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## **FORM 10-K**

**BIOMARIN PHARMACEUTICAL INC - BMRN**

**Filed: February 27, 2017 (period: December 31, 2016)**

Annual report with a comprehensive overview of the company

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

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2016

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: 000-26727

**BioMarin Pharmaceutical Inc.**

(Exact name of registrant as specified in its charter)

Delaware  
(State of other jurisdiction of  
incorporation or organization)

770 Lindero Street  
San Rafael, California  
(Address of principal executive offices)

Registrant's telephone number, including area code: (415) 506-6700  
Securities registered pursuant to Section 12(b) of the Act:

68-0397820  
(I.R.S. Employer  
Identification No.)

94901  
(Zip Code)

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, \$.001 par value	The NASDAQ Global Select Market

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. Yes  No

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, 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.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of June 30, 2016 was \$7.6 billion, based on the closing price reported for such date on the NASDAQ Global Select Market.

As of February 13, 2017, the registrant had 172,866,495 shares of common stock, par value \$0.001, outstanding.

The documents incorporated by reference are as follows: Portions of the Registrant's Proxy Statement for our annual meeting of stockholders to be held June 6, 2017, are incorporated by reference into Part III.

**BIOMARIN PHARMACEUTICAL INC.**  
**2016 FORM 10-K ANNUAL REPORT**  
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## Part I

### FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K contains “forward-looking statements” as defined under federal securities laws. Many of these statements can be identified by the use of terminology such as “believes,” “expects,” “intends,” “anticipates,” “plans,” “may,” “will,” “projects,” “continues,” “estimates,” “potential,” “opportunity” or the negative versions of these terms and other similar expressions. These forward-looking statements may be found in “*Risk Factors*,” “*Business*,” “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” and other sections of this Annual Report on Form 10-K. Our actual results or experience could differ significantly from the forward-looking statements. Factors that could cause or contribute to these differences include those discussed in “*Risk Factors*,” as well as those discussed in “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” and elsewhere in this Annual Report on Form 10-K. You should carefully consider that information before you make an investment decision.

You should not place undue reliance on these statements, which speak only as of the date that they were made. These cautionary statements should be considered in connection with any written or oral forward-looking statements that we may make in the future. We do not undertake any obligation to release publicly any revisions to these forward-looking statements after completion of the filing of this Annual Report on Form 10-K to reflect later events or circumstances or to reflect the occurrence of unanticipated events.

The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the notes thereto appearing elsewhere in this Annual Report on Form 10-K. In addition to the other information in this Annual Report on Form 10-K, investors should carefully consider the following discussion and the information under “*Risk Factors*” when evaluating us and our business.

#### Item 1. Business

##### Overview

BioMarin Pharmaceutical Inc. (BioMarin, we, us or our) is a global biotechnology company that develops and commercializes innovative therapies for people with serious and life-threatening rare diseases and medical conditions. We select product candidates for diseases and conditions that represent a significant unmet medical need, have well-understood biology and provide an opportunity to be first-to-market or offer a significant benefit over existing products. Our therapy portfolio consists of five products and multiple clinical and pre-clinical product candidates.

Our commercial products are Aldurazyme (laronidase) for Mucopolysaccharidosis I (MPS I), Firdapse (amifampridine phosphate) for Lambert Eaton Myasthenic Syndrome (LEMS), Kuvan (sapropterin dihydrochloride) for phenylketonuria (PKU), Naglazyme (galsulfase) for Mucopolysaccharidosis VI (MPS VI) and Vimizim (elosulfase alpha) for Mucopolysaccharidosis IV Type A (MPS IV A).

We continue to invest in our clinical and pre-clinical product pipeline by committing significant resources to research and development programs and business development opportunities within our areas of scientific, manufacturing and technical expertise. We are conducting clinical trials on several product candidates for the treatment of various diseases. Our clinical product candidates include Brineura (formerly referred to as cerliponase alfa or BMN 190) for the treatment of late infantile neuronal ceroid lipofuscinosis (CLN2), a form of Batten disease; pegvaliase (formerly referred to as PEG PAL), an enzyme substitution therapy for the treatment of phenylketonuria (PKU); vosoritide (formerly referred to as BMN 111), a peptide therapeutic for the treatment of achondroplasia, the leading cause of dwarfism; BMN 270, an AAV VIII vector and Factor VIII gene therapy drug development candidate, for the treatment of hemophilia A; and BMN 250, a novel fusion of alpha-N-acetylglucosaminidase (NAGLU) with a peptide derived from insulin-like growth factor 2 (IGF2), for the treatment of Sanfilippo B syndrome, or mucopolysaccharidosis type IIIB (MPS IIIB). We are conducting or planning to conduct preclinical development of several other product candidates for genetic and other metabolic diseases.

## Recent Developments

### *Gene Therapy Product Candidate BMN 270 for the Treatment of Hemophilia A*

In January 2017, we announced an update to our positive interim results of an open-label Phase 1/2 study of BMN 270 in patients with severe hemophilia A, which were announced at the XXXII International Congress of the World Federation of Hemophilia in July 2016. A total of nine patients with severe hemophilia A received a single dose of BMN 270, seven of whom have been treated at the highest dose of  $6 \times 10^{13}$  vg/kg. According to the World Federation of Hemophilia rankings of severity of hemophilia A, the normal range of Factor VIII activity levels is between 50% and 150%, expressed as a percentage of normal factor activity in blood, and the mild hemophilia A range of Factor VIII activity levels is between 5% and 40%. As of the December 9, 2016 data cutoff, of those seven patients treated at the highest dose, six continued to have Factor VIII levels above 50%, and the seventh continued to have levels above 15%. For the six patients at the high dose and previously on a Factor VIII prophylactic regimen, the mean annualized bleeding rate dropped 91% from 16.3 before the BMN 270 infusion to 1.5 two weeks after being dosed (median annualized bleeding rate dropped from 16.5 to 0). For those same six patients, the mean annualized Factor VIII infusions fell 98% from 136.7 to 2.9 (median annualized Factor VIII infusions fell from 138.5 to 0).

In February 2017, we announced that the European Medicines Agency (EMA) granted access to its Priority Medicines (PRIME) regulatory initiative for BMN 270. To be accepted for PRIME, an investigational therapy has to show its potential to benefit patients with unmet medical needs based on early clinical data.

### *Product Candidate BMN 250 for the Treatment of Sanfilippo B syndrome or MPS IIIB*

In January 2017, we announced preliminary results from a Phase 1/2 trial, which began enrolling patients in April 2016, demonstrating that BMN 250, an investigational enzyme replacement therapy using a novel fusion of recombinant human NAGLU with a peptide derived from IGF2, for the treatment of Sanfilippo B syndrome or MPS IIIB, reduced heparan sulfate levels to normal range in cerebral spinal fluid of MPS IIIB patients. Additionally, patients have safely escalated to 100mg dosage.

### *Product Candidate Vosoritide for the Treatment of Achondroplasia*

In December 2016, we initiated the pivotal Phase 3 study of vosoritide, an analog of C-type Natriuretic peptide, in children with achondroplasia, the most common form of dwarfism. The Phase 3 study is a randomized, placebo-controlled 12-month treatment study in approximately 110 children with achondroplasia, ages 5-14. In October 2016, we provided an update on our Phase 2 study of vosoritide. Results from eight children in cohort 4, who completed six months of daily dosing at 30  $\mu\text{g}/\text{kg}/\text{daily}$ , experienced a 46% or 2.1 cm/year increase in mean annualized growth velocity from baseline. These data are comparable to those observed at the lower dose of 15  $\mu\text{g}/\text{kg}/\text{day}$  in cohort 3. Results from 10 children in cohort 3, who completed six months of daily dosing at 15  $\mu\text{g}/\text{kg}/\text{day}$ , experienced a 50% or 2.0 cm/year increase in mean annualized growth velocity from baseline.

### *Regulatory Review of Brineura*

In September 2016, we announced that the EMA validated the Marketing Authorization Application (MAA) for Brineura, an investigational therapy to treat children with CLN2 disease, a form of Batten disease. Validation of the MAA confirmed that the submission was accepted and starts the formal review process by the EMA's Committee for Human Medicinal Products (CHMP). The EMA previously granted our request for accelerated assessment for the MAA. The CHMP opinion and decision from the European Commission (EC) is expected in the third quarter of 2017. Accelerated assessments are granted on the grounds that a product may satisfy an unmet medical need and is of major interest from the point of view of therapeutic innovation and public health.

In July 2016, we announced that the Food and Drug Administration (FDA) accepted for review the submission of a Biologics License Application (BLA) for Brineura. During their initial review of the BLA, the FDA requested, and we provided, updated efficacy data from the ongoing extension study. In September 2016, the FDA designated this submission as a major amendment to the application, thus extending the Prescription Drug User Fee Act (PDUFA) action date by three months to April 27, 2017. The FDA granted Brineura Priority Review status,

which is designated to drugs that, if approved, would be a significant improvement in treatment or provide a treatment where no adequate therapy exists. Brineura was previously granted orphan drug designation by the FDA and EMA and breakthrough therapy designation by the FDA.

### Summary of Commercial Products and Development Programs

A summary of our commercial products and major development programs, including key metrics as of December 31, 2016, is provided below:

Commercial Products	Indication	U.S. Orphan Drug Exclusivity Expiration (1)	U.S. Biologic Exclusivity Expiration (2)	EU Orphan Drug Exclusivity Expiration (1)	2016 Total Net Product Revenues (in millions)	2016 Research & Development Expense (in millions)
Aldurazyme (3)	MPS I (4)	Expired	Expired	Expired	\$ 93.8	\$ 1.5
Firdapse	LEMS(5)	NA (6)	NA	2019	18.0	4.4
Kuvan	PKU (7)	Expired	NA	2020 (8)	348.0	24.7
Naglazyme	MPS VI (9)	Expired	2017	Expired	296.5	10.0
Vimizim	MPS IVA (10)	2021	2026	2024	354.1	24.4

Major Products in Development	Target Indication	U.S. Orphan Designation	EU Orphan Designation	Stage	2016 Research & Development Expense (in millions)
BMN 270 (11)	Hemophilia A	Yes	Yes	Clinical Phase 1/2	\$ 58.9
Brineura	CLN2 (12)	Yes	Yes	Marketing authorization regulatory review	77.2
BMN 250	MPS IIIB (13)	Yes	Yes	Clinical Phase 1/2	46.1
Pegvaliase	PKU	Yes	Yes	Clinical Phase 3	88.6
Vosoritide	Achondroplasia	Yes	Yes	Clinical Phase 3	55.8

- (1) See “Government Regulation—Orphan Drug Designation” below for further discussion.
- (2) See “Government Regulation—Health Reform” below for further discussion.
- (3) The Aldurazyme total net product revenues noted above are the total net product revenues recognized by us in accordance with the terms of our agreement with Genzyme Corporation (Genzyme). See “Major Commercial Products—Aldurazyme” below for further discussion.
- (4) Mucopolysaccharidosis I, or MPS I
- (5) Lambert Eaton Myasthenic Syndrome, or LEMS
- (6) Firdapse has not received marketing approval in the U.S. We have licensed the North American rights to develop and market Firdapse to a third-party.
- (7) Phenylketonuria, or PKU
- (8) Kuvan has been granted orphan drug status in the EU, which together with pediatric exclusivity, confers 12 years of market exclusivity in the EU that expires in 2020. Furthermore, Merck Serono marketed Kuvan in the EU until January 1, 2016 and continues to provide critical transition services for the sale and distribution of Kuvan in four countries where the regulatory approvals have not yet been transferred to us. See “Major Commercial Products—Kuvan” below for further discussion.
- (9) Mucopolysaccharidosis VI, or MPS VI
- (10) Mucopolysaccharidosis IV Type A, or MPS IVA

- (11) BMN 270 is an investigational gene therapy for Hemophilia A, also called factor VIII deficiency or classic hemophilia.
- (12) CLN2, or late infantile neuronal ceroid lipofuscinosis, is a lysosomal storage disorder primarily affecting the brain.
- (13) Sanfilippo B syndrome, or mucopolysaccharidosis type IIIB (MPS IIIB).

See “*Patents and Proprietary Rights*” below for additional information on our market protection.

## Major Commercial Products

### *Aldurazyme*

Aldurazyme is approved for marketing in the U.S., the EU and other international markets for patients with mucopolysaccharidosis I (MPS I). MPS I is a progressive and debilitating life-threatening genetic disease, for which no other drug treatment currently exists, that is caused by the deficiency of alpha-L-iduronidase, a lysosomal enzyme normally required for the breakdown of GAGs. Patients with MPS I typically become progressively worse and experience multiple severe and debilitating symptoms resulting from the build-up of carbohydrate residues in all tissues in the body. These symptoms include: inhibited growth, delayed and regressed mental development (in the severe form of the disease), enlarged liver and spleen, joint deformities and reduced range of motion, impaired cardiovascular function, upper airway obstruction, reduced pulmonary function, frequent ear and lung infections, impaired hearing and vision, sleep apnea, malaise and reduced endurance.

We developed Aldurazyme through collaboration with Genzyme, now a wholly-owned subsidiary of Sanofi. Under our collaboration agreement with Genzyme, we are responsible for manufacturing Aldurazyme and supplying it to Genzyme. We receive a payment ranging from 39.5% to 50% on worldwide net Aldurazyme sales by Genzyme depending on sales volume. We recognize a portion of this amount as product transfer revenue when the product is released to Genzyme because all of our performance obligations are fulfilled at that point and title to, and risk of loss for, the product has transferred to Genzyme. The product transfer revenue represents the fixed amount per unit of Aldurazyme that Genzyme is required to pay us if the product is unsold by Genzyme. The amount of product transfer revenue will eventually be deducted from the calculated royalty rate when the product is sold by Genzyme. Additionally, Genzyme and we are members of BioMarin/Genzyme LLC, a 50/50 limited liability company (the BioMarin/Genzyme LLC) that: (1) holds the intellectual property relating to Aldurazyme and other collaboration products and licenses all such intellectual property on a royalty-free basis to us and Genzyme to allow us to exercise our rights and perform our obligations under the agreements related to the BioMarin/Genzyme LLC, and (2) engages in research and development activities that are mutually selected and funded by Genzyme and us.

Aldurazyme net product revenues for the years ended December 31, 2016, 2015 and 2014 totaled \$93.8 million, \$98.0 million and \$105.6 million, respectively. In the future, to the extent that Genzyme net sales of Aldurazyme remain consistent, we expect that our total Aldurazyme revenues will continue to approximate 39.5% to 50% of net product sales by Genzyme as described above.

### *Kuvan*

Kuvan is a proprietary synthetic oral form of 6R-BH4, a naturally occurring enzyme co-factor for phenylalanine hydroxylase (PAH), indicated for patients with phenylketonuria (PKU). Kuvan is the first drug for the treatment of PKU, which is an inherited metabolic disease that affects at least 50,000 diagnosed patients under the age of 40 in the developed world. We believe that approximately 30% to 50% of those with PKU could benefit from treatment with Kuvan. PKU is caused by a deficiency of activity of an enzyme, PAH, which is required for the metabolism of phenylalanine (Phe). Phe is an essential amino acid found in all protein-containing foods. Without sufficient quantity or activity of PAH, Phe accumulates to abnormally high levels in the blood, resulting in a variety of serious neurological complications, including severe mental retardation and brain damage, mental illness, seizures and other cognitive problems. As a result of newborn screening efforts implemented in the 1960s and early 1970s, virtually all PKU patients under the age of 40 in developed countries have been diagnosed at birth. Currently, PKU can be managed by a Phe-restricted diet, which is supplemented by nutritional replacement products, like formulas and specially manufactured foods; however, it is difficult for most patients to adhere to the strict diet to the extent needed for achieving adequate control of blood Phe levels.

Kuvan tablets were granted marketing approval for the treatment of PKU in the U.S. in December 2007 and in the EU in December 2008. In December 2013, the FDA approved the use of Kuvan powder for oral solution that is provided in a dose sachet packet allowing faster dissolution of powder in solution compared to the current tablet form. This new dosage form is expected to have increasing appeal for young patients in the one to seven year age range. We commenced the commercial launch of this new form of Kuvan in February 2014. We market Kuvan in the U.S. and Canada (and effective as of January 1, 2016, in the rest of the world, except for Japan and four other countries in which we have not yet completed the transfer of certain regulatory approvals from Merck Serono to us. In certain international markets, Kuvan is also approved for, or is only approved for, the treatment of primary BH4 deficiency, a different disorder than PKU. Kuvan net product revenues for the years ended December 31, 2016, 2015 and 2014 totaled \$348.0 million, \$239.3 million and \$203.0 million, respectively.

In the fourth quarter of 2015, we entered into the Termination and Transition Agreement with Ares Trading S.A. (Merck Serono), as amended and restated on December 23, 2015 (the A&R Kuvan Agreement) to terminate the Development, License and Commercialization Agreement, dated May 13, 2005, as amended (the License Agreement), including the license to Kuvan granted in the License Agreement from us to Merck Serono. Also in the fourth quarter of 2015, we and Merck Serono entered into a Termination Agreement (the Pegvaliase Agreement) to terminate the license to pegvaliase granted in the License Agreement from us to Merck Serono.

On January 1, 2016, pursuant to the A&R Kuvan Agreement and the Pegvaliase Agreement, we completed the acquisition from Merck Serono and its affiliates of certain rights and other assets, and the assumption from Merck Serono and its affiliates of certain liabilities, in each case with respect to Kuvan and pegvaliase. As a result, we acquired all global rights to Kuvan and pegvaliase from Merck Serono, with the exception of Kuvan in Japan. Previously, we had exclusive rights to Kuvan in the U.S. and Canada and pegvaliase in the U.S. and Japan.

Pursuant to the A&R Kuvan Agreement, the Company paid Merck Serono \$374.5 million, in cash, and is obligated to pay Merck Serono up to a maximum of €60.0 million, in cash, if future sales milestones are met. Pursuant to the Pegvaliase Agreement, the Company is obligated to pay Merck Serono up to a maximum of €125.0 million, in cash, if future development milestones are met.

Two companies have filed paragraph IV certifications and submitted abbreviated new drug applications (ANDAs) to produce sapropterin dihydrochloride tablets and powder. In September 2015, we entered into a settlement agreement regarding Kuvan tablets with one of these companies. Please see “Government Regulation – Hatch-Waxman Act” below and “Legal Proceedings” in Part I, Item 3 of this Annual Report on Form 10-K for additional information.

### ***Naglazyme***

Naglazyme is a recombinant form of N-acetylgalactosamine 4-sulfatase (arylsulfatase B) indicated for patients with mucopolysaccharidosis VI (MPS VI). MPS VI is a debilitating life-threatening genetic disease for which no other drug treatment currently exists and is caused by the deficiency of arylsulfatase B, an enzyme normally required for the breakdown of certain complex carbohydrates known as glycosaminoglycans (GAGs). Patients with MPS VI typically become progressively worse and experience multiple severe and debilitating symptoms resulting from the build-up of carbohydrate residues in tissues in the body. These symptoms include: inhibited growth, spinal cord compression, enlarged liver and spleen, joint deformities and reduced range of motion, skeletal deformities, impaired cardiovascular function, upper airway obstruction, reduced pulmonary function, frequent ear and lung infections, impaired hearing and vision, sleep apnea, malaise and reduced endurance.

Naglazyme is approved for marketing in the U.S., the EU and other international markets. Naglazyme net product revenues for the years ended December 31, 2016, 2015 and 2014 totaled \$296.5 million, \$303.1 million and \$334.4 million, respectively.



## ***Vimizim***

Vimizim is an enzyme replacement therapy for the treatment of MPS IV A, a lysosomal storage disorder. MPS IV A is a disease characterized by deficient activity of N-acetylgalactosamine-6-sulfatase (GALNS) causing excessive lysosomal storage of glycosaminoglycans such as keratan sulfate and chondroitin sulfate. This excessive storage causes a systemic skeletal dysplasia, short stature, and joint abnormalities, which limit mobility and endurance. Malformation of the chest impairs respiratory function, and looseness of joints in the neck cause spinal instability and potentially spinal cord compression. Other symptoms may include hearing loss, corneal clouding, and heart disease. Initial symptoms often become evident in the first five years of life. The disease substantially limits both the quality and length of life of those affected. We have identified over 2,000 patients worldwide suffering from MPS IV A and estimate that the total number of patients suffering from MPS IV A worldwide could be as many as 3,000.

Vimizim was granted marketing approval in the U.S. and the EU in February 2014 and April 2014, respectively, and subsequently in several other international markets. Vimizim net product revenues for the years ended December 31, 2016, 2015 and 2014 totaled \$354.1 million, \$228.1 million and \$77.3 million, respectively.

## **Product Candidates in Clinical Development**

### ***Brineura***

Brineura is a recombinant human tripeptidyl peptidase 1 in development for the treatment of patients with CLN2, a form of Batten disease. CLN2 is an incurable, rapidly progressive disease that ends in patient death by 10-12 years of age. Patients are initially healthy but begin to decline at approximately the age of three. We estimate that 1,200-1,600 cases exist worldwide. In January 2015, we announced interim data from an open-label, dose-escalation Phase 1/2 study for Brineura in 24 patients with CLN2, which indicates that in all nine of the patients in the trial who were followed for at least six months and up to 15 months, the treatment appeared to show stabilization of the disease compared to the natural history based on a standardized measure of motor and language function. The primary objectives of the Phase 1/2 study are to evaluate the safety and tolerability of Brineura and to evaluate effectiveness using a CLN2-specific rating scale score in comparison with natural history data, and the second objectives are to evaluate the impact of treatment on brain atrophy in comparison with CLN2 natural history and to characterize pharmacokinetics and immunogenicity. In July 2016, the FDA accepted for priority review our submission of a BLA for Brineura. The EMA validated our MAA in September 2016. We reported data on an additional eight months of treatment in September 2016, which showed a durable and consistent treatment response with all patients continuing to tolerate the therapeutic dose. Although the primary endpoint of our Phase 1/2 study for Brineura was met, our BLA and MAA rely on results from a single Phase 1/2 uncontrolled study in a small patient population of patients. Additionally, Brineura is intended to be used in combination with a delivery device, such as an injector or other delivery system, so Brineura may not be approved or may be substantially delayed in receiving approval if the devices do not gain and/or maintain their own regulatory approvals or clearances. Please see “*Risk Factors*” included in Part I, Item 1A of this Annual Report on Form 10-K for further discussion of the risk of not obtaining regulatory approval for Brineura and “*Government Regulation – Combination Products*” below for additional information on combination products. The FDA’s PDUFA action date for Brineura was extended to April 27, 2017, while we anticipate the EMA’s decision in third quarter 2017.

### ***Pegvaliase***

Pegvaliase is an investigational enzyme substitution therapy that we are developing as a subcutaneous injection for the treatment of PKU. In August 2010, we announced preliminary results from a Phase 2, open-label dose finding clinical trial of pegvaliase that showed of the seven patients who received at least one mg/kg per week of pegvaliase for at least four weeks, six patients had achieved Phe levels below 600 micromoles per liter. Mild to moderate self-limiting injection site reactions were the most commonly reported toxicity. In April 2011, we initiated an extension of the Phase 2 study to find a shorter induction and titration dosing regimen to an efficacious maintenance dose. In March 2016, we announced that our pivotal Phase 3 PRISM-2 study for pegvaliase met the primary endpoint of change in blood Phe compared with placebo ( $p < 0.0001$ ). This ongoing Phase 3 clinical trial includes an open-label study to evaluate safety and blood Phe levels in naïve patients and a randomized controlled study of the Phase 2 extension study patients and patients from the open-label trial to evaluate blood Phe levels and neurocognitive endpoints. Although we met the primary endpoint of the Phase 3 PRISM-2 study, we did not

demonstrate a statistically significant improvement in inattention or mood scores, a key secondary clinical neurocognitive endpoint. The FDA has indicated that lowering Phe blood levels in adults could form the basis for an accelerated approval; however, a favorable outcome on prospectively-specified analyses of inattention in patients with baseline problems with attention would likely be required for full approval. Although we intend to file a BLA for pegvaliase with the FDA in the second quarter of 2017, there is no assurance that a reduction in blood Phe alone will be sufficient to support the FDA's full regulatory approval of pegvaliase.

### ***Vosoritide***

Vosoritide (formerly referred to as BMN 111) is a peptide therapeutic in development for the treatment of achondroplasia, the most common form of dwarfism. In September 2012, we announced the results of a Phase 1 clinical trial for vosoritide, which showed vosoritide was generally well-tolerated over the range of single and repeat doses studied. Pharmacokinetic data indicated that the dose levels studied resulted in exposure levels that are expected to stimulate growth based on non-clinical findings. In April 2016, we reported 12-month data for the patients in the 15 µg/kg/day cohort of the Phase 2 open-label, sequential cohort, dose-escalation study of vosoritide in children who are 5-14 years old, which showed a durable and consistent increase in mean annualized growth velocity of 46%-65% from baseline in the group. Vosoritide continued to be well tolerated with no treatment-related serious adverse events or adverse events leading to discontinuation. As further described above under "*Recent Developments*", in October 2016 we provided a positive update on our Phase 2 study of vosoritide. In December 2016, we initiated the pivotal Phase 3 study of vosoritide, which is a randomized, placebo-controlled 12-month treatment study in approximately 110 children with achondroplasia, ages 5-14.

