and one injection site per infusion in most patients, to deliver a full therapeutic dose of IG. The majority of primary immunodeficiency patients today receive intravenous infusions in a doctor's office or infusion center, and current subcutaneous IG treatments require weekly or bi-weekly treatment with multiple infusion sites per treatment. The FDA's approval of HYQVIA was a significant milestone for us as it represented the first U.S. approved Biologic License Application (BLA) which utilizes our rHuPH20 platform.

In May 2013, the European Commission granted Baxalta marketing authorization in all EU Member States for the use of HYQVIA (solution for subcutaneous use) as replacement therapy for adult patients with primary and secondary immunodeficiencies. Baxalta launched HYQVIA in the first EU country in July 2013 and has continued to launch in additional countries.

Pfizer Collaboration

In December 2012, we and Pfizer entered into a collaboration and license agreement, under which Pfizer has the worldwide license to develop and commercialize products combining our rHuPH20 enzyme with Pfizer proprietary biologics directed to up to six targets in primary care and specialty care indications. Targets may be selected on an exclusive or non-exclusive basis. In September 2013, Pfizer elected the fourth therapeutic target on an exclusive basis. One of the targets is proprotein convertase subtilisin/kexin type 9 (PCSK9) which is the gene that provides

instructions for making a protein that helps regulate the amount of cholesterol in the bloodstream. Pfizer initiated dosing of a subcutaneous formulation of rHuPH20 and bococizumab, an investigational PCSK9 inhibitor, in a Phase 1 trial in February 2016. Pfizer is also developing rivipansel directed to another target

under the collaboration to treat vaso-occlusive crisis in individuals with sickle cell disease and initiated dosing of a subcutaneous formulation of rHuPH20 and rivipansel in a Phase 1 clinical trial in October 2015.

Janssen Collaboration

In December 2014, we and Janssen entered into a collaboration and license agreement, under which Janssen has the worldwide license to develop and commercialize products combining our rHuPH20 enzyme with Janssen proprietary biologics directed to up to five targets. Targets may be selected on an exclusive basis. Janssen has elected CD38 as the first target on an exclusive basis. In November 2015, Janssen initiated dosing in a Phase 1b clinical trial evaluating subcutaneous delivery of daratumumab, using ENHANZE Technology, in multiple myeloma.

AbbVie Collaboration

In June 2015, we and AbbVie entered into a collaboration and license agreement, under which AbbVie has the worldwide license to develop and commercialize products combining our rHuPH20 enzyme with AbbVie proprietary biologics directed to up to nine targets. Targets may be selected on an exclusive basis. AbbVie has elected TNF alpha as the first target on an exclusive basis. AbbVie is developing rHuPH20 with adalimumab (HUMIRA®) which may allow a reduced number of induction injections and deliver additional performance benefits.

Lilly Collaboration

In December 2015, we and Lilly entered into a collaboration and license agreement, under which Lilly has the worldwide license to develop and commercialize products combining our rHuPH20 enzyme with Lilly proprietary biologics directed to up to five targets. Targets may be selected on an exclusive basis. Lilly has elected one target on an exclusive basis and one target on a semi-exclusive basis.

For a further discussion of the material terms of our collaboration agreements, refer to Note 4, Collaborative Agreements, to our consolidated financial statements.

Customers

The following table indicates the percentage of total revenues in excess of 10% with any single customer:

	Year Ended December 31,		
	2015	2014	2013
Roche	42 %	57 %	64 %
Lilly	19 %	—	—
AbbVie	17 %	—	—
Janssen	1 %	20 %	—

For additional information regarding our revenues from external customers, refer to Note 2, Summary of Significant Accounting Policies — Concentrations of Credit Risk, Sources of Supply and Significant Customers, to our consolidated financial statements.

Patents and Proprietary Rights

Patents and other proprietary rights are essential to our business. Our success will depend in part on our ability to obtain patent protection for our inventions, to preserve our trade secrets and to operate without infringing the proprietary rights of third parties. Our strategy is to actively pursue patent protection in the U.S. and certain foreign jurisdictions for technology that we believe to be proprietary to us and that offers us a potential competitive advantage. Our patent portfolio includes 21 issued patents in the U.S., more than 235 issued patents in Europe and other countries in the world and more than 260 pending patent applications. In general, patents have a term of 20 years from the application filing date or earlier claimed priority date. Our issued patents will expire between 2022 and 2032. We have multiple patents and patent applications throughout the world pertaining to our recombinant human hyaluronidase and methods of use and manufacture, including an issued U.S. patent which expires in 2027 and an issued European patent which expires in 2024, which we believe cover the products and product candidates under our existing

collaborations, Hylenex recombinant, PEGPH20 and our endocrinology product candidates. In addition, we have, under prosecution throughout the world, multiple patent applications that relate specifically to individual product candidates under development, the expiration of which can only be definitely determined upon maturation into our issued patents. We believe our patent filings represent a barrier to entry for potential competitors looking to utilize these hyaluronidases.

In addition to patents, we rely on unpatented trade secrets, proprietary know-how and continuing technological innovation. We seek protection of these trade secrets, proprietary know-how and innovation, in part, through confidentiality and proprietary information agreements. Our policy is to require our employees, directors, consultants, advisors, collaborators, outside scientific collaborators and sponsored researchers, other advisors and other individuals and entities to execute confidentiality agreements upon the start of employment, consulting or other contractual relationships with us. These agreements provide that all confidential information developed or made known to the individual or entity during the course of the relationship is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees and some other parties, the agreements provide that all inventions conceived by the individual will be our exclusive property. Despite the use of these agreements and our efforts to protect our intellectual property, there will always be a risk of unauthorized use or disclosure of information. Furthermore, our trade secrets may otherwise become known to, or be independently developed by, our competitors.

We also file trademark applications to protect the names of our products and product candidates. These applications may not mature to registration and may be challenged by third parties. We are pursuing trademark protection in a number of different countries around the world. There can be no assurances that our registered or unregistered trademarks or trade names will not infringe on rights of third parties or will be acceptable to regulatory agencies.

Research and Development Activities

Our research and development expenses consist primarily of costs associated with the development and manufacturing of our product candidates, compensation and other expenses for research and development personnel, supplies and materials, costs for consultants and related contract research, clinical trials, facility costs and amortization and depreciation. We charge all research and development expenses to operations as they are incurred. Our research and development activities are primarily focused on the development of our various product candidates.

Due to the uncertainty in obtaining the FDA and other regulatory approvals, our reliance on third parties and competitive pressures, we are unable to estimate with any certainty the additional costs we will incur in the continued development of our proprietary product candidates for commercialization. However, we expect our research and development expenses for PEGPH20 to increase as our program advances into additional tumors and later stages of clinical development.

Manufacturing

We do not have our own manufacturing facility for our product and product candidates, or the capability to package our products. We have engaged third parties to manufacture bulk rHuPH20, PEGPH20 and Hylenex recombinant. We have existing supply agreements with contract manufacturing organizations Avid Bioservices, Inc. (Avid) and Cook Pharmica LLC (Cook) to produce supplies of bulk rHuPH20. These manufacturers each produce bulk rHuPH20 under current Good Manufacturing Practices (cGMP) for clinical and commercial uses. Cook currently produces bulk rHuPH20 for use in Hylenex recombinant, product candidates and collaboration product candidates. Avid currently produces bulk rHuPH20 for use in collaboration products. We rely on their ability to successfully manufacture these batches according to product specifications. In addition, we are working to scale-up, validate and qualify a new facility operated by Avid as a manufacturer of bulk rHuPH20 for use in the products and product candidates under the Roche collaboration. It is important for our business for Cook and Avid to (i) retain their status as cGMP-approved manufacturing facilities; (ii) to successfully scale up bulk rHuPH20 production; and/or (iii) manufacture the bulk rHuPH20 required by us and our collaborators for use in our proprietary and collaboration products and product candidates. In addition to supply obligations, Avid and Cook will also provide support for data and information used in the chemistry, manufacturing and controls sections for FDA and other regulatory filings.

We have a commercial manufacturing and supply agreement with Patheon Manufacturing Services, LLC (Patheon) under which Patheon will provide the final fill and finishing steps in the production process of Hylenex recombinant. Under our commercial services agreement with Patheon, Patheon has agreed to fill and finish Hylenex recombinant

product for us until December 31, 2019, subject to further extensions in accordance with the terms of the agreement. In addition, we are in the early stages of scaling

up our manufacturing of PEGPH20 with third party suppliers to support additional clinical trials, including a registration-enabling trial, and ultimately, if approved, potential commercial supply.

Sales, Marketing and Distribution

HYLENEX Recombinant

Our commercial activities currently focus on Hylenex recombinant. We have a team of sales specialists that provide hospital and surgery center customers with the information about Hylenex recombinant and information needed to obtain formulary approval for, and support utilization of, Hylenex recombinant. Our commercial activities also include marketing and related services and commercial support services such as commercial operations, managed markets and commercial analytics. We also employ third-party vendors, such as advertising agencies, market research firms and suppliers of marketing and other sales support related services to assist with our commercial activities.

We sell Hylenex recombinant in the U.S. to wholesale pharmaceutical distributors, who sell the product to hospitals and other end-user customers. We have engaged Integrated Commercial Solutions (ICS), a division of AmerisourceBergen Specialty Group, a subsidiary of AmerisourceBergen, to act as our exclusive distributor for commercial shipment and distribution of Hylenex recombinant to our customers in the United States. In addition to distribution services, ICS provides us with other key services related to logistics, warehousing, returns and inventory management, contract administration and chargebacks processing and accounts receivable management. In addition, we utilize third parties to perform various other services for us relating to regulatory monitoring, including call center management, adverse event reporting, safety database management and other product maintenance services.

Competition

The pharmaceutical industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary therapeutics. We face competition from a number of sources, some of which may target the same indications as our product or product candidates, including large pharmaceutical companies, smaller pharmaceutical companies, biotechnology companies, academic institutions, government agencies and private and public research institutions, many of which have greater financial resources, drug development experience, sales and marketing capabilities, including larger, well established sales forces, manufacturing capabilities, experience in obtaining regulatory approvals for product candidates and other resources than us. We face competition not only in the commercialization of Hylenex recombinant, but also for the in-licensing or acquisition of additional product candidates, and the out-licensing of our ENHANZE Technology. In addition, our collaborators face competition in the commercialization of the product candidates for which the collaborators seek marketing approval from the FDA or other regulatory authorities.

HYLENEX Recombinant

Hylenex recombinant is currently the only FDA approved recombinant human hyaluronidase on the market. The competitors for Hylenex recombinant include, but are not limited to, Valeant Pharmaceuticals International, Inc.'s FDA approved product, Vitrase®, an ovine (ram) hyaluronidase, and Amphastar Pharmaceuticals, Inc.'s product, Amphadase®, a bovine (bull) hyaluronidase. In addition, some commercial pharmacies compound hyaluronidase preparations for institutions and physicians even though compounded preparations are not FDA approved products.

Government Regulations

The FDA and comparable regulatory agencies in foreign countries regulate the manufacture and sale of the pharmaceutical products that we have developed or currently are developing. The FDA has established guidelines and safety standards that are applicable to the laboratory and preclinical evaluation and clinical investigation of therapeutic products and stringent regulations that govern the manufacture and sale of these products. The process of obtaining regulatory approval for a new therapeutic product usually requires a significant amount of time and substantial resources. The steps typically required before a product can be introduced for human use include:

- animal pharmacology studies to obtain preliminary information on the safety and efficacy of a drug; or
- laboratory and preclinical evaluation in vitro and in vivo including extensive toxicology studies.

The results of these laboratory and preclinical studies may be submitted to the FDA as part of an IND (Investigational New Drug) application. The sponsor of an IND application may commence human testing of the compound 30 days after submission of the IND, unless notified to the contrary by the FDA.

The clinical testing program for a new drug typically involves three phases:

- Phase 1 investigations are generally conducted in healthy subjects (in certain instances, Phase 1 studies that determine the maximum tolerated dose and initial safety of the product candidate are performed in patients with the disease);
- Phase 2 studies are conducted in limited numbers of subjects with the disease or condition to be treated and are aimed at determining the most effective dose and schedule of administration, evaluating both safety and whether the product demonstrates therapeutic effectiveness against the disease; and
- Phase 3 studies involve large, well-controlled investigations in diseased subjects and are aimed at verifying the safety and effectiveness of the drug.

Data from all clinical studies, as well as all laboratory and preclinical studies and evidence of product quality, are typically submitted to the FDA in a new drug application (NDA). The results of the preclinical and clinical testing of a biologic product candidate are submitted to the FDA in the form of a BLA, for evaluation to determine whether the product candidate may be approved for commercial sale. In responding to a BLA or NDA, the FDA may grant marketing approval, request additional information, or deny the application. Although the FDA's requirements for clinical trials are well established and we believe that we have planned and conducted our clinical trials in accordance with the FDA's applicable regulations and guidelines, these requirements, including requirements relating to testing the safety of drug candidates, may be subject to change as a result of recent announcements regarding safety problems with approved drugs. Additionally, we could be required to conduct additional trials beyond what we had planned due to the FDA's safety and/or efficacy concerns or due to differing interpretations of the meaning of our clinical data. (See Part I, Item 1A, Risk Factors.)

The FDA's Center for Drug Evaluation and Research must approve an NDA and the FDA's Center for Biologics Evaluation and Research must approve a BLA for a drug before it may be marketed in the United States. If we begin to market our proposed products for commercial sale in the U.S., any manufacturing operations that may be established in or outside the U.S. will also be subject to rigorous regulation, including compliance with cGMP. We also may be subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substance Control Act, the Export Control Act and other present and future laws of general application. In addition, the handling, care and use of laboratory animals are subject to the Guidelines for the Humane Use and Care of Laboratory Animals published by the National Institutes of Health.

Regulatory obligations continue post-approval, and include the reporting of adverse events when a drug is utilized in the broader patient population. Promotion and marketing of drugs is also strictly regulated, with penalties imposed for violations of FDA regulations, the Lanham Act and other federal and state laws, including the federal anti-kickback statute.

We currently intend to continue to seek, directly or through our collaborators, approval to market our products and product candidates in foreign countries, which may have regulatory processes that differ materially from those of the FDA. We anticipate that we will rely upon independent consultants to seek and gain approvals to market our proposed products in foreign countries or may rely on other pharmaceutical or biotechnology companies to license our proposed products. We cannot assure you that approvals to market any of our proposed products can be obtained in any country. Approval to market a product in any one foreign country does not necessarily indicate that approval can be obtained in other countries.

From time to time, legislation is drafted and introduced in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of drug products. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency or reviewing courts in ways that may significantly affect our business and development of our product candidates and any products that we may commercialize. It is impossible to predict whether additional legislative changes will be enacted, or FDA regulations, guidance or interpretations changed, or what the impact of any such changes may be.

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Segment Information

We operate our business as one segment, which includes all activities related to the research, development and commercialization of human enzymes. This segment also includes revenues and expenses related to (i) research and development activities conducted under our collaboration agreements with third parties and (ii) product sales of Hylenex recombinant. The chief operating decision-maker reviews the operating results on an aggregate basis and manages the operations as a single operating segment. We had no foreign based operations and minimal long-lived assets located in foreign countries as of and for the years ended December 31, 2015, 2014 and 2013. Refer to the Notes for additional financial information regarding our operating segment.

Executive Officers of the Registrant

Information concerning our executive officers, including their names, ages and certain biographical information can be found in Part III, Item 10, Directors, Executive Officers and Corporate Governance. This information is incorporated by reference into Part I of this report.

Employees

As of February 22, 2016, we had 216 full-time employees. None of our employees are unionized and we believe our employee relations to be good.

Item 1A. Risk Factors

Risks Related To Our Business

We have generated only limited revenue from product sales to date; we have a history of net losses and negative cash flow, and we may never achieve or maintain profitability.

Relative to expenses incurred in our operations, we have generated only limited revenues from product sales, royalties, licensing fees, milestone payments, bulk rHuPH20 supply payments and research reimbursements to date, and we may never generate sufficient revenues from future product sales, licensing fees and milestone payments to offset expenses. Even if we ultimately do achieve significant revenues from product sales, royalties, licensing fees, research reimbursements, bulk rHuPH20 supply payments and/or milestone payments, we expect to incur significant operating losses over the next few years. We have never been profitable, and we may never become profitable. Through December 31, 2015, we have incurred aggregate net losses of approximately $482.7 million.

If our product candidates do not receive and maintain regulatory approvals, or if approvals are not obtained in a timely manner, such failure or delay would substantially impair our ability to generate revenues.

Approval from the FDA or equivalent health authorities is necessary to manufacture and market pharmaceutical products in the U.S. and the other countries in which we anticipate doing business have similar requirements. The process for obtaining FDA and other regulatory approvals is extensive, time-consuming, risky and costly, and there is no guarantee that the FDA or other regulatory bodies will approve any applications that may be filed with respect to any of our product candidates, or that the timing of any such approval will be appropriate for the desired product launch schedule for a product candidate. We and our collaborators attempt to provide guidance as to the timing for the filing and acceptance of such regulatory approvals, but such filings and approvals may not occur when we or our collaborators expect, or at all. The FDA or other foreign regulatory agency may refuse or delay approval of our product candidates for failure to collect sufficient clinical or animal safety data and require us or our collaborators to conduct additional clinical or animal safety studies which may cause lengthy delays and increased costs to our programs. For example, the approval of Baxalta's HYQVIA BLA was delayed until we and Baxalta provided additional preclinical data sufficient to address concerns regarding non-neutralizing antibodies to rHuPH20 that were detected in the registration trial. Although these antibodies have not been associated with any known adverse clinical effects, and the HYQVIA BLA was approved by the FDA in September 2014, we cannot assure you that they will not arise and have an adverse impact on future development of products which include rHuPH20, future sales of Hylenex recombinant, our ability to enter into collaborations, or be raised by the FDA or other health authorities in connection with testing or approval of products including rHuPH20.

We and our collaborators may not be successful in obtaining approvals for any additional potential products in a timely manner, or at all. Refer to the risk factor titled “Our proprietary and collaboration product candidates or companion diagnostic assays may not receive regulatory approvals or their development may be delayed for a variety of reasons, including delayed or unsuccessful clinical trials, regulatory requirements or safety concerns” for additional information relating to the approval of product candidates.

Additionally, even with respect to products which have been approved for commercialization, in order to continue to manufacture and market pharmaceutical products, we or our collaborators must maintain our regulatory approvals. If we or any of our collaborators are unsuccessful in maintaining our regulatory approvals, our ability to generate revenues would be adversely affected.

We will likely need to raise additional capital in the future and there can be no assurance that we will be able to obtain such funds.

We will likely need to raise additional capital in the future to continue the development of our product candidates or for other current corporate purposes. Our current cash reserves and expected revenues during the next few years will not be sufficient for us to continue the development of our proprietary product candidates, to fund general operations and conduct our business at the level desired. In addition, if we engage in acquisitions of companies, products or technologies in order to execute our business strategy, we may need to raise additional capital. We may raise additional capital in the future through one or more financing vehicles that may be available to us including (i) the public offering of securities; (ii) new collaborative agreements; (iii) expansions or revisions to existing collaborative relationships; (iv) private financings; and/or (v) other equity or debt financings.

In view of our stage of development, business prospects, the nature of our capital structure and general market conditions, if we are required to raise additional capital in the future, the additional financing may not be available on favorable terms, or at all. If additional capital is not available on favorable terms when needed, we will be required to raise capital on adverse terms or significantly reduce operating expenses through the restructuring of our operations or deferral of one or more product development programs. If we raise additional capital, a substantial number of additional shares may be issued, and these shares will dilute the ownership interest of our current investors.

Use of our product candidates or those of our collaborators could be associated with side effects or adverse events.

As with most pharmaceutical products, use of our product candidates or those of our collaborators could be associated with side effects or adverse events which can vary in severity (from minor reactions to death) and frequency (infrequent or prevalent). Side effects or adverse events associated with the use of our product candidates or those of our collaborators may be observed at any time, including in clinical trials or when a product is commercialized, and any such side effects or adverse events may negatively affect our or our collaborators’ ability to obtain or maintain regulatory approval or market our product candidates. Side effects such as toxicity or other safety issues associated with the use of our product candidates or those of our collaborators could require us or our collaborators to perform additional studies or halt development or commercialization of these product candidates or expose us to product liability lawsuits which will harm our business. We or our collaborators may be required by regulatory agencies to conduct additional animal or human studies regarding the safety and efficacy of our pharmaceutical product candidates which we have not planned or anticipated. Furthermore, there can be no assurance that we or our collaborators will resolve any issues related to any product related adverse events to the satisfaction of the FDA or any regulatory agency in a timely manner or ever, which could harm our business, prospects and financial condition. For example, in April 2014, a clinical hold was placed on patient enrollment and dosing of PEGPH20 in Study 202 as a result of a possible difference in the TE event rate that had been observed at that time in the trial between the group of patients treated with PEGPH20 versus the group of patients treated without PEGPH20. The clinical hold was lifted by FDA in June 2014, and we have completed enrollment and resumed dosing of PEGPH20 in Study 202 under a revised clinical protocol. We and the data monitoring committee for Study 202 continue to closely monitor the occurrence of TE events in enrolled patients after the protocol amendments. While the pre-specified TE event rate analysis established in the protocol at the time of the clinical hold in 2014 have been passed, the continuation of Study 202 may be halted again if the FDA determines that imbalances in safety findings, including TE events, occur.

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If our contract manufacturers are unable to manufacture and supply to us bulk rHuPH20 or other raw materials in the quantity and quality required by us or our collaborators for use in our products and product candidates, our product development and commercialization efforts could be delayed or stopped and our collaborations could be damaged.

We have existing supply agreements with contract manufacturing organizations Avid Bioservices, Inc. (Avid) and Cook Pharmica LLC (Cook) to produce bulk rHuPH20. These manufacturers each produce bulk rHuPH20 under current cGMP for clinical uses. Cook currently produces bulk rHuPH20 for use in Hylenex recombinant, product candidates and collaboration product candidates. Avid currently produces bulk rHuPH20 for use in collaboration products. In addition to supply obligations, Avid and Cook will also provide support for the chemistry, manufacturing and controls sections for FDA and other regulatory filings. We rely on their ability to successfully manufacture these batches according to product specifications. If either Avid or Cook: (i) is unable to retain its status as an FDA approved manufacturing facility; (ii) is unable to otherwise successfully scale up bulk rHuPH20 production to meet corporate or regulatory authority quality standards; or (iii) fails to manufacture and supply bulk rHuPH20 in the quantity and quality required by us or our collaborators for use in our proprietary and collaboration products and product candidates for any other reason, our business will be adversely affected. In addition, a significant change in such parties' or other third party manufacturers' business or financial condition could adversely affect their abilities to fulfill their contractual obligations to us. We have not established, and may not be able to establish, favorable arrangements with additional bulk rHuPH20 manufacturers and suppliers of the ingredients necessary to manufacture bulk rHuPH20 should the existing manufacturers and suppliers become unavailable or in the event that our existing manufacturers and suppliers are unable to adequately perform their responsibilities. We have attempted to mitigate the impact of a potential supply interruption through the establishment of excess bulk rHuPH20 inventory where possible, but there can be no assurances that this safety stock will be maintained or that it will be sufficient to address any delays, interruptions or other problems experienced by Avid and/or Cook. Any delays, interruptions or other problems regarding the ability of Avid and/or Cook to supply bulk rHuPH20 or the ability of other third party manufacturers, to supply other raw materials or ingredients necessary to produce our products on a timely basis could: (i) cause the delay of clinical trials or otherwise delay or prevent the regulatory approval of proprietary or collaboration product candidates; (ii) delay or prevent the effective commercialization of proprietary or collaboration products; and/or (iii) cause us to breach contractual obligations to deliver bulk rHuPH20 to our collaborators. Such delays would likely damage our relationship with our collaborators, and they would have a material adverse effect on royalties and thus our business and financial condition.

If we or any party to a key collaboration agreement fails to perform material obligations under such agreement, or if a key collaboration agreement, is terminated for any reason, our business could significantly suffer.

We have entered into multiple collaboration agreements under which we may receive significant future payments in the form of milestone payments, target designation fees, maintenance fees and royalties. We are dependent on our collaborators to develop and commercialize product candidates subject to our collaborations in order for us to realize any financial benefits from these collaborations. Our collaborators may not devote the attention and resources to such efforts that we would ourselves, change their promotional efforts or simultaneously develop and commercialize products in competition to those products we have licensed to them. Any of these actions could not be visible to us immediately and could negatively impact the benefits and revenue we receive from such collaboration. In addition, in the event that a party fails to perform under a key collaboration agreement, or if a key collaboration agreement is terminated, the reduction in anticipated revenues could delay or suspend our product development activities for some of our product candidates, as well as our commercialization efforts for some or all of our products. Specifically, the termination of a key collaboration agreement by one of our collaborators could materially impact our ability to enter into additional collaboration agreements with new collaborators on favorable terms, if at all. In certain circumstances, the termination of a key collaboration agreement would require us to revise our corporate strategy going forward and reevaluate the applications and value of our technology.

Most of our current proprietary and collaboration products and product candidates rely on the rHuPH20 enzyme, and any adverse development regarding rHuPH20 could substantially impact multiple areas of our business, including current and potential collaborations, as well as proprietary programs.

rHuPH20 is a key technological component of ENHANZE Technology and our most advanced proprietary and collaboration products and product candidates, including the current and future products and product candidates under our Roche, Pfizer, Janssen, Baxalta, AbbVie and Lilly collaborations, our PEGPH20 program, and Hylenex recombinant. If there is an adverse development

for rHuPH20 (e.g., an adverse regulatory determination relating to rHuPH20, if we are unable to obtain sufficient quantities of rHuPH20, if we are unable to obtain or maintain material proprietary rights to rHuPH20 or if we discover negative characteristics of rHuPH20), multiple areas of our business, including current and potential collaborations, as well as proprietary programs would be substantially impacted. For example, elevated anti-rHuPH20 antibody titers were detected in the registration trial for Baxalta's HYQVIA product as well as in a former collaborator's product in a Phase 2 clinical trial with rHuPH20, but have not been associated, in either case, with any adverse events. We monitor for antibodies to rHuPH20 in our collaboration and proprietary programs, and although we do not believe at this time that the incidence of non-neutralizing anti-rHuPH20 antibodies in either the HYQVIA program or the former collaborator's program will have a significant impact on our other proprietary and other collaboration product candidates, there can be no assurance that there will not be other such occurrences in the foregoing programs or our other programs or that concerns regarding these antibodies will not also be raised by the FDA or other health authorities in the future, which could result in delays or discontinuations of our development or commercialization activities or deter entry into additional collaborations with third parties.

We routinely evaluate, and may modify, our business strategy and our strategic focus to only a few fields or applications of our technology which may increase or decrease the risk for potential negative impact of adverse developments.

We routinely evaluate our business strategy, and may modify this strategy in the future in light of our assessment of unmet medical needs, growth potential, resource requirements, regulatory issues, competition, risks and other factors. As a result of these strategic evaluations, we may focus our resources and efforts on one or a few programs or fields and may suspend or reduce our efforts on other programs and fields. For example, in the third quarter of 2014, we decided to focus our resources on advancing PEGPH20 and expanding utilization of our ENHANZE platform. While we believe these are applications with the greatest potential value, we have reduced the diversification of our programs and increased our dependence on the success of the areas we are pursuing. By focusing on one or a few areas, we increase the potential impact on us if one of those programs or product candidates does not successfully complete clinical trials, achieve commercial acceptance or meet expectations regarding sales and revenue. Our decision to focus on one or a few programs may also reduce the value of programs that are no longer within our principal strategic focus, which could impair our ability to pursue collaborations or other strategic alternatives for those programs we are not pursuing.

Our proprietary and collaboration product candidates or companion diagnostic assays may not receive regulatory approvals or their development may be delayed for a variety of reasons, including delayed or unsuccessful clinical trials, regulatory requirements or safety concerns.