### ***BMN 270***

BMN 270 is an AAV-factor VIII vector, designed to restore factor VIII plasma concentrations, essential for blood clotting in patients with hemophilia A. Hemophilia A, also called factor VIII (FVIII) deficiency or classic hemophilia, is a genetic disorder caused by missing or defective factor VIII, a clotting protein. People living with the disease are not able to form blood clots efficiently and are at risk for excessive bleeding from modest injuries, potentially endangering their lives. People with severe hemophilia often bleed spontaneously into their muscles or joints. The gene therapy program for hemophilia A was originally licensed from University College London and St. Jude Children's Research Hospital in February 2013 and has since been developed at our facilities. According to the World Federation of Hemophilia rankings of severity of hemophilia A, the normal range of Factor VIII activity levels is between 50% and 150%, expressed as a percentage of normal factor activity in blood, and the mild hemophilia A range of Factor VIII activity levels is between 5% and 40%. In July 2016, we announced positive proof-of-concept data from a Phase 1/2 dose-escalation study for BMN 270 in patients with severe hemophilia A, where six of the seven patients treated with the highest dose achieved Factor VIII levels above 50%, and the seventh was above 10%. Post-treatment follow-up ranges were from 12 to 28 weeks. Data from high-dose patients since July 2016 reveals stabilized Factor VIII levels, with a mean annualized bleed rate decline of 91% for patients previously on prophylactic Factor VIII. ALT levels (liver function) for these patients remain in or around normal range. As further described above under "*Recent Developments*", in January 2017 we announced a positive update to our interim results from the Phase 1/2 study. Patients in the Phase 1/2 study will be monitored for safety for five years. A potentially registration-enabling Phase 2b study is scheduled to begin in the third quarter of 2017.

### ***BMN 250***

BMN 250 is an enzyme replacement therapy using a novel fusion NAGLU with a peptide derived from IGF2 for the treatment of MPS IIIB (also known as Sanfilippo Syndrome, Type B). MPS IIIB is a rapidly progressive pediatric brain disease caused by NAGLU enzyme deficiency resulting in accumulation of heparan sulfate (HS) in the brain. The accumulation of HS leads to progressive cognitive decline, loss of developmental milestones, severe hyperactivity, sleep disorders, loss of mobility, and early death. BMN 250 is delivered directly into the central nervous system via an intracerebroventricular access device into the cerebrospinal fluid, which allows for the drug to bypass the blood brain barrier and distribute directly within the brain. As further described above under "*Recent Developments*", in January 2017 we announced positive, preliminary results from a multicenter, international Phase 1/2 clinical trial for BMN 250, which began enrolling patients in April 2016. A complimentary observational study has also been initiated to study the progression of MPS IIIB over time.

## Product Candidate Programs Terminated in 2016

### *Kyndrisa*

In January 2015, we completed the acquisition of Prosensa Holding N.V. (Prosensa), a public limited liability company organized under the laws of the Netherlands, for a total purchase price of \$751.5 million. Prosensa's lead product candidate was Kyndrisa, an exon-51 skipping compound for the potential treatment of Duchenne muscular dystrophy amenable to exon 51 skipping. As previously reported, in January 2016, the FDA issued a complete response letter to our New Drug Application for Kyndrisa (drisapersen), concluding that the standard of substantial evidence of Kyndrisa's effectiveness had not been met. In May 2016, we withdrew our MAA from the EMA for Kyndrisa. We subsequently discontinued clinical and regulatory development of Kyndrisa as well as the programs for the three other first generation follow-on product candidates, BMN 044, BMN 045 and BMN 053 (other exons).

### *Reveglucosidase Alfa*

As previously reported, in June 2016, we discontinued the clinical and regulatory development program for reveglucosidase alfa. We continue to explore out-licensing opportunities for this program.

## Manufacturing

We manufacture Aldurazyme, Naglazyme, Vimizim, Brineura, pegvaliase, and vosoritide in our production facilities located in Novato, California. These facilities have demonstrated compliance with current Good Manufacturing Practices (cGMPs) to the satisfaction of the FDA, the EC and health agencies in other countries for the commercial production of Aldurazyme, Naglazyme and Vimizim. Vialing and packaging are performed by contract manufacturers. We believe that we have ample manufacturing capacity to support commercial demand for both Aldurazyme and Naglazyme for at least the next five years.

We currently manufacture Vimizim and Brineura in our manufacturing facility in Shanbally, Cork, Ireland. This facility has been approved by the FDA, Health Product Regulatory Authorities, EMA, EC, and health agencies in other countries for the testing and release of Vimizim. The Shanbally facility, once approved for bulk substance production, will enhance our business continuity and increase our operating capacity to support the anticipated commercial demand of Vimizim for the next five years. We believe that with this facility and our Novato, California facility, we have ample manufacturing capacity to support commercial demand for Vimizim for at least the next five years. Additionally, we intend to manufacture BMN 250 in this facility.

Firdapse, Kuvan tablet and powder sachet, and BMN 270 are currently manufactured on a contract basis by third-parties. In general, we expect to continue to contract with outside service providers for certain manufacturing services, including drug substance, active pharmaceutical ingredient (API), final product vialing, tableting and sachet production and packaging operations for our products. All of our facilities and those of any third-party manufacturers will be subject to periodic inspections confirming compliance with applicable law and must pass inspection before we can manufacture our drugs for commercial sales. Third-party manufacturers' facilities are subject to periodic inspections to confirm compliance with applicable law and must be cGMPs certified. We believe that our current agreements with third-party manufacturers and suppliers provide for ample operating capacity to support the anticipated clinical and commercial demand for these products. In certain instances, there is only one approved contract manufacturer for certain aspects of the manufacturing process. In such cases, we attempt to prevent disruption of supplies through supply agreements, maintaining safety stock and other appropriate strategies. Although we have never experienced a disruption in supply from our contract manufacturers, we cannot provide assurance that we will not experience a disruption in the future.

In 2016 we began converting an existing facility in Novato, California into a new gene therapy manufacturing facility. We expect to commission this new facility by mid-2017, at which time we plan to manufacture clinical lots of BMN 270 in-house at this new facility. We designed the facility to support the commercial launch of BMN 270, if approved.

## Raw Materials

Raw materials and supplies required for the production of our products and product candidates are available in some instances from one supplier and in other instances from multiple suppliers. In those cases where raw materials are only available through one supplier, such supplier may be either a sole source (the only recognized supply source available to us) or a single source (the only approved supply source for us among other sources). We have adopted policies to attempt, to the extent feasible, to minimize our raw material supply risks, including maintenance of greater levels of raw materials inventory and implementation of multiple raw materials sourcing strategies, especially for critical raw materials. Although to date we have not experienced any significant delays in obtaining any raw materials from our suppliers, we cannot provide assurance that we will not face shortages from one or more of them in the future.

## Sales and Marketing

We have established a commercial organization, including a sales force, to support our product lines directly in the U.S., Europe, South America and certain other significant markets. For other selected markets, we have signed agreements with other companies to act as distributors of Kuvan, Naglazyme, and Vimizim. Most of these agreements generally grant the distributor the right to market the product in the territory and the obligation to secure all necessary regulatory approvals for commercial or named patient sales. Additional markets are being assessed at this time and additional agreements may be signed in the future.

Genzyme has the exclusive right to distribute, market and sell Aldurazyme globally and is required to purchase its requirements exclusively from us.

In the U.S., our products (other than Aldurazyme) are marketed through our commercial teams, including sales representatives and supporting staff members, who promote our products, directly to physicians in specialties appropriate for each product. Outside of the U.S., our sales representatives and supporting staff members market our products (other than Aldurazyme). We believe that with moderate changes in 2017, the size of our sales force will be appropriate to effectively reach our target audience in markets where our products are directly marketed. The launch of any future products will likely require expansion of our commercial organization, including our sales force, in the U.S. and abroad, and we would need to commit significant additional funds, management's attention and other resources to such expansion.

We utilize third-party logistics companies to store and distribute our products. Moreover, we use 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.

## Customers

Our Firdapse, Kuvan, Naglazyme, and Vimizim customers include a limited number of specialty pharmacies and end-users, such as hospitals and foreign government agencies. We also sell Naglazyme and Vimizim to our authorized distributors and to certain larger pharmaceutical wholesalers globally, which act as intermediaries between us and end-users and generally do not stock significant quantities of our products. However, in certain countries, particularly in Latin America, governments place large periodic orders for Naglazyme and Vimizim. The timing of these orders can be inconsistent and can create significant quarter to quarter variation in our revenue. During 2016, 42% of our net Firdapse, Kuvan, Naglazyme, and Vimizim product revenues were generated by three customers. Genzyme is our sole customer for Aldurazyme and is responsible for marketing and selling Aldurazyme to third-parties.

## Competition

The biopharmaceutical industry is rapidly evolving and highly competitive. Within the industry, there are many public and private companies, including pharmaceutical companies and biotechnology companies that have or may soon initiate programs for the same indications that our candidate drugs and commercial drugs are intended to treat. Furthermore, universities and non-profit research organizations may have research programs, both early-stage and clinical, in the same disease areas. Our competitors may have advantages over us due to greater financial or

scientific resources, lower labor and other costs, or due to higher headcount and more robust organizational structures. Our competitors have considerable experience in drug manufacturing, preclinical and clinical research, regulatory affairs, marketing, sales, and distribution. They pursue broad patent portfolios and other intellectual property to protect the products they are developing. Their products may outcompete ours due to one or more factors, including faster progress through preclinical and clinical development, lower manufacturing costs, superior safety and efficacy, lower pricing, stronger patent protection, and better marketing, sales, and distribution capabilities. In this event, our products, even if approved, could fail to gain significant market share, and as a result, our business, financial condition and results of operations could be adversely affected.

Our products have no direct approved competition currently on the market, however, other companies are in the development phase with new and generic products. The following is a summary of some of the primary possible future competitors for our products.

#### ***Naglazyme, Aldurazyme and Vimizim***

In the mucopolysaccharidosis field, several companies are researching treatments using small molecules, gene therapy, and other novel technologies. These companies, however, are likely a year or more away from commercial therapies.

#### ***Kuvan and Pegvaliase***

There are currently no other approved drugs for the treatment of PKU. However, two companies have filed paragraph IV certifications and submitted ANDAs to produce sapropterin dihydrochloride tablets and powder. In September 2015, we entered into a settlement agreement regarding Kuvan tablets with one of these companies. Please see “*Government Regulation – Hatch-Waxman Act*” below and “*Legal Proceedings*” in Part I, Item 3 of this Annual Report on Form 10-K for additional information.

#### ***Product Candidates***

Brineura, for the treatment of CLN2, has potential competition from earlier stage products, including a preclinical gene therapy product candidate under development by Spark Therapeutics, Inc. Vosoritide, for the treatment of achondroplasia, could have competition from earlier stage products, including preclinical product candidates from Therachon AG and Ascendis Pharma A/S. BMN 250, for the treatment of MPS IIIB, has potential competition from earlier stage product candidates, including a recombinant protein product candidate under development by Alexion Pharmaceuticals Inc. and a preclinical gene therapy program from Abeona Therapeutics Inc. BMN 270, for the treatment of hemophilia A, could have competition from marketed Factor VIII replacement therapies and earlier stage gene therapy programs, including a product candidate under development by Spark Therapeutics, Inc. and preclinical product candidates from other companies. In addition, Hoffmann-La Roche AG and Alnylam Pharmaceuticals, Inc. are developing novel, long-acting product candidates in the clinic for the treatment of hemophilia A. Our other product candidates have potential competition from earlier stage product candidates, either using similar technology to our programs or different treatment strategies.

#### ***Patents and Proprietary Rights***

Our success depends on an intellectual property portfolio that supports our future revenue streams and also erects barriers to our competitors. We are maintaining and building our patent portfolio through: filing new patent applications; prosecuting existing applications; and licensing and acquiring new patents and patent applications. Furthermore we seek to protect our ownership of know-how, trade secrets and trademarks through an active program of legal mechanisms including registrations, assignments, confidentiality agreements, material transfer agreements, research collaborations and licenses.

As of January 25, 2017, the number of our worldwide issued patents now stands at 1,170, including 96 patents issued by the U.S. Patent and Trademark Office (the USPTO). Furthermore, our portfolio of pending patent applications totals 426 applications, including 85 pending U.S. applications.

With respect to Naglazyme, we have 53 issued patents, including three U.S. patents. Claims cover our ultrapure *N*-acetylgalactosamine-4-sulfatase compositions of Naglazyme, methods of treating deficiencies of *N*-acetylgalactosamine-4-sulfatase, including MPS VI, methods of producing and purifying such ultrapure *N*-acetylgalactosamine-4-sulfatase compositions and methods of detecting. These patents will expire between 2021 and 2028.

With respect to Kuvan, we own, co-own or have licensed a number of patents and pending patent applications that relate generally to formulations and forms of our drug substance, methods of use for various indications under development and dosing regimens. We have rights to 141 issued patents including 15 issued U.S. patents with claims to a stable tablet and oral solution formulation of 6R-BH4, methods of treating PKU using a once daily dosing regimen, methods of administration of Kuvan with food, crystalline forms of 6R-BH4, and methods of producing 6R-BH4. These patents will expire between 2024 and 2032.

We have rights to 33 issued patents, including six U.S. patents, related to Aldurazyme. These patents cover our ultra-pure alpha-L-iduronidase composition of Aldurazyme, methods of treating deficiencies of alpha-L-iduronidase by administering pharmaceutical compositions comprising such ultra-pure alpha-L-iduronidase, a method of purifying such ultra-pure alpha-L-iduronidase and the use of compositions of ultra-pure biologically active fragments of alpha-L-iduronidase. These patents will expire in 2019 and 2020. There are U.S. patents on alpha-L-iduronidase owned and controlled by a third-party. We have examined such issued U.S. patents, the related U.S. and foreign applications and their file histories, the prior art and other information. Corresponding foreign applications were filed in Canada, Europe and Japan. The European application was rejected and abandoned and cannot be re-filed. The Japanese application has also lapsed and cannot be re-filed. Claims in the related Canadian application issued in 2007. We believe that such patents may not survive a challenge to patent validity but that it is unlikely that a court in any country would order us to stop marketing the only life-saving drug that is currently approved for this disease. However, the processes of patent law are uncertain and any patent proceeding is subject to multiple unanticipated outcomes. We believe that it is in the best interest of our joint venture with Genzyme to market Aldurazyme with commercial diligence, in order to provide MPS I patients with the benefits of Aldurazyme. We believe that these patents and patent applications do not affect our ability to market Aldurazyme in Europe.

We have patent protection in the European Patent Organization countries for Firdapse for the treatment of LEMS. We have no issued patents in the U.S. for Firdapse for the treatment of LEMS. These patents will expire in 2022.

With respect to Vimizim, we own or have licensed a number of patents and pending patent applications that relate generally to compositions of matter, methods of use and methods of production. We have rights to 173 issued patents including 15 issued U.S. patents with claims to compositions of purified recombinant *N*-acetylgalactosamine-6-sulfate sulfatase (Vimizim) methods of treating Morquio Syndrome and sulfatase-modifying factor I (SUMF1) polypeptides and nucleic acids used in the manufacture of Vimizim. Issued U.S. patents cover SUMF1 compositions (set to expire in 2019), purified recombinant Vimizim compositions (set to expire in 2029) and methods of treating Morquio Syndrome (set to expire in 2029). We also have issued U.S. and European patents that cover methods of production (set to expire in 2024) and formulations (set to expire in 2031).

With respect to our clinical product candidates, we believe we have the necessary intellectual property rights to allowing us to undertake the development of these candidates. Certain of our product candidates are in therapeutic areas that have been the subject of many years of extensive research and development by academic organizations and third-parties who may control patents or other intellectual property that they might assert against us, should one or more of our product candidates in these therapeutic areas succeed in obtaining regulatory approval and thereafter be commercialized. We continually evaluate the intellectual property rights of others in these areas in order to determine whether a claim of infringement may be made by others against us. Should we determine that a third-party has intellectual property rights that could impact our ability to freely market a compound we consider a number of factors in determining how best to prepare for the commercialization of any such product candidate. In making this determination we consider, among other things, the stage of development of our product candidate and whether we and our outside counsel believe the intellectual property rights of others are valid, whether we infringe the intellectual property rights of others, whether a license is available upon commercially reasonable terms, whether we will seek to challenge the intellectual property rights of others, and the likelihood of and liability resulting from an adverse outcome should we be found to infringe the intellectual property rights of others.

## Government Regulation

Regulation by governmental authorities in the U.S. and other countries is a significant factor in the development, manufacture, commercialization, pricing and reimbursement of our products. Our industry is subject to significant federal, state, local and foreign regulation. Our present and future business has been, and will continue to be, subject to a variety of laws in the U.S. and other jurisdictions. In the U.S., failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending new drug applications, or NDAs, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties, and criminal prosecution.

Our products require approval from the FDA, the EMA and corresponding agencies in other countries before they can be marketed.

### *Approval Process in the U.S. and EU*

Pharmaceutical product development in the U.S. and the EU typically involves preclinical laboratory and animal tests, the submission to the applicable regulatory agency of an application (e.g., an investigational new drug application (IND) or a clinical trial application (CTA)), which must become effective before clinical testing may commence, and adequate and well-controlled human clinical trials to establish the safety and effectiveness of the drug for each indication for which marketing approval is sought. Satisfaction of FDA and EMA pre-market approval requirements typically takes many years and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease.

Preclinical tests include laboratory evaluation, as well as animal studies, to assess the characteristics and potential pharmacology, pharmacokinetics and toxicity of the product. The conduct of the preclinical tests must comply with FDA and/or EMA regulations and requirements, including good laboratory practices. The results of preclinical testing, along with other information, including information about product chemistry, manufacturing and controls and a proposed clinical trial protocol are submitted to the applicable regulatory agency as part of an IND or CTA. Long term preclinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND or CTA is submitted. Until the CTA or IND is approved, or deemed approved following a waiting period, we may not start the clinical trial in the relevant jurisdiction.

Clinical trials involve the administration of the investigational new drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted in compliance with applicable regulations, good clinical practices (GCP), as well as under protocols detailing the objectives of the trial and the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol involving testing on patients and subsequent protocol amendments must be submitted to the FDA as part of the IND and to the relevant regulatory agency in the EU as part of a new CTA.

The regulatory agencies may order the temporary halt or permanent discontinuation of a clinical trial at any time or impose other sanctions if they believe that the clinical trial is not being conducted in accordance with applicable requirements or presents an unacceptable risk to the clinical trial patients. The study protocol and informed consent information for patients in clinical trials must also be submitted to an institutional review board (IRB) or ethics committee, for approval. An IRB/ethics committee may also require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the IRB/ethics committee's requirements, or may impose other conditions.

Clinical trials to support NDAs, biologics license applications BLAs, or MAAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap or be combined. In Phase 1, the initial introduction of the drug into healthy human subjects or patients, the drug is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses and, if possible, early evidence on effectiveness. Phase 2 usually involves trials in a limited patient population, to determine the effectiveness of the drug for a particular indication or indications, dosage tolerance and optimum dosage, and to identify common adverse effects and safety risks. If a compound demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 trials are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial

sites. After completion of the required clinical testing, an NDA or BLA is prepared and submitted to the FDA and an MAA is prepared and submitted to the EMA. FDA approval of the NDA or BLA is required before marketing of the product may begin in the U.S. and approval of the MAA by the EC is required before marketing of the product may begin in the EU. The NDA, BLA or MAA must include the results of all preclinical, clinical and other testing, a compilation of data relating to the product's pharmacology, chemistry, manufacture and controls and proposed labeling, among other things. In the U.S., each NDA or BLA is subject to a significant user fee at the time of submission, unless a waiver is granted by the FDA.

The FDA and the EMA initially review the applications for a threshold determination that it is sufficiently complete to permit substantive review, typically within 30-60 days. The FDA or the EMA may request additional information rather than accepting an NDA/BLA or MAA, respectively, for filing or validation. Once the submission is accepted, the applicable agency begins an in-depth review. For the FDA, the review period for standard review applications is typically an additional ten months and, for priority review of drugs, that is, drugs that the FDA determines address a significant unmet need and represent a significant improvement over existing therapy, the review period is typically an additional six months in duration. The review process may be extended by the FDA for three additional months to consider new information submitted during the review or clarification regarding information already provided in the submission. The FDA may also refer applications for novel products or products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. After the FDA evaluates the information provided in the NDA/BLA, it issues an approval letter, or a complete response letter. A complete response letter outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed, the FDA will re-initiate review. If it is satisfied that the deficiencies have been addressed, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. It is not unusual, however, for the FDA to issue a complete response letter because it believes that the drug is not safe enough or effective enough or because it does not believe that the data submitted are reliable or conclusive.

For the EMA, an application designated as standard review typically lasts approximately eleven months depending on the length of time sponsors take to address EMA questions. The accelerated assessment procedure is applicable to marketing authorization applications for medicinal products that are expected to be of major public health interest. For applications that receive accelerated assessment designation and are able to remain on this timeline the review typically lasts approximately seven months depending on the length of time sponsors take to address EMA questions. It is not unusual, however, for applications that receive accelerated assessment designation to revert to standard review, typically because the EMA has determined that the significance of the questions that the company needs to address would be more appropriate under the standard review timelines. At the end of the review period, EMA will issue an opinion either in support of marketing authorization (positive opinion) or recommending refusal of a marketing authorization (negative opinion). In the event of a negative opinion, the company may request a re-examination of the application. Within 60 days the company must provide the EMA detailed grounds for requesting re-examination. Within 60 days of providing this information, the EMA will issue an opinion either in support of marketing authorization (positive opinion) or recommending refusal of a marketing authorization (negative opinion). In the event of a positive opinion, the EC will then grant marketing authorization in approximately 67 days. The EC follows the recommendation of the EMA in almost all cases.

During the review period, the FDA and/or the EMA will typically inspect one or more clinical sites and/or the sponsor to assure compliance with GCP regulations and will inspect the facility or the facilities at which the drug is manufactured to ensure compliance with cGMPs regulations. Neither the FDA nor the EMA will approve the product unless compliance is satisfactory and the application contains data that provide substantial evidence that the drug is safe and effective in the indication studied.

A marketing approval authorizes commercial marketing of the drug with specific prescribing information for specific indications. As a condition of NDA or BLA approval, the FDA may require a risk evaluation and mitigation strategy (REMS), to help ensure that the benefits of the drug outweigh the potential risks. REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use (ETASU). ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing



only under certain circumstances, special monitoring and the use of patient registries. The requirement for REMS can materially affect the potential market and profitability of the drug. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the drug's safety or efficacy. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

### ***Combination Products***

A combination product is a product comprised of (i) two or more regulated components, i.e., drug/device, biologic/device, drug/biologic, or drug/device/biologic, that are physically, chemically, or otherwise combined or mixed and produced as a single entity; (ii) two or more separate products packaged together in a single package or as a unit and comprised of drug and device products, device and biological products, or biological and drug products; (iii) a drug, device, or biological product packaged separately that according to its investigational plan or proposed labeling is intended for use only with an approved individually specified drug, device, or biological product where both are required to achieve the intended use, indication, or effect and where upon approval of the proposed product the labeling of the approved product would need to be changed, e.g., to reflect a change in intended use, dosage form, strength, route of administration, or significant change in dose; or (iv) any investigational drug, device, or biological product packaged separately that according to its proposed labeling is for use only with another individually specified investigational drug, device, or biological product where both are required to achieve the intended use, indication, or effect.

The FDA is divided into various branches, or Centers, by product type. Different Centers typically review drug, biologic, or device applications. In order to review an application for a combination product, the FDA must decide which Center should be responsible for the review. FDA regulations require that the FDA determine the combination product's primary mode of action, or PMOA, which is the single mode of a combination product that provides the most important therapeutic action of the combination product. The Center that regulates that portion of the product that generates the PMOA becomes the lead evaluator. If there are two independent modes of action, neither of which is subordinate to the other, the FDA makes a determination as to which Center to assign the product based on consistency with other combination products raising similar types of safety and effectiveness questions or to the Center with the most expertise in evaluating the most significant safety and effectiveness questions raised by the combination product. When evaluating an application, a lead Center may consult other Centers but still retain complete reviewing authority, or it may collaborate with another Center, by which the Center assigns review of a specific section of the application to another Center, delegating its review authority for that section. Typically, the FDA requires a single marketing application submitted to the Center selected to be the lead evaluator, although the agency has the discretion to require separate applications to more than one Center. One reason to submit multiple evaluations is if the applicant wishes to receive some benefit that accrues only from approval under a particular type of application, like new drug product exclusivity. If multiple applications are submitted, each may be evaluated by a different lead Center.

The 21st Century Cures Act was signed into law on December 13, 2016. In Section 3038, the FDA is instructed that if a combination product has an approved constituent (e.g., an investigational drug delivered with devices already 510(k) cleared by the FDA), the FDA may only require the sponsor to submit data or information necessary to meet the standard for clearance or approval, taking into consideration incremental risks and benefits posed by the combination product, using a risk-based approach and taking into account any prior finding of safety and effectiveness or substantial equivalence for the approved constituent. It appears that the primary purpose of this provision is to reduce the burden of proving the safety and effectiveness of the approved constituent by leveraging the FDA's prior clearance or approval. The FDA is instructed to focus on the new constituent plus the incremental risk created by a new use of the approved constituent. It is too soon to understand how the FDA will implement this provision.