Clinical testing of pharmaceutical products is a long, expensive and uncertain process, and the failure or delay of a clinical trial can occur at any stage, including the patient enrollment stage. Even if initial results of preclinical and nonclinical studies or clinical trial results are promising, we or our collaborators may obtain different results in subsequent trials or studies that fail to show the desired levels of safety and efficacy, or we may not, or our collaborators may not, obtain applicable regulatory approval for a variety of other reasons. Preclinical, nonclinical, and clinical trials for any of our proprietary or collaboration product candidates or development of any collaboration companion diagnostic assays could be unsuccessful, which would delay or preclude regulatory approval and commercialization of the product candidates or companion diagnostic assays. In the U.S. and other jurisdictions, regulatory approval can be delayed, limited or not granted for many reasons, including, among others:

- clinical results may not meet prescribed endpoints for the studies or otherwise provide sufficient data to support the efficacy of our product candidates;
- clinical and nonclinical test results may reveal side effects, adverse events or unexpected safety issues associated with the use of our product candidates; for example, in April 2014, a clinical hold was placed on patient enrollment and dosing of PEGPH20 in Study 202 as a result of a possible difference in the TE event rate that had been observed at that time in the trial between the group of patients treated with PEGPH20 versus the group of patients treated without PEGPH20. The clinical hold was lifted by FDA in June 2014, and we have completed enrollment and resumed dosing of PEGPH20 in Study 202 under a revised clinical protocol;
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Completion of clinical trials may be delayed for a variety of reasons including the amount of time it may take to identify and enroll patients with high levels of HA in our target population;

- regulatory review may not find a product candidate safe or effective enough to merit either continued testing or final approval;

- regulatory review may not find that the data from preclinical testing and clinical trials justifies approval;
- regulatory authorities may require that we change our studies or conduct additional studies which may significantly delay or make continued pursuit of approval commercially unattractive;
- a regulatory agency may reject our trial data or disagree with our interpretations of either clinical trial data or applicable regulations;
- a regulatory agency may approve only a narrow use of our product or may require additional safety monitoring and reporting through Risk Evaluation and Mitigation Strategies (REMS) or conditions to assure safe use program;
- the cost of clinical trials required for product approval may be greater than what we originally anticipate, and we may decide to not pursue regulatory approval for such a product;
- a regulatory agency may not approve our manufacturing processes or facilities, or the processes or facilities of our collaborators, our contract manufacturers or our raw material suppliers;
- a regulatory agency may identify problems or other deficiencies in our existing manufacturing processes or facilities, or the existing processes or facilities of our collaborators, our contract manufacturers or our raw material suppliers;
- a regulatory agency may change its formal or informal approval requirements and policies, act contrary to previous guidance, adopt new regulations or raise new issues or concerns late in the approval process; or
- a product candidate may be approved only for indications that are narrow or under conditions that place the product at a competitive disadvantage, which may limit the sales and marketing activities for such product candidate or otherwise adversely impact the commercial potential of a product.

If a proprietary or collaboration product candidate or companion diagnostic assay is not approved in a timely fashion or obtained on commercially viable terms, or if development of any product candidate or a companion diagnostic assay is terminated due to difficulties or delays encountered in the regulatory approval process, it could have a material adverse impact on our business, and we would become more dependent on the development of other proprietary or collaboration product candidates and/or our ability to successfully acquire other products and technologies. There can be no assurances that any proprietary or collaboration product candidate or companion diagnostic assay will receive regulatory approval in a timely manner, or at all. There can be no assurance that we will be able to gain clarity as to the FDA's requirements or that the requirements may be satisfied in a commercially feasible way, in which case our ability to enter into collaborations with third parties or explore other strategic alternatives to exploit this opportunity will be limited or may not be possible.

We anticipate that certain proprietary and collaboration products will be marketed, and perhaps manufactured, in foreign countries. The process of obtaining regulatory approvals in foreign countries is subject to delay and failure for the reasons set forth above, as well as for reasons that vary from jurisdiction to jurisdiction. The approval process varies among countries and jurisdictions and can involve additional testing. The time required to obtain approval may differ from that required to obtain FDA approval. Foreign regulatory agencies may not provide approvals on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or jurisdictions or by the FDA.

Our third party collaborators are responsible for providing certain proprietary materials that are essential components of our collaboration products and product candidates, and any failure to supply these materials could delay the development and commercialization efforts for these collaboration products and product candidates and/or damage our collaborations.

Our development and commercialization collaborators are responsible for providing certain proprietary materials that are essential components of our collaboration products and product candidates. For example, Roche is responsible for producing the Herceptin and MabThera required for its subcutaneous products and Baxalta is responsible for producing the GAMMAGARD LIQUID for its product HYQVIA. If a collaborator, or any applicable third party service provider of a collaborator, encounters difficulties in the manufacture, storage, delivery, fill, finish or packaging of the collaboration product or product candidate or component of such product or product candidate, such difficulties could (i) cause the delay of clinical trials or otherwise delay or prevent the regulatory approval of collaboration product candidates; and/or (ii) delay or prevent the effective commercialization of collaboration products. Such delays could have a material adverse effect on our business and financial condition.

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We rely on third parties to prepare, fill, finish and package our products and product candidates, and if such third parties should fail to perform, our commercialization and development efforts for our products and product candidates could be delayed or stopped.

We rely on third parties to store and ship bulk rHuPH20 on our behalf and to also prepare, fill, finish and package our products and product candidates prior to their distribution. If we are unable to locate third parties to perform these functions on terms that are acceptable to us, or if the third parties we identify fail to perform their obligations, the progress of clinical trials could be delayed or even suspended and the commercialization of approved product candidates could be delayed or prevented. In addition, we are in the early stages of scaling up our manufacturing of PEGPH20 with third party suppliers to support additional clinical trials, including a Phase 3 trial, and ultimately, if approved, potential commercial supply. If our contract manufacturers are unable to successfully manufacture and supply PEGPH20, the progress of our clinical trials could be delayed or halted for a period of time.

If we are unable to sufficiently develop our sales, marketing and distribution capabilities or enter into successful agreements with third parties to perform these functions, we will not be able to fully commercialize our products.

We may not be successful in marketing and promoting our approved product, Hylenex recombinant, or any other products we develop or acquire in the future. Our sales, marketing and distribution capabilities are very limited. In order to commercialize any products successfully, we must internally develop substantial sales, marketing and distribution capabilities or establish collaborations or other arrangements with third parties to perform these services. We do not have extensive experience in these areas, and we may not be able to establish adequate in-house sales, marketing and distribution capabilities or engage and effectively manage relationships with third parties to perform any or all of such services. To the extent that we enter into co-promotion or other licensing arrangements, our product revenues are likely to be lower than if we directly marketed and sold our products, and any revenues we receive will depend upon the efforts of third parties, whose efforts may not meet our expectations or be successful. These third parties would be largely responsible for the speed and scope of sales and marketing efforts, and may not dedicate the resources necessary to maximize product opportunities. Our ability to cause these third parties to increase the speed and scope of their efforts may also be limited. In addition, sales and marketing efforts could be negatively impacted by the delay or failure to obtain additional supportive clinical trial data for our products. In some cases, third party collaborators are responsible for conducting these additional clinical trials, and our ability to increase the efforts and resources allocated to these trials may be limited.

If we or our collaborators fail to comply with regulatory requirements applicable to promotion, sale and manufacturing of approved products, regulatory agencies may take action against us or them, which could significantly harm our business.

Any approved products, along with the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for these products, are subject to continual requirements and review by the FDA, state and foreign regulatory bodies. Regulatory authorities subject a marketed product, its manufacturer and the manufacturing facilities to continual review and periodic inspections. We, our collaborators and our respective contractors, suppliers and vendors, will be subject to ongoing regulatory requirements, including complying with regulations and laws regarding advertising, promotion and sales of drug products, required submissions of safety and other post-market information and reports, registration requirements, cGMP regulations (including requirements relating to quality control and quality assurance, as well as the corresponding maintenance of records and documentation), and the requirements regarding the distribution of samples to physicians and recordkeeping requirements. Regulatory agencies may change existing requirements or adopt new requirements or policies. We, our collaborators and our respective contractors, suppliers and vendors, may be slow to adapt or may not be able to adapt to these changes or new requirements.

In particular, regulatory requirements applicable to pharmaceutical products make the substitution of suppliers and manufacturers costly and time consuming. We have minimal internal manufacturing capabilities and are, and expect to be in the future, entirely dependent on contract manufacturers and suppliers for the manufacture of our products and for their active and other ingredients. The disqualification of these manufacturers and suppliers through their failure to comply with regulatory requirements could negatively impact our business because the delays and costs in obtaining and qualifying alternate suppliers (if such alternative suppliers are available, which we cannot assure) could delay

clinical trials or otherwise inhibit our ability to bring approved products to market, which would have a material adverse effect on our business and financial condition. Likewise, if we, our collaborators and our respective contractors, suppliers and vendors involved in sales and promotion of our products do

not comply with applicable laws and regulations, for example off-label or false or misleading promotion, this could materially harm our business and financial condition.

Failure to comply with regulatory requirements may result in any of the following:

- restrictions on our products or manufacturing processes;
- warning letters;
- withdrawal of the products from the market;
- voluntary or mandatory recall;
- fines;
- suspension or withdrawal of regulatory approvals;
- suspension or termination of any of our ongoing clinical trials;
- refusal to permit the import or export of our products;
- refusal to approve pending applications or supplements to approved applications that we submit;
- product seizure;
- injunctions; or
- imposition of civil or criminal penalties.

We currently have significant debt and failure by us to fulfill our obligations under the applicable loan agreements may cause the repayment obligations to accelerate.

In December 2015, our subsidiaries, Halozyme, Inc. (Halozyme) and Halozyme Royalty LLC (Halozyme Royalty) entered into a credit agreement (the Credit Agreement) with BioPharma Credit Investments IV Sub, LP and Athyrium Opportunities II Acquisition LP (the Royalty-backed Lenders) pursuant to which we borrowed $150 million through Halozyme Royalty (the Royalty-backed Loan). The Royalty-backed Loan will be repaid primarily from a specified percentage of the royalty payments we receive under our collaboration agreements with Roche and Baxalta (the Royalty Payments).

The obligations of Halozyme Royalty under the Credit Agreement to repay the Royalty-backed Loan may be accelerated upon the occurrence of certain events of default under the Credit Agreement, including but not limited to:

- if any payment of principal is not made within three days of when such payment is due and payable or otherwise made in accordance with the terms of the Credit Agreement;
- if any representations or warranties made in the Credit Agreement or any other transaction document proves to be incorrect or misleading in any material respect when made;
- if there occurs a default in the performance of affirmative and negative covenants set forth in the Credit Agreement or any other transaction document;
- the failure by either Baxalta or Roche to pay material amounts owed under our collaboration agreements because of an actual breach or default by us under the collaboration agreements;
- the voluntary or involuntary commencement of bankruptcy proceedings by either Halozyme or Halozyme Royalty and other insolvency related defaults;
- any materially adverse effect on the binding nature of any of the transaction documents or the collaboration agreements with Baxalta and Roche; or
- Halozyme ceases to own, of record and beneficially, 100% of the equity interests in Halozyme Royalty.

The Credit Agreement also contains covenants applicable to Halozyme and Halozyme Royalty, including certain visitation, information and audits rights granted to the collateral agent and the lenders and restrictions on the conduct of business, including continued compliance with the Baxalta and Roche collaboration agreements and specified affirmative actions regarding the escrow account established to facilitate payment of Royalty Payments to the Royalty-backed Lenders or other specified parties. The Credit Agreement also contains covenants solely applicable to Halozyme Royalty, including restrictions on incurring indebtedness, creating or granting liens, making acquisitions and making specified restricted payments. These covenants could make it more difficult for us to execute our business strategy.

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In connection with the Royalty-backed Loan, Halozyme Royalty granted a first priority lien and security interest (subject only to permitted liens) in all of its assets and all real, intangible and personal property, including all of its right, title and interest in and to the Royalty Payments.

In December 2013, we entered into an Amended and Restated Loan and Security Agreement (the Loan Agreement) with Oxford Finance LLC (Oxford) and Silicon Valley Bank (SVB) (collectively, the Lenders), amending and restating in its entirety our original loan agreement with the Lenders, dated December 2012. The Loan Agreement provided for an additional $20 million principal amount of new term loan, bringing the total term loan balance to $50 million. The proceeds are to be used for working capital and general business requirements. In January 2015, we entered into the Second Amendment to the Amended and Restated Loan and Security Agreement and First Amendment to Disbursement Letter (the Amendment) with the Lenders, amending and restating the loan payment schedules of the Amended and Restated Loan and Security Agreement. The amended and restated term loan repayment schedule provides for interest only payments through January 2016, followed by consecutive equal monthly payments of principal and interest in arrears starting in February 2016 and continuing through the previously established maturity date of January 2018. The amended and restated term loan facility is secured by substantially all of the assets of the Company and its subsidiary, Halozyme, Inc., except that the collateral does not include any equity interests in Halozyme, Inc., any intellectual property (including all licensing, collaboration and similar agreements relating thereto), and certain other excluded assets. The Loan Agreement contains customary representations, warranties and covenants by us, which covenants limit our ability to convey, sell, lease, transfer, assign or otherwise dispose of certain of our assets; engage in any business other than the businesses currently engaged in by us or reasonably related thereto; liquidate or dissolve; make certain management changes; undergo certain change of control events; create, incur, assume, or be liable with respect to certain indebtedness; grant certain liens; pay dividends and make certain other restricted payments; make certain investments; make payments on any subordinated debt; and enter into transactions with any of our affiliates outside of the ordinary course of business or permit our subsidiaries to do the same. In addition, subject to certain exceptions, we are required to maintain with SVB our primary deposit accounts, securities accounts and commodities, and to do the same for our domestic subsidiary. Complying with these covenants may make it more difficult for us to successfully execute our business strategy.

The Loan Agreement also contains customary indemnification obligations and customary events of default, including, among other things, our failure to fulfill certain of our obligations under the Loan Agreement and the occurrence of a material adverse change which is defined as a material adverse change in our business, operations or condition (financial or otherwise), a material impairment of the prospect of repayment of any portion of the loan, or a material impairment in the perfection or priority of lender’s lien in the collateral or in the value of such collateral.

Our ability to make payments on our debt will depend on our future operating performance and ability to generate cash and may also depend on our ability to obtain additional debt or equity financing. We will need to use cash to pay principal and interest on our debt, thereby reducing the funds available to fund our research and development programs, strategic initiatives and working capital requirements. If we are unable to generate sufficient cash to service our debt obligation, an event of default may occur. In the event of default by us under the Credit Agreement or the Loan Agreement, the lenders would be entitled to exercise their remedies thereunder, including the right to accelerate the debt, upon which we may be required to repay all amounts then outstanding under the Credit Agreement or the Loan Agreement which could harm our financial condition.

If proprietary or collaboration product candidates are approved for marketing but do not gain market acceptance, our business may suffer and we may not be able to fund future operations.

Assuming that our proprietary or collaboration product candidates obtain the necessary regulatory approvals for commercial sale, a number of factors may affect the market acceptance of these existing product candidates or any other products which are developed or acquired in the future, including, among others:

- the price of products relative to other therapies for the same or similar treatments;
- the perception by patients, physicians and other members of the health care community of the effectiveness and safety of these products for their prescribed treatments relative to other therapies for the same or similar treatments;
- our ability to fund our sales and marketing efforts and the ability and willingness of our collaborators to fund sales and marketing efforts;

- the degree to which the use of these products is restricted by the approved product label;

- the effectiveness of our sales and marketing efforts and the effectiveness of the sales and marketing efforts of our collaborators;
- the introduction of generic competitors; and
- the extent to which reimbursement for our products and related treatments will be available from third party payors including government insurance programs (Medicare and Medicaid) and private insurers.

If these products do not gain market acceptance, we may not be able to fund future operations, including the development or acquisition of new product candidates and/or our sales and marketing efforts for our approved products, which would cause our business to suffer.

In addition, our proprietary and collaboration product candidates will be restricted to the labels approved by FDA and applicable regulatory bodies, and these restrictions may limit the marketing and promotion of the ultimate products. If the approved labels are restrictive, the sales and marketing efforts for these products may be negatively affected.

Developing and marketing pharmaceutical products for human use involves significant product liability risks for which we currently have limited insurance coverage.

The testing, marketing and sale of pharmaceutical products involves the risk of product liability claims by consumers and other third parties. Although we maintain product liability insurance coverage, product liability claims can be high in the pharmaceutical industry, and our insurance may not sufficiently cover our actual liabilities. If product liability claims were to be made against us, it is possible that the liabilities may exceed the limits of our insurance policy, or our insurance carriers may deny, or attempt to deny, coverage in certain instances. If a lawsuit against us is successful, then the lack or insufficiency of insurance coverage could materially and adversely affect our business and financial condition. Furthermore, various distributors of pharmaceutical products require minimum product liability insurance coverage before purchase or acceptance of products for distribution. Failure to satisfy these insurance requirements could impede our ability to achieve broad distribution of our proposed products, and higher insurance requirements could impose additional costs on us. In addition, since many of our collaboration product candidates include the pharmaceutical products of a third party, we run the risk that problems with the third party pharmaceutical product will give rise to liability claims against us.

Our inability to attract, hire and retain key management and scientific personnel could negatively affect our business.

Our success depends on the performance of key management and scientific employees with relevant experience. For example, in order to pursue our current business strategy, we will need to recruit and retain personnel experienced in oncology drug development which is a highly competitive market for talent. We depend substantially on our ability to hire, train, motivate and retain high quality personnel, especially our scientists and management team. Particularly in view of the small number of employees on our staff to cover our numerous programs and key functions, if we are unable to retain existing personnel or identify or hire additional personnel, we may not be able to research, develop, commercialize or market our products and product candidates as expected or on a timely basis and we may not be able to adequately support current and future alliances with strategic collaborators.

Furthermore, if we were to lose key management personnel, we would likely lose some portion of our institutional knowledge and technical know-how, potentially causing a substantial delay in one or more of our development programs until adequate replacement personnel could be hired and trained. We currently have a severance policy applicable to all employees and a change in control policy applicable to senior executives.

We do not have key man life insurance policies on the lives of any of our employees.

Our operations might be interrupted by the occurrence of a natural disaster or other catastrophic event.

Our operations, including laboratories, offices and other research facilities, are located in four buildings in San Diego, California. In addition, we have a satellite office in South San Francisco, California. We depend on our facilities and on our collaborators, contractors and vendors for the continued operation of our business. Natural disasters or other catastrophic events, interruptions in the supply of natural resources, political and governmental changes, wildfires and other fires, floods, explosions, actions of animal rights activists, earthquakes and civil unrest could disrupt our operations or those of our collaborators, contractors and vendors. Even though we believe we carry commercially reasonable business interruption and liability insurance, and our contractors may carry liability insurance that protect us in certain events, we may suffer losses as a result of business interruptions that exceed the coverage available under our and our contractors' insurance policies or for which we or our contractors do not have coverage. Any natural disaster or catastrophic event could have a significant negative impact on our operations and financial results. Moreover, any such event could delay our research and development programs.

If we or our collaborators do not achieve projected development, clinical, regulatory or sales goals in the timeframes we publicly announce or otherwise expect, the commercialization of our products and the development of our product candidates may be delayed and, as a result, our stock price may decline, and we may face lawsuits relating to such declines.

From time to time, we or our collaborators may publicly articulate the estimated timing for the accomplishment of certain scientific, clinical, regulatory and other product development goals. The accomplishment of any goal is typically based on numerous assumptions, and the achievement of a particular goal may be delayed for any number of reasons both within and outside of our control. If scientific, regulatory, strategic or other factors cause us to not meet a goal, regardless of whether that goal has been publicly articulated or not, our stock price may decline rapidly. For example, the announcement in April 2014 of the temporary halting of our Phase 2 clinical trial for PEGPH20 caused a rapid decline in our stock price. Stock price declines may also trigger direct or derivative shareholder lawsuits. As with any litigation proceeding, the eventual outcome of any legal action is difficult to predict. If any such lawsuits occur, we will incur expenses in connection with the defense of these lawsuits, and we may have to pay substantial damages or settlement costs in connection with any resolution thereof. Although we have insurance coverage against which we may claim recovery against some of these expenses and costs, the amount of coverage may not be adequate to cover the full amount or certain expenses and costs may be outside the scope of the policies we maintain. In the event of an adverse outcome or outcomes, our business could be materially harmed from depletion of cash resources, negative impact on our reputation, or restrictions or changes to our governance or other processes that may result from any final disposition of the lawsuit. Moreover, responding to and defending pending litigation significantly diverts management's attention from our operations.

In addition, the consistent failure to meet publicly announced milestones may erode the credibility of our management team with respect to future milestone estimates.

Future acquisitions could disrupt our business and harm our financial condition.

In order to augment our product pipeline or otherwise strengthen our business, we may decide to acquire additional businesses, products and technologies. As we have limited experience in evaluating and completing acquisitions, our ability as an organization to make such acquisitions is unproven. Acquisitions could require significant capital infusions and could involve many risks, including, but not limited to, the following:

- we may have to issue convertible debt or equity securities to complete an acquisition, which would dilute our stockholders and could adversely affect the market price of our common stock;
- an acquisition may negatively impact our results of operations because it may require us to amortize or write down amounts related to goodwill and other intangible assets, or incur or assume substantial debt or liabilities, or it may cause adverse tax consequences, substantial depreciation or deferred compensation charges;
- we may encounter difficulties in assimilating and integrating the business, products, technologies, personnel or operations of companies that we acquire;
- certain acquisitions may impact our relationship with existing or potential collaborators who are competitive with the acquired business, products or technologies;
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acquisitions may require significant capital infusions and the acquired businesses, products or technologies may not generate sufficient value to justify acquisition costs;

- we may take on liabilities from the acquired company such as debt, legal liabilities or business risk which could be significant;
- an acquisition may disrupt our ongoing business, divert resources, increase our expenses and distract our management;
- acquisitions may involve the entry into a geographic or business market in which we have little or no prior experience; and
- key personnel of an acquired company may decide not to work for us.

If any of these risks occurred, it could adversely affect our business, financial condition and operating results. There is no assurance that we will be able to identify or consummate any future acquisitions on acceptable terms, or at all. If we do pursue any acquisitions, it is possible that we may not realize the anticipated benefits from such acquisitions or that the market will not view such acquisitions positively.

Security breaches may disrupt our operations and harm our operating results.

The wrongful use, theft, deliberate sabotage or any other type of security breach with respect to any of our information technology storage and access systems could result in the disruption of our ability to use such systems or disclosure or dissemination of our proprietary and confidential information that is electronically stored, including research or clinical data, resulting in a material adverse impact on our business, operating results and financial condition. Our security and data recovery measures may not be adequate to protect against computer viruses, break-ins, and similar disruptions from unauthorized tampering with our electronic storage systems. Furthermore, any physical break-in or trespass of our facilities could result in the misappropriation, theft, sabotage or any other type of security breach with respect to our proprietary and confidential information, including research or clinical data or damage to our research and development equipment and assets. Such adverse effects could be material and irrevocable to our business, operating results and financial condition.

Risks Related To Ownership of Our Common Stock

Our stock price is subject to significant volatility.

We participate in a highly dynamic industry which often results in significant volatility in the market price of common stock irrespective of company performance. As a result, the high and low sales prices of our common stock during the twelve months ended December 31, 2015 were $25.25 and $9.47, respectively. We expect our stock price to continue to be subject to significant volatility and, in addition to the other risks and uncertainties described elsewhere in this Annual Report on Form 10-K and all other risks and uncertainties that are either not known to us at this time or which we deem to be immaterial, any of the following factors may lead to a significant drop in our stock price:

- the presence of competitive products to those being developed by us;
- failure (actual or perceived) of our collaborators to devote attention or resources to the development or commercialization of product candidates licensed to such collaborator;
- a dispute regarding our failure, or the failure of one of our third party collaborators, to comply with the terms of a collaboration agreement;
- the termination, for any reason, of any of our collaboration agreements;
- the sale of common stock by any significant stockholder, including, but not limited to, direct or indirect sales by members of management or our Board of Directors;
- the resignation, or other departure, of members of management or our Board of Directors;
- general negative conditions in the healthcare industry;
- general negative conditions in the financial markets;
- the cost associated with obtaining regulatory approval for any of our proprietary or collaboration product candidates;
- the failure, for any reason, to secure or defend our intellectual property position;
- for those products that are not yet approved for commercial sale, the failure or delay of applicable regulatory bodies to approve such products;
- identification of safety or tolerability issues;

- failure of clinical trials to meet efficacy endpoints;
- suspensions or delays in the conduct of clinical trials or securing of regulatory approvals;
- adverse regulatory action with respect to our and our collaborators' products and product candidates such as clinical holds, imposition of onerous requirements for approval or product recalls;
- our failure, or the failure of our third party collaborators, to successfully commercialize products approved by applicable regulatory bodies such as the FDA;
- our failure, or the failure of our third party collaborators, to generate product revenues anticipated by investors;
- disruptions in our clinical or commercial supply chains, including disruptions caused by problems with a bulk rHuPH20 contract manufacturer or a fill and finish manufacturer for any product or product candidate;
- the sale of additional debt and/or equity securities by us;
- our failure to obtain financing on acceptable terms or at all; or
- a restructuring of our operations.

Future transactions where we raise capital may negatively affect our stock price.

We are currently a "Well-Known Seasoned Issuer" and may file automatic shelf registration statements at any time with the SEC. Sales of substantial amounts of shares of our common stock or other securities under our shelf registration statements could lower the market price of our common stock and impair our ability to raise capital through the sale of equity securities. In the future, we may issue additional options, warrants or other derivative securities convertible into our common stock.

Our rights agreement and anti-takeover provisions in our charter documents and Delaware law may make an acquisition of us more difficult.

We are party to a Rights Agreement designed to deter abusive takeover tactics and to encourage prospective acquirers to negotiate with our board of directors rather than attempt to acquire us in a manner or on terms that our board deems unacceptable, which could delay or discourage takeover attempts that stockholders may consider favorable.

In addition, anti-takeover provisions in our charter documents and Delaware law may make an acquisition of us more difficult. First, our board of directors is classified into three classes of directors. Under Delaware law, directors of a corporation with a classified board may be removed only for cause unless the corporation's certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation, as amended, does not provide otherwise. In addition, our bylaws limit who may call special meetings of stockholders, permitting only stockholders holding at least 50% of our outstanding shares to call a special meeting of stockholders. Our amended and restated certificate of incorporation, as amended, does not include a provision for cumulative voting for directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares may be able to ensure the election of one or more directors. Finally, our bylaws establish procedures, including advance notice procedures, with regard to the nomination of candidates for election as directors and stockholder proposals.

These provisions may discourage potential takeover attempts, discourage bids for our common stock at a premium over market price or adversely affect the market price of, and the voting and other rights of the holders of, our common stock. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors other than the candidates nominated by our board of directors.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit large stockholders from consummating a merger with, or acquisition of, us.

These provisions may deter an acquisition of us that might otherwise be attractive to stockholders.

Risks Related to Our Industry

Our products must receive regulatory approval before they can be sold, and compliance with the extensive government regulations is expensive and time consuming and may result in the delay or cancellation of product sales, introductions or modifications.

Extensive industry regulation has had, and will continue to have, a significant impact on our business. All pharmaceutical companies, including ours, are subject to extensive, complex, costly and evolving regulation by the health regulatory agencies

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including the FDA (and with respect to controlled drug substances, the U.S. Drug Enforcement Administration (DEA)) and equivalent foreign regulatory agencies and state and local/regional government agencies. The Federal Food, Drug and Cosmetic Act, the Controlled Substances Act and other domestic and foreign statutes and regulations govern or influence the testing, manufacturing, packaging, labeling, storing, recordkeeping, safety, approval, advertising, promotion, sale and distribution of our products. We are dependent on receiving FDA and other governmental approvals, including regulatory approvals in jurisdictions outside the United States, prior to manufacturing, marketing and shipping our products. Consequently, there is always a risk that the FDA or other applicable governmental authorities, including those outside the United States, will not approve our products or may impose onerous, costly and time-consuming requirements such as additional clinical or animal testing. Regulatory authorities may require that we change our studies or conduct additional studies, which may significantly delay or make continued pursuit of approval commercially unattractive. For example, the approval of Baxalta's HYQVIA BLA was delayed by the FDA until we and Baxalta provided additional preclinical data sufficient to address concerns regarding non-neutralizing antibodies to rHuPH20 that were detected in the registration trial. Although these antibodies have not been associated with any known adverse clinical effects, and the HYQVIA BLA was approved by the FDA in September 2014, the FDA or other foreign regulatory agency may, at any time, halt our and our collaborators' development and commercialization activities due to safety concerns. In addition, even if our products are approved, regulatory agencies may also take post-approval action limiting or revoking our ability to sell our products. Any of these regulatory actions may adversely affect the economic benefit we may derive from our products and therefore harm our financial condition.

Under certain of these regulations, we and our contract suppliers and manufacturers are subject to periodic inspection of our or their respective facilities, procedures and operations and/or the testing of products by the FDA, the DEA and other authorities, which conduct periodic inspections to confirm that we and our contract suppliers and manufacturers are in compliance with all applicable regulations. The FDA also conducts pre-approval and post-approval reviews and plant inspections to determine whether our systems, or our contract suppliers' and manufacturers' processes, are in compliance with cGMP and other FDA regulations. If we, or our contract supplier, fail these inspections, we may not be able to commercialize our product in a timely manner without incurring significant additional costs, or at all.