### ***Disclosure of Clinical Trial Information***

Sponsors of clinical trials of FDA-regulated products, including drugs and biologics, are required to register and disclose certain clinical trial information. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial are then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. In certain

circumstances, disclosure of the results of these trials can be delayed for up to two years after the date of completion of the trial. Competitors may use this publicly-available information to gain knowledge regarding the progress of development programs. Moreover, there is an increasing trend in the EU requiring public disclosure of development data, in particular clinical trial data. These data were traditionally regarded as confidential commercial information; however, under policies recently adopted in the EU, clinical study data submitted to the EMA in MAAs, including pre-clinical data, and patient level data, may be subject to public disclosure.

### ***The Hatch-Waxman Act***

Upon approval of a drug through an NDA, applicants are required to submit to the FDA each patent that covers the applicant's product or FDA approved method of using this product. Those patents are then published in the FDA's Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential competitors in support of approval of an ANDA. Generally, an ANDA provides for marketing of a drug product that has the same active ingredients in the same strength(s), route of administration, and dosage form as the listed drug and has been shown through bioequivalence testing to be therapeutically equivalent to the listed drug. ANDA applicants are not required to conduct or submit results of pre-clinical or clinical tests to prove the safety or effectiveness of their drug product, other than the requirement for bioequivalence testing. Drugs approved in this way are commonly referred to as "generic equivalents" to the listed drug, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

The ANDA applicant is required to certify to the FDA concerning any patents listed for the approved product in the Orange Book. Specifically, the applicant must certify that: (i) the required patent information has not been filed; (ii) the listed patent has expired; (iii) the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or (iv) the listed patent is invalid or will not be infringed by the new product. A certification that the new product will not infringe the already approved product's listed patents or that such patents are invalid is called a paragraph IV certification. If the applicant does not challenge the listed patents, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired. Alternatively, for a patent covering an approved method of use, an ANDA applicant may submit a statement to the FDA that the company is not seeking approval for the covered use.

If the ANDA applicant has submitted a paragraph IV certification to the FDA, the applicant must also send notice of the paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the paragraph IV certification. The filing of a patent infringement lawsuit within 45 days of the receipt of a paragraph IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the ANDA applicant.

The ANDA application also will not be approved until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, listed in the Orange Book for the referenced product has expired. Federal law provides a period of five years following approval of a drug containing no previously approved active moiety, during which ANDAs for generic versions of those drugs cannot be submitted unless the submission contains a paragraph IV challenge to a listed patent, in which case the submission may be made four years following the original product approval. Federal law provides for a period of three years of exclusivity following approval of a listed drug that contains previously approved active ingredients but is approved in a new dosage form, route of administration or combination, or for a new condition of use, the approval of which was required to be supported by new clinical trials conducted by or for the sponsor, during which the FDA cannot grant effective approval of an ANDA based on that listed drug. Both of the five-year and three-year exclusivity periods, as well as any unexpired patents listed in the Orange Book for the listed drug, can be extended by six months if the FDA grants the NDA sponsor a period of pediatric exclusivity based on studies submitted by the sponsor in response to a written request.

### ***Orphan Drug Designation***

Orphan drug designation is granted by the FDA and EMA to drugs intended to treat a rare disease or condition, which in the U.S. is defined as having a prevalence of less than 200,000 individuals in the U.S. and in the

EU is defined as no more than five in 10,000 people in the EU, which is equivalent to around 250,000 people or less. Orphan drug designation must be requested before submitting a marketing application.

Orphan drug designation does not shorten the regulatory review and approval process, nor does it provide any advantage in the regulatory review and approval process. However, if an orphan drug later receives approval for the indication for which it has designation, the relevant regulatory authority may not approve any other applications to market the same drug for the same indication, except in very limited circumstances, for seven years in the U.S. and ten years in the EU. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the NDA/BLA application user fee. Although obtaining approval to market a product with orphan drug exclusivity may be advantageous, we cannot be certain:

- that we will be the first to obtain approval for any drug for which we obtain orphan drug designation;
- that orphan drug designation will result in any commercial advantage or reduce competition; or
- that the limited exceptions to this exclusivity will not be invoked by the relevant regulatory authority.

Orphan drug exclusive marketing rights may be lost under certain conditions, such as if the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug.

### ***Breakthrough Therapy Designation***

The FDA is also required to expedite the development and review of the application for approval of drugs that are intended to treat a serious or life-threatening disease or condition where preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. Under the breakthrough therapy program, the sponsor of a new drug candidate may request that the FDA designate the drug candidate for a specific indication as a breakthrough therapy concurrent with, or after, the filing of the IND for the drug candidate. The FDA must determine if the drug candidate qualifies for breakthrough therapy designation within 60 days of receipt of the sponsor's request.

### ***PRIME Designation***

The EMA launched its Priority Medicines (PRIME) regulatory initiative to enhance support for the development of therapies that target an unmet medical need. The initiative focuses on drugs that may offer a major therapeutic advantage over existing treatments, or benefit patients with no treatment options. These therapies are considered priority medicines within the EU. Through PRIME, the EMA offers early, proactive and enhanced support to drug developers to optimize the generation of robust data on a therapy's benefits and risks and enable accelerated assessment of drug applications.

### ***Pediatric Information***

Under the Pediatric Research Equity Act of 2007 (PREA), NDAs or BLAs or supplements to NDAs or BLAs must contain data to assess the safety and effectiveness of the drug for the claimed indication(s) in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, PREA does not apply to any drug for an indication for which orphan drug designation has been granted. The Best Pharmaceuticals for Children Act (BPCA) provides sponsors of NDAs with an additional six-month period of market exclusivity for all unexpired patent or non-patent exclusivity on all forms of the drug containing the active moiety if the sponsor submits results of pediatric studies specifically requested by the FDA under BPCA within required timeframes. The Biologics Price Competition and Innovation Act of 2009 (BPCIA) provides sponsors of BLAs an additional six-month extension for all unexpired non-patent market exclusivity on all forms of the biological containing the active moiety pursuant to the BPCA if the conditions under the BPCA are met.

### ***Fast Track Designation***

The FDA is required to facilitate the development and expedite the review of drugs that are intended for the treatment of a serious or life-threatening condition for which there is no effective treatment and that demonstrate the potential to address unmet medical needs for the condition. Under the FDA's fast track program, the sponsor of a new drug candidate may request that the FDA designate the drug candidate for a specific indication as a fast track drug concurrent with or after the filing of the IND for the drug candidate. The FDA must determine if the drug candidate qualifies for fast track designation within 60 days of receipt of the sponsor's request.

In addition to other benefits, such as the ability to use surrogate endpoints and have greater interactions with the FDA, the FDA may initiate review of sections of a fast track drug's NDA or BLA before the application is complete. This rolling review is available if the applicant provides and the FDA approves a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, the FDA's time period goal for reviewing an application does not begin until the last section of the NDA or BLA is submitted. Additionally, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

### ***Post-Approval Regulatory Requirements***

Following approval, the FDA and the EMA will impose certain post-approval requirements related to a product. For instance, the FDA closely regulates the post-approval marketing and promotion of approved products, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the Internet.

Approved products may be marketed only for the approved indications and in accordance with the provisions of the approved labeling. Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, may require a submission to and approval by the FDA or the EMA, as applicable, before the change can be implemented. An NDA/BLA or MAA supplement for a new indication typically requires clinical data similar to that in the original application, and similar procedures and actions in reviewing NDA/BLA or MAA supplements as in reviewing NDAs/BLAs and MAAs.

Adverse event reporting and submission of periodic reports is required following marketing approval. Either the FDA or EMA may also require post-marketing testing, known as Phase 4 testing, REMS, and surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control as well as the manufacture, packaging, and labeling procedures must continue to conform to cGMPs after approval. Drug and biological product manufacturers and certain of their subcontractors are subject to periodic unannounced inspections by the FDA or the EMA during which the agency inspects manufacturing facilities to access compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money and effort in the areas of production and quality control to maintain compliance with cGMPs. Regulatory authorities may withdraw product approvals or request product recalls if a company fails to comply with regulatory standards, if it encounters problems following initial marketing, or if previously unrecognized problems are subsequently discovered. In addition, prescription drug manufacturers in the U.S. must comply with applicable provisions of the Drug Supply Chain Security Act and provide and receive product tracing information, maintain appropriate licenses, ensure they only work with other properly licensed entities and have procedures in place to identify and properly handle suspect and illegitimate products.

### ***Good Manufacturing Practices***

The FDA, the EMA and other regulatory agencies regulate and inspect equipment, facilities and processes used in the manufacture of pharmaceutical and biologic products prior to approving a product. If, after receiving approval from regulatory agencies, a company makes a material change in manufacturing equipment, location or process, additional regulatory review and approval may be required. All facilities and manufacturing techniques used for the manufacture of our products must comply with applicable regulations governing the production of pharmaceutical products known as “Good Manufacturing Practices,” or GMPs.

The FDA, the EMA and other regulatory agencies also conduct regular, periodic visits to re-inspect equipment, facilities and processes following initial approval of a product. If, as a result of these inspections, it is determined that our equipment, facilities or processes do not comply with applicable regulations and conditions of product approval, regulatory agencies may require product recall, issue warning or similar letters or may seek civil, criminal, or administrative sanctions against us.

### ***Health Reform***

The U.S. and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. For example, in the U.S. the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010 (as amended, the PPACA), is a sweeping measure intended to improve quality of care, constrain healthcare spending, and expand healthcare coverage within the U.S., primarily through the imposition of health insurance mandates on employers and individuals and expansion of the Medicaid program.

The BPCIA, which was enacted as part of the PPACA, created an abbreviated approval pathway for biological products that are demonstrated to be “biosimilar” or “interchangeable” with an FDA-licensed reference biological product. Biosimilarity sufficient to reference a prior FDA-licensed product requires that there be no differences in conditions of use, route of administration, dosage form, and strength, and no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency. Biosimilarity must be shown through analytical studies, animal studies, and at least one clinical study, absent a waiver from the Secretary of the U.S. Department of Health and Human Services. In order to meet the higher hurdle of interchangeability, a sponsor must demonstrate that the biosimilar product can be expected to produce the same clinical result as the reference product, and for a product that is administered more than once, that the risk of switching between the reference product and biosimilar product is not greater than the risk of maintaining the patient on the reference product. The first biosimilar product was approved under the BPCIA in 2015, though no interchangeable products have been approved to date. Complexities associated with the larger, and often more complex, structures of biological products, as well as the process by which such products are manufactured, pose significant hurdles to implementation that are still being evaluated by the FDA. A reference biologic is granted 12 years of exclusivity from the time of first licensure of the reference product and no application for a biosimilar can be submitted for four years from the date of licensure of the reference product. The first biologic product submitted under the abbreviated approval pathway that is determined to be interchangeable with the reference product has exclusivity against a finding of interchangeability for other biologics for the same condition of use for the lesser of (i) one year after first commercial marketing of the first interchangeable biosimilar, (ii) eighteen months after the first interchangeable biosimilar is approved if there is not patent challenge, (iii) eighteen months after resolution of a lawsuit over the patents of the reference biologic in favor of the first interchangeable biosimilar applicant, or (iv) 42 months after the first interchangeable biosimilar’s application has been approved if a patent lawsuit is ongoing within the 42-month period.

The PPACA also imposed a new fee on certain manufacturers and importers of branded prescription drugs (excluding orphan drugs under certain conditions). The annual fee is apportioned among the participating companies based on each company’s sales of qualifying products to, or use by, certain U.S. government programs during the preceding year. Other provisions of the law, which have varying effective dates, may also affect us and will likely increase certain of our costs. For example, the Medicaid rebate rate was increased and the volume of rebated drugs has been expanded to include beneficiaries in Medicaid managed care organizations. Among other things, the PPACA also expanded the 340B drug discount program (excluding orphan drugs), including the creation of new

penalties for non-compliance, and included a 50% discount on brand name drugs for Medicare Part D participants in the coverage gap, or “donut hole.” The law also revised the definition of “average manufacturer price” for reporting purposes, which could increase the amount of the Medicaid drug rebates paid to states. Substantial new provisions affecting compliance also have been added, which may require us to modify our business practices with health care practitioners.

In addition, drug manufacturers are required to collect and report annually information on payments or transfers of value to physicians and teaching hospitals, as well as investment interests held by physicians and their immediate family members during the preceding calendar year. The reported data are posted in searchable form on a public web site. Failure to submit required information may result in civil monetary penalties. It is still unclear the full impact that the PPACA will have on our business. There have been judicial and Congressional challenges to certain aspects of the PPACA, and we expect that there will be additional challenges and amendments in the future, especially with the recent change in administration.

In January 2017, Congress voted to adopt a budget resolution for fiscal year 2017, or the Budget Resolution, that authorizes the implementation of legislation that would repeal portions of the PPACA. Although the Budget Resolution is not a law, it is widely viewed as the first step toward the passage of legislation that would repeal certain aspects of the PPACA. Further, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the PPACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the PPACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Congress also could consider subsequent legislation to replace elements of the PPACA that are repealed.

Other legislative changes have been proposed and adopted since the PPACA was enacted. These changes included the Budget Control Act of 2011, which caused aggregate reductions to Medicare payments to providers of up to 2% per fiscal year effective April 1, 2013 which, following passage of the Bipartisan Budget Act of 2015, will stay in effect through 2025 unless additional Congressional action is taken. Further, the American Taxpayer Relief Act of 2012, among other things, further reduced Medicare payments to several types of providers. Additionally, there has been increasing legislative and enforcement interest in the U.S. with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs.

#### ***Other U.S. Regulatory Requirements***

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws have been applied to restrict certain business and marketing practices in the pharmaceutical industry in recent years. These laws include anti-kickback, false claims, patient data privacy and security, and transparency statutes and regulations.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. The PPACA amended the intent requirement of the federal Anti-Kickback and criminal healthcare fraud statutes such that a person or entity no longer needs to have actual knowledge of these statutes or specific intent to violate them in order to commit a violation. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. The PPACA amended the statute so that the government may assert that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for

purposes of the false claims laws. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn are used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for, among other things, executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, on certain types of individuals and entities, with respect to safeguarding the privacy, security and transmission of individually identifiable health information.

The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to payments or other transfers of value made to physicians and teaching hospitals, and applicable manufacturers and applicable group purchasing organizations to report annually to CMS ownership and investment interests held by the physicians and their immediate family members.

The majority of states also have statutes or regulations similar to the federal Anti-Kickback Statute and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer. Sanctions under these federal and state laws may include civil monetary penalties, damages, monetary fines, disgorgement, exclusion of a company's products from reimbursement under federal healthcare programs, criminal fines, contractual damages, reputational harm, diminished profits and future earnings, curtailment of operations and imprisonment. Several states now require pharmaceutical companies to report expenses relating to the marketing and promotion of pharmaceutical products and to report gifts and payments to individual physicians in these states. Other states prohibit providing various other marketing-related activities. Still other states require the posting of information relating to clinical studies and their outcomes. In addition, states including California, Connecticut, Nevada and Massachusetts require pharmaceutical companies to implement compliance programs or marketing codes. Currently, several additional states are considering similar proposals. Compliance with these laws is difficult and time consuming, and companies that do not comply with these state laws face civil penalties.

#### ***Approval Outside of the U.S./EU***

For marketing outside the U.S. and the EU, we are subject to foreign regulatory requirements governing human clinical testing and marketing approval for our products. These requirements vary by jurisdiction, can differ from those in the U.S. and the EU and may require us to perform additional pre-clinical or clinical testing. The amount of time required to obtain necessary approvals may be longer or shorter than that required for FDA or EMA approval. In many countries outside of the U.S., approvals for pricing, coverage and reimbursement offered by third-party payers, including government payers and private insurance plans, are also required.

#### ***Anti-Corruption Legislation***

The U.S. Foreign Corrupt Practices Act (FCPA), to which we are subject, prohibits corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. It is illegal to pay, offer to pay or authorize the payment of anything of value to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. Similar laws exist in other countries, such as the United Kingdom, that restrict improper payments to public and private parties. Many countries have laws prohibiting these types of payments within the respective country. Historically, pharmaceutical companies have been the target of FCPA and other anti-corruption investigations and penalties.

## *Pricing and Reimbursement*

Because the course of treatment for patients using our products is expensive, sales of our products depend, in significant part, on the availability and extent of coverage and reimbursement offered by third-party payers, including government payers and private insurance plans. Governments may regulate access to, prices of or reimbursement levels for our products to control costs or to affect levels of use of our products, and private insurers may be influenced by government reimbursement methodologies.

Third-party payers, such as government or private health care insurers, carefully review and increasingly challenge the prices charged for drugs, examine their medical necessity, and review their cost effectiveness. Reimbursement rates from private companies vary depending on the third-party payer, the insurance plan and other factors. One payer's determination to provide coverage for a product does not assure that other payers will also provide coverage for the product. Moreover, the process for determining whether a third-party payer will provide coverage for a product may be separate from the process for setting the price of a product or for establishing the reimbursement rate that such a payer will pay for the product. A payer's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. In addition, emphasis on managed care in the U.S. has increased and we expect will continue to increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we or our collaborators receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Outside of the U.S. our products are paid for by a variety of payers, with governments being the primary source of payment. Reimbursement in the EU and many other territories must be negotiated on a country-by-country basis and in many countries the product cannot be commercially launched until reimbursement is approved. In many countries the government closely regulates drug pricing and reimbursement and often has a significant discretion in determining whether a product will be reimbursed at all and, if it is, how much will be paid. Negotiating prices with governmental authorities can delay patient access to and commercialization of our products. Payers in many countries use a variety of cost-containment measures that can include referencing prices in other countries and using those reference prices to set their own price, mandatory price cuts and rebates. This international patchwork of price regulation has led to different prices across countries and some cross-border trade in our products from markets with lower prices. Even after a price is negotiated, countries frequently request or require adjustments to the price and other concessions over time.

### ***Government Programs for Marketed Drugs in the U.S.***

#### *Medicaid, the 340B Drug Pricing Program, and Medicare*

Federal law requires that a pharmaceutical manufacturer, as a condition of having its products receive federal reimbursement under Medicaid and Medicare Part B, must pay rebates to state Medicaid programs for all units of its covered outpatient drugs dispensed to Medicaid beneficiaries and paid for by a state Medicaid program under either a fee-for-service arrangement or through a managed care organization. This federal requirement is effectuated through a Medicaid drug rebate agreement between the manufacturer and the Secretary of Health and Human Services. CMS administers the Medicaid drug rebate agreements, which provide, among other things, that the drug manufacturer will pay rebates to each state Medicaid agency on a quarterly basis and report certain price information on a monthly and quarterly basis. The rebates are based on prices reported to CMS by manufacturers for their covered outpatient drugs. For non-innovator products, generally generic drugs marketed under ANDAs, the rebate amount is 13% of the average manufacturer price (AMP) for the quarter. The AMP is the weighted average of prices paid to the manufacturer (1) directly by retail community pharmacies and (2) by wholesalers for drugs distributed to retail community pharmacies. For innovator products (i.e., drugs that are marketed under NDAs or BLAs), the rebate amount is the greater of 23.1% of the AMP for the quarter or the difference between such AMP and the best price for that same quarter. The best price is essentially the lowest price available to non-governmental entities. Innovator products may also be subject to an additional rebate that is based on the amount, if any, by which the product's AMP for a given quarter exceeds the inflation-adjusted baseline AMP, which for most drugs is the AMP for the first full quarter after launch. Beginning in 2017, non-innovator products are also subject to an additional rebate.



The statutory definition of AMP was amended in 2010. CMS has released the final rule pertaining to AMP and other aspects of the Medicaid drug rebate program, which was effective as of April 1, 2016.

The terms of participation in the Medicaid drug rebate program impose an obligation to correct the prices reported in previous quarters, as may be necessary. Any such corrections could result in additional or lesser rebate liability, depending on the direction of the correction. In addition to retroactive rebates, if a manufacturer were found to have knowingly submitted false information to the government, federal law provides for civil monetary penalties for failing to provide required information, late submission of required information, and false information.

A manufacturer must also participate in a federal program known as the 340B drug pricing program in order for federal funds to be available to pay for the manufacturer's drugs under Medicaid and Medicare Part B. Under this program, the participating manufacturer agrees to charge certain safety net healthcare providers no more than an established discounted price for its covered outpatient drugs. The formula for determining the discounted price is defined by statute and is based on the AMP and the unit rebate amount as calculated under the Medicaid drug rebate program, discussed above.

Federal law also requires that manufacturers report data on a quarterly basis to CMS regarding the pricing of drugs that are separately reimbursable under Medicare Part B. These are generally drugs, such as injectable products, that are administered "incident to" a physician service and are not generally self-administered. The pricing information submitted by manufacturers is the basis for reimbursement to physicians and suppliers for drugs covered under Medicare Part B. As with the Medicaid drug rebate program, federal law provides for civil monetary penalties for failing to provide required information, late submission of required information, and false information.

Medicare Part D provides prescription drug benefits for seniors and people with disabilities. Medicare Part D beneficiaries have a gap in their coverage (between the initial coverage limit and the point at which catastrophic coverage begins) where Medicare does not cover their prescription drug costs, known as the coverage gap. However, by 2020 Medicare Part D beneficiaries will pay 25% of drug costs after they reach the initial coverage limit – the same percentage they were responsible for before they reached that limit – thereby closing the coverage gap. The cost of closing the coverage gap is being borne by innovator companies and the government through subsidies. Beginning in 2011, each manufacturer of drugs approved under NDAs or BLAs was required to enter into a Medicare Part D coverage gap discount agreement and provide a 50% discount on those drugs dispensed to Medicare beneficiaries in the coverage gap, in order for its drugs to be reimbursed by Medicare Part D.

#### *Federal Contracting/Pricing Requirements*

Manufacturers are also required to make their covered drugs, which are generally drugs approved under NDAs or BLAs, available to authorized users of the Federal Supply Schedule (FSS) of the General Services Administration. The law also requires manufacturers to offer deeply discounted FSS contract pricing for purchases of their covered drugs by the Department of Veterans Affairs, the Department of Defense, the Coast Guard, and the Public Health Service (including the Indian Health Service) in order for federal funding to be available for reimbursement or purchase of the manufacturer's drugs under certain federal programs. FSS pricing to those four federal agencies for covered drugs must be no more than the Federal Ceiling Price (FCP), which is at least 24% below the Non-Federal Average Manufacturer Price (Non-FAMP) for the prior year. The Non-FAMP is the average price for covered drugs sold to wholesalers or other middlemen, net of any price reductions.

The accuracy of a manufacturer's reported Non-FAMPs, FCPs, or FSS contract prices may be audited by the government. Among the remedies available to the government for inaccuracies is recoupment of any overcharges to the four specified federal agencies based on those inaccuracies. If a manufacturer were found to have knowingly reported false prices, in addition to other penalties available to the government, the law provides for civil monetary penalties of \$100,000 per incorrect item. Finally, manufacturers are required to disclose in FSS contract proposals all commercial pricing that is equal to or less than the proposed FSS pricing, and subsequent to award of an FSS contract, manufacturers are required to monitor certain commercial price reductions and extend commensurate price reductions to the government, under the terms of the FSS contract Price Reductions Clause. Among the remedies available to the government for any failure to properly disclose commercial pricing and/or to extend FSS contract price reductions is recoupment of any FSS overcharges that may result from such omissions.

## Employees

As of January 23, 2017, we had 2,293 full-time employees, 998 of whom were in operations, 632 of whom were in research and development, 313 of whom were in sales and marketing and 350 of whom were in administration.

We consider our employee relations to be good. Our employees are not covered by a collective bargaining agreement. We have not experienced employment related work stoppages.

## Research and Development

For information regarding research and development expenses incurred during 2016, 2015 and 2014, see Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations—Research and Development*.

## Geographic Area Financial Information

Our chief operating decision maker (i.e., our chief executive officer) reviews financial information on a consolidated basis, for the purposes of allocating resources and evaluating financial performance. Accordingly, we consider ourselves to have a single reporting segment and operating unit structure.

Net product revenues by geography are based on patients' locations for our commercial products, which are sold directly by us, and global sales of Aldurazyme, which is marketed by Genzyme. Genzyme is our sole customer for Aldurazyme and is responsible for marketing and selling Aldurazyme to third parties. Although Genzyme sells Aldurazyme worldwide, the revenues earned by us on Genzyme's net sales are not broken out by geographic region as the underlying revenue transactions are with Genzyme, whose headquarters are located in the U.S.

The following table outlines net product revenues by geographic area (in millions):

	Years Ended December 31,		
	2016	2015	2014
Net product revenues:			
Net product revenues marketed by BioMarin:			
United States	\$ 505.6	\$ 441.4	\$ 375.7
Europe	252.6	171.2	\$ 130.7
Latin America	147.5	142.3	\$ 118.6
Rest of the world	204.7	129.6	\$ 113.4
Total net product revenues	<u>\$ 1,110.4</u>	<u>884.5</u>	<u>\$ 738.4</u>

Total revenues generated outside the U.S. was \$609.3 million, \$445.8 million and \$365.5 million, in the years ended December 31, 2016, 2015 and 2014, respectively.

The following table outlines non-monetary long-lived assets by geographic area (in millions):

	December 31,		
	2016	2015	2014
Non-monetary long-lived assets:			
United States	\$ 1,183.9	\$ 940.5	\$ 827.9
Europe	812.8	865.2	102.5
Rest of World	2.6	2.3	1.6
Total long-lived assets	<u>\$ 1,999.3</u>	<u>\$ 1,808.0</u>	<u>\$ 932.0</u>

The increase in non-monetary long-lived assets in 2016 compared to 2015 was primarily attributable to increased costs related to our in-process projects at our manufacturing facilities, partially offset by a net decrease in intangible assets. The increase in non-monetary long-lived assets in 2015 compared to 2014 was primarily

attributable to increased in-process R&D (IPR&D). The increase in intangible assets was primarily attributable to Kyndrisa and other exon-skipping in-process research and development assets we acquired in connection with our acquisition of Prosensa Holding N.V. in January 2015. These IPR&D assets were impaired during 2016 due to the termination of the related programs.