In addition, the FDA imposes a number of complex regulatory requirements on entities that advertise and promote pharmaceuticals including, but not limited to, standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities, and promotional activities involving the internet.

We may be subject, directly or indirectly, to various broad federal and state healthcare laws. If we are unable to comply, or have not fully complied, with such laws, we could face civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate.

Our business operations and activities may be directly, or indirectly, subject to various broad federal and state healthcare laws, including without limitation, anti-kickback laws, the Foreign Corrupt Practices Act, false claims laws, civil monetary penalty laws, data privacy and security laws, tracing and tracking laws, as well as transparency laws regarding payments or other items of value provided to healthcare providers. These laws may restrict or prohibit a wide range of business activities, including, but not limited to, research, manufacturing, distribution, pricing, discounting, marketing and promotion and other business arrangements. These laws may impact, among other things, our current activities with principal investigators and research subjects, as well as sales, marketing and education programs. Many states have similar healthcare fraud and abuse laws, some of which may be broader in scope and may not be limited to items or services for which payment is made by a government health care program.

Efforts to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. While we have adopted a healthcare corporate compliance program, it is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws. If our operations or activities are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to, without limitation, civil, criminal and administrative penalties, damages, monetary fines,

disgorgement, possible exclusion from participation in Medicare, Medicaid

and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate.

In addition, any sales of products outside the U.S. will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

We may be required to initiate or defend against legal proceedings related to intellectual property rights, which may result in substantial expense, delay and/or cessation of the development and commercialization of our products.

We primarily rely on patents to protect our intellectual property rights. The strength of this protection, however, is uncertain. For example, it is not certain that:

- we will be able to obtain patent protection for our products and technologies;
- the scope of any of our issued patents will be sufficient to provide commercially significant exclusivity for our products and technologies;
- others will not independently develop similar or alternative technologies or duplicate our technologies and obtain patent protection before we do; and
- any of our issued patents, or patent pending applications that result in issued patents, will be held valid, enforceable and infringed in the event the patents are asserted against others.

We currently own or license several patents and also have pending patent applications applicable to rHuPH20 and other proprietary materials. There can be no assurance that our existing patents, or any patents issued to us as a result of our pending patent applications, will provide a basis for commercially viable products, will provide us with any competitive advantages, or will not face third party challenges or be the subject of further proceedings limiting their scope or enforceability. Any weaknesses or limitations in our patent portfolio could have a material adverse effect on our business and financial condition. In addition, if any of our pending patent applications do not result in issued patents, or result in issued patents with narrow or limited claims, this could result in us having no or limited protection against generic or biosimilar competition against our product candidates which would have a material adverse effect on our business and financial condition.

We may become involved in interference proceedings in the U.S. Patent and Trademark Office, or other proceedings in other jurisdictions, to determine the priority, validity or enforceability of our patents. In addition, costly litigation could be necessary to protect our patent position.

We also rely on trademarks to protect the names of our products (e.g. Hylenex recombinant). We may not be able to obtain trademark protection for any proposed product names we select. In addition, product names for pharmaceutical products must be approved by health regulatory authorities such as the FDA in addition to meeting the legal standards required for trademark protection and product names we propose may not be timely approved by regulatory agencies which may delay product launch. In addition, our trademarks may be challenged by others. If we enforce our trademarks against third parties, such enforcement proceedings may be expensive.

We also rely on trade secrets, unpatented proprietary know-how and continuing technological innovation that we seek to protect with confidentiality agreements with employees, consultants and others with whom we discuss our business. Disputes may arise concerning the ownership of intellectual property or the applicability or enforceability of these agreements, and we might not be able to resolve these disputes in our favor.

In addition to protecting our own intellectual property rights, third parties may assert patent, trademark or copyright infringement or other intellectual property claims against us. If we become involved in any intellectual property litigation, we may be required to pay substantial damages, including but not limited to treble damages, attorneys' fees and costs, for past infringement if it is ultimately determined that our products infringe a third party's intellectual property rights. Even if infringement claims against us are without merit, defending a lawsuit takes significant time, may be expensive and may divert management's attention from other business concerns. Further, we may be stopped from developing, manufacturing or selling our products until we obtain a license from the owner of the relevant technology or other intellectual property rights. If such a license is available at all, it may require us to pay substantial royalties or other fees.

Patent protection for protein-based therapeutic products and other biotechnology inventions is subject to a great deal of uncertainty, and if patent laws or the interpretation of patent laws change, our competitors may be able to develop and commercialize products based on our discoveries.

Patent protection for protein-based therapeutic products is highly uncertain and involves complex legal and factual questions. In recent years, there have been significant changes in patent law, including the legal standards that govern the scope of protein and biotechnology patents. Standards for patentability of full-length and partial genes, and their corresponding proteins, are changing. Recent court decisions have made it more difficult to obtain patents, by making it more difficult to satisfy the patentable subject matter requirement and the requirement of non-obviousness, have decreased the availability of injunctions against infringers, and have increased the likelihood of challenging the validity of a patent through a declaratory judgment action. Taken together, these decisions could make it more difficult and costly for us to obtain, license and enforce our patents. In addition, the Leahy-Smith America Invents Act (HR 1249) was signed into law in September 2011, which among other changes to the U.S. patent laws, changes patent priority from “first to invent” to “first to file,” implements a post-grant opposition system for patents and provides for a prior user defense to infringement. These judicial and legislative changes have introduced significant uncertainty in the patent law landscape and may potentially negatively impact our ability to procure, maintain and enforce patents to provide exclusivity for our products.

There also have been, and continue to be, policy discussions concerning the scope of patent protection awarded to biotechnology inventions. Social and political opposition to biotechnology patents may lead to narrower patent protection within the biotechnology industry. Social and political opposition to patents on genes and proteins and recent court decisions concerning patentability of isolated genes may lead to narrower patent protection, or narrower claim interpretation, for isolated genes, their corresponding proteins and inventions related to their use, formulation and manufacture. Patent protection relating to biotechnology products is also subject to a great deal of uncertainty outside the U.S., and patent laws are evolving and undergoing revision in many countries. Changes in, or different interpretations of, patent laws worldwide may result in our inability to obtain or enforce patents, and may allow others to use our discoveries to develop and commercialize competitive products, which would impair our business.

If third party reimbursement and customer contracts are not available, our products may not be accepted in the market.

Our ability to earn sufficient returns on our products will depend in part on the extent to which reimbursement for our products and related treatments will be available from government health administration authorities, private health insurers, managed care organizations and other healthcare providers.

Third-party payors are increasingly attempting to limit both the coverage and the level of reimbursement of new drug products to contain costs. Consequently, significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Third party payors may not establish adequate levels of reimbursement for the products that we commercialize, which could limit their market acceptance and result in a material adverse effect on our revenues and financial condition.

Customer contracts, such as with group purchasing organizations and hospital formularies, will often not offer contract or formulary status without either the lowest price or substantial proven clinical differentiation. If our products are compared to animal-derived hyaluronidases by these entities, it is possible that neither of these conditions will be met, which could limit market acceptance and result in a material adverse effect on our revenues and financial condition.

The rising cost of healthcare and related pharmaceutical product pricing has led to cost containment pressures that could cause us to sell our products at lower prices, resulting in less revenue to us.

Any of the proprietary or collaboration products that have been, or in the future are, approved by the FDA may be purchased or reimbursed by state and federal government authorities, private health insurers and other organizations, such as health maintenance organizations and managed care organizations. Such third party payors increasingly challenge pharmaceutical product pricing. The trend toward managed healthcare in the U.S., the growth of such organizations, and various legislative proposals and enactments to reform healthcare and government insurance programs, including the Medicare Prescription Drug Modernization Act of 2003, could significantly influence the manner in which pharmaceutical products are prescribed and purchased, resulting in lower prices and/or a reduction in demand. Such cost containment measures and healthcare reforms could adversely affect our ability to sell our

products.

In March 2010, the U.S. adopted the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (the Healthcare Reform Act). This law substantially changes the way healthcare is financed by both governmental and private insurers, and significantly impacts the pharmaceutical industry. The Healthcare Reform Act contains a number of provisions that are expected to impact our business and operations, in some cases in ways we cannot currently predict. Changes that may affect our business include those governing enrollment in federal healthcare programs, reimbursement changes, fraud and abuse and enforcement. These changes will impact existing government healthcare programs and will result in the development of new programs, including Medicare payment for performance initiatives and improvements to the physician quality reporting system and feedback program.

Additional provisions of the Healthcare Reform Act may negatively affect our revenues in the future. For example, the Healthcare Reform Act imposes a non-deductible excise tax on pharmaceutical manufacturers or importers that sell branded prescription drugs to U.S. government programs that we believe will impact our revenues from our products. In addition, as part of the Healthcare Reform Act's provisions closing a funding gap that currently exists in the Medicare Part D prescription drug program, we will also be required to provide a 50% discount on branded prescription drugs dispensed to beneficiaries under this prescription drug program. We expect that the Healthcare Reform Act and other healthcare reform measures that may be adopted in the future could have a material adverse effect on our industry generally and on our ability to maintain or increase our product sales or successfully commercialize our product candidates or could limit or eliminate our future spending on development projects. Furthermore, individual states have become increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access, importation from other countries and bulk purchasing. Legally mandated price controls on payment amounts by third party payors or other restrictions could negatively and materially impact our revenues and financial condition. We anticipate that we will encounter similar regulatory and legislative issues in most other countries outside the U.S.

We face intense competition and rapid technological change that could result in the development of products by others that are superior to our proprietary and collaboration products under development.

Our proprietary and collaboration products have numerous competitors in the U.S. and abroad including, among others, major pharmaceutical and specialized biotechnology firms, universities and other research institutions that have developed competing products. The competitors for Hylenex recombinant include, but are not limited to, Valeant Pharmaceuticals International, Inc.'s FDA-approved product, Vitrase®, an ovine (ram) hyaluronidase, and Amphastar Pharmaceuticals, Inc.'s product, Amphadase®, a bovine (bull) hyaluronidase. For our PEGPH20 product candidate, such competitors may include major pharmaceutical and specialized biotechnology firms. These competitors may develop technologies and products that are more effective, safer, or less costly than our current or future proprietary and collaboration product candidates or that could render our technologies and product candidates obsolete or noncompetitive. Many of these competitors have substantially more resources and product development, manufacturing and marketing experience and capabilities than we do. In addition, many of our competitors have significantly greater experience than we do in undertaking preclinical testing and clinical trials of pharmaceutical product candidates and obtaining FDA and other regulatory approvals of products and therapies for use in healthcare.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our administrative offices and research facilities are currently located in San Diego, California. We lease an aggregate of approximately 76,000 square feet of office and research space for a monthly rent expense of approximately $145,000, net of costs and property taxes associated with the operation and maintenance of the subleased facilities. In addition, we have a satellite office in South San Francisco, California, where we lease approximately 10,000 square feet of office space for a monthly rent expense of approximately $26,000. We believe the current space is adequate for our immediate needs.

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Item 3. Legal Proceedings

From time to time, we may be involved in disputes, including litigation, relating to claims arising out of operations in the normal course of our business. Any of these claims could subject us to costly legal expenses and, while we generally believe that we have adequate insurance to cover many different types of liabilities, our insurance carriers may deny coverage or our policy limits may be inadequate to fully satisfy any damage awards or settlements. If this were to happen, the payment of any such awards could have a material adverse effect on our consolidated results of operations and financial position. Additionally, any such claims, whether or not successful, could damage our reputation and business. We currently are not a party to any legal proceedings, the adverse outcome of which, in management's opinion, individually or in the aggregate, would have a material adverse effect on our consolidated results of operations or financial position.

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 listed on the NASDAQ Global Select Market under the symbol "HALO." The following table sets forth the high and low sales prices per share of our common stock during each quarter of the two most recent fiscal years:

	2015		2014	
	High	Low	High	Low
First Quarter	$16.55	$9.47	$18.18	$11.28
Second Quarter	$22.85	$13.91	$12.97	$6.88
Third Quarter	$25.25	$12.80	$10.70	$8.58
Fourth Quarter	$18.65	$12.80	$10.00	$7.51

On February 22, 2016, the closing sales price of our common stock on the NASDAQ Global Select Market was $8.19 per share. As of February 22, 2016, we had approximately 21,000 stockholders of record and beneficial owners of our common stock.

Dividends

We have never declared or paid any dividends on our common stock. We currently intend to retain available cash for funding operations; therefore, we do not expect to pay any dividends on our common stock in the foreseeable future. In addition, the provisions of our Loan Agreement limit, among other things, our ability to pay dividends and make certain other payments. Any future determination to pay dividends on our common stock will be at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contract restrictions, business prospects and other factors our board of directors may deem relevant.

Stock Performance Graph and Cumulative Total Return

Notwithstanding any statement to the contrary in any of our previous or future filings with the SEC, the following information relating to the price performance of our common stock shall not be deemed to be "filed" with the SEC or to be "soliciting material" under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and it shall not be deemed to be incorporated by reference into any of our filings under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent we specifically incorporate it by reference into such filing.

The graph below compares Halozyme Therapeutics, Inc.'s cumulative five-year total shareholder return on common stock with the cumulative total returns of the NASDAQ Composite Index and the NASDAQ Biotechnology Index. The graph tracks the performance of a $100 investment in our common stock and in each of the indexes (with the reinvestment of all dividends) from December 31, 2010 to December 31, 2015. The historical stock price performance included in this graph is not necessarily indicative of future stock price performance.

	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
Halozyme Therapeutics, Inc.	$100	$120	$85	$189	$122	$219
NASDAQ Composite	$100	$99	$116	$163	$187	$200
NASDAQ Biotechnology	$100	$112	$148	$246	$331	$370

Item 6. Selected Financial Data

The selected consolidated financial data set forth below as of December 31, 2015 and 2014, and for the fiscal years ended December 31, 2015, 2014 and 2013, are derived from our audited consolidated financial statements included elsewhere in this report. This information should be read in conjunction with those consolidated financial statements, the notes thereto, and with "Management's Discussion and Analysis of Financial Condition and Results of Operations." The selected consolidated financial data set forth below as of December 31, 2013, 2012 and 2011, and for the fiscal years ended December 31, 2012 and 2011, are derived from our audited consolidated financial statements that are contained in reports previously filed with the SEC, not included herein.

Summary Financial Information

	Year Ended December 31,				
Statement of Operations Data:	2015[1]	2014[2]	2013[3]	2012[4]	2011[5]
	(in thousands, except for per share amounts)				
Total revenues	$135,057	$75,334	$54,799	$42,325	$56,086
Net loss	$(32,231)	$(68,375)	$(83,479)	$(53,552)	$(19,770)
Net loss per share, basic and diluted	$(0.25)	$(0.56)	$(0.74)	$(0.48)	$(0.19)
Shares used in computing net loss per share, basic and diluted	126,704	122,690	112,805	111,077	102,566

	As of December 31,				
Balance Sheet Data:	2015	2014	2013	2012	2011
	(in thousands)				
Cash and cash equivalents and available-for-sale marketable securities	$108,339	$135,623	$71,503	$99,501	$52,376
Working capital	$109,315	$136,990	$70,293	$111,682	$46,236
Total assets	$181,789	$165,977	$101,793	$134,728	$65,759
Deferred revenue	$53,223	$54,634	$53,143	$43,846	$40,884
Long-term debt, net	$27,971	$49,860	$49,772	$29,662	$—
Total liabilities	$138,790	$124,625	$121,783	$85,875	$54,858
Stockholders' equity (deficit)	$42,999	$41,352	$(19,991)	$48,854	$10,900

(1) Revenues in 2015 included $23.0 million and $25.0 million in license fees from collaboration agreements with AbbVie and Lilly, respectively.

(2) Revenues in 2014 included a $15.0 million license fee from the Janssen Collaboration.

(3) Revenues in 2013 reflected increases in supply of bulk rHuPH20 to Roche and product sales of Hylenex recombinant, which was relaunched in December 2011.

(4) Revenues in 2012 included $9.5 million in license fees from the Pfizer Collaboration.

(5) Revenues in 2011 included $18.0 million in license fees from collaboration agreements with ViroPharma Incorporated and Intrexon Corporation and $18.1 million related to recognition of unamortized deferred prepaid product-based payments and unamortized deferred upfront payment in connection with the termination of the collaboration with Baxalta for the marketing rights of Hylenex recombinant in July 2011.

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

In addition to historical information, the following discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results may differ substantially from those referred to herein due to a number of factors, including but not limited to risks described in the Part I, Item 1A, Risks Factors, and elsewhere in this Annual Report. References to "Notes" are Notes included in our Notes to Consolidated Financial Statements.

Overview

Halozyme Therapeutics, Inc. is a biotechnology company focused on developing and commercializing novel oncology therapies. We are seeking to translate our unique knowledge of the tumor microenvironment to create therapies that can improve cancer survival. Our research primarily focuses on human enzymes that alter the extracellular matrix and tumor microenvironment. The extracellular matrix is a complex matrix of proteins and carbohydrates surrounding the cell that provides structural support in tissues and orchestrates many important biological activities, including cell migration, signaling and survival. Over many years, we have developed unique technology and scientific expertise enabling us to pursue this target-rich environment for the development of therapies.

Our proprietary enzymes are used to facilitate the delivery of injected drugs and fluids, potentially enhancing the efficacy and the convenience of other drugs or to alter tissue structures for potential clinical benefit. We exploit our technology and expertise using a two pillar strategy that we believe enables us to manage risk and cost by: (1) developing our own proprietary products in therapeutic areas with significant unmet medical needs, with a focus on oncology, and (2) licensing our technology to biopharmaceutical companies to collaboratively develop products that combine our technology with the collaborators' proprietary compounds.

The majority of our approved product and product candidates are based on rHuPH20, our patented recombinant human hyaluronidase enzyme. rHuPH20 is the active ingredient in our first commercially approved product, Hylenex® recombinant, and it works by temporarily breaking down hyaluronan (or HA), a naturally occurring substance that is a major component of the extracellular matrix in tissues throughout the body such as skin and cartilage. We believe this temporary degradation creates an opportunistic window for the improved subcutaneous delivery of injectable biologics, such as monoclonal antibodies and other large therapeutic molecules, as well as small molecules and fluids. We refer to the application of rHuPH20 to facilitate the delivery of other drugs or fluids as our ENHANZE™ Technology. We license the ENHANZE Technology to form collaborations with biopharmaceutical companies that develop or market drugs requiring or benefiting from injection via the subcutaneous route of administration.

We currently have ENHANZE collaborations with F. Hoffmann-La Roche, Ltd. and Hoffmann-La Roche, Inc. (Roche), Baxalta US Inc. and Baxalta GmbH (Baxalta), Pfizer Inc. (Pfizer), Janssen Biotech, Inc. (Janssen), AbbVie, Inc. (AbbVie), and Eli Lilly and Company (Lilly). We receive royalties from two of these collaborations, including royalties from sales of one product approved in the United States and outside the United States from the Baxalta collaboration and from sales of two products approved for marketing outside the United States from the Roche collaboration. Future potential revenues from the sales and/or royalties of our approved products, product candidates, and ENHANZE collaborations will depend on the ability of Halozyme and our collaborators to develop, manufacture, secure and maintain regulatory approvals for approved products and product candidates and commercialize product candidates.

Our proprietary development pipeline consists of a clinical stage product candidate in oncology and research-stage oncology projects. Our lead oncology program is PEGPH20 (PEGylated recombinant human hyaluronidase), a molecular entity we are developing for the systemic treatment of tumors that accumulate HA. When HA accumulates in a tumor, it can cause higher pressure in the tumor, reducing blood flow into the tumor and with that, reduced access of cancer therapies to the tumor. PEGPH20 works by temporarily degrading HA surrounding cancer cells resulting in reduced pressure and increased blood flow to the tumor thereby enabling increased amounts of anticancer treatments administered concomitantly gaining access to the tumor. We are currently in Phase 2 and Phase 3 clinical testing for PEGPH20 in stage IV PDA (Studies 109-202 and 109-301), in Phase 1b clinical testing in non-small cell lung cancer (Study 107-201) and in Phase 1b clinical testing in non-small cell lung cancer and gastric cancer (Study 107-101).

Our 2015 and recent key accomplishments and events are as follows:

- In the first quarter of 2016, we initiated the Phase 3 study of PEGPH20 (Halozyme Study 301) in previously untreated stage IV PDA patients. Dosing of the first patient is planned to occur by the end of March 2016.
- In February 2016, we completed enrollment of 133 patients in Halozyme Study 202 and project to present mature PFS results of Stage 2 of the study in the fourth quarter of 2016.
- In February 2016, our partner Ventana filed an IDE with the FDA for the companion diagnostic test we co-developed to prospectively identify patients with high levels of HA.
- In February 2016, Pfizer dosed the first patient in the Phase 1 clinical trial evaluating subcutaneous delivery of bococizumab, an investigational PCSK9 inhibitor developed by Pfizer, with ENHANZE Technology.
- In January 2016, through our subsidiary, Halozyme Royalty LLC (Halozyme Royalty), we received a $150.0 million loan secured by future royalties received from our collaborations with Roche and Baxalta.
- In January 2016, AbbVie dosed the first patient in the Phase 1 clinical trial evaluating subcutaneous delivery of adalimumab (HUMIRA®) with ENHANZE Technology.
- In December 2015, we entered into a collaboration and license agreement with Lilly, under which Lilly has the worldwide license to develop and commercialize products combining our ENHANZE Technology with Lilly proprietary biologics directed to up to five targets. Targets may be selected on an exclusive basis. We received $25.0 million for the license with two specified targets.
- In November 2015, we finalized our assay methodology and pathology-based scoring algorithm with Ventana for our affinity-histochemistry companion diagnostic.
- In November 2015, we announced the dosing of the first patient in a Phase 1b clinical trial of PEGPH20 in combination with Merck’s immuno-oncology drug KEYTRUDA (pembrolizumab) for patients with advanced non-small cell lung and gastric cancers.
- In November 2015, Janssen dosed the first patient in a Phase 1b clinical trial evaluating subcutaneous delivery of daratumumab (DARZALEX®) with ENHANZE Technology in multiple myeloma.
- In October 2015, Pfizer dosed the first patient in the Phase 1 clinical trial evaluating subcutaneous delivery of rivipansel with our ENHANZE Technology for the treatment of individuals with vaso-occlusive crisis of sickle cell disease.
- In July 2015, we entered into a clinical collaboration agreement with Eisai Co. Ltd. (Eisai) to evaluate Eisai's agent eribulin mesylate Halaven® (eribulin) in combination with PEGPH20 in first line HER2-negative HA-high metastatic breast cancer patients.
- In June 2015, we entered into a collaboration and license agreement with AbbVie, under which AbbVie has the worldwide license to develop and commercialize products combining our ENHANZE Technology with AbbVie proprietary biologics directed to up to nine targets. Targets may be selected on an exclusive basis. We received $23.0 million for the license with one specified target, HUMIRA.
- In May 2015, we entered into a global collaboration agreement with Ventana, a member of the Roche Group, to collaborate on the development of, and for Ventana to ultimately commercialize, a companion diagnostic assay for use with PEGPH20. The Ventana assay will be used to identify high levels of HA. Under the agreement, Ventana will develop an in vitro diagnostic (IVD), under design control, using our proprietary HA binding protein, with the intent of submitting it for regulatory approval in the United States, Europe and other countries.
- In January 2015, we disclosed initial efficacy and safety data from an interim assessment of Stage 1 of Study 109-202, a Phase 2 multicenter, randomized clinical trial evaluating PEGPH20 as a first-line therapy for patients with stage IV PDA. We also presented the final results from Study 109-201, a multi-center, international open label dose escalation Phase 1b clinical study of PEGPH20 in combination with gemcitabine for the treatment of patients with stage IV PDA at the 2015 Gastrointestinal Cancers Symposium (also known as ASCO-GI meeting).

Results of Operations

Comparison of Years Ended December 31, 2015, 2014 and 2013

Product Sales, Net — Product sales increased in 2015 compared to 2014 by $8.3 million, or 22%, primarily due to the sale of bulk rHuPH20 to Baxalta of $6.4 million in 2015, compared to no sales in 2014, and a $2.9 million increase in product sales of Hylenex recombinant, which increased to $16.1 million in 2015 from $13.2 million in 2014. Product sales increased in 2014 compared to 2013 by $13.4 million, or 55%, primarily due to a $9.8 million increase in product sales of bulk rHuPH20 to Roche and a $4.1 million increase in product sales of Hylenex recombinant. Prior to the receipt of the European marketing approval of Roche's Herceptin SC product in August 2013 and MabThera SC product in March 2014, and Baxalta's HYQVIA product in May 2013, revenue from bulk rHuPH20 supply for these collaboration products was recorded as revenues under collaborative agreements instead of product sales revenue.

Revenues Under Collaborative Agreements — Revenues under collaborative agreements for the years ended December 31, 2015, 2014 and 2013 were as follows (in thousands):

	2015	Change	2014	Change	2013
Upfront payments, license maintenance fees and amortization of deferred upfront, license fees and product-based payments:					
Lilly	$25,000	n/a	$—	n/a	$—
AbbVie	23,000	n/a	—	n/a	—
Roche	3,269	8 %	3,028	31 %	2,308
Pfizer	2,000	100 %	1,000	(33 %)	1,500
Baxalta	765	0 %	765	27 %	604
Janssen	—	(100)%	15,000	n/a	—
Other	—	n/a	—	(100 %)	2,000
	54,034	173 %	19,793	209 %	6,412
Reimbursements for research and development services:					
Roche[1]	2,556	(63 %)	6,923	(64 %)	19,086
Janssen	834	n/a	—	n/a	—
Baxalta[1]	292	(76 %)	1,209	(70 %)	4,059
Other	284	76 %	161	(79 %)	770
	3,966	(52 %)	8,293	(65 %)	23,915
Total revenues under collaborative agreements	$58,000	107 %	$28,086	(7 %)	$30,327

(1) Subsequent to the European approvals of Roche's Herceptin SC product in August 2013 and MabThera SC product in March 2014 and Baxalta's HYQVIA product in May 2013, revenue from supply of bulk rHuPH20 for those products to the collaborators was recorded as product sales.

In 2015, we recognized $25.0 million in license fee revenue in connection with the Lilly Collaboration and $23.0 million in license fee revenue in connection with the AbbVie Collaboration. In 2014, we recognized $15.0 million in license fee revenue in connection with the Janssen Collaboration. Revenue from reimbursements for research and development services and bulk rHuPh20 supply decreased in 2015 compared to 2014 mainly due to a reduction in services provided to Roche compared to the same period in 2014. Revenue from reimbursements for research and development services and bulk rHuPh20 supply decreased in 2014 compared to 2013 mainly due to revenue from supply of bulk rHuPH20 for Roche collaboration products being recognized as product sales revenue in 2014, as opposed to revenue from reimbursements for research and development services in the same period in 2013. The decrease was also due to a decrease in reimbursements for manufacturing services to support the launches by Roche and Baxalta. Research and development services rendered by us on behalf of our collaborators are at the request of the collaborators; therefore, the amount of future revenues related to reimbursable research and development services is uncertain.

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We expect the non-reimbursement revenues under our collaborative agreements to continue to fluctuate in future periods based on our collaborators' abilities to meet various clinical and regulatory milestones set forth in such agreements and our abilities to obtain new collaborative agreements.

Royalties – Royalty revenue was $31.0 million in 2015 compared to $9.4 million in 2014 and $33,000 in 2013. The increase relates primarily to increased sales of Herceptin SC by Roche since the launch of Herceptin SC in September 2013. We recognize royalties on sales of the collaboration products by the collaborators in the quarter following the quarter in which the corresponding sales occurred. In general, we expect royalty revenue to increase in future periods reflecting expected increases in sales of collaboration products, although there may be periods with flat or declining royalty revenue as sales of products under collaborations vary.

Cost of Product Sales — Cost of product sales increased in 2015 compared to 2014 by $6.5 million, or 29%, primarily due to the increased product sales of bulk rHuPH20 for HYQVIA. Cost of product sales increased in 2014 compared to 2013 by $16.5 million, or 264%, primarily due to the increased product sales of bulk rHuPH20 for Herceptin SC. Prior to European marketing approvals of Roche's collaboration products, Herceptin SC in August 2013 and MabThera SC in March 2014, and Baxalta's collaboration HYQVIA product in May 2013, all costs related to the manufacturing of bulk rHuPH20 for these collaboration products were charged to research and development expenses in the periods such costs were incurred. Therefore, cost of product sales of bulk rHuPH20 for these collaboration products in 2013 was materially reduced due to the exclusion of those manufacturing costs that were charged to research and development expenses in the periods prior to receiving marketing approvals.