See “*Risk Factors*” included in Part I, Item 1A of this Annual Report on Form 10-K for additional information regarding the risks we face related to our foreign operations.

## Other Information

We were incorporated in Delaware in October 1996. Our principal executive offices are located at 770 Lindero Street, San Rafael, California 94901 and our telephone number is (415) 506-6700. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, proxy statements, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act) are available free of charge at [www.bmm.com](http://www.bmm.com) as soon as reasonably practicable after electronically filing such reports with the SEC. Such reports and other information may be obtained by visiting the SEC’s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549 or by calling the SEC at 1-800-SEC-0330. Additionally, these reports are available at the SEC’s website at <http://www.sec.gov>. Information contained in our website is not part of this or any other report that we file with or furnish to the SEC.

## Item 1A. Risk Factors

*An investment in our securities involves a high degree of risk. We operate in a dynamic and rapidly changing industry that involves numerous risks and uncertainties. The risks and uncertainties described below are not the only ones we face. Other risks and uncertainties, including those that we do not currently consider material, may impair our business. If any of the risks discussed below actually occur, our business, financial condition, operating results or cash flows could be materially adversely affected. This could cause the value of our securities to decline, and you may lose all or part of your investment.*

### Risks Related to Our Business

**If we fail to obtain regulatory approval to commercially market and sell our product candidates, or if approval of our product candidates is delayed, we will be unable to generate revenue from the sale of these product candidates, our potential for generating positive cash flow will be diminished, and the capital necessary to fund our operations will increase.**

We must obtain and maintain regulatory approval to market and sell our product candidates. For example, in the U.S., we must obtain Food and Drug Administration (FDA) approval for each product candidate that we intend to commercialize, and in Europe we must obtain approval from the European Medicines Agency (EMA). The FDA and EMA approval processes are typically lengthy and expensive, and approval is never certain. Accordingly, there are no assurances that we will obtain regulatory approval for any of our product candidates, including Brineura and pegvaliase, in any jurisdiction. For example, although the FDA has accepted for review the submission of our BLA for Brineura, and we have also received validation of the MAA from the EMA for Brineura, there are no assurances that we will obtain regulatory approval of Brineura from the FDA or EMA. Even though the primary endpoint of our Phase 1/2 study for Brineura was met, our BLA and MAA rely on results from a single Phase 1/2 uncontrolled study in a small patient population of 24 patients and we used natural history data as a control arm of the trial. In addition, effectiveness of Brineura was evaluated using a CLN2-specific rating scale score based on individual physicians’ assessments. Furthermore, even though the pivotal Phase 3 PRISM-2 study of pegvaliase met the primary endpoint of change in blood Phe compared with placebo ( $p < 0.0001$ ), we did not demonstrate a statistically significant improvement in inattention or mood scores, a key secondary clinical neurocognitive endpoint. Although we intend to file a BLA for pegvaliase with the FDA in the second quarter of 2017, there is no assurance that a reduction in blood Phe alone will be sufficient to support the FDA’s full regulatory approval of pegvaliase.

Although the FDA and the EMA have programs to facilitate accelerated approval processes, the timelines agreed under legislative goals or mandated by regulations are subject to the possibility of substantial delays. In

addition, the FDA, the EMA and other international regulatory authorities have substantial discretion over the approval process for pharmaceutical products. These regulatory agencies may not agree that we have demonstrated the requisite level of product safety and efficacy to grant approval and may require additional data. If we fail to obtain regulatory approval for our product candidates, we will be unable to market and sell those product candidates. Because of the risks and uncertainties in pharmaceutical development, our product candidates could take a significantly longer time to gain regulatory approval than we expect or may never gain approval. We also rely on independent third-party contract research organizations (CROs) to file some of our foreign marketing applications and important aspects of the services performed for us by the CROs are out of our direct control. If we fail to adequately manage our CROs, if the CRO elects to prioritize work on our projects below other projects or if there is any dispute or disruption in our relationship with our CROs, the filing of our applications may be delayed.

In addition, some of our product candidates, including Brineura, are intended to be used in combination with a delivery device, such as an injector or other delivery system. Medical products containing a combination of new drugs, biological products or medical devices may be regulated as “combination products” in the U.S. A combination product generally is defined as a product consisting of components from two or more regulatory categories (e.g., drug/device, device/biologic, drug/biologic). Each component of a combination product is subject to the requirements established by the FDA for that type of component, whether a new drug, biologic or device. In order to facilitate pre-market review of combination products, the FDA designates one of its centers to have primary jurisdiction for the pre-market review and regulation of the overall product based upon a determination by the FDA of the primary mode of action of the combination product. The determination whether a product is a combination product or two separately regulated products is made by the FDA on a case-by-case basis. Our product candidates intended for use with such devices, or expanded indications that we may seek for our products used with such devices, may not be approved or may be substantially delayed in receiving approval if the devices do not gain and/or maintain their own regulatory approvals or clearances. Where approval of the drug or biologic product and device is sought under a single application, the increased complexity of the review process may delay approval. The FDA review process and criteria is not a well-established area, which could also lead to delays in the approval process. In addition, because these delivery devices are provided by unaffiliated third-party companies, we are dependent on the sustained cooperation and effort of those third-party companies both to obtain regulatory approval and to maintain their own regulatory compliance. Failure of third-party companies to assist in the approval process or to maintain their own regulatory compliance could delay or prevent approval of our product candidates, or limit our ability to sell a product once it is approved.

From time to time during the regulatory approval process for our products and our product candidates, we engage in discussions with the FDA and comparable international regulatory authorities regarding the regulatory requirements for our development programs. To the extent appropriate, we accommodate the requests of the regulatory authorities. However, we are often unable to determine the outcome of such deliberations until they are final. If we are unable to effectively and efficiently resolve and comply with the inquiries and requests of the FDA and other non-U.S. regulatory authorities, the approval of our product candidates may be delayed and their value may be reduced.

**Any product for which we have obtained regulatory approval, or for which we obtain approval in the future, is subject to, or will be subject to, extensive ongoing regulatory requirements by the FDA, the EMA and other comparable international regulatory authorities, and if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, we may be subject to penalties, we will be unable to generate revenue from the sale of such products, our potential for generating positive cash flow will be diminished, and the capital necessary to fund our operations will be increased.**

All of our products have received regulatory approval to be commercially marketed and sold in the U.S., the EU and certain other countries, with the exception of Firdapse, which has received regulatory approval to be commercially marketed only in the EU. Any product for which we have obtained regulatory approval, or for which we obtain regulatory approval in the future, along with the manufacturing processes and practices, post-approval clinical research, product labeling, advertising and promotional activities for such product, are subject to continual requirements of, and review by, the FDA, the EMA and other comparable international regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, current good manufacturing practices (cGMP) requirements relating to manufacturing, quality control,

quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians, import and export requirements and recordkeeping.

Promotional communications with respect to prescription drugs, including biologics, are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. Thus, we will not be able to promote any products we develop for indications or uses for which they are not approved.

In addition, the FDA often requires post-marketing testing and surveillance to monitor the effects of products. The FDA, the EMA and other comparable international regulatory agencies may condition approval of our product candidates on the completion of such post-marketing clinical studies. These post-marketing studies may suggest that a product causes undesirable side effects or may present a risk to the patient.

Discovery after approval of previously unknown problems with any of our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in actions such as:

- restrictions on our ability to conduct clinical trials, including full or partial clinical holds on ongoing or planned trials;
- restrictions on product manufacturing processes;
- restrictions on the marketing of a product;
- restrictions on product distribution;
- requirements to conduct post-marketing clinical trials;
- untitled or warning letters or other adverse publicity;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- refusal to permit the import or export of our products;
- product seizure;
- fines, restitution or disgorgement of profits or revenue;
- injunctions; or
- imposition of civil or criminal penalties.

If such regulatory actions are taken, the value of our company and our operating results will be adversely affected. Additionally, if the FDA, the EMA or any other comparable international regulatory agency withdraws its approval of a product, we will be unable to generate revenue from the sale of that product in the relevant jurisdiction, our potential for generating positive cash flow will be diminished and the capital necessary to fund our operations will be increased. Accordingly, we continue to expend significant time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance, post-marketing studies and quality control.

**If we fail to obtain or maintain orphan drug exclusivity for some of our products, our competitors may obtain approval to sell the same drugs to treat the same conditions and our revenues will be reduced.**

As part of our business strategy, we have developed and may in the future develop some drugs that may be eligible for FDA and EU orphan drug designation. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is intended to treat a rare disease or condition, defined as a patient population of fewer than 200,000 in the U.S. In the EU, orphan drug designation is granted to drugs intended to treat a rare disease or condition, defined as having a prevalence of no more than five in 10,000 people in the EU, which is equivalent to

around 250,000 people or fewer. The company that first obtains FDA approval for a designated orphan drug for a given rare disease receives marketing exclusivity for use of that drug for the stated condition for a period of seven years. Orphan drug exclusive marketing rights may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug. Similar regulations are available in the EU with a ten-year period of market exclusivity.

Because the extent and scope of patent protection for some of our products is limited, orphan drug designation is especially important for our products that are eligible for orphan drug designation. For eligible products, we plan to rely on the exclusivity period under the Orphan Drug Act to maintain a competitive position. If we do not obtain orphan drug exclusivity for our products that do not have broad patent protection, our competitors may then sell the same drug to treat the same condition and our revenues will be reduced.

Even though we have obtained orphan drug designation for certain of our product candidates and even if we obtain orphan drug designation for our future product candidates, due to the uncertainties associated with developing biopharmaceutical products, we may not be the first to obtain marketing approval for any particular orphan indication, which means that we may not obtain orphan drug exclusivity and could also potentially be blocked from approval of certain product candidates until the competitor product's orphan drug exclusivity period expires. Further, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs can be approved for the same condition and the same drug can be approved for different conditions and potentially used off-label in the orphan indication. Even after an orphan drug is approved and granted orphan drug exclusivity, the FDA can subsequently approve the same drug for the same condition if the FDA concludes that the later drug is safer or more effective or makes a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a drug, nor gives the drug any advantage in the regulatory review or approval process.

**We may face competition from biosimilars approved through an abbreviated regulatory pathway.**

Our Aldurazyme, Naglazyme and Vimizim products are regulated by the FDA as biologics under the Federal Food, Drug, and Cosmetic Act (the FDC Act) and the Public Health Service Act (the PHS Act). Biologics require the submission of a BLA and approval by the FDA prior to being marketed in the U.S. Historically, a biologic product approved under a BLA was not subject to the generic drug review and approval provisions of the FDC Act. However, the Biologics Price Competition and Innovation Act of 2009 (BPCIA) created a regulatory pathway under the PHS Act for the abbreviated approval of biological products that are demonstrated to be "biosimilar" or "interchangeable" with an FDA-approved biological product. In order to meet the standard of interchangeability, a sponsor must demonstrate that the biosimilar product can be expected to produce the same clinical result as the reference product, and for a product that is administered more than once, that the risk of switching between the reference product and biosimilar product is not greater than the risk of maintaining the patient on the reference product. Such biosimilars would reference biological products approved in the U.S. The BPCIA establishes a period of 12 years of data exclusivity for reference products, which protects the data in the original BLA by prohibiting sponsors of biosimilars from gaining FDA approval based in part on reference to data in the original BLA. Aldurazyme's data exclusivity under the BPCIA expired in 2015, Naglazyme's data exclusivity under the BPCIA expires in 2017, and Vimizim's data exclusivity under the BPCIA expires in 2026. Our products approved under BLAs, as well as products in development that may be approved under BLAs in the future, could be reference products for biosimilar marketing applications.

**To obtain regulatory approval to market our products, preclinical studies and costly and lengthy clinical trials are required and the results of the studies and trials are highly uncertain.**

As part of the drug development process we must conduct, at our own expense, preclinical studies in the laboratory, including studies in animals, and clinical trials on humans for each product candidate. We expect the number of preclinical studies and clinical trials that the regulatory authorities will require will vary depending on the product candidate, the disease or condition the drug is being developed to address and regulations applicable to the particular drug. Generally, new drugs for diseases or conditions that affect larger patient populations, are less severe, or are treatable by alternative strategies must be validated through additional preclinical and clinical trials and/or clinical trials with higher enrollments. With respect to our early stage product candidates, we may need to perform multiple preclinical studies using various doses and formulations before we can begin clinical trials, which could

result in delays to our development timeline. Furthermore, even if we obtain favorable results in preclinical studies, the results in humans may be significantly different. After we have conducted preclinical studies, we must demonstrate that our product candidates are safe and efficacious for use in the targeted human patients in order to receive regulatory approval for commercial sale. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials, and favorable data from interim analyses do not ensure the final results of a trial will be favorable. Product candidates may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials, or despite having favorable data in connection with an interim analysis. A number of companies in the biopharmaceutical industry, including us with respect to Kyndrisa, have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials.

Adverse or inconclusive clinical results could stop us from obtaining regulatory approval of our product candidates. Additional factors that can cause delay or termination of our clinical trials include:

- slow or insufficient patient enrollment;
- slow recruitment of, and completion of necessary institutional approvals at, clinical sites;
- budgetary constraints or prohibitively high clinical trial costs;
- longer treatment time required to demonstrate efficacy;
- lack of sufficient supplies of the product candidate;
- adverse medical events or side effects in treated patients, including immune reactions;
- lack of effectiveness of the product candidate being tested;
- availability of competitive therapies to treat the same indication as our product candidates;
- regulatory requests for additional clinical trials or pre-clinical studies;
- deviations in standards for Good Clinical Practice (GCP); and
- disputes with or disruptions in our relationships with clinical trial partners, including CROs, clinical laboratories, clinical sites, and principal investigators

Moreover, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services reportable to the FDA or other regulatory authority. If the FDA or other regulatory authority concludes that a financial relationship between us and a principal investigator has created a conflict of interest, the FDA or other regulatory authority may question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized.

**Our BMN 270 program is based on a gene therapy approach, which, as a novel technology, presents additional treatment, regulatory, manufacturing, and commercial risks in relation to our other, more traditional drug development programs.**

In addition to the risks set forth in this Risk Factors section associated with developing and commercializing more traditional pharmaceutical drugs, there are additional, unique risks associated with gene therapy products like our product candidate BMN 270. The goal of gene therapy is to be able to correct an inborn genetic defect through one-time administration of therapeutic genetic material containing non-defective gene copies. The gene copies are designed to reside permanently in a patient, allowing the patient to produce an essential protein or ribonucleic acid (RNA) molecule that a healthy person would normally produce. There is a risk, however, that the new gene copies will produce too much or too little of the desired protein or RNA. There is also a risk that production of the desired protein or RNA will increase or decrease over time. Because the treatment is irreversible, there may be challenges in managing side effects, particularly those caused by overproduction. Adverse effects would not be able to be reversed or relieved by stopping dosing, and we may have to develop additional clinical safety procedures. Furthermore,

because the new gene copies are designed to reside permanently in a patient, there is a risk that they will disrupt other normal biological molecules and processes, including other healthy genes, and we may not learn the nature and magnitude of these side effects until long after clinical trials have been completed.

We may experience development problems related to our gene therapy program that cause significant delays or unanticipated costs, or that cannot be solved. Given that there are currently no approved gene therapy products in the U.S. and very few precedents outside the U.S., it is difficult to determine how long it will take or how much it will cost to obtain regulatory approvals for our product candidate in any jurisdiction. Regulatory requirements governing gene and cell therapy products are still evolving and may continue to change in the future. Regulatory review agencies and the new requirements and guidelines they promulgate may lengthen the regulatory review process, require us to perform additional or larger studies, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our treatment candidate or lead to significant post-approval studies, limitations or restrictions. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring BMN 270 to market could have a negative effect on our business and financial condition. Even if we do obtain regulatory approval, ethical, social and legal concerns about gene therapy arising in the future could result in additional regulations restricting or prohibiting sale of our product.

Even if we obtain regulatory approval for BMN 270, we may experience delays, and increased costs, in developing a sustainable, reproducible and large-scale manufacturing process. Gene therapy products are novel, complex and difficult to manufacture, and have, only in limited cases, been manufactured at scales sufficient for pivotal trials and commercialization. Few pharmaceutical contract manufacturers specialize in gene therapy products and those that do are still developing appropriate processes and facilities for large-scale production. Whether we produce BMN 270 at a contract manufacturer or at our own gene therapy manufacturing facility, we will likely face technical and scientific challenges, considerable capital costs, and potential difficulty in recruiting and hiring experienced, qualified personnel. As a result, we could experience manufacturing delays that prevent us from completing our clinical studies or commercializing BMN 270 in a timely, or on a profitable, basis, if at all.

Due to the relative novelty of gene therapy and the potential to provide extended duration therapeutic treatment with a one-time administration, we also face uncertainty with respect to the pricing, coverage and reimbursement of BMN 270, if approved. In order to recover our research and development costs and commercialize this one-time treatment on a profitable basis, we expect the cost of a single administration of BMN 270 to be substantial. Therefore, we expect that coverage and reimbursement by governments and other third-party payors will be essential for the vast majority of patients to be able to afford BMN 270. Accordingly, sales of BMN 270, if approved, will depend substantially, both domestically and internationally, on the extent to which its cost will be paid by third-party payors. Even if coverage is provided, the reimbursement amounts approved by third-party payors may not be high enough to allow us to realize a sufficient return on our investment.

We also face uncertainty as to whether gene therapy will gain the acceptance of the public or the medical community. Even if we obtain regulatory approval for BMN 270, the commercial success of BMN 270 will depend, in part, on the acceptance of physicians, patients and health care payors of gene therapy products in general, and our product candidate in particular, as medically necessary, cost-effective and safe. In particular, our success will depend upon physicians prescribing our product candidate in lieu of existing treatments they are already familiar with and for which greater clinical data may be available. Even if BMN 270 displays a favorable efficacy and safety profile in clinical trials and is ultimately approved, market acceptance of BMN 270 will not be fully known until after it is launched. Negative public opinion or more restrictive government regulations or could have a negative effect on our business and financial condition and may delay or impair the development and commercialization of, and demand for, BMN 270.

**If we continue to incur operating losses and experience net cash outflows for a period longer than anticipated, we may be unable to continue our operations at planned levels and be forced to reduce our operations.**

Since we began operations in March 1997, we have been engaged in substantial research and development and capital investments, and we have operated at a net loss for each year since our inception, with the exception of 2008 and 2010. Based upon our current plan for investments in research and development for existing and new programs, as well as capital investments in our facilities and working capital needs, such as for inventory, we expect to operate



at a net loss and experience net cash outflows for at least the next 12 months. Our future profitability and cash flows depend on our marketing and selling of our products, the receipt of regulatory approval of our product candidates, our ability to successfully manufacture and market any products, either by ourselves or jointly with others, our spending on our development programs, the impact of any possible future business development transactions and other risks set forth in this Risk Factors section. The extent of our future losses and the timing of profitability and positive cash flows are highly uncertain. If we fail to become profitable and cash flow positive or are unable to sustain profitability and positive cash flows on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce our operations.

**If we fail to obtain the capital necessary to fund our operations, our financial results and financial condition will be adversely affected and we will have to delay or terminate some or all of our product development programs.**

As of December 31, 2016, we had cash, cash equivalents and short and long-term investments totaling \$1.4 billion and long-term debt obligations of \$772.5 million (undiscounted). In January 2016 we terminated our License and Commercialization Agreement with Ares Trading, S.A. (Merck Serono). Pursuant to the Termination and Transition Agreement related to Kuvan and the Termination Agreement related to pegvaliase, we made cash payments on this transaction totaling \$374.5 million, and may pay Merck Serono up to a maximum of €60 million, in cash, if future sales milestones are met with respect to Kuvan and up to a maximum of €125 million, in cash, if future development milestones are met with respect to pegvaliase. In October 2013, we completed an offering of senior subordinated convertible notes and received net proceeds of approximately \$696.4 million, after deducting commissions, offering expenses payable by us and the purchase of the related capped calls. We will need cash to not only repay the principal amount of our 1.875% senior subordinated convertible notes due 2017 (the 2017 Notes), 0.75% senior subordinated convertible notes due 2018 (the 2018 Notes) and 1.50% senior subordinated convertible notes due in 2020 (the 2020 Notes and, together with the 2017 Notes and 2018 Notes, the Notes) but also the ongoing interest due on the Notes during their term.

We may require additional financing to fund the repayment of our Notes, future milestone payments and our future operations, including the commercialization of our products and product candidates currently under development, preclinical studies and clinical trials, and potential licenses and acquisitions. We may be unable to raise additional financing due to a variety of factors, including our financial condition, the status of our product programs, and the general condition of the financial markets. If we fail to raise any necessary additional financing we may have to delay or terminate some or all of our product development programs and our financial condition and operating results will be adversely affected.

We expect to continue to spend substantial amounts of capital for our operations for the foreseeable future. The amount of capital we will need depends on many factors, including:

- our ability to successfully market and sell our products;
- Genzyme's ability to continue to successfully commercialize Aldurazyme;
- the progress and success of our preclinical studies and clinical trials (including studies and the manufacture of materials);
- the timing, number, size and scope of our preclinical studies and clinical trials;
- the time and cost necessary to obtain regulatory approvals and the costs of post-marketing studies which may be required by regulatory authorities;
- the time and cost necessary to develop commercial manufacturing processes, including quality systems, and to build or acquire manufacturing capabilities;
- the progress of research programs carried out by us;
- our possible achievement of milestones identified in our purchase agreements with the former stockholders of LEAD Therapeutics, Inc., ZyStor Therapeutics, Inc., Huxley Pharmaceuticals, Inc., and Zacharon Pharmaceuticals Inc., and under the termination agreements with Merck Serono related to Kuvan and pegvaliase milestones;

- any changes made to, or new developments in, our existing collaborative, licensing and other commercial relationships or any new collaborative, licensing and other commercial relationships that we may establish; and
- whether our convertible debt is converted to common stock in the future.

Moreover, our fixed expenses such as rent, license payments, interest expense and other contractual commitments are substantial and may increase in the future. These fixed expenses may increase because we may enter into:

- additional licenses and collaborative agreements;
- additional contracts for product manufacturing; and
- additional financing facilities or arrangements.

We will need to raise additional funds from equity or debt securities, loans or collaborative agreements if we are unable to satisfy our liquidity requirements. The sale of additional securities will result in additional dilution to our stockholders. Furthermore, additional financing may not be available in amounts or on terms satisfactory to us or at all. This could result in the delay, reduction or termination of our research, which could harm our business.

**We have incurred substantial indebtedness that may decrease our business flexibility, access to capital, and/or increase our borrowing costs, which may adversely affect our operations and financial results.**

As of December 31, 2016, we had \$772.5 million (undiscounted) principal amount of indebtedness, including \$375.0 million (undiscounted) of indebtedness under the 2018 Notes and \$375.0 million (undiscounted) principal amount of indebtedness under the 2020 Notes. In November 2016, we also entered into a credit agreement (Credit Agreement) with Bank of America, N.A., as the administrative agent, swing line lender and letter of credit issuer, providing for up to \$100.0 million in revolving loans. Our indebtedness may:

- limit our ability to incur liens on our assets or use our cash flow, borrow additional funds or obtain additional financing for future working capital, capital expenditures, acquisitions or other general business purposes;
- require us to use a substantial portion of our cash flow from operations to make debt service payments;
- limit our flexibility to plan for, or react to, changes in our business and industry, including taking advantage of certain business opportunities that may be presented to us;
- place us at a competitive disadvantage compared to our less leveraged competitors;
- increase our vulnerability to the impact of adverse economic and industry conditions; and
- result in dilution to our existing stockholders in the event exchanges of our 2018 Notes or 2020 Notes are converted into shares of our common stock.

In addition, if we default under the Credit Agreement, the outstanding borrowings thereunder could become immediately due and payable, the Credit Agreement lenders could refuse to permit additional borrowings under the facility, or it could lead to defaults under agreements governing our current or future indebtedness, including the indentures governing our 2018 Notes and 2020 Notes.

**In addition, our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time.**

Our indebtedness consists primarily of the 2018 and 2020 Notes, which, if not converted, will be required to be repaid in cash at maturity in 2018 and 2020. In addition, in the event the conditional conversion feature of the Notes is triggered, holders of Notes will be entitled to convert the Notes at any time during specified periods at their option. Our liquidity could be adversely affected if we settle the principal amount of our conversion obligation in cash. Even if holders do not elect to convert their Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Notes as a current rather than long-term liability, which

would result in a material reduction of our net working capital. Moreover, if we are unable to refinance the Notes, we must repay the Notes. While we could seek to obtain third-party financing to pay for any amounts due in cash upon such events, we cannot be sure that such third-party financing will be available on commercially reasonable terms, if at all. Furthermore, if we are required to share settle any conversions of Notes, due to lack of requisite liquidity or otherwise, we may cease to be eligible to account for the Notes using the treasury stock method, which may adversely impact our diluted earnings per share.

**If we fail to comply with manufacturing regulations, our financial results and financial condition will be adversely affected.**

Before we can begin commercial manufacture of our products, regulatory authorities must approve marketing applications that identify manufacturing facilities operated by us or our contract manufacturers that have passed regulatory inspection and manufacturing processes that are acceptable to the regulatory authorities. In addition, our pharmaceutical manufacturing facilities are continuously subject to scheduled and unannounced inspection by the FDA and international regulatory authorities, before and after product approval, to monitor and ensure compliance with cGMP and other regulations. Our manufacturing facility in the U.S. has been approved by the FDA, the EC, and health agencies in other countries for the manufacture of Aldurazyme, Naglazyme and Vimizim. Our manufacturing facility in Shanbally, Cork, Ireland has been approved by the FDA, the EC, and health agencies in other countries for the manufacture of Vimizim. In addition, our third-party manufacturers' facilities involved with the manufacture of our products have also been inspected and approved by various regulatory authorities. Although we are not involved in the day-to-day operations of our contract manufacturers, we are ultimately responsible for ensuring that our products are manufactured in accordance with cGMP regulations.

Due to the complexity of the processes used to manufacture our products and product candidates, we may be unable to continue to pass or initially pass federal or international regulatory inspections in a cost-effective manner. For the same reason, any potential third-party manufacturer of our products or our product candidates may be unable to comply with cGMP regulations in a cost-effective manner and may be unable to initially or continue to pass a federal or international regulatory inspection.

If we, or third-party manufacturers with whom we contract, are unable to comply with manufacturing regulations, we may be subject to delay of approval of our product candidates, warning or untitled letters, fines, unanticipated compliance expenses, recall or seizure of our products, total or partial suspension of production and/or enforcement actions, including injunctions, and criminal or civil prosecution. These possible sanctions would adversely affect our financial results and financial condition.

**If we are unable to successfully develop and maintain manufacturing processes for our products to produce sufficient quantities at acceptable costs, we may be unable to meet demand for our products and lose potential revenue, have reduced margins or be forced to terminate a program.**

Due to the complexity of manufacturing our products, we may not be able to manufacture products successfully with a commercially viable process or at a scale large enough to support their respective commercial markets or at acceptable margins.

The development of commercially viable manufacturing processes typically is very difficult to achieve and is often very expensive and may require extended periods of time. Changes in manufacturing processes (including manufacturing cell lines), equipment or facilities (including moving manufacturing from one of our facilities to another one of our facilities or a third-party facility, or from a third-party facility to one of our facilities) may require us to complete clinical trials to receive regulatory approval of any manufacturing modifications.

Also, we may be required to demonstrate product comparability between a biological product made after a manufacturing change and the product made before implementation of the change through additional types of analytical and functional testing or may have to complete additional clinical studies. If we contract for manufacturing services with an unproven process, our contractor is subject to the same uncertainties, high standards and regulatory controls, and may therefore experience difficulty if further process development is necessary.

Even a developed manufacturing process can encounter difficulties. Problems may arise during manufacturing for a variety of reasons, including human error, mechanical breakdowns, problems with raw materials and cell banks, malfunctions of internal information technology systems, and other events that cannot always be prevented or anticipated. Many of the processes include biological systems, which add significant complexity, as compared to chemical synthesis. We expect that, from time to time, consistent with biotechnology industry expectations, certain production lots will fail to produce product that meets our quality control release acceptance criteria. To date, our historical failure rates for all of our product programs, including Aldurazyme, Naglazyme and Vimizim, have been within our expectations, which are based on industry norms. If the failure rate increased substantially, we could experience increased costs, lost revenue, damage to customer relations, time and expense investigating the cause and, depending upon the cause, similar losses with respect to other lots or products. If problems are not discovered before the product is released to the market, recall and product liability costs may also be incurred.

In order to produce product within our time and cost parameters, we must continue to produce product within our expected success rate and yield expectations. Because of the complexity of our manufacturing processes, it may be difficult or impossible for us to determine the cause of any particular lot failure and we must effectively take corrective action in response to any failure in a timely manner.

Although we have entered into contractual relationships with third-party manufacturers to produce the active ingredient in Firdapse and Kuvan, if those manufacturers are unwilling or unable to fulfill their contractual obligations, we may be unable to meet demand for Firdapse and Kuvan or sell these products at all, we may lose potential revenue, and we may be forced to terminate a program. We have contracts for the production of final product for Firdapse and Kuvan. We also rely on third-parties for portions of the manufacture of Aldurazyme, Naglazyme and Vimizim. If those manufacturers are unwilling or unable to fulfill their contractual obligations or satisfy demand outside of or in excess of the contractual obligations, we may be unable to meet demand for these products or sell these products at all and we may lose potential revenue. Further, the availability of suitable contract manufacturing capacity at scheduled or optimum times is not certain.

In addition, our manufacturing processes subject us to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of hazardous materials and wastes resulting from their use. We incur significant costs in complying with these laws and regulations.

**Supply interruptions may disrupt our inventory levels and the availability of our products and product candidates and cause delays in obtaining regulatory approval for our product candidates, or harm our business by reducing our revenues.**

We depend on single-source suppliers for critical raw materials and a limited number of manufacturing facilities to manufacture our finished products and product candidates. Numerous factors could cause interruptions in the supply or manufacture of our products and product candidates, including:

- timing, scheduling and prioritization of production by our contract manufacturers or a breach of our agreements by our contract manufacturers;
- labor interruptions;
- changes in our sources for manufacturing;
- the timing and delivery of shipments;
- our failure to locate and obtain replacement suppliers and manufacturers as needed on a timely basis; and
- conditions affecting the cost and availability of raw materials.

If one of our suppliers or manufacturers fails or refuses to supply us with necessary raw materials or finished products or product candidates on a timely basis or at all, it would take a significant amount of time and expense to qualify a new supplier or manufacturer. We may not be able to obtain active ingredients or finished products from new suppliers or manufacturers on acceptable terms and at reasonable prices, or at all.

Any interruption in the supply of finished products could hinder our ability to distribute finished products to meet commercial demand.

With respect to our product candidates, production of product is necessary to perform clinical trials and successful registration batches are necessary to file for approval to commercially market and sell product candidates. Delays in obtaining clinical material or registration batches could adversely impact our clinical trials and delay regulatory approval for our product candidates.

**Because the target patient populations for our products are small, we must achieve significant market share and maintain high per-patient prices for our products to achieve profitability.**

All of our products target diseases with small patient populations. As a result, our per-patient prices must be relatively high in order to recover our development and manufacturing costs and achieve profitability. For Naglazyme and Vimizim in particular, we must market worldwide to achieve significant market penetration of the product. In addition, because the number of potential patients in each disease population is small, it is not only important to find patients who begin therapy to achieve significant market penetration of the product, but we also need to be able to maintain these patients on therapy for an extended period of time. Due to the expected costs of treatment for our products, we may be unable to maintain or obtain sufficient market share at a price high enough to justify our product development efforts and manufacturing expenses.

**If we fail to obtain an adequate level of coverage and reimbursement for our products by third-party payors, the sales of our products would be adversely affected or there may be no commercially viable markets for our products.**

The course of treatment for patients using our products is expensive. We expect patients to need treatment for extended periods, and for some products throughout the lifetimes of the patients. We expect that most families of patients will not be capable of paying for this treatment themselves. There will be no commercially viable market for our products without coverage and reimbursement from third-party payors. Additionally, even if there is a commercially viable market, if the level of reimbursement is below our expectations, our revenue and gross margins will be adversely affected.

Third-party payors, such as government or private health care insurers, carefully review and increasingly challenge the prices charged for drugs. Reimbursement rates from private companies vary depending on the third-party payor, the insurance plan and other factors. Reimbursement systems in international markets vary significantly by country and by region, and reimbursement approvals must be obtained on a country-by-country basis.

Government authorities and other third-party payors are developing increasingly sophisticated methods of controlling healthcare costs, such as by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices as a condition of coverage, are using restrictive formularies and preferred drug lists to leverage greater discounts in competitive classes, and are challenging the prices charged for medical products. Further, no uniform policy requirement for coverage and reimbursement for drug products exists among third-party payors in the U.S. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

We cannot be sure that coverage and reimbursement will be available for any product that we commercialize or will continue to be available for any product that we have commercialized and, if reimbursement is available, what the level of reimbursement will be. Coverage and reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. If coverage and reimbursement are not available or reimbursement is available only to limited levels, we may not successfully commercialize any product candidate for which we obtain marketing approval or continue to market any product that has already been commercialized.

Reimbursement in the EU and many other territories must be negotiated on a country-by-country basis and in many countries the product cannot be commercially launched until reimbursement is approved. The timing to complete the negotiation process in each country is highly uncertain, and in some countries we expect that it will exceed 12 months. Even after a price is negotiated, countries frequently request or require reductions to the price and other concessions over time.

For our future products, we will not know what the reimbursement rates will be until we are ready to market the product and we actually negotiate the rates. If we are unable to obtain sufficiently high reimbursement rates for our products, they may not be commercially viable or our future revenues and gross margins may be adversely affected.

**A significant portion of our international sales are made based on special access programs, and changes to these programs could adversely affect our product sales and revenue in these countries.**

We make a significant portion of our international sales of Naglazyme and Vimizim through special access or “named patient” programs, which do not require full product approval. The specifics of the programs vary from country to country. Generally, special approval must be obtained for each patient. The approval normally requires an application or a lawsuit accompanied by evidence of medical need. Generally, the approvals for each patient must be renewed from time to time.

These programs are not well defined in some countries and are subject to changes in requirements and funding levels. Any change to these programs could adversely affect our ability to sell our products in those countries and delay sales. If the programs are not funded by the respective government, there could be insufficient funds to pay for all patients. Further, governments have in the past undertaken and may in the future undertake unofficial measures to limit purchases of our products, including initially denying coverage for purchasers, delaying orders and denying or taking excessively long to approve customs clearance. Any such actions could materially delay or reduce our revenues from such countries.

Without the special access programs, we would need to seek full product approval to commercially market and sell our products in certain jurisdictions. This can be an expensive and time-consuming process and may subject our products to additional price controls. Because the number of patients is so small in some countries, it may not be economically feasible to seek and maintain a full product approval, and therefore the sales in such country would be permanently reduced or eliminated. For all of these reasons, if the special access programs that we are currently using are eliminated or restricted, our revenues could be adversely affected.

**If we fail to compete successfully with respect to product sales, we may be unable to generate sufficient sales to recover our expenses related to the development of a product program or to justify continued marketing of a product and our revenue could be adversely affected.**

Our competitors may develop, manufacture and market products that are more effective or less expensive than ours. They may also obtain regulatory approvals for their products faster than we can obtain them (including those products with orphan drug designation, which may prevent us from marketing our product entirely) or commercialize their products before we do. If we do not compete successfully, our revenue would be adversely affected, and we may be unable to generate sufficient sales to recover our expenses related to the development of a product program or to justify continued marketing of a product.

**Government price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our current and future products, which would adversely affect our revenue and results of operations.**

We expect that coverage and reimbursement may be increasingly restricted both in the U.S. and internationally. The escalating cost of health care has led to increased pressure on the health care industry to reduce costs. In particular, drug pricing by pharmaceutical companies has recently come under increased scrutiny and continues to be subject to intense political and public debate in the U.S. and abroad. Governmental and private third-party payors have proposed health care reforms and cost reductions. A number of federal and state proposals to

control the cost of health care, including the cost of drug treatments, have been made in the U.S. Specifically, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. In some international markets, the government controls the pricing, which can affect the profitability of drugs. Current government regulations and possible future legislation regarding health care may affect coverage and reimbursement for medical treatment by third-party payors, which may render our products not commercially viable or may adversely affect our future revenues and gross margins.

International operations are also generally subject to extensive price and market regulations, and there are many proposals for additional cost-containment measures, including proposals that would directly or indirectly impose additional price controls or mandatory price cuts or reduce the value of our intellectual property portfolio. As part of these cost containment measures, some countries have imposed or threatened to impose revenue caps limiting the annual volume of sales of our products. To the extent that these caps are significantly below actual demand, our future revenues and gross margins may be adversely affected.

We cannot predict the extent to which our business may be affected by these or other potential future legislative or regulatory developments. However, future price controls or other changes in pricing regulation or negative publicity related to our product pricing or the pricing of pharmaceutical drugs generally could restrict the amount that we are able to charge for our current and future products or our sales volume, which would adversely affect our revenue and results of operations.

**Government health care reform could increase our costs and adversely affect our revenue and results of operations.**

Our industry is highly regulated and changes in law may adversely impact our business, operations or financial results. The PPACA is a sweeping measure intended to, among other things, expand healthcare coverage within the U.S., primarily through the imposition of health insurance mandates on employers and individuals and expansion of the Medicaid program. Several provisions of the law have affected us and increased certain of our costs.

In January 2017, Congress voted to adopt a budget resolution for fiscal year 2017, or the Budget Resolution, that authorizes the implementation of legislation that would repeal portions of the PPACA. Although the Budget Resolution is not a law, it is widely viewed as the first step toward the passage of legislation that would repeal certain aspects of the PPACA. Further, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the PPACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the PPACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Congress also could consider subsequent legislation to replace elements of the PPACA that are repealed. Thus, the full impact of the PPACA on our business remains unclear.

In addition, other legislative changes have been adopted since the PPACA was enacted. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our customers and, accordingly, our financial operations.

We anticipate that the PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and an additional downward pressure on the reimbursement our customers may receive for our products. Further, there have been judicial and Congressional challenges to certain aspects of the PPACA, and we expect there will be additional challenges and amendments to the PPACA in the future, especially with the recent change in administration. Any reduction in reimbursement from Medicare and other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our products. For more information regarding government health care reform, see “Government Regulation – Health Reform” in Part I, Item 1 of this Annual Report on Form 10-K.

**We face credit risks from government-owned or sponsored customers outside of the U.S. that may adversely affect our results of operations.**

Our product sales to government-owned or supported customers in various countries outside of the U.S. are subject to significant payment delays due to government funding and reimbursement practices. This has resulted and may continue to result in an increase in days sales outstanding due to the average length of time that we have accounts receivable outstanding. If significant changes were to occur in the reimbursement practices of these governments or if government funding becomes unavailable, we may not be able to collect on amounts due to us from these customers and our results of operations would be adversely affected.

**If we are found in violation of federal or state health care laws, we may be required to pay a penalty or be suspended from participation in federal or state health care programs, which may adversely affect our business, financial condition and results of operation.**

We are subject to various federal and state health care laws and regulations, including anti-kickback laws, false claims laws, data privacy and security laws, and laws related to ensuring compliance. The federal Anti-Kickback Statute makes it illegal for any person or entity, including a pharmaceutical company, to knowingly and willfully offer, solicit, pay or receive any remuneration, directly or indirectly, in exchange for or to induce the referral of business, including the purchase, order or prescription of a particular drug, for which payment may be made under federal health care programs, such as Medicare and Medicaid. Under federal government regulations, certain arrangements, or safe harbors, are deemed not to violate the federal Anti-Kickback Statute. However, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration not intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Our practices may not in all cases meet all of the criteria for safe harbor protection from Anti-Kickback liability, although we seek to comply with these safe harbors. Many states have adopted laws similar to the federal Anti-Kickback Statute, some of which apply to referral of patients for health care services reimbursed by any source, not just governmental payors.

Federal and state false claims laws, including the civil False Claims Act, prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid, or knowingly making, using, or causing to be made or used, a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. Under the Health Insurance Portability and Accountability Act of 1996 (HIPAA), we also are prohibited from knowingly and willfully executing a scheme to defraud any health care benefit program, including private payors, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, on certain types of individuals and entities, with respect to safeguarding the privacy, security and transmission of individually identifiable health information. Many state and foreign laws also govern the privacy and security of health information. They often differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Substantial new provisions affecting compliance have also been adopted, which may require us to modify our business practices with health care practitioners. The PPACA, through the Physician Payments Sunshine Act, requires drug manufacturers to collect and report to CMS information on payments or transfers of value to physicians and teaching hospitals, as well as investment and ownership interests held by physicians and their immediate family members during the preceding calendar year. Failure to submit required information may result in civil monetary penalties.

In addition, there has been a recent trend of increased state regulation of payments made to physicians. Certain states mandate implementation of compliance programs, compliance with the Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers and the Pharmaceutical Research and



Manufacturers of America (PhRMA) Code on Interactions with Healthcare Professionals, and/or the tracking and reporting of gifts, compensation and other remuneration to physicians. The shifting compliance environment and the need to implement systems to comply with multiple jurisdictions with different compliance and/or reporting requirements increases the possibility that a pharmaceutical manufacturer may violate one or more of the requirements.

Due to the breadth of these laws, the narrowness of available statutory and regulatory exceptions and the increased focus by law enforcement agencies in enforcing such laws, our business activities could be subject to challenge under one or more of such laws. For example, in August 2016, we received a subpoena from the staff of the SEC requesting that we produce documents in connection with a non-public, fact-finding inquiry related to our former drisapersen program. The letter enclosing the subpoena states that the investigation and the subpoena do not mean that the Company or anyone else has broken the law, or that the SEC has a negative opinion of any person, entity or security. We intend to cooperate fully with the SEC in this matter. We are not able to predict whether any proceeding may be instituted in connection with the subpoena, or the outcome of any proceeding that may be instituted.

In addition, recent health care reform legislation has strengthened these laws. For example, the PPACA, among other things, amends the intent requirement of the federal Anti-Kickback Statute and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of these statutes or specific intent to violate them in order to commit a violation. Moreover, the PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act. If we are found in violation of one of these laws, we may be subject to criminal, civil or administrative sanctions, including damages, fines, disgorgement, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, curtailment of our operations, debarment, suspension or exclusion from participation in federal or state health care programs, any of which could adversely affect our business, financial condition and results of operation.

**We conduct a significant amount of our sales and operations outside of the U.S., which subjects us to additional business risks that could adversely affect our revenue and results of operations.**

A significant portion of the sales of Aldurazyme, Kuvan, Naglazyme and Vimizim, and all of the sales of Firdapse are generated from countries other than the U.S. We have operations in Canada and in several European, Middle Eastern, Asian, and Latin American countries. We expect that we will continue to expand our international operations in the future. International operations inherently subject us to a number of risks and uncertainties, including:

- the increased complexity and costs inherent in managing international operations;
- diverse regulatory and compliance requirements, and changes in those requirements that could restrict our ability to manufacture, market and sell our products;
- political and economic instability;
- diminished protection of intellectual property in some countries outside of the U.S.;
- trade protection measures and import or export licensing requirements;
- difficulty in staffing and managing international operations;
- differing labor regulations and business practices;
- potentially negative consequences from changes in or interpretations of tax laws;
- changes in international medical reimbursement policies and programs;
- financial risks such as longer payment cycles, difficulty collecting accounts receivable, exposure to fluctuations in foreign currency exchange rates and potential currency controls imposed by foreign governments;

- regulatory and compliance risks that relate to maintaining accurate information and control over sales and distributors' and service providers' activities that may fall within the purview of the Foreign Corrupt Practices Act (the FCPA); and
- regulations relating to data security and the unauthorized use of, or access to, commercial and personal information.

Any of these factors may, individually or as a group, have a material adverse effect on our business and results of operations.

As we continue to expand our existing international operations, we may encounter new risks. For example, as we focus on building our international sales and distribution networks in new geographic regions, we must continue to develop relationships with qualified local distributors and trading companies. If we are not successful in developing and maintaining these relationships, we may not be able to grow sales in these geographic regions. These or other similar risks could adversely affect our revenue and profitability.

**Our international operations pose currency risks, which may adversely affect our operating results and net income.**

A significant and growing portion of our revenues and earnings, as well as our substantial international net assets, are exposed to changes in foreign exchange rates. As we operate in multiple foreign currencies, including the euro, the Brazilian real, the U.K. pound, the Canadian dollar, the Swiss franc, the Japanese yen and several other currencies, changes in those currencies relative to the U.S. dollar will impact our revenues and expenses. If the U.S. dollar were to weaken against another currency, assuming all other variables remained constant, our revenues would increase, having a positive impact on earnings, and our overall expenses would increase, having a negative impact on earnings. Conversely, if the U.S. dollar were to strengthen against another currency, assuming all other variables remained constant, our revenues would decrease, having a negative impact on earnings, and our overall expenses would decrease, having a positive impact on earnings. In addition, because our financial statements are reported in U.S. dollars, changes in currency exchange rates between the U.S. dollar and other currencies have had, and will continue to have, an impact on our results of operations. Therefore, significant changes in foreign exchange rates can impact our results and our financial guidance.

We implement currency hedges intended to reduce our exposure to changes in foreign currency exchange rates. However, our hedging strategies may not be successful, and any of our unhedged foreign exchange exposures will continue to be subject to market fluctuations. These risks could cause a material adverse effect on our business, financial position and results of operations and could cause the market value of our common stock to decline.

**If we are unable to protect our intellectual property, we may not be able to compete effectively.**

Where appropriate, we seek patent protection for certain aspects of our technology. Patent protection may not be available for some of the products we are developing. If we must spend significant time and money protecting or enforcing our patents, designing around patents held by others or licensing, potentially for large fees, patents or other proprietary rights held by others, our business and financial prospects may be harmed.

The patent positions of biopharmaceutical products are complex and uncertain. The scope and extent of patent protection for some of our products and product candidates are particularly uncertain because key information on some of our product candidates has existed in the public domain for many years. The composition and genetic sequences of animal and/or human versions of Aldurazyme, Naglazyme and many of our product candidates have been published and are believed to be in the public domain. The chemical structure of 6R-BH4 (the active ingredient in Kuvan) and 3,4-DAP (the active ingredient in Firdapse) have also been published. Publication of this information may prevent us from obtaining or enforcing patents relating to our products and product candidates, including without limitation composition-of-matter patents, which are generally believed to offer the strongest patent protection.

We own or have licensed patents and patent applications related to our products. However, these patents and patent applications do not ensure the protection of our intellectual property for a number of reasons, including without limitation the following:

- With respect to pending patent applications, unless and until actually issued, the protective value of these applications is impossible to determine. We do not know whether our patent applications will result in issued patents.
- Competitors may interfere with our patent process in a variety of ways. Competitors may claim that they invented the claimed invention prior to us or that they filed their application for a patent on a claimed invention before we did. Competitors may also claim that we are infringing on their patents and therefore we cannot practice our technology. Competitors may also contest our patents by showing the patent examiner or a court that the invention was not original, was not novel or was obvious, for example. In litigation, a competitor could claim that our issued patents are not valid or are unenforceable for a number of reasons. If a court agrees, we would not be able to enforce that patent. We have no meaningful experience with competitors interfering with or challenging the validity or enforceability of our patents or patent applications.
- Generic manufacturers may use litigation and regulatory means to obtain approval for generic versions of our products notwithstanding our filed patents or patent applications.
- Enforcing patents is expensive and may absorb significant time of our management. Management would spend less time and resources on developing products, which could increase our operating expenses and delay product programs.
- Receipt of a patent may not provide much, if any, practical protection. For example, if we receive a patent with a narrow scope, then it will be easier for competitors to design products that do not infringe on our patent.
- The Leahy-Smith America Invents Act of 2011, which reformed certain patent laws in the U.S., may create additional uncertainty. Among the significant changes are switching from a “first-to-invent” system to a “first-to-file” system, and the implementation of new procedures that permit competitors to challenge our patents in the U.S. Patent and Trademark Office after grant.

It is also unclear whether our trade secrets are adequately protected. Our current and former employees, consultants or contractors may unintentionally or willfully disclose trade secrets to competitors. Enforcing a claim that someone else illegally obtained and is using our trade secrets, as with patent litigation, is expensive and time consuming, requires significant resources and has an unpredictable outcome. In addition, courts outside of the U.S. are sometimes less willing to protect trade secrets. Furthermore, our competitors may independently develop equivalent knowledge, methods and know-how, in which case we would not be able to enforce our trade secret rights against such competitors.

Moreover, there is an increasing trend in the EU requiring public disclosure of development data, in particular clinical trial data. These data were traditionally regarded as confidential commercial information; however, under policies recently adopted in the EU, data submitted to the EMA in MAAs may be subject to public disclosure. Exactly how the new disclosure policy will be implemented is unclear; however, it could result in the EMA’s public disclosure of certain of our clinical study reports, including pre-clinical data, and patient level data. The move toward public disclosure of development data could adversely affect our business in many ways, including, for example, resulting in the disclosure of our confidential methodologies for pre-clinical and clinical development of our products, preventing us from obtaining intellectual property right protection for innovations, requiring us to allocate significant resources to prevent other companies from violating our intellectual property rights, adding even more complexity to processing health data from clinical trials consistent with applicable data privacy regulations, and enabling competitors to use our data to gain approvals for their own products.

If we are unable to protect our intellectual property, third-parties could develop competing products, which could adversely affect our revenue and financial results generally.

**Competitors and other third-parties may have developed intellectual property that could limit our ability to market and commercialize our products and product candidates, if approved.**

Similar to us, competitors continually seek intellectual property protection for their technology. Several of our development programs, such as BMN 270, focus on therapeutic areas that have been the subject of extensive research and development by third-parties for many years. Due to the amount of intellectual property in our field of technology, we cannot be certain that we do not infringe intellectual property rights of competitors or that we will not infringe intellectual property rights of competitors granted or created in the future. For example, if a patent holder believes our product infringes its patent, the patent holder may sue us even if we have received patent protection for our technology. If someone else claims we infringe its intellectual property, we would face a number of issues, including the following:

- Defending a lawsuit takes significant executive resources and can be very expensive.
- If a court decides that our product infringes a competitor's intellectual property, we may have to pay substantial damages.
- With respect to patents, in addition to requiring us to pay substantial damages, a court may prohibit us from making, selling, offering to sell, importing or using our product unless the patent holder licenses the patent to us. The patent holder is not required to grant us a license. If a license is available, it may not be available on commercially reasonable terms. For example, we may have to pay substantial royalties or grant cross licenses to our patents and patent applications.
- We may need to redesign our product so it does not infringe the intellectual property rights of others.
- Redesigning our product so it does not infringe the intellectual property rights of competitors may not be possible or could require substantial funds and time.

We may also support and collaborate in research conducted by government organizations, hospitals, universities or other educational institutions. These research partners may be unwilling to grant us any exclusive rights to technology or products derived from these collaborations.

If we do not obtain required licenses or rights, we could encounter delays in our product development efforts while we attempt to design around other patents or may be prohibited from making, using, importing, offering to sell or selling products requiring these licenses or rights. There is also a risk that disputes may arise as to the rights to technology or products developed in collaboration with other parties. If we are not able to resolve such disputes and obtain the licenses or rights we need, we may not be able to develop or market our products.

**If our Manufacturing, Marketing and Sales Agreement with Genzyme were terminated, we could be prevented from continuing to commercialize Aldurazyme or our ability to successfully commercialize Aldurazyme would be delayed or diminished.**

Either party may terminate the Manufacturing, Marketing and Sales Agreement (the MMS Agreement) between Genzyme and us related to Aldurazyme for specified reasons, including if the other party is in material breach of the MMS Agreement, has experienced a change of control, as such term is defined in the MMS Agreement, or has declared bankruptcy and also is in breach of the MMS Agreement. Although we are not currently in breach of the MMS Agreement, there is a risk that either party could breach the MMS Agreement in the future. Either party may also terminate the MMS Agreement upon one year prior written notice for any reason.

If the MMS Agreement is terminated for breach, the breaching party will transfer its interest in the BioMarin/Genzyme LLC to the non-breaching party, and the non-breaching party will pay a specified buyout amount for the breaching party's interest in Aldurazyme and in the BioMarin/Genzyme LLC. If we are the breaching party, we would lose our rights to Aldurazyme and the related intellectual property and regulatory approvals. If the MMS Agreement is terminated without cause, the non-terminating party would have the option, exercisable for one year, to buy out the terminating party's interest in Aldurazyme and in the BioMarin/Genzyme LLC at a specified buyout amount. If such option is not exercised, all rights to Aldurazyme will be sold and the BioMarin/Genzyme LLC will be dissolved. In the event of termination of the buyout option without exercise by the non-terminating party as described above, all right and title to Aldurazyme is to be sold to the highest bidder, with

the proceeds to be split between Genzyme and us in accordance with our percentage interest in the BioMarin/Genzyme LLC.

If the MMS Agreement is terminated by either party because the other party declared bankruptcy, the terminating party would be obligated to buy out the other party and would obtain all rights to Aldurazyme exclusively. If the MMS Agreement is terminated by a party because the other party experienced a change of control, the terminating party shall notify the other party, the offeree, of its intent to buy out the offeree's interest in Aldurazyme and the BioMarin/Genzyme LLC for a stated amount set by the terminating party at its discretion. The offeree must then either accept this offer or agree to buy the terminating party's interest in Aldurazyme and the BioMarin/Genzyme LLC on those same terms. The party who buys out the other party would then have exclusive worldwide rights to Aldurazyme. The Amended and Restated Collaboration Agreement between us and Genzyme will automatically terminate upon the effective date of the termination of the MMS Agreement and may not be terminated independently from the MMS Agreement.

If we were obligated or given the option to buy out Genzyme's interest in Aldurazyme and the BioMarin/Genzyme LLC, and thereby gain exclusive rights to Aldurazyme, we may not have sufficient funds to do so and we may not be able to obtain the financing to do so. If we fail to buy out Genzyme's interest, we may be held in breach of the agreement and may lose any claim to the rights to Aldurazyme and the related intellectual property and regulatory approvals. We would then effectively be prohibited from developing and commercializing Aldurazyme. If this happened, not only would our product revenues decrease, but our share price would also decline.

**If we fail to develop new products and product candidates or compete successfully with respect to acquisitions, joint ventures, licenses or other collaboration opportunities, our ability to continue to expand our product pipeline and our growth and development would be impaired.**

Our future growth and development depends in part on our ability to successfully develop new products from our research and development activities. The development of biopharmaceutical products is very expensive and time intensive and involves a great degree of risk. The outcomes of research and development programs, especially for innovative biopharmaceuticals, are inherently uncertain and may not result in the commercialization of any products.

Our competitors compete with us to attract organizations for acquisitions, joint ventures, licensing arrangements or other collaborations. To date, several of our former and current product programs have been acquired through acquisitions and several of our former and current product programs have been developed through licensing or collaborative arrangements, such as Aldurazyme, Firdapse, Kuvan and Naglazyme. These collaborations include licensing proprietary technology from, and other relationships with, academic research institutions. Our future success will depend, in part, on our ability to identify additional opportunities and to successfully enter into partnering or acquisition agreements for those opportunities. If our competitors successfully enter into partnering arrangements or license agreements with academic research institutions, we will then be precluded from pursuing those specific opportunities. Because each of these opportunities is unique, we may not be able to find a substitute. Several pharmaceutical and biotechnology companies have already established themselves in the field of genetic diseases. These companies have already begun many drug development programs, some of which may target diseases that we are also targeting, and have already entered into partnering and licensing arrangements with academic research institutions, reducing the pool of available opportunities.

Universities and public and private research institutions also compete with us. While these organizations primarily have educational or basic research objectives, they may develop proprietary technology and acquire patents that we may need for the development of our product candidates. We will attempt to license this proprietary technology, if available. These licenses may not be available to us on acceptable terms, if at all. If we are unable to compete successfully with respect to acquisitions, joint venture and other collaboration opportunities, we may be limited in our ability to develop new products and to continue to expand our product pipeline.

**If generic manufacturers use litigation and regulatory means to obtain approval for generic versions of Kuvan, our revenue and results of operations would be adversely affected.**

The Drug Price Competition and Patent Term Restoration Act of 1984, known as the Hatch-Waxman Act, permits the FDA to approve ANDAs for generic versions of branded drugs. We refer to this process as the ANDA process. The ANDA process permits competitor companies to obtain marketing approval for a drug with the same active ingredient as a branded drug, but does not generally require the conduct and submission of clinical efficacy studies for the generic product. In place of such clinical studies, an ANDA applicant usually needs only to submit data demonstrating that its product is bioequivalent to the branded product.

Pursuant to the Hatch-Waxman Act, companies were permitted to file ANDA applications for proposed generic versions of Kuvan at any time after December 2011. We own several patents that cover Kuvan, and we have listed those patents in conjunction with that product in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (the Orange Book). The Hatch-Waxman Act requires an ANDA applicant seeking FDA approval of its proposed generic product prior to the expiration of our Orange Book-listed patents to certify that the applicant believes that our patents are invalid or will not be infringed by the manufacture, use or sale of the drug for which the application has been submitted (a paragraph IV certification) and notify us of such certification (a paragraph IV notice). Upon receipt of a paragraph IV notice, the Hatch-Waxman Act allows us, with proper basis, to bring an action for patent infringement against the ANDA filer, asking that the proposed generic product not be approved until after our patents expire. If we commence a lawsuit within 45 days from receipt of the paragraph IV notice, the Hatch-Waxman Act provides a 30-month stay, during which time the FDA cannot finally approve the generic's application. If the litigation is resolved in favor of the ANDA applicant during the 30-month stay period, the stay is lifted and the FDA may approve the ANDA if it is otherwise ready for approval. The discovery, trial and appeals process in such a lawsuit is costly, time consuming, and may result in generic competition if the ANDA applicant prevails. In addition to our patent protection, we have received three-year Hatch-Waxman exclusivity for a New Patient Population for Kuvan that expires in October 2017, including pediatric exclusivity. Thus, depending on the proposed labeling of a generic product, generic versions of Kuvan may be prohibited until October 2017, though it is possible that an ANDA applicant could propose to carve out information in the Kuvan labeling protected by the New Patient Population exclusivity and obtain approval earlier.

We received a paragraph IV notice letter, dated January 22, 2015, from Par Pharmaceutical, Inc. (Par), notifying us that Par had filed an ANDA seeking approval of a proposed generic version of Kuvan (sapropterin dihydrochloride) 100 mg oral tablets prior to the expiration of our patents listed in the FDA's Orange Book. Together with Merck & Cie, on March 6, 2015, we filed a lawsuit against Par in the U.S. District Court for the District of New Jersey alleging infringement of our patents relating to Kuvan tablets and seeking an injunction to prevent Par from introducing a generic version of Kuvan tablets that would infringe our patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of Par's ANDA in accordance with the Hatch-Waxman Act, which expires in July 2017. In response, Par alleged, inter alia, that the asserted patents are not infringed and/or are invalid.

We also received a paragraph IV notice letter, dated January 14, 2016, from Par, notifying us that Par has filed a separate ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral powder prior to the expiration of our patents listed in the FDA's Orange Book. On February 22, 2016, we filed a lawsuit against Par in the U.S. District Court for the District of New Jersey alleging infringement of our patents relating to Kuvan powder and seeking an injunction to prevent Par from introducing a generic version of Kuvan powder that would infringe our patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of Par's ANDA in accordance with the Hatch-Waxman Act, which expires in July 2018. In response, Par alleged, inter alia, that the asserted patents are not infringed and/or are invalid.

The two cases against Par have been consolidated in the District of New Jersey for all purposes, including pretrial and trial. The Court held a claim construction hearing on May 5, 2016 but has not yet issued its ruling. Fact discovery closed on September 22, 2016, and expert discovery closes on March 31, 2017. No trial date has been set, but the Court has indicated that trial is likely to occur in May or June 2017.

In September 2015, we entered into a settlement agreement with Dr. Reddy's Laboratories, Inc. and Dr. Reddy's Laboratories, Ltd. (collectively, DRL) that resolved patent litigation with DRL in the U.S. related to DRL's

ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral tablets. Under the terms of the settlement agreement, we have granted DRL a non-exclusive license to our Kuvan-related patents to allow DRL to market a generic version of sapropterin dihydrochloride 100 mg tablets in the U.S. for the indications approved for Kuvan beginning at a confidential date in the future, but which is more than five years from the settlement date, or earlier under certain circumstances.

We also received a paragraph IV notice letter, dated December 23, 2016, from DRL, notifying us that DRL has filed a separate ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral powder prior to the expiration of our patents listed in the FDA's Orange Book. On February 6, 2017, we filed a lawsuit against DRL in the U.S. District Court for the District of New Jersey alleging infringement of our patents relating to Kuvan powder and seeking an injunction to prevent DRL from introducing a generic version of Kuvan powder that would infringe our patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of DRL's ANDA in accordance with the Hatch-Waxman Act, which expires in June 2019. DRL has not yet answered the complaint, and no schedule has been set by the Court to date.

The settlement with DRL relating to Kuvan tablets does not affect the consolidated cases against Par, or the recently-filed case against DRL relating to Kuvan powder. Those two litigation matters are still pending. For more information regarding these matters, see "Legal Proceedings" in Part I, Item 3 of this Annual Report on Form 10-K.

The settlement with DRL relating to tablets, the filing of Par's purported ANDAs with respect to Kuvan tablets and powder, and the filing of DRL's purported ANDA with respect to Kuvan powder, as well as any future ANDA or related legal proceeding, could have an adverse impact on our stock price, and litigation to enforce our patents has, and is likely to continue to, cost a substantial amount and require significant management attention. If the patents covering Kuvan and its use are not upheld in litigation, or if Par and/or DRL is found to not infringe our asserted patents, the resulting generic competition following the expiration of regulatory exclusivity would have a material adverse effect on our revenue and results of operations. Moreover, generic competition from DRL following the settlement described above relating to Kuvan tablets could have a material adverse effect on our revenue and results of operations.

We also face potential generic competition for Kuvan in certain foreign countries, including, without limitation, Russia, South Korea, Taiwan, and Turkey. Our ability to successfully market and sell Kuvan in many countries in which we operate is based upon patent rights or certain regulatory forms of exclusivity, or both. The scope of our patent rights and regulatory exclusivity for Kuvan vary from country to country and are dependent on the availability of meaningful legal remedies in each country. If our patent rights and regulatory exclusivity for Kuvan are successfully challenged, expire, or otherwise terminate in a particular country, the resulting generic competition could have a material adverse effect on our revenue and results of operations.

**If we do not achieve our projected development goals in the timeframes we announce and expect, the commercialization of our product candidates may be delayed and the credibility of our management may be adversely affected and, as a result, our stock price may decline.**

For planning purposes, we estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. From time to time, we publicly announce the expected timing of some of these milestones. All of these milestones are based on a variety of assumptions. The actual timing of these milestones can vary dramatically compared to our estimates, in many cases for reasons beyond our control. If we do not meet these milestones as publicly announced, the commercialization of our products may be delayed and the credibility of our management may be adversely affected and, as a result, our stock price may decline.

**We depend upon our key personnel and our ability to attract and retain employees.**

Our future growth and success will depend in large part on our continued ability to attract, retain, manage and motivate our employees. The loss of the services of any member of our senior management or the inability to hire or retain experienced management personnel could adversely affect our ability to execute our business plan and harm our operating results.

Because of the specialized scientific and managerial nature of our business, we rely heavily on our ability to attract and retain qualified scientific, technical and managerial personnel. In particular, the loss of one or more of our senior executive officers could be detrimental to us if we do not have an adequate succession plan or if we cannot recruit suitable replacements in a timely manner. While our senior executive officers are parties to employment agreements with us, these agreements do not guarantee that they will remain employed with us in the future. In addition, in many cases, these agreements do not restrict our senior executive officers' ability to compete with us after their employment is terminated. The competition for qualified personnel in the pharmaceutical field is intense, and there is a limited pool of qualified potential employees to recruit. Due to this intense competition, we may be unable to continue to attract and retain qualified personnel necessary for the development of our business or to recruit suitable replacement personnel. If we are unsuccessful in our recruitment and retention efforts, our business may be harmed.

**Our success depends on our ability to manage our growth.**

Product candidates that we are currently developing or may license or acquire in the future may be intended for patient populations that are significantly larger than any of the patient populations we currently target. In order to continue development and marketing of these products, if approved, we will need to significantly expand our operations. To manage expansion effectively, we need to continue to develop and improve our research and development capabilities, manufacturing and quality capacities, sales and marketing capabilities, financial and administrative systems and standard processes for global operations. Our staff, financial resources, systems, procedures or controls may be inadequate to support our operations and may increase our exposure to regulatory and corruption risks and our management may be unable to manage successfully future market opportunities or our relationships with customers and other third-parties.

**Changes in methods of treatment of disease could reduce demand for our products and adversely affect revenues.**

Even if our product candidates are approved, if doctors elect a course of treatment which does not include our products, this decision would reduce demand for our products and adversely affect revenues. For example, if gene therapy becomes widely used as a treatment of genetic diseases, the use of enzyme replacement therapy, such as Aldurazyme, Naglazyme, and Vimizim in MPS diseases, could be greatly reduced. Moreover, if we obtain regulatory approval for BMN 270, the commercial success of BMN 270 will still depend, in part, on the acceptance of physicians, patients and health care payors of gene therapy products in general, and our product candidate in particular, as medically necessary, cost-effective and safe. Changes in treatment method can be caused by the introduction of other companies' products or the development of new technologies or surgical procedures which may not directly compete with ours, but which have the effect of changing how doctors decide to treat a disease.

**If product liability lawsuits are successfully brought against us, we may incur substantial liabilities.**

We are exposed to the potential product liability risks inherent in the testing, manufacturing and marketing of human pharmaceuticals. We currently maintain insurance against product liability lawsuits for the commercial sale of our products and for the clinical trials of our product candidates. Pharmaceutical companies must balance the cost of insurance with the level of coverage based on estimates of potential liability. Historically, the potential liability associated with product liability lawsuits for pharmaceutical products has been unpredictable. Although we believe that our current insurance is a reasonable estimate of our potential liability and represents a commercially reasonable balancing of the level of coverage as compared to the cost of the insurance, we may be subject to claims in connection with our clinical trials and commercial use of our products and product candidates for which our insurance coverage may not be adequate and we may be unable to avoid significant liability if any product liability lawsuit is brought against us. If we are the subject of a successful product liability claim that exceeds the limits of any insurance coverage we obtain, we may incur substantial charges that would adversely affect our earnings and require the commitment of capital resources that might otherwise be available for the development and commercialization of our product programs.



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

We rely significantly on our information technology and manufacturing infrastructure to effectively manage and maintain our inventory and internal reports, to manufacture and ship products to customers and to timely invoice them. Any failure, inadequacy or interruption of that infrastructure or security lapse of that technology, including cybersecurity incidents, could harm our ability to operate our business effectively. Our ability to manage and maintain our inventory and internal reports, to manufacture and ship our products to customers and timely invoice them depends significantly on our enterprise resource planning, production management and other information systems. Cybersecurity attacks in particular are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data and other electronic security breaches that could lead to disruptions in systems, misappropriation of our confidential or otherwise protected information and corruption of data. Cybersecurity incidents resulting in the failure of our enterprise resource planning system, production management or other systems to operate effectively or to integrate with other systems, or a breach in security or other unauthorized access of these systems, may affect our ability to manage and maintain our inventory and internal reports, and result in delays in product fulfillment and reduced efficiency of our operations. A breach in security, unauthorized access resulting in misappropriation, theft, or sabotage with respect to our proprietary and confidential information, including research or clinical data, could require significant capital investments to remediate and could adversely affect our business, financial condition and results of operations.

**If a natural disaster or terrorist or criminal activity caused significant damage to our facilities or the facilities of our third-party manufacturers and suppliers, we may be unable to meet demand for our products and lose potential revenue, have reduced margins, or be forced to terminate a program.**

We manufacture Aldurazyme, Naglazyme and a portion of Vimizim in a manufacturing facility located near known earthquake fault zones, and the occurrence of an earthquake or other catastrophic disaster could cause damage to our facility and equipment, or that of our third-party manufacturers or single-source suppliers, which could materially impair our ability to manufacture Aldurazyme, Naglazyme and Vimizim or our third-party manufacturers' ability to manufacture Firdapse or Kuvan.

Our Galli Drive facility located in Novato, California is currently our only manufacturing facility for Aldurazyme and Naglazyme and is one of two manufacturing facilities for Vimizim. It is located in the San Francisco Bay Area near known earthquake fault zones and is vulnerable to significant damage from earthquakes. We, the third-party manufacturers with whom we contract and our single-source suppliers of raw materials, which include many of our critical raw materials, are also vulnerable to damage from other types of disasters, including fires, explosions, floods, power loss and similar events. If any disaster were to occur, or any terrorist or criminal activity caused significant damage to our facilities or the facilities of our third-party manufacturers and suppliers, our ability to manufacture Aldurazyme, Naglazyme and Vimizim, or to have Firdapse or Kuvan manufactured, could be seriously, or potentially completely, impaired, and our commercialization efforts and revenue could be seriously impaired. The insurance that we carry, the inventory that we maintain and our risk mitigation plans may not be adequate to cover our losses resulting from disasters or other business interruptions.

**Our business is affected by macroeconomic conditions.**

Various macroeconomic factors could adversely affect our business and the results of our operations and financial condition, including changes in inflation, interest rates and foreign currency exchange rates and overall economic conditions and uncertainties, including those resulting from the current and future conditions in the global financial markets. For instance, if inflation or other factors were to significantly increase our business costs, it may not be feasible to pass price increases on to our customers due to the process by which health care providers are reimbursed for our products by the government. Interest rates, the liquidity of the credit markets and the volatility of the capital markets could also affect the value of our investments and our ability to liquidate our investments in order to fund our operations. We purchase or enter into a variety of financial instruments and transactions, including investments in commercial paper, the extension of credit to corporations, institutions and governments and hedging contracts. If any of the issuers or counter parties to these instruments were to default on their obligations, it could materially reduce the value of the transaction and adversely affect our cash flows.

For the year ended December 31, 2016, 6% of our net product revenues were from Italy, Spain, Portugal, Greece and Russia. Approximately 11% of our total accounts receivable as of December 31, 2016, are related to these countries. If the financial conditions of these countries continues to decline, a substantial portion of the receivables may be uncollectable, which would mean we would have to provide for additional allowances for doubtful accounts or cease selling products in these countries, either of which could adversely affect our results of operations. Additionally, if one or more of these countries were unable to purchase our products, our revenue would be adversely affected. We also sell our products in other countries that face economic crises and local currency devaluation. Although we have historically collected receivables from customers in those countries, sustained weakness or further deterioration of the local economies and currencies may cause our customers in those countries to be unable to pay for our products with the same negative effect on our operations.

Interest rates and the ability to access credit markets could also adversely affect the ability of our customers/distributors to purchase, pay for and effectively distribute our products. Similarly, these macroeconomic factors could affect the ability of our contract manufacturers, sole-source or single-source suppliers to remain in business or otherwise manufacture or supply product. Failure by any of them to remain a going concern could affect our ability to manufacture products.

### **Risks Related to Ownership of Our Securities**

#### **Our stock price may be volatile, and an investment in our stock could suffer a decline in value.**

Our valuation and stock price have no meaningful relationship to current or historical earnings, asset values, book value or many other criteria based on conventional measures of stock value. The market price of our common stock will fluctuate due to factors including:

- product sales and profitability of our products;
- manufacturing, supply or distribution of our product candidates and commercial products;
- progress of our product candidates through the regulatory process and our ability to successfully commercialize any such products that receive regulatory approval;
- results of clinical trials, announcements of technological innovations or new products by us or our competitors;
- results relating to our lawsuits against Par and DRL to protect our patents relating to Kuvan tablets and powder and generic competition to Kuvan relating to our settlement with DRL related to Kuvan tablets;
- government regulatory action affecting our product candidates, our products or our competitors' product candidates and products in both the U.S. and non-U.S. countries;
- developments or disputes concerning patent or proprietary rights;
- general market conditions and fluctuations for the emerging growth and pharmaceutical market sectors;
- economic conditions in the U.S. or abroad;
- negative publicity about our company or the pharmaceutical industry;
- broad market fluctuations in the U.S., the EU or in other parts of the world;
- actual or anticipated fluctuations in our operating results, including due to timing of large order for our products, in particular in Latin America, where governments place large periodic orders for Naglazyme and Vimizim;
- changes in company assessments or financial estimates by securities analysts;
- acquisitions of products, businesses, or other assets; and
- sales of our shares of stock by us, our significant shareholders, or members of our management or Board of Directors.

In the past, following periods of large price declines in the public market price of a company's securities, securities class action litigation has often been initiated against that company. Litigation of this type could result in substantial costs and diversion of management's attention and resources, which would hurt our business. Any adverse determination in litigation could also subject us to significant liabilities. In addition, our stock price can be materially adversely affected by factors beyond our control, such as disruptions in global financial markets or negative trends in the biotechnology sector of the economy, even if our business is operating well.

**Conversion of the Notes will dilute the ownership interest of existing stockholders, including holders who had previously converted their Notes, or may otherwise depress the price of our common stock.**

The conversion of some or all of the Notes will dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of any of the Notes. The Notes may become in the future convertible at the option of their holders prior to their scheduled terms under certain circumstances. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the Notes may encourage short selling by market participants because the conversion of the Notes could be used to satisfy short positions, or anticipated conversion of the Notes into shares of our common stock could depress the price of our common stock.

**The capped call transactions may affect the value of the Notes and our common stock.**

In connection with the issuance of the 2018 Notes and 2020 Notes, we entered into capped call transactions with respect to 50% of the principal amount of the 2018 Notes and 50% of the principal amount of the 2020 Notes with certain hedge counterparties. The capped call transactions will cover, subject to customary anti-dilution adjustments, the aggregate number of shares of common stock underlying 50% of the principal amount of the relevant Notes and are expected generally to reduce potential dilution to the common stock upon conversion of the relevant Notes in excess of the principal amount of such converted Notes. In connection with establishing their initial hedges of the capped call transactions, the hedge counterparties (or their affiliates) entered into various derivative transactions with respect to the common stock concurrently with, and/or purchased the common stock shortly after, the pricing of the relevant notes. The hedge counterparties (or their affiliates) are likely to modify their hedge positions by entering into or unwinding various derivative transactions with respect to the common stock and/or by purchasing or selling the common stock or other securities of ours in secondary market transactions prior to the maturity of the relevant Notes (and are likely to do so during the settlement averaging period under the relevant capped call transactions, which precedes the maturity date of the relevant Notes, and on or around any earlier conversion date related to a conversion of the relevant Notes).

The effect, if any, of any of these transactions and activities on the market price of our common stock or the Notes will depend in part on market conditions and cannot be ascertained at this time, but any of these activities could adversely affect the value of our common stock, which could affect the value of the Notes and the value of our common stock, if any, that Note holders receive upon any conversion of the Notes.

**Anti-takeover provisions in our charter documents and under Delaware law may make an acquisition of us, which may be beneficial to our stockholders, more difficult.**

We are incorporated in Delaware. Certain anti-takeover provisions of Delaware law and our charter documents as currently in effect may make a change in control of our company more difficult, even if a change in control would be beneficial to the stockholders. Our anti-takeover provisions include provisions in our certificate of incorporation providing that stockholders' meetings may only be called by our Chairman or the majority of our Board of Directors and provisions in our bylaws providing that the stockholders may not take action by written consent and requiring that stockholders that desire to nominate any person for election to our Board of Directors or to make any proposal with respect to business to be conducted at a meeting of our stockholders be submitted in appropriate form to our Secretary within a specified period of time in advance of any such meeting. Additionally, our Board of Directors has the authority to issue shares of preferred stock and to determine the terms of those shares of stock without any further action by our stockholders. The rights of holders of our common stock are subject to the rights of the holders of any preferred stock that may be issued. The issuance of preferred stock could make it more difficult for a third-party to acquire a majority of our outstanding voting stock. Delaware law also prohibits corporations from engaging in a business combination with any holders of 15% or more of their capital stock until

the holder has held the stock for three years unless, among other possibilities, our Board of Directors approves the transaction. Our Board of Directors may use these provisions to prevent changes in the management and control of our company. Also, under applicable Delaware law, our Board of Directors may adopt additional anti-takeover measures in the future.

**The fundamental change repurchase feature of the Notes may delay or prevent an otherwise beneficial attempt to take over our company.**

The terms of the Notes require us to repurchase the Notes in the event of a fundamental change. A takeover of our company would trigger options by the respective holders of the applicable Notes to require us to repurchase such Notes. This may have the effect of delaying or preventing a takeover of our company that would otherwise be beneficial to our stockholders or investors in the Notes.

**Item 1B. Unresolved Staff Comments**

None.

**Item 2. Properties**

The following table contains information about our current significant owned and leased properties as of December 31, 2016:

<u>Location</u>	<u>Approximate Square Feet</u>	<u>Use</u>	<u>Lease Expiration Date</u>
San Rafael facility, San Rafael, California	391,700	Corporate headquarters, laboratory and office	NA: owned property
Several locations in Novato, California	225,000	Office, laboratory and warehouse	2016-2021
Shanbally facility, Cork, Ireland	166,900	Manufacturing, laboratory and office	NA: owned property
Galli Drive facility, Novato, California	98,200	Clinical and commercial manufacturing and laboratory	NA: owned property
Bel Marin Keys facilities, Novato, California	83,000	Technical operations, finance, administration, and laboratory	NA: owned property
Digital Drive facility, Novato, California	47,000	Office and laboratory	NA: owned property
Leveroni Drive facility, Novato, California	38,300	Manufacturing (construction in progress)	NA: owned property
London, England	22,600	Office	2025
Dublin, Ireland	11,800	Office	2024

In addition to the above, we also maintain small offices in a variety of locations around the world. We expect our facilities to be adequate for our operations for the foreseeable future. We believe that, to the extent required, we will be able to lease or buy additional facilities at commercially reasonable rates. We plan to use contract manufacturing when appropriate to provide product for both clinical and commercial requirements until such time as we believe it prudent to develop additional in-house clinical and/or commercial manufacturing capacity.

**Item 3. Legal Proceedings**

**Paragraph IV Notices**

We received a paragraph IV notice letter, dated October 3, 2014, from Dr. Reddy’s Laboratories, Inc. and Dr. Reddy’s Laboratories, Ltd. (collectively, DRL), notifying us that DRL had filed an ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral tablets prior to the expiration of our patents listed in the FDA’s Approved Drug Products with Therapeutic Equivalence Evaluations (the Orange Book). Together with Merck & Cie, on November 17, 2014, we filed a lawsuit against DRL in the U.S. District Court for the District of New Jersey alleging infringement of our patents relating to Kuvan tablets and seeking an injunction to prevent DRL from

introducing a generic version of Kuvan tablets that would infringe our patents prior to their expiration. In September 2015, we entered into a settlement agreement with DRL that resolved the patent litigation with DRL in the U.S. related to Kuvan 100 mg oral tablets. Under the terms of the settlement agreement, we have granted DRL a non-exclusive license to our Kuvan-related patents to allow DRL to market a generic version of sapropterin dihydrochloride 100 mg tablets in the U.S. for the indications approved for Kuvan beginning at a confidential date in the future, but which is more than five years from the settlement date, or earlier under certain circumstances.

Additionally, we received a paragraph IV notice letter, dated January 22, 2015, from Par Pharmaceutical, Inc. (Par), notifying us that Par has filed an ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral tablets prior to the expiration of our patents listed in the FDA's Orange Book. Together with Merck & Cie, on March 6, 2015 we filed a lawsuit against Par in the U.S. District Court for the District of New Jersey alleging infringement of our patents relating to Kuvan tablets and seeking an injunction to prevent Par from introducing a generic version of Kuvan tablets that would infringe our patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of Par's ANDA in accordance with the Hatch-Waxman Act, which expires in July 2017. In response, Par alleged, inter alia, that the asserted patents are not infringed and/or are invalid.

We also received a paragraph IV notice letter, dated January 14, 2016, from Par, notifying us that Par has filed a separate ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral powder prior to the expiration of our patents listed in the FDA's Orange Book. On February 22, 2016, we filed a lawsuit against Par in the U.S. District Court for the District of New Jersey alleging infringement of our patents relating to Kuvan powder and seeking an injunction to prevent Par from introducing a generic version of Kuvan powder that would infringe our patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of Par's ANDA in accordance with the Hatch-Waxman Act, which expires in July 2018. In response, Par alleged, inter alia, that the asserted patents are not infringed and/or are invalid.

The two cases against Par have been consolidated in the District of New Jersey for all purposes, including pretrial and trial. The Court held a claim construction hearing on May 5, 2016 but has not yet issued its ruling. Fact discovery closed on September 22, 2016, and expert discovery closes on March 31, 2017. No trial date has been set, but the Court has indicated that trial is likely to occur in May or June 2017.

We also received a paragraph IV notice letter, dated December 23, 2016, from DRL, notifying us that DRL has filed a separate ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral powder prior to the expiration of our patents listed in the FDA's Orange Book. On February 6, 2017, we filed a lawsuit against DRL in the U.S. District Court for the District of New Jersey alleging infringement of our patents relating to Kuvan powder and seeking an injunction to prevent DRL from introducing a generic version of Kuvan powder that would infringe our patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of DRL's ANDA in accordance with the Hatch-Waxman Act, which expires in June 2019. DRL has not yet answered the complaint, and no schedule has been set by the Court to date.

The settlement with DRL relating to Kuvan tablets does not affect the consolidated cases against Par, or the recently-filed case against DRL relating to Kuvan powder. Those two litigation matters are still pending.

#### ***SEC Subpoena***

In August 2016, we received a subpoena from the staff of the Securities and Exchange Commission (SEC) requesting that we produce documents in connection with a non-public, fact-finding inquiry related to our former drisapersen program. The letter enclosing the subpoena states that the investigation and the subpoena do not mean that the Company or anyone else has broken the law, or that the SEC has a negative opinion of any person, entity or security. We intend to cooperate fully with the SEC in this matter. We are not able to predict whether any proceeding may be instituted in connection with the subpoena, or the outcome of any proceeding that may be instituted.

#### **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

Our common stock is listed under the symbol "BMRN" on the NASDAQ Global Select Market. The following table sets forth the range of high and low quarterly sales prices for our common stock for the periods noted, as reported by NASDAQ.

Year	Period	Prices	
		High	Low
2016	Fourth Quarter	\$ 98.34	\$ 78.42
	Third Quarter	\$ 102.49	\$ 77.04
	Second Quarter	\$ 94.08	\$ 73.45
	First Quarter	\$ 105.61	\$ 62.12
2015	Fourth Quarter	\$ 118.48	\$ 91.21
	Third Quarter	\$ 151.75	\$ 95.09
	Second Quarter	\$ 141.51	\$ 110.50
	First Quarter	\$ 133.54	\$ 88.51

On February 13, 2017, the last reported sale price on the NASDAQ Global Select Market for our common stock was \$90.89. We have never paid any cash dividends on our common stock and we do not anticipate paying cash dividends in the foreseeable future.

#### Recent Sales of Unregistered Securities

We did not sell any unregistered securities during the three years ended December 31, 2016.

#### Issuer Purchases of Equity Securities

We did not make any purchases of our common stock during the year ended December 31, 2016.

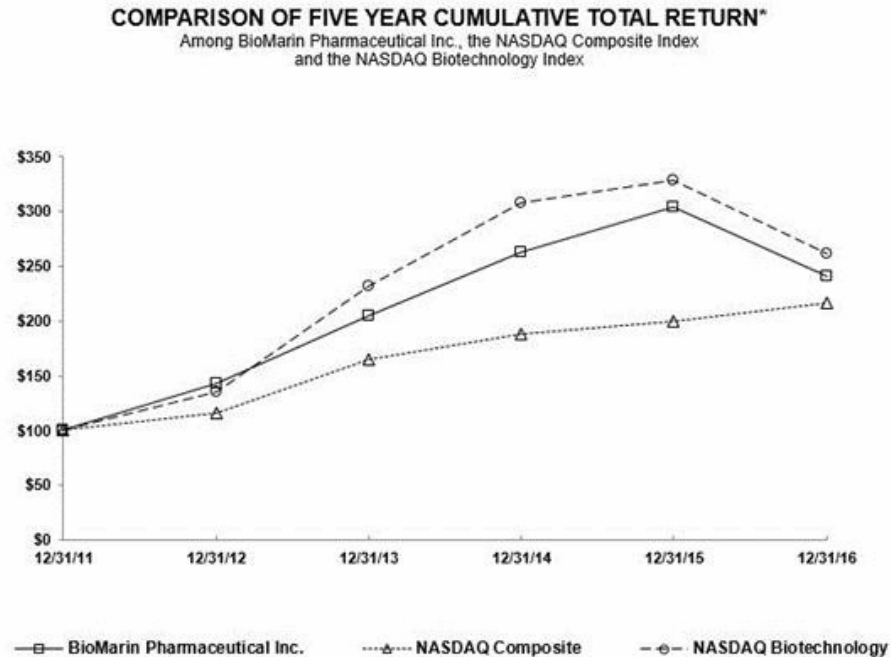
#### Holdings

As of February 13, 2017, there were 47 holders of record of 172,866,495 outstanding shares of our common stock. Additionally, on such date, options to acquire 8.7 million shares of our common stock were outstanding.

## Performance Graph

The following is not deemed "filed" with the Securities and Exchange Commission and is not to be incorporated by reference into any filing we make under the Securities Act of 1933, as amended, whether made before or after the date hereof and irrespective of any general incorporation by reference language in such filing.

The following graph shows the value of an investment in BioMarin common stock, the NASDAQ Composite Index (U.S.) and the NASDAQ Biotechnology Index, assuming the investment of \$100 at the beginning of the period and the reinvestment of dividends, if any. Our common stock is traded on the NASDAQ Global Select Market and is a component of both the NASDAQ Composite Index and the NASDAQ Biotechnology Index. The comparisons shown in the graph are based upon historical data and we caution that the stock price performance shown in the graph is not indicative of, nor intended to forecast, the potential future performance of our stock.



\* \$100 invested on December 31, 2011 in stock or index, including reinvestment of dividends.

	Fiscal Year Ending December 31,					
	2011	2012	2013	2014	2015	2016
BioMarin Pharmaceutical Inc.	\$ 100.00	\$ 143.11	\$ 204.62	\$ 262.94	\$ 304.71	\$ 240.95
NASDAQ Composite	100.00	116.41	165.47	188.69	200.32	216.54
NASDAQ Biotechnology	100.00	134.68	232.37	307.67	328.76	262.08

## Item 6. Selected Consolidated Financial Data

We derived the selected consolidated statements of operations data for the years ended December 31, 2016, 2015 and 2014 and the selected consolidated balance sheet data as of December 31, 2016 and 2015 from the audited Consolidated Financial Statements appearing elsewhere in this Annual Report on Form 10-K. We derived the selected consolidated statements of operations data for the years ended December 31, 2013 and 2012 and the selected consolidated balance sheet data as of December 31, 2014, 2013 and 2012 from audited Consolidated Financial Statements not included in this Annual Report on Form 10-K. The information set forth below is not necessarily indicative of results of future operations, and should be read in conjunction with Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations and the Consolidated Financial Statements and related notes thereto included in Item 15 of this Annual Report on Form 10-K to fully understand factors that may affect the comparability of the information presented below:

	Years Ended December 31, (In thousands, except for per share data)				
	2016 (1)	2015	2014	2013	2012
<b>Consolidated Statements of Operations data:</b>					
Total revenues (2)	\$ 1,116,854	\$ 889,895	\$ 749,284	\$ 548,485	\$ 500,723
Total costs and expenses (2)	1,920,283	1,000,597	842,175	704,492	610,938
Loss from operations	(803,429)	(110,702)	(92,891)	(156,007)	(110,215)
Provision for (benefit from) income taxes	(200,840)	17,075	9,101	(150)	(3,931)
Net loss	(630,210)	(171,799)	(133,969)	(176,353)	(114,347)
Net loss per share, basic	\$ (3.80)	\$ (1.07)	\$ (0.92)	\$ (1.28)	\$ (0.95)
Net loss per share, diluted	\$ (3.81)	\$ (1.07)	\$ (0.92)	\$ (1.28)	\$ (0.95)
Weighted average common shares outstanding, basic	165,985	160,025	146,349	137,755	120,271
Weighted average common shares outstanding, diluted	166,219	160,025	146,349	137,755	120,271
	December 31, (in thousands)				
	2016 (1) (3)	2015	2014	2013	2012
<b>Consolidated Balance Sheets data:</b>					
Cash, cash equivalents and investments (4)	\$ 1,362,388	\$ 1,018,271	\$ 1,043,048	\$ 1,052,423	\$ 563,798
Total assets	4,023,690	3,729,368	2,475,379	2,225,497	1,564,645
Other long-term obligations	157,344	220,778	68,845	64,182	90,588
Long-term convertible senior notes, net (5)	660,761	662,286	642,902	637,003	321,157
Total stockholders' equity	2,766,275	2,400,847	1,527,894	1,341,041	1,015,763

- (1) In the fourth quarter of 2016, we elected to early adopt Accounting Standards Update No. 2016-09, Compensation-Stock Compensation (Topic 718) "Improvement to Employee Share-based Payment Accounting" (ASU 2016-09), which requires us to record, among other items, excess tax benefits as a reduction of the provision for income taxes in the income statements. We are required to reflect any adoption adjustments as of January 1, 2016, the beginning of the annual period that includes the interim period of adoption. As such, certain Consolidated Statements of Operations data for the year ended December 31, 2016 included the impact of the ASU 2016-09 adoption. See Note 4 to the accompanying Consolidated Financial Statements for additional information related to this adoption.
- (2) See "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of this Annual Report on Form 10-K for a description of our results of operations for 2016.
- (3) Certain Consolidated Balance Sheets data as of December 31, 2016, include the impact of ASU 2016-09, which we early adopted in 2016. For instance, the net cumulative-effect adjustment of \$131.3 million decrease to Accumulated deficit, which was recorded as of January 1, 2016, mostly related to the recognition of the previously unrecognized excess tax benefits using the modified retrospective



- method. See Note 4 to the accompanying Consolidated Financial Statements for additional information related to this adoption.
- (4) See “*Management’s Discussion and Analysis of Financial Condition and Results of Operations— Financial Position, Liquidity and Capital Resources*” in Part II, Item 7 of this Annual Report on Form 10-K for additional discussion.
- (5) During 2013, we issued \$750.0 million principal amount of convertible senior notes in a registered offering.

You should read the following tables presenting our unaudited quarterly results of operations in conjunction with the Consolidated Financial Statements and related notes contained elsewhere in this Annual Report on Form 10-K. We have prepared this unaudited information on the same basis as our audited Consolidated Financial Statements. Our quarterly operating results have fluctuated in the past and may continue to do so in the future as a result of a number of factors, including, but not limited to, the timing and nature of research and development activities.

	Three Months Ended			
	(In thousands, except per share data, unaudited)			
	March 31,	June 30,	September 30,	December 31,
<b>2016:</b>				
Total revenues	\$ 236,736	\$ 300,131	\$ 279,896	\$ 300,091
Net loss (1)	(83,051)	(419,014)	(37,425)	(90,720)
Net loss per share, basic and diluted (1)	(0.51)	(2.58)	(0.22)	(0.53)
<b>2015:</b>				
Total revenues	\$ 202,920	\$ 250,135	\$ 208,904	\$ 227,936
Net income (loss)	(67,501)	(81,989)	(90,926)	68,617
Net income (loss) per share, basic	(0.43)	(0.51)	(0.57)	0.43
Net income (loss) per share, diluted	(0.43)	(0.51)	(0.60)	0.39

- (1) We elected to early adopt ASU 2016-09 in the fourth quarter of 2016. As such, certain Consolidated Statements of Operations data for the three months ended December 31, 2016, September 30, 2016, June 30, 2016, and March 31, 2016 included the impacts of early adoption of ASU 2016-09. See Note 4 of the accompanying notes to our Consolidated Financial Statements for additional information related to this adoption. In the opinion of management, the financial information reflects all adjustments, consisting only of normal recurring adjustments, which we consider necessary for a fair presentation of this data.

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations (the MD&A) is intended to help the reader understand our results of operations and financial condition. The MD&A is provided as a supplement to, and should be read in conjunction with, our audited Consolidated Financial Statements and the accompanying notes to the Consolidated Financial Statements and other disclosures included in this Annual Report on Form 10-K, including the disclosures under "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K. Our Consolidated Financial Statements have been prepared in accordance with United States (U.S.) generally accepted accounting principles (GAAP) and are presented in U.S. dollars (USD).

### Overview

We are a global biotechnology company that develops and commercializes innovative therapies for people with serious and life-threatening rare diseases and medical conditions. We select product candidates for diseases and conditions that represent a significant unmet medical need, have well-understood biology and provide an opportunity to be first-to-market or offer a significant benefit over existing products.

Our therapy portfolio consists of five products and multiple clinical and pre-clinical product candidates. Our commercial products are Aldurazyme (laronidase) for Mucopolysaccharidosis I (MPS I), Firdapse (amifampridine phosphate) for Lambert Eaton Myasthenic Syndrome (LEMS), Kuvan (sapropterin dihydrochloride) for phenylketonuria (PKU), Naglazyme (galsulfase) for Mucopolysaccharidosis VI (MPS VI) and Vimizim (elosulfase alpha) for Mucopolysaccharidosis IV Type A (MPS IV A).

### Business Developments

We continued to grow our commercial business and advance our product pipeline during 2016. We believe that the combination of our internal research programs, acquisitions and partnerships will allow us to continue develop and commercialize innovative therapies for people with serious and life-threatening rare diseases and medical conditions. Below is a summary of key business developments to date:

- In January 2017, we announced an update to positive interim clinical results of an open-label Phase 1/2 study of BMN 270, an investigational gene therapy treatment for severe hemophilia A. In February 2017, we announced that the European Medicines Agency (EMA) has granted BMN 270 access to its Priority Medicines (PRIME) regulatory initiative. To be accepted for PRIME, an investigational therapy has to show its potential to benefit patients with unmet medical needs based on early clinical data. Earlier in the year, we received Orphan Drug Designation from the Food and Drug Administration (FDA) for BMN 270 for hemophilia A.
- In January 2017, we announced preliminary results Phase 1/2 trial, which began enrolling patients in April 2016, demonstrating that BMN 250, an investigational enzyme replacement therapy using a novel fusion of recombinant human alpha-N-acetylglucosaminidase with a peptide derived from insulin-like growth factor 2 (IGF2), for the treatment of Sanfilippo B syndrome or mucopolysaccharidosis IIIB (MPS IIIB), reduced heparan sulfate levels to normal range in cerebral spinal fluid of MPS IIIB patients. Additionally, patients have safely escalated to 100mg dosage.
- In December 2016, we announced the enrollment of the first patient in our Phase 3 trial for vosoritide, for the treatment of children with achondroplasia. In October 2016, we provided an update on our Phase 2 study of vosoritide, an analog of C-type Natriuretic peptide, in children with achondroplasia, the most common form of dwarfism. Results from eight children in cohort 4, who completed six months of daily dosing at 30 µg/kg/daily, experienced a 46% or 2.1 cm/year increase in mean annualized growth velocity from baseline. These data are comparable to those observed at the lower dose of 15 µg/kg/day in cohort 3. Results from 10 children in cohort 3, who completed six months of daily dosing at 15 µg/kg/day, experienced a 50% or 2.0 cm/year increase in mean annualized growth velocity from baseline.
- In September 2016, we announced that the EMA validated the Marketing Authorization Application (MAA) for Brineura, an investigational therapy to treat children with CLN2 disease, a form of Batten disease. Validation of the MAA confirmed that the submission was accepted and starts the formal

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

review process by the EMA's Committee for Human Medicinal Products (CHMP). The EMA previously granted our request for accelerated assessment for the MAA. The CHMP opinion and decision from the European Commission (EC) is expected in the third quarter of 2017. Accelerated assessments are granted on the grounds that a product may satisfy an unmet medical need and is of major interest from the point of view of therapeutic innovation and public health.

- In July 2016, we announced that the FDA accepted for review the submission of a Biologics License Application (BLA) for Brineura. During their initial review of the BLA, the FDA requested updated efficacy data from the ongoing extension study, which we provided. In September 2016, the FDA designated this submission as a major amendment to the application, thus extending the Prescription Drug User Fee Act (PDUFA) action date by three months to April 27, 2017. The FDA granted Brineura Priority Review status, which is designated to drugs that, if approved, would be a significant improvement in treatment or provide a treatment where no adequate therapy exists. Brineura was previously granted Orphan Drug Designation by the FDA and EMA and Breakthrough Therapy Designation by the FDA.
- In June 2016, we announced that the reveglucosidase alfa development program has been terminated. We recognized an impairment charge of \$25.0 million in the second quarter of 2016 related to the reveglucosidase alfa in-process research and development (IPR&D) assets.
- In May 2016, we withdrew our MAA from the EMA for Kyndrisa (drisapersen). We discontinued clinical and regulatory development of Kyndrisa as well as the three other first generation follow-on products, BMN 044, BMN 045 and BMN 053 (other exons). We recognized an impairment charge of \$574.1 million in the second quarter of 2016 related to the Kyndrisa and other exon IPR&D assets.
- In March 2016, we announced that our pivotal Phase 3 PRISM-2 study of pegvaliase met the primary endpoint of change in blood Phe compared with placebo ( $p < 0.0001$ ). Based on the supportive data results, we plan to submit a BLA to the FDA in the second quarter of 2017.
- In January 2016, we acquired all global rights to Kuvan and pegvaliase, with the exception of Kuvan in Japan, (collectively, the Merck PKU Business) from Ares Trading S.A. (Merck Serono), an indirectly wholly-owned affiliate of Merck KGaA, in exchange for cash payments of \$374.5 million. We also agreed to pay Merck Serono up to a maximum of €60.0 million in milestones if certain sales milestones are met and up to a maximum of €125.0 million if certain pegvaliase development milestones are met. See Note 5 to our accompanying Consolidated Financial Statements for additional discussion.
- We reported total revenues of \$1.1 billion for the year ended December 31, 2016, compared to \$889.9 million and \$749.3 million for the years ended December 31, 2015 and 2014, respectively.

### Outlook 2017

In 2017, we will continue to focus on our key operating objectives which include continued progression of our product pipeline and continued uptake of our commercial products. From a research and development (R&D) perspective, we expect to continue to invest in our various ongoing clinical studies, which support both our commercial products and pipeline of new product candidates. We expect to move forward on a number of late-stage clinical studies for new product candidates and plan to file marketing applications for various therapeutic areas.

From a commercial perspective, we expect to continue to build-out our commercial organization to support the commercialization of Vimizim and the international expansion of Kuvan.

We continue to monitor conditions in the macroeconomic environment that could affect our ability to achieve our goals, such as changes in the reimbursement and payer landscape, a worsening of economic conditions in certain key markets, particularly in Europe, patent expirations of competitive products and the launch of generic competitors, government pricing pressures internationally and the potential volatility in foreign currency exchange rates. We will adjust our business processes, as appropriate, to attempt to mitigate these risks to our business.

We expect that our product pipeline investments and expanding commercial infrastructure will enable us to execute on our 2017 operating objectives.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

### 2016 Financial Highlights

Key components of our results of operations include the following (in millions):

	Years Ended December 31,		
	2016	2015	2014
Net product revenues	\$ 1,110.4	\$ 884.5	\$ 738.4
Cost of sales (excluding amortization of intangible assets)	209.6	152.0	122.3
R&D expense	661.9	634.8	461.5
Selling, general and administrative (SG&A) expense	476.6	402.3	302.2
Intangible asset amortization and contingent consideration expense	(27.0)	(17.7)	23.7
Net loss	(630.2)	(171.8)	(134.0)
Stock-based compensation expense	134.6	111.5	86.4

See "Results of Operations" below for a discussion of the detailed components and analysis of the amounts above.

Total net product revenues were as follows (in millions):

	Years Ended December 31,		
	2016	2015	2014
Aldurazyme	\$ 93.8	\$ 98.0	\$ 105.6
Firdapse	18.0	16.0	18.1
Kuvan	348.0	239.3	203.0
Naglazyme	296.5	303.1	334.4
Vimizim	354.1	228.1	77.3
Total net product revenues	<u>\$ 1,110.4</u>	<u>\$ 884.5</u>	<u>\$ 738.4</u>

Net product revenues are generated from the five approved products in our product portfolio. In the U.S., our commercial products are generally sold to specialty pharmacies or end-users, such as hospitals, which act as retailers. Outside the U.S., our commercial products are sold to our authorized distributors or directly to government purchasers or hospitals, which act as the end-users. Collaborative agreement revenues include both license revenue and contract research revenue. Royalty and Other Revenues include royalties on net sales of products to licensees or sublicensees and rental income associated with the tenants in our San Rafael, California facility.

Our cash, cash equivalents and investments totaled \$1.4 billion as of December 31, 2016, compared to \$1.0 billion as of December 31, 2015. We have historically financed our operations primarily through our cash flows from operating activities and the issuance of common stock and convertible debt. We will be highly dependent on our net product revenues to supplement our current liquidity and fund our operations for the foreseeable future. We may in the future elect to supplement this with further debt or equity offerings or commercial borrowing. Further, depending on market conditions, our financial position and performance and other factors, we may in the future choose to use a portion of our cash or cash equivalents to repurchase our convertible debt or other securities. See "*Financial Position, Liquidity and Capital Resources*" below for a further discussion of our liquidity and capital resources.

### Critical Accounting Policies and Estimates

In preparing our Consolidated Financial Statements in accordance with GAAP in the U.S. and pursuant to the rules and regulations promulgated by the Securities and Exchange Commission (the SEC), we make assumptions, judgments and estimates that can have a significant impact on our net income/loss and affect the reported amounts of certain assets, liabilities, revenue and expenses, and related disclosures. We base our assumptions, judgments and estimates on historical experience and various other factors that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates under different assumptions or conditions.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

On a regular basis, we evaluate our assumptions, judgments and estimates. We also discuss our critical accounting policies and estimates with the Audit Committee of our Board of Directors.

We believe that the assumptions, judgments and estimates involved in the accounting for business combinations, contingent acquisition consideration payable, income taxes, long-lived assets and revenue recognition have the greatest impact on our Consolidated Financial Statements, so we consider these to be our critical accounting policies. Historically, our assumptions, judgments and estimates relative to our critical accounting policies have not differed materially from actual results.

### ***Business Combinations***

We allocate the purchase price of acquired businesses to the tangible and intangible assets acquired and liabilities assumed based upon their estimated fair values on the acquisition date. The purchase price allocation process requires management to make significant estimates and assumptions, especially at the acquisition date with respect to intangible assets and IPR&D. In connection with the purchase price allocations for acquisitions, we estimate the fair value of contingent acquisition consideration payments utilizing a probability-based income approach inclusive of an estimated discount rate.

Although we believe the assumptions and estimates made are reasonable, they are based in part on historical experience and information obtained from the management of the acquired businesses and are inherently uncertain. Examples of critical estimates in valuing any contingent acquisition consideration issued or that may be issued and the intangible assets we have acquired or may acquire in the future include but are not limited to:

- the feasibility and timing of achievement of development, regulatory and commercial milestones;
- expected costs to develop the IPR&D into commercially viable products; and
- future expected cash flows from product sales.

Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

### ***Valuation of Contingent Acquisition Consideration Payable***

Each period we reassess the fair value of the contingent acquisition consideration payable associated with certain acquisitions and record increases in the fair value as contingent consideration expense and record decreases in the fair value as a reduction of contingent consideration expense. Increases or decreases in the fair value of the contingent acquisition consideration payable can result from changes in estimated probability adjustments with respect to regulatory approval, changes in the assumed timing of when milestones are likely to be achieved and changes in assumed discount periods and rates. Significant judgment is employed in determining the appropriateness of these assumptions each period. Accordingly, future business and economic conditions, as well as changes in any of the assumptions described in the accounting for business combinations above can materially impact the amount of contingent consideration expense that we record in any given period.

### ***Income Taxes***

Our Consolidated Balance Sheets reflect net deferred tax assets and liabilities. The deferred tax assets primarily represent the tax benefit of tax credits and timing differences between book and tax recognition of certain revenue and expense items, net of a valuation allowance. When it is more likely than not that all or some portion of deferred tax assets may not be realized, we establish a valuation allowance for the amount that may not be realized. Each quarter, we evaluate the need to retain all or a portion of the valuation allowance on our net deferred tax assets. Our evaluation considers historical earnings, estimated future taxable income and ongoing prudent and feasible tax planning strategies. Adjustments to the valuation allowance increase or decrease net income/loss in the period such adjustments are made. The deferred tax liabilities primarily represent the timing differences between book and tax recognition of certain revenue and expense items. If our estimates require adjustments, it could have a significant impact on our Consolidated Financial Statements. We continually review the adequacy and necessity of the valuation allowance. Changes in tax laws and rates could also

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

affect recorded deferred tax assets in the future. Management is not aware of any such changes that would have a material effect on our Consolidated Financial Statements.

### **Impairment of Long-Lived Assets**

Our long-lived assets include property, plant and equipment, intangible assets and goodwill. We review the carrying value of plant and equipment and finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If such circumstances exist, an estimate of undiscounted future cash flows to be generated by the long-lived asset is compared to the carrying value to determine whether an impairment exists. If an asset is determined to be impaired, the loss is measured based on the difference between the asset's fair value and its carrying value.

Indefinite-lived intangible assets, composed primarily of IPR&D projects acquired in business combinations that have not reached technological feasibility, are reviewed annually for impairment and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We determine impairment by comparing the fair value of the asset to its carrying value. If the asset's carrying value exceeds its fair value, an impairment charge is recorded for the difference and its carrying value is reduced accordingly.

Estimating future cash flows of an IPR&D product candidate for purposes of an impairment analysis requires us to make significant estimates and assumptions regarding the amount and timing of costs to complete the project and the amount, timing and probability of achieving revenues from the completed product similar to how the acquisition date fair value of the project was determined, as described above. There are often major risks and uncertainties associated with IPR&D projects as we are required to obtain regulatory approvals in order to be able to market these products. Such approvals require completing clinical trials that demonstrate a product candidate is safe and effective. Consequently, the eventual realized value of the acquired IPR&D project may vary from its estimated fair value at the date of acquisition, and IPR&D impairment charges may occur in future periods which could have a material adverse effect on our results of operations.

We believe our estimations of future cash flows used for assessing impairment of long-lived assets are based on reasonable assumptions given the facts and circumstances as of the related dates of the assessments.

When reviewing goodwill for impairment, we assess whether goodwill should be allocated to operating levels lower than our single operating segment for which discrete financial information is available and reviewed for decision-making purposes. These lower levels are referred to as reporting units. Currently, we have identified only one reporting unit as per Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 350-20, *Intangibles—Goodwill and Other*.

We perform our annual impairment review of goodwill and long-lived assets during the fourth quarter and whenever events or circumstances indicate that the carrying amount of an asset may not be recoverable. Our impairment review was based on a qualitative assessment or performing a quantitative analysis in determining whether it is more likely than not that the fair value of the net assets are below their carrying amounts. Examples of qualitative factors assessed in 2016 include industry and market considerations and other entity specific factors that may have a significant impact on the fair value of our goodwill or long-lived assets. Based on our qualitative assessment, we determined that the fair value of our goodwill is greater than its carrying amount at December 31, 2016 and that no long-lived assets, other than those impaired in the second quarter of 2016, were impaired at December 31, 2016. See "*Results of Operations*" for further discussion.

### **Revenue Recognition**

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the price to the buyer is fixed or determinable and collection from the customer is reasonably assured.

*Net Product Revenues*—We recognize revenues from product sales when title and risk of loss have passed to the customer, which typically occurs upon delivery. Product sales transactions are evidenced by customer purchase orders, customer contracts, invoices and/or the related shipping documents. Amounts collected from customers and

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

remitted to governmental authorities, which primarily consists of value-added taxes related to product sales in foreign jurisdictions, are presented on a net basis in our Consolidated Statements of Operations, in that taxes billed to customers are not included as a component of net product revenues.

In the U.S., our commercial products are generally sold to specialty pharmacies or end-users, such as hospitals, which act as retailers. Through December 31, 2015, we sold Kuvan to Merck Serono at a price near its manufacturing cost, and Merck Serono resold the product to end users outside the U.S., Canada and Japan. The royalty earned from Kuvan product sold by Merck Serono in the EU was included as a component of Net Product Revenues in the period earned and approximates 4% of Merck Serono's world-wide sales. Outside the U.S., our commercial products are sold to our authorized distributors or directly to government purchasers or hospitals, which act as the end-users.

We receive a payment ranging from 39.5% to 50% on worldwide net Aldurazyme sales by Genzyme Corporation (Genzyme) depending on sales volume, which is included in Net Product Revenues in our Consolidated Statements of Operations. We recognize a portion of this amount as product transfer revenue when the product is released to Genzyme because all of our performance obligations are fulfilled at that point and title to, and risk of loss for, the product has transferred to Genzyme. The product transfer revenue represents the fixed amount per unit of Aldurazyme that Genzyme is required to pay us if the product is unsold by Genzyme. The amount of product transfer revenue will eventually be deducted from the calculated royalty recognized when the product is sold by Genzyme. We record the Aldurazyme revenues based on net sales information provided by Genzyme and record product transfer revenue based on the fulfillment of Genzyme purchase orders in accordance with the terms of the related agreements with Genzyme and when the title and risk of loss for the product is transferred to Genzyme. Although described as royalties in our agreements with Genzyme, the revenues that we receive for Aldurazyme and, for the periods through 2015, for Kuvan are similar to direct product sales because we manufacture the product and the revenue is highly dependent on substantial operational activities performed by us, including responsibility for global regulatory compliance. These responsibilities, and the operational risk that could reduce or eliminate our receipt of these percentage of net sales amounts, are similar to many of the responsibilities and risks associated with our direct sales of other commercial products. Due to the significant role we play in the operations of Aldurazyme and, through 2015, Kuvan as well as the rights and responsibilities to deliver the products to Genzyme and previously to Merck Serono, respectively, we include Aldurazyme revenues as a component of Net Product Revenues in our Consolidated Statements of Operations. As of December 31, 2016 and 2015, accounts receivable included \$30.7 million and \$36.1 million, respectively, of unbilled accounts receivable related to net incremental Aldurazyme product transfers to Genzyme.

We record reserves for rebates payable under Medicaid and other government programs as a reduction of revenue at the time product revenues are recorded. Our reserve calculations require estimates, including estimates of customer mix, to determine which sales will be subject to rebates and the amount of such rebates. We update our estimates and assumptions each quarter and record any necessary adjustments to our reserves. We record fees paid to distributors and cash discounts as a reduction of revenue.

We record allowances for product returns, if appropriate, as a reduction of revenue at the time product sales are recorded. Several factors are considered in determining whether an allowance for product returns is required, including market exclusivity of the products based on their orphan drug status, the patient population, the customers' limited return rights and our experience with returns. Because of the pricing of our products, the limited number of patients and customers' limited return rights, most customers and retailers carry a limited inventory.

Certain international customers, usually government entities, tend to purchase larger quantities of product less frequently. Although such buying patterns may result in revenue fluctuations from quarter to quarter, we have not experienced an increase in product returns and do not believe these buying patterns increase the risk of product returns. We rely on historical return rates to estimate returns for our commercial products. Genzyme's contractual return rights for Aldurazyme are limited to defective product. Based on these factors and the fact that we have not experienced significant product returns to date, management has concluded that product returns will be minimal. In the future, if any of these factors and/or the history of product returns changes, an allowance for product returns may be required.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

Bad debt reserves are based on estimated uncollectible accounts receivable. Given our historical experience with bad debts, combined with our credit management policies and practices, we do not presently maintain significant bad debt reserves. However some of our customers are based in countries where the economic conditions continue to present challenges. We continue to monitor these conditions and associated impacts on the financial performance and credit worthiness of our large customers so that we can properly assess and respond to changes in customer credit profiles. As of December 31, 2016 and 2015, our allowance for doubtful accounts was \$0.1 million and \$0.1 million, respectively.

The nature and amount of our current estimates of the applicable revenue dilution items that are currently applied to aggregate world-wide gross product sales of our commercial products to derive net sales are described in the table below.

Weighted Average Gross Revenue to Net Revenue Adjustments	Years Ended December 31,		Description
	2016	2015	
Rebates	3.5%	5.3%	Rebates payable to state Medicaid, other government programs and certain managed care providers
Distributor Fees	3.0%	3.4%	Fees paid to authorized distributors
Cash Discounts	0.8%	1.0%	Discounts offered to customers for prompt payment of accounts receivable
Total	<u>7.3%</u>	<u>9.7%</u>	

*Royalty and Other Revenues*—Royalty and other revenues includes royalties on net sales of products with which we have no direct involvement, collaborative agreement revenues and rental income.

*Royalty revenue* is recognized as earned in accordance with the contract terms at the time the royalty amount is fixed or determinable based on information received from the licensees and sublicensees and at the time collectibility is reasonably assured.

*Collaborative agreement revenues* includes both license revenue and contract research revenue. Activities under collaborative agreements are evaluated to determine if they represent a multiple element revenue arrangement. We allocate the arrangement consideration to those units of accounting. The amount of allocable arrangement consideration is limited to amounts that are fixed or determinable. Arrangement consideration is allocated at the inception of the arrangement to the identified units of accounting based on their relative estimated selling price. Revenue is recognized for each unit of accounting when the appropriate revenue recognition criteria are met.

Revenue from non-refundable up-front license fees and milestone payments, such as under a development collaboration or an obligation to supply product, is recognized as performance occurs and our obligations are completed. In accordance with the specific terms of our obligations under these arrangements, revenue is recognized as the obligation is fulfilled or ratably over the development or manufacturing period. Revenue associated with substantive at-risk milestones is recognized based upon the achievement of the milestones set forth in the respective agreements. Advance payments received in excess of amounts earned are classified as deferred revenue on our Consolidated Balance Sheets.

### *Inventories Produced in Preparation for Product Launches*

We capitalize inventories produced in preparation for product launches sufficient to support estimated initial market demand. Typically, capitalization of such inventory begins when positive results have been obtained for the clinical trials that we believe are necessary to support regulatory approval, uncertainties regarding ultimate



## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

regulatory approval have been significantly reduced and we have determined it is probable that these capitalized costs will provide future economic benefit in excess of capitalized costs. The factors considered by us in evaluating these uncertainties include the receipt and analysis of positive pivotal clinical trial results for the underlying product candidate, results from meetings with the relevant regulatory authorities prior to the filing of regulatory applications, and the compilation of the regulatory application. We closely monitor the status of each respective product within the regulatory approval process, including all relevant communication with regulatory authorities. We also consider our historical experience with manufacturing and commercializing similar products and the relevant product candidate. If we are aware of any specific material risks or contingencies other than the normal regulatory review and approval process or if there are any specific issues identified relating to safety, efficacy, manufacturing, marketing or labeling, the related inventory would generally not be capitalized.

For inventories that are capitalized in preparation of product launch, anticipated future sales, expected approval date and shelf lives are evaluated in assessing realizability. The shelf life of a product is determined as part of the regulatory approval process; however in evaluating whether to capitalize pre-launch inventory production costs, we consider the product stability data of all of the pre-approval production to date to determine whether there is adequate expected shelf life for the capitalized pre-launch production costs. In applying the lower of cost or net realizable value to pre-launch inventory, we estimate a range of likely commercial prices based on our comparable commercial products.

### Recent Accounting Pronouncements

See Note 4 to our accompanying Consolidated Financial Statements for a full description of recent accounting pronouncements and our expectation of their impact, if any, on our results of operations and financial condition.

### Results of Operations

#### Net Loss

Our net loss for the year ended December 31, 2016 was \$630.2 million, compared to a net loss of \$171.8 million and \$134.0 million for the years ended December 31, 2015 and 2014, respectively. The increase in net loss was primarily a result of the following (in millions):

	Years Ended December 31,				
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
Total revenues	\$ 1,116.9	\$ 889.9	\$ 749.3	\$ 227.0	\$ 140.6
Cost of sales	209.6	152.0	122.3	57.6	29.7
R&D expense	661.9	634.8	461.5	27.1	173.3
SG&A expense	476.6	402.3	302.2	74.3	100.1
Intangible asset amortization and contingent consideration	(27.0)	(17.7)	23.7	(9.3)	(41.4)
Impairment of intangible asset	599.1	198.7	—	400.4	198.7
Gain on sale of intangible asset	—	(369.5)	(67.5)	369.5	(302.0)
Other, net	(27.7)	(44.0)	(32.0)	16.3	(12.0)
Provision for (benefit from) income taxes	(200.8)	17.1	9.1	(217.9)	8.0
Net loss	<u>\$ (630.2)</u>	<u>\$ (171.8)</u>	<u>\$ (134.0)</u>	<u>\$ (458.4)</u>	<u>\$ (37.8)</u>

See below for additional information related to the primary net loss fluctuations presented above, including details of our operating expense fluctuations.

**Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)**

**Net Product Revenues**

Net product revenues consisted of the following (in millions):

	Years Ended December 31,			2016 vs. 2015	2015 vs. 2014
	2016	2015	2014		
Aldurazyme	\$ 93.8	\$ 98.0	\$ 105.6	\$ (4.2)	\$ (7.6)
Firdapse	18.0	16.0	18.1	2.0	(2.1)
Kuvan	348.0	239.3	203.0	108.7	36.3
Naglazyme	296.5	303.1	334.4	(6.6)	(31.3)
Vimizim	354.1	228.1	77.3	126.0	150.8
Total net product revenues	<u>\$ 1,110.4</u>	<u>\$ 884.5</u>	<u>\$ 738.4</u>	<u>\$ 225.9</u>	<u>\$ 146.1</u>

Total net product revenues were \$1.1 billion in 2016, compared to \$884.5 million in 2015 and \$738.4 million in 2014. The increase in net product revenues from 2015 to 2016 was primarily attributed to new patients initiating therapy and the addition of international Kuvan sales following the acquisition of the Merck PKU Business in 2016.

We face exposure to movements in foreign currency exchange rates, primarily the Euro. We use foreign currency exchange contracts to hedge a percentage of our foreign currency exposure. The following table shows our net product revenues denominated in USD and foreign currencies (in millions):

	Years Ended December 31,		
	2016	2015	2014
Sales denominated in USD	\$ 643.2	\$ 580.7	\$ 518.6
Sales denominated in foreign currencies	467.2	303.8	219.8
Total net product revenues	<u>\$ 1,110.4</u>	<u>\$ 884.5</u>	<u>\$ 738.4</u>

The net impact of foreign currency exchange rates on product sales denominated in currencies other than USD during 2016 was negative by \$3.6 million, compared to a negative impact of \$37.3 million during 2015.

The following is additional discussion of our results by product:

- Aldurazyme: The decrease in Aldurazyme net product sales for the year ended December 31, 2016, compared to the year ended December 31, 2015 was primarily attributable to the decrease in shipments to Genzyme, offset in part by the increase in Aldurazyme revenue reported by Genzyme. For the year ended December 31, 2015, as compared to the year ended December 31, 2014, the decrease in Aldurazyme net product revenues was primarily attributable to a decrease in Genzyme reported Aldurazyme sales. Aldurazyme revenues reported by Genzyme totaled \$223.3 million, \$217.8 million and \$228.8 million in 2016, 2015 and 2014, respectively. Although Genzyme sells Aldurazyme worldwide, the net product revenue earned by us on Genzyme's net sales are denominated in USD.
- Kuvan: The increase in Kuvan net product revenues for the year ended December 31, 2016, compared to the year ended December 31, 2015, was primarily attributable to the addition of international Kuvan product sales through the acquisition of the Merck PKU Business in January 2016 and new patients initiating therapy in the U.S. Prior to our acquisition of the Merck PKU Business, we earned royalties on Merck Serono's net sales of Kuvan of 4%. The increase in Kuvan net product revenues for the year ended December 31, 2015, compared to the year ended December 31, 2014, was primarily attributed to new patients initiating therapy in the U.S.

In September 2015, we entered into a settlement agreement with Dr. Reddy's Laboratories, Inc. and Dr. Reddy's Laboratories, Ltd. (collectively DRL) that resolved patent litigation with DRL in the U.S. related to its abbreviated new drug application (ANDA) seeking approval of a proposed generic version of Kuvan 100 mg oral tablets. Under the terms of the settlement agreement, we have granted DRL a non-exclusive license to our Kuvan-related patents to allow DRL to market a generic version of sapropterin dihydrochloride 100mg tablets in the U.S. for the indications approved for Kuvan beginning at a confidential date in the future, but which is more than five years from the settlement date, or earlier

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

under certain circumstances. The settlement does not affect the consolidated cases pending against Par Pharmaceutical, Inc. (Par) with respect to its separate ANDAs seeking approval of a proposed generic version of Kuvan 100 mg oral tablets and a proposed generic version of Kuvan 100 mg oral powder prior to the expiration of our patents listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (the Orange Book). The settlement with DRL pertaining to Kuvan tablets also does not affect the recently-filed litigation against DRL, which we filed in response to DRL's separate ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral powder.

Our settlement with DRL relating to tablets, the filing of Par's purported ANDAs with respect to Kuvan tablets and powder, and the filing of DRL's purported ANDA with respect to Kuvan powder could have an adverse impact on our stock price, and litigation to enforce our patents is likely to cost a substantial amount and require significant management attention. If the patents covering Kuvan and its use are not upheld in litigation, or if Par and/or DRL is found to not infringe our asserted patents, the resulting generic competition following the expiration of regulatory exclusivity would have a material adverse effect on our revenue and results of operations. Moreover, generic competition from DRL following the settlement described above relating to Kuvan tablets could have a material adverse effect on our revenue and results of operations.

- Naglazyme: The decrease in Naglazyme net product revenues for the year ended December 31, 2016, compared to the year ended December 31, 2015, was primarily attributable to the timing of central government orders from Latin America and the negative impact of foreign currency exchange rates, partially offset by new patients initiating therapy in Europe and the Middle East. For the year ended December 31, 2015, compared to the year ended December 31, 2014, the decrease in Naglazyme net product revenues was attributable to the negative impact of foreign currency exchange rates and significant purchases from certain government entities occurring in 2014, offset by new patients initiating therapy.
- Vimizim: The increase in Vimizim net product revenues for the year ended December 31, 2016, compared to the years ended December 31, 2015 and 2014, was attributed to new patients initiating therapy following a 2014 product launch.

### Cost of Sales and Product Gross Margin

The following table summarizes our cost of goods sold and product gross margin (in millions, except percentages):

	Years Ended December 31,		
	2016	2015	2014
Total net product sales	\$ 1,110.4	\$ 884.5	\$ 738.4
Cost of sales	209.6	152.0	122.3
Product gross margin	81%	83%	83%

Product gross margin (net product revenues less cost of sales, expressed as a percentage of net product revenues) for total net product sales was 81% in 2016, compared to 83% for each of 2015 and 2014, respectively. Our product gross margin for the year ended December 31, 2016 decreased compared to 2015 and 2014 primarily due to change in product mix and the recognition of the fair value adjustment to Kuvan inventory acquired in the Merck PKU Business acquisition, which reduced gross margin for those units to a reasonable seller's profit. As of December 31, 2016, inventory acquired from Merck Serono has been sold through to customers. We do not expect gross margins to fluctuate significantly in the near future.

**Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)**

**Research and Development**

A summary of our on-going major development programs, including key metrics as of December 31, 2016, is provided below:

Major Products in Development	Target Indication	U.S. Orphan Designation	EU Orphan Designation	Stage
BMN 250	MPS IIIB (1)	Yes	Yes	Clinical Phase 1/2
BMN 270 (2)	Hemophilia A	Yes	Yes	Clinical Phase 1/2
Brineura	CLN2 (3)	Yes	Yes	Marketing authorization regulatory review
Pegvaliase	PKU	Yes	Yes	Clinical Phase 3
Vosoritide	Achondroplasia	Yes	Yes	Clinical Phase 3

- (1) Sanfilippo B syndrome, or mucopolysaccharidosis type IIIB (MPS IIIB).
- (2) BMN 270 is an investigational gene therapy for Hemophilia A, also called factor VIII deficiency or classic hemophilia.
- (3) CLN2, or late infantile neuronal ceroid lipofuscinosis, is a lysosomal storage disorder primarily affecting the brain.

We manage our R&D expense by identifying the R&D activities we anticipate will be performed during a given period and then prioritizing efforts based on scientific data, probability of successful development, market potential, available human and capital resources and other similar considerations. We continually review our pipeline and the development status of product candidates and, as necessary, reallocate resources among the research and development portfolio that we believe will best support the future growth of our business.

R&D expense increased to \$661.9 million for the year ended December 31, 2016, compared to \$634.8 million and \$461.5 million for the years ended December 31, 2015 and 2014, respectively. R&D expense consisted of the following (in millions):

	Years Ended December 31,				
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
BMN 250	\$ 46.1	\$ 33.6	\$ 13.9	\$ 12.5	\$ 19.7
BMN 270	58.9	32.7	22.7	26.2	10.0
Brineura	77.2	39.9	39.6	37.3	0.3
Kyndrisa (1)	73.5	60.6	—	12.9	60.6
Pegvaliase	88.6	74.0	70.5	14.6	3.5
Reveglucosidase alfa (2)	43.0	58.6	51.1	(15.6)	7.5
Talazoparib (3)	1.0	65.2	59.8	(64.2)	5.4
Vimizim	24.4	45.7	63.6	(21.3)	(17.9)
Vosoritide	55.8	49.4	22.5	6.4	26.9
Other approved products	40.6	36.3	31.8	4.3	4.5
Early stage programs	55.9	39.0	27.6	16.9	11.4
Other and non-allocated	96.9	99.8	58.4	(2.9)	41.4
<b>Total</b>	<b>\$ 661.9</b>	<b>\$ 634.8</b>	<b>\$ 461.5</b>	<b>\