Cost of product sales of bulk rHuPH20 for collaboration products in 2014 excluded $1.0 million in manufacturing costs, of which $0.9 million and $0.1 million were charged to research and development expenses for 2013 and 2012, respectively. Cost of product sales of bulk rHuPH20 for collaboration products in 2013 excluded $10.0 million in manufacturing costs, of which $9.0 million and $1.0 million were charged to research and development expenses in 2013 and 2012, respectively. The estimated selling price of the zero-cost inventory of bulk rHuPH20 for Herceptin SC on hand as of December 31, 2013, was approximately $1.3 million. We sold all of this inventory in 2014. In 2015, the cost of product sales of bulk rHuPH20 was approximately 81% of bulk rHuPH20 product sales revenue.

Research and Development — Research and development expenses consist of external costs, salaries and benefits and allocation of facilities and other overhead expenses related to research manufacturing, clinical trials, preclinical and regulatory activities. Research and development expenses incurred for the years ended December 31, 2015, 2014 and 2013 were as follows (in thousands):

	2015	Change	2014	Change	2013
Programs					
Product Candidates:					
PEGPH20	$75,616	117 %	$34,857	86 %	$18,742
Ultrafast insulin program	1,634	(93)%	22,424	(9)%	24,723
Hylenex recombinant	1,468	(72)%	5,318	(50)%	10,734
ENHANZE collaborations[1]	3,181	(53)%	6,799	(78)%	31,104
rHuPH20 platform[2]	7,333	26 %	5,807	(1)%	5,895
HTI-501	5	(100)%	1,447	(47)%	2,712
Other	3,999	31 %	3,044	12 %	2,730
Total research and development expenses	$93,236	17 %	$79,696	(18)%	$96,640

(1) Subsequent to the European approvals of Roche's Herceptin SC product in August 2013 and MabThera SC product in March 2014 and Baxalta's HYQVIA product in May 2013, the manufacturing costs of bulk rHuPH20 for these collaboration products were capitalized as inventory.

(2) Includes research, development and manufacturing expenses related to our proprietary rHuPH20 enzyme. These expenses were not designated to a specific program at the time the expenses were incurred.

Research and development expenses relating to our PEGPH20 program in 2015 increased by 117%, compared to 2014 primarily due to increased clinical trial activities. Research and development expenses relating to our ultrafast insulin program in 2015 decreased by 93% compared to 2014 primarily due to decreased clinical trial and manufacturing activities. Research and development expenses relating to Hylenex recombinant program decreased in 2015 by 72% compared to 2014 mainly due to the completion of the technology transfer and validation campaign with a second manufacturer for Hylenex recombinant in 2014. Research and development expenses relating to our ENHANZE collaborations in 2015 decreased by 53%, primarily due to a decrease in manufacturing expenses related to our collaboration with Roche. We expect total research and development expenses to increase in future periods reflecting expected increases in our PEGPH20 development activities.

Research and development expenses relating to our PEGPH20 program in 2014 increased by 86%, compared to 2013 primarily due to the increased clinical trial activities mostly relating to Study 109-202. Research and development expenses relating to Hylenex recombinant program decreased in 2014 by 50% compared to 2013 mainly due to the completion of the technology transfer and validation campaign with a second manufacturer for Hylenex recombinant in 2014. Research and development expenses relating to our ENHANZE collaborations in 2014 decreased by 78%, primarily due to a $12.0 million decrease resulting from capitalizing manufacturing costs for approved collaboration products in the current period, an $8.1 million decrease in other outsourced regulatory and manufacturing activities to support our collaboration with Roche and a $2.5 million decrease in preclinical activities to support Baxalta. Subsequent to the European approvals of Roche's Herceptin SC product in August 2013 and MabThera SC product in March 2014 and Baxalta's HYQVIA product in May 2013, the manufacturing costs of bulk rHuPH20 for these collaboration products were capitalized as inventory.

Selling, General and Administrative — Selling, general and administrative (SG&A) expenses increased in 2015 compared to 2014 by $4.1 million, or 11%, primarily due to the increase in compensation costs, including a $3.7 million increase in stock-based compensation.

SG&A expenses increased in 2014 compared to 2013 by $3.6 million, or 11%, primarily due to the increase in compensation costs, including a $2.3 million increase in stock-based compensation.

Interest Expense — Interest expense included interest expense and amortization of the debt discount related to the long-term debt. Interest expense decreased by $0.4 million in 2015 as compared to 2014. Interest expense increased by $2.3 million in 2014 as compared to 2013 due to the $20.0 million increase in the principal balance of the long-term debt in December 2013.

Liquidity and Capital Resources

Our principal sources of liquidity are our existing cash, cash equivalents and available-for-sale marketable securities. As of December 31, 2015, we had cash, cash equivalents and marketable securities of approximately $108.3 million. We will continue to have significant cash requirements to support product development activities. The amount and timing of cash requirements will depend on the progress and success of our clinical development programs, regulatory and market acceptance, and the resources we devote to research and other commercialization activities.

We believe that our current cash, cash equivalents and marketable securities will be sufficient to fund our operations for at least the next twelve months. We currently anticipate an increase of cash and cash equivalents of approximately $35 million to $55 million for the year ending December 31, 2016, which includes cash received in January 2016 of $25 million paid by Lilly and $150 million from the royalty-backed debt agreement, and will depend on the progress of various preclinical and clinical programs, the timing of our manufacturing scale up and the achievement of various milestones and royalties under our existing collaborative agreements. We expect to fund our operations going forward with existing cash resources, anticipated revenues from our existing collaborations and cash that we may raise through future transactions, such as the $150 million royalty-backed loan we received in January 2016. Refer to Note 15, Subsequent Event, for further information on our royalty-backed debt agreement. We may finance future cash needs through any one of the following financing vehicles: (i) the public offering of securities; (ii) new collaborative agreements; (iii) expansions or revisions to existing collaborative relationships; (iv) private financings; and/or (v) other equity or debt financings.

We are a “well known seasoned issuer”, which allows us to file an automatically effective shelf registration statement on Form S-3 which would allow us, from time to time, to offer and sell equity, debt securities and warrants to purchase any of such securities, either individually or in units. We may, in the future, offer and sell equity, debt securities and warrants to purchase any of such securities, either individually or in units to raise capital to fund the continued development of our product candidates, the commercialization of our products or for other general corporate purposes. Our existing cash, cash equivalents and marketable securities may not be adequate to fund our operations until we become profitable, if ever. We cannot be certain that additional financing will be available when needed or, if available, financing will be obtained on favorable terms. If we are unable to raise sufficient funds, we may need to delay, scale back or eliminate some or all of our research and development programs, delay the launch of our product candidates, if approved, and/or restructure our operations. If we raise additional funds by issuing equity securities, substantial dilution to existing stockholders could result. If we raise additional funds by incurring debt financing, the terms of the debt may involve significant cash payment obligations, the issuance of warrants that may ultimately dilute existing stockholders when exercised and covenants that may restrict our ability to operate our business.

Cash Flows

Operating Activities

Net cash used in operations was $37.1 million in 2015 compared to $47.5 million in 2014. The $10.4 million decrease in utilization of cash in operations was mainly due to an increase of license fees and royalties from our collaborators; offset in part by increased spending on our R&D programs.

Net cash used in operations was $47.5 million in 2014 compared to $49.3 million in 2013. The $1.8 million decrease in utilization of cash in operations was mainly due to the receipt of a $15.0 million license fee payment from the Janssen Collaboration; offset in part by the timing of the collection of accounts receivable and the payment of accounts payable.

Investing Activities

Net cash provided by investing activities was $5.9 million in 2015 compared to net cash used of $33.0 million in 2014 and $47.9 million in 2013. The change in 2015 compared to 2014 was primarily due to the $17.4 million decrease in purchases of

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marketable securities and $22.4 million increase in proceeds from the maturities of marketable securities. The decrease in 2014 compared to 2013 was primarily due to a $53.9 million increase in proceeds from maturities of marketable securities; offset in part by a $39.9 million increase in purchases of marketable securities in 2014.

Financing Activities

Net cash provided by financing activities was $13.1 million in 2015 compared to $114.5 million in 2014 and $25.1 million in 2013. Net cash provided by financing activities in 2015 consisted of $13.1 million in net proceeds from issuance of common stock under equity incentive plans. Net cash provided by financing activities in 2014 consisted of $107.7 million in net proceeds from the sale of our common stock in February 2014 and $6.8 million in net proceeds from option exercises. Net cash provided by financing activities in 2013 consisted of net proceeds of $20.0 million from the amended long-term debt and $5.1 million in net proceeds from option exercises.

Long-Term Debt

In December 2013, we entered into an Amended and Restated Loan and Security Agreement (the Loan Agreement) with Oxford Finance LLC (Oxford) and Silicon Valley Bank (SVB) (collectively, the Lenders), amending and restating in its entirety our original loan agreement with the Lenders, dated December 2012. The Loan Agreement provided for an additional $20 million principal amount of new term loan, bringing the total term loan balance to $50 million. The proceeds are to be used for working capital and general business requirements. The amended term loan facility matures on January 1, 2018. The outstanding term loan was $49.8 million as of December 31, 2015, net of unamortized debt discount of $0.2 million.

In January 2015, we and the Lenders entered into a second amendment to the Loan Agreement (the Amendment) amending and restating the loan repayment schedule of the Loan Agreement. The amended and restated loan repayment schedule provides for interest only payments in arrears through January 2016, followed by consecutive equal monthly payments of principal and interest in arrears starting in February 2016 and continuing through the previously established maturity date. Consistent with the original loan, the Loan Agreement provides for a 7.55% interest rate on the term loan and a final interest payment equal to 8.5% of the original principal amount, or $4.25 million, which is due when the term loan becomes due or upon the prepayment of the facility. We have the option to prepay the outstanding balance of the term loan in full, subject to a prepayment fee of 1% to 3% depending upon when the prepayment occurs.

In December 2015, we entered into a consent, release and third amendment to the Loan Agreement with the Lenders, in which the Lenders consented to (i) the formation of Halozyme Royalty as a wholly-owned subsidiary of Halozyme, (ii) the release of liens and the sale of certain rights to receive royalty payments to Halozyme Royalty, and (iii) entering into a Credit Agreement with BioPharma Credit Investments IV Sub, LP., (BioPharma), as collateral agent and lender, and the other lenders party, whereby Halozyme Royalty will incur indebtedness from and grant liens on the royalty payments to BioPharma. This amendment allowed us to enter into a royalty-backed debt agreement. Refer to Note 15, Subsequent Event, for further information on our royalty-backed debt agreement.

The amended and restated term loan facility is secured by substantially all of the assets of the Company and its subsidiary, Halozyme, Inc., except that the collateral does not include any equity interests in Halozyme, Inc. and any intellectual property (including all licensing, collaboration and similar agreements relating thereto), and certain other excluded assets. The Loan Agreement contains customary representations, warranties and covenants by us, which covenants limit our ability to convey, sell, lease, transfer, assign or otherwise dispose of certain of our assets; engage in any business other than the businesses currently engaged in by us or reasonably related thereto; liquidate or dissolve; make certain management changes; undergo certain change of control events; create, incur, assume, or be liable with respect to certain indebtedness; grant certain liens; pay dividends and make certain other restricted payments; make certain investments; make payments on any subordinated debt; and enter into transactions with any of our affiliates outside of the ordinary course of business or permit our subsidiaries to do the same. In addition, subject to certain exceptions, we are required to maintain with SVB our primary deposit accounts, securities accounts and commodities, and to do the same for our domestic subsidiary.

The Loan Agreement also contains customary indemnification obligations and customary events of default, including, among other things, our failure to fulfill certain of our obligations under the Loan Agreement and the occurrence of a material adverse change which is defined as a material adverse change in our business, operations or condition

(financial or otherwise), a material

impairment of the prospect of repayment of any portion of the loan, or a material impairment in the perfection or priority of lender's lien in the collateral or in the value of such collateral. In the event of default by us under the Loan Agreement, the Lenders would be entitled to exercise their remedies thereunder, including the right to accelerate the debt, upon which we may be required to repay all amounts then outstanding under the Loan Agreement, which could harm our financial condition.

Off-Balance Sheet Arrangements

As of December 31, 2015, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we did not engage in trading activities involving non-exchange traded contracts. As such, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationship.

Contractual Obligations

As of December 31, 2015, future minimum payments due under our contractual obligations are as follows (in thousands):

	Payments Due by Period				
Contractual Obligations[1,5]	Total	Less than 1 Year	1-3 Years	4-5 Years	More than 5 Years
Long-term debt, including interest[2]	$58,592	$25,077	$33,515	$—	$—
Operating leases[3]	6,527	2,539	3,526	462	—
Third-party manufacturing obligations[4]	39,897	37,466	2,431	—	—
Purchase obligations	960	344	616	—	—
Total	$105,976	$65,426	$40,088	$462	$—

(1) Does not include milestone or contractual payment obligations contingent upon the achievement of certain milestones or events if the amount and timing of such obligations are unknown or uncertain. Our in-license agreement is cancelable with written notice within 90 days. We may be required to pay up to approximately $9.3 million in milestone payments, plus sales royalties, in the event that all scientific research under these agreements is successful. One of the milestone payments of $1.3 million is due upon the first dosing of a patient in our Phase 3 study of PEGPH20, which is expected to occur at the end of the first quarter of 2016.

(2) Long-term debt obligations include future monthly interest payments based on a fixed rate of 7.55% and a final payment of $4.25 million for our long-term debt due in January 2018.

(3) Includes minimum lease payments related to leases of our office and research facilities and certain autos under non-cancelable operating leases.

(4) We have contracted with third-party manufacturers for the supply of bulk rHuPH20 and fill/finish of Hylenex recombinant. Under these agreements, we are required to purchase certain quantities each year during the terms of the agreements. The amounts presented represent our estimates of the minimum required payments under these agreements.

(5) Excludes contractual obligations already recorded on our consolidated balance sheet as current liabilities.

Contractual obligations for purchases of goods or services include agreements that are enforceable and legally binding on us and that specify all significant terms, including fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. For obligations with cancellation provisions, the amounts included in the preceding table were limited to the non-cancelable portion of the agreement terms or the minimum cancellation fee.

For the restricted stock units and performance stock units granted, the number of shares issued on the date the restricted stock units vest is net of the minimum statutory withholding requirements that we pay in cash to the appropriate taxing authorities on behalf of our employees. The obligation to pay the relevant taxing authority is not included in the preceding table, as the amount is contingent upon continued employment. In addition, the amount of the obligation is unknown, as it is based in part on the market price of our common stock when the awards vest.

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The expected timing of payments of the obligations above is estimated based on current information. Timing of payments and actual amounts paid may be different, depending on the time of receipt of goods or services, or changes to agreed-upon amounts for some obligations.

Our future capital uses and requirements depend on numerous forward-looking factors. These factors may include, but are not limited to, the following:

- the rate of progress and cost of research and development activities;
- the number and scope of our research activities;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- our ability to establish and maintain product discovery and development collaborations, including scale-up manufacturing costs for our collaborators' product candidates;
- the amount of royalties from our collaborators;
- the amount of product sales for Hylenex recombinant;
- the costs of obtaining and validating additional manufacturers of Hylenex recombinant;
- the effect of competing technological and market developments;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish; and
- the extent to which we acquire or in-license new products, technologies or businesses.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. The preparation of our consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. We review our estimates on an ongoing basis. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. We believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We generate revenues from product sales and collaborative agreements. Payments received under collaborative agreements may include nonrefundable fees at the inception of the agreements, license fees, milestone payments for specific achievements designated in the collaborative agreements, reimbursements of research and development services and supply of bulk rHuPH20 and/or royalties on sales of products resulting from collaborative arrangements. We recognize revenue in accordance with the authoritative guidance on revenue recognition. Revenue is recognized when all of the following criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the seller's price to the buyer is fixed or determinable; and (4) collectibility is reasonably assured.

Refer to Note 2, Summary of Significant Accounting Policies - Adoption and Pending Adoption of Recent Accounting Pronouncements, of our consolidated financial statements for further discussion of our revenue recognition policies for product sales and revenues under our collaborative agreements and Note 4, Collaborative Agreements, of our consolidated financial statements for a further discussion of our collaborative agreements.

Share-Based Payments

We use the fair value method to account for share-based payments in accordance with the authoritative guidance for share-based compensation. The fair value of each option award is estimated on the date of grant using a Black-Scholes-Merton option pricing model (Black-Scholes model) that uses assumptions regarding a number of complex and subjective variables. Changes in these assumptions may lead to variability with respect to the amount of expense we recognize in connection with share-based payments. Refer to Note 2, Summary of Significant Accounting Policies - Adoption and Pending Adoption of Recent Accounting Pronouncements, of our consolidated financial statements for a further discussion of share-based payments.

Research and Development Expenses

Research and development expenses include salaries and benefits, facilities and other overhead expenses, external clinical trial expenses, research related manufacturing services, contract services and other outside expenses. Research and development expenses are charged to operations as incurred when these expenditures relate to our research and development efforts and have no alternative future uses. After receiving marketing approval from the FDA or comparable regulatory agencies in foreign countries for a product, costs related to purchases or manufacturing of bulk rHuPH20 for such product are capitalized as inventory. The manufacturing costs of bulk rHuPH20 for the collaboration products, Herceptin SC, MabThera SC and HYQVIA, which were incurred after the receipt of marketing approvals are capitalized as inventory. Refer to Note 2, Summary of Significant Accounting Policies - Adoption and Pending Adoption of Recent Accounting Pronouncements, of our consolidated financial statements for a further discussion of research and development expenses.

Due to the uncertainty in obtaining the FDA and other regulatory approvals, our reliance on third parties and competitive pressures, we are unable to estimate with any certainty the additional costs we will incur in the continued development of our proprietary product candidates for commercialization. However, we expect our research and development expenses to increase this year as we continue with our clinical trial programs and continue to develop and manufacture our product candidates.

Clinical development timelines, likelihood of success and total costs vary widely. We anticipate that we will make ongoing determinations as to which research and development projects to pursue and how much funding to direct to each project on an ongoing basis in response to existing resource levels, the scientific and clinical progress of each product candidate, and other market and regulatory developments. We plan on focusing our resources on those proprietary and collaboration product candidates that represent the most valuable economic and strategic opportunities.

Product candidate completion dates and costs vary significantly for each product candidate and are difficult to estimate. The lengthy process of seeking regulatory approvals and the subsequent compliance with applicable regulations require the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals could cause our research and development expenditures to increase and, in turn, have a material adverse effect on our results of operations. We cannot be certain when, or if, our product candidates will receive regulatory approval or whether any net cash inflow from our other product candidates, or development projects, will commence.

Recent Accounting Pronouncements

Refer to Note 2, Summary of Significant Accounting Policies - Adoption and Pending Adoption of Recent Accounting Pronouncements, of our consolidated financial statements for a discussion of recent accounting pronouncements and their effect, if any, on us.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

As of December 31, 2015, our cash equivalents and marketable securities consisted of investments in money market funds and corporate debt obligations. These investments were made in accordance with our investment policy which specifies the categories, allocations, and ratings of securities we may consider for investment. The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive without significantly increasing risk. Some of the financial instruments that we invest in could be subject to market risk. This means that a change in prevailing interest rates may cause the value of the instruments to fluctuate. For example, if we purchase a security that was issued with a fixed interest rate and the prevailing interest rate later rises, the value of that security will probably decline. As of December 31, 2015 based on our current investment portfolio, we do not believe that our results of operations would be materially impacted by an immediate change of 10% in interest rates.

We do not hold or issue derivatives, derivative commodity instruments or other financial instruments for speculative trading purposes. Further, we do not believe our cash, cash equivalents and marketable securities have significant risk of default or illiquidity. We made this determination based on discussions with our investment advisors and a review of our holdings. While we believe our cash, cash equivalents and marketable securities do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. All of our cash equivalents and marketable securities are recorded at fair market value.

Item 8. Financial Statements and Supplementary Data

Our financial statements are annexed to this report beginning on page F-1.

Item 9. Changes In and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Control and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the timelines specified in the Securities and Exchange Commission’s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decision regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There have been no significant changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) and Rule 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by our board of directors, management and other personnel, 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 and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;
- 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 are being made only in accordance with authorizations of our management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2015. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013 framework) (the COSO criteria). Based on our assessment, management concluded that, as of December 31, 2015, our internal control over financial reporting is effective based on the COSO criteria.

The independent registered public accounting firm that audited the consolidated financial statements that are included in this Annual Report on Form 10-K has issued an audit report on the effectiveness of our internal control over financial reporting as of December 31, 2015. The report appears below.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Halozyme Therapeutics, Inc.

We have audited Halozyme Therapeutics, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Halozyme Therapeutics, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on 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, Halozyme Therapeutics, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Halozyme Therapeutics, Inc. as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive loss, cash flows, and stockholders' equity (deficit) for each of the three years in the period ended December 31, 2015 of Halozyme Therapeutics, Inc. and our report dated February 29, 2016 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
February 29, 2016

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item regarding directors is incorporated by reference to our definitive Proxy Statement (the Proxy Statement) to be filed with the Securities and Exchange Commission in connection with our 2016 Annual Meeting of Stockholders under the heading “Election of Directors.” The information required by this item regarding compliance with Section 16(a) of the Securities Exchange Act of 1934, as amended, is incorporated by reference to the information under the caption “Compliance with Section 16(a) of the Exchange Act” to be contained in the Proxy Statement. The information required by this item regarding our code of ethics is incorporated by reference to the information under the caption “Code of Conduct and Ethics” to be contained in the Proxy Statement. The information required by this item regarding our audit committee is incorporated by reference to the information under the caption “Board Meetings and Committees—Audit Committee” to be contained in the Proxy Statement. The information required by this item regarding material changes, if any, to the process by which stockholders may recommend nominees to our board of directors is incorporated by reference to the information under the caption “Board Meetings and Committees—Nominating and Governance Committee” to be contained in the Proxy Statement.

Executive Officers

Helen I. Torley, M.B. Ch. B., M.R.C.P. (53), President, Chief Executive Officer and Director. Dr. Torley joined Halozyme in January 2014 as President and Chief Executive Officer and as a member of Halozyme’s Board of Directors. Throughout her career, Dr. Torley has led several successful product launches, including Kyprolis®, Prolia®, Sensipar®, and Miacalcin®. Prior to joining Halozyme, Dr. Torley served as Executive Vice President and Chief Commercial Officer for Onyx Pharmaceuticals (Onyx) from August 2011 to December 2013 overseeing the collaboration with Bayer on Nexavar® and Stivarga® and the U.S. launch of Kyprolis. She was responsible for the development of Onyx's commercial capabilities in ex-US markets and in particular, in Europe. Prior to Onyx, Dr. Torley spent 10 years in management positions at Amgen Inc., most recently serving as Vice President and General Manager of the US Nephrology Business Unit from 2003 to 2009 and the U.S. Bone Health Business Unit from 2009 to 2011. From 1997 to 2002, she held various senior management positions at Bristol-Myers Squibb, including Regional Vice President of Cardiovascular and Metabolic Sales and Head of Cardiovascular Global Marketing. She began her career at Sandoz/Novartis, where she ultimately served as Vice President of Medical Affairs, developing and conducting post-marketing clinical studies across all therapeutic areas, including oncology. Dr. Torley serves on the board of directors of Relypsa, Inc., a biopharmaceutical company. Before joining the industry, Dr. Torley was in medical practice as a senior registrar in rheumatology at the Royal Infirmary in Glasgow, Scotland. Dr. Torley received her Bachelor of Medicine and Bachelor of Surgery degrees (M.B. Ch.B.) from the University of Glasgow and is a Member of the Royal College of Physicians (M.R.C.P).

Laurie D. Stelzer (48), Senior Vice President, Chief Financial Officer. Ms. Stelzer joined Halozyme in 2015 as Senior Vice President, Chief Financial Officer. Prior to joining Halozyme, Ms. Stelzer served from April 2014 to January 2015 as the Senior Vice President of Finance supporting R&D, Technical Operations and M&A at Shire, Inc. Prior to that she was the Division CFO for the Regenerative Medicine Division and the Head of Investor Relations at Shire from March 2012 to April 2014. Prior to Shire, Ms. Stelzer held positions of increasing responsibility for 15 years at Amgen, Inc. including Interim Treasurer, Head of Emerging Markets Expansion, Executive Director of Global Commercial Finance and Head of Global Accounting. Early in her career, she held various finance and accounting positions in the real estate and banking industries. Ms. Stelzer received her MBA from the Anderson School at the University of California, Los Angeles, and a Bachelor of Science in Accounting from Arizona State University.

Athena Countouriotis, M.D. (44), Senior Vice President, Chief Medical Officer. Dr. Countouriotis joined Halozyme in January 2015 as Senior Vice President, Chief Medical Officer. From February 2012 to January 2015, Dr. Countouriotis served as chief medical officer at Ambit Biosciences Corporation, a pharmaceutical company, which was acquired by Daiichi Sankyo in November 2014. From August 2007 to February 2012, Dr. Countouriotis was a clinical leader within the Pfizer Inc., a pharmaceutical company, Oncology Business Unit. From October 2005 to August 2007, she was director of oncology global clinical research at Bristol-Myers Squibb Company, a pharmaceutical company, with responsibility for leading clinical development of Sprycel® in acute lymphoblastic leukemia and chronic myeloid leukemia. Earlier in her career, she held the position as Associate Medical Director at Cell Therapeutics, Inc., a biopharmaceutical company. Dr. Countouriotis received a B.S. from the University of California, Los Angeles, and an M.D. at Tufts University School of Medicine. She received her initial training in pediatrics at the University of California, Los Angeles, and additional training at the Fred Hutchinson Cancer Research Center in the Pediatric Hematology/Oncology Program.

Harry J. Leonhardt, Esq. (59), Senior Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary. Mr. Leonhardt joined Halozyme in April 2015 as Senior Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary. Mr. Leonhardt brings more than 30 years of executive management, corporate legal, intellectual property, compliance, business development and mergers and acquisitions experience to Halozyme, with an extensive background in the biotechnology industry. Prior to joining Halozyme, Mr. Leonhardt was an arbitrator before the International Centre for Dispute Resolution and a consultant in the biotechnology industry from January 2013 to April 2015. He served as Senior Vice President, Legal and Compliance, and Corporate Secretary at Amylin Pharmaceuticals, Inc., a biotechnology company, from September 2011 to January 2013 and previously served in other senior management legal positions at Amylin since September 2007. Prior to Amylin, he served as Senior Vice President, General Counsel and Corporate Secretary at Senomyx, Inc., a company focused on taste receptor technology and the development of novel flavor ingredients for the food and beverage industry, from September 2003 to September 2007. From February 2001 to September 2003, Mr. Leonhardt was Executive Vice President, General Counsel and Corporate Secretary at Genoptix, Inc. and from July 1996 to November 2000, he served as Vice President and then Senior Vice President, General Counsel and Corporate Secretary at Nanogen, Inc. Prior to Nanogen, Mr. Leonhardt held positions of increasing responsibility at Allergan, Inc. including Chief Litigation Counsel and General Counsel for European Operations. Early in his career, he was an attorney at Lyon & Lyon LLP where he represented a number of prominent clients in the biotech, pharmaceutical and consumer products industries. Mr. Leonhardt received a B.S. in Pharmacy from the University of the Sciences and a Juris Doctorate from the University of Southern California School of Law.

Item 11. Executive Compensation

The information required by this item is incorporated by reference to the information under the caption “Executive Compensation” to be contained in the Proxy Statement.

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

Other than as set forth below, the information required by this item is incorporated by reference to the information under the caption “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” to be contained in the Proxy Statement.

Equity Compensation Plan Information

The following table summarizes our compensation plans under which our equity securities are authorized for issuance as of December 31, 2015:

Plan Category	Number of Shares to Be Issued upon Exercise of Outstanding Options and Restricted Stock Units (a)	Weighted Average Exercise Price of Outstanding Options and Restricted Stock Units[2] (b)	Number of Shares Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Shares Reflected in Column (a)) (c)
Equity compensation plans approved by stockholders [1]	8,969,113	$13.03	7,440,487
Equity compensation plans not approved by stockholders	—	—	—
	8,969,113	$13.03	7,440,487

(1) Represents stock options, restricted stock units, and performance restricted stock units under the Amended and Restated 2011 Stock Plan, 2008 Stock Plan, 2006 Stock Plan, 2005 Outside Directors' Stock Plan, and 2004 Stock Plan.

(2) This amount does not include restricted stock units and performance restricted stock units as there is no exercise price for such units.

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

The information required by this item is incorporated by reference to the information under the caption "Certain Relationships and Related Transactions" to be contained in the Proxy Statement.

Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated by reference to the information under the caption "Principal Accounting Fees and Services" to be contained in the Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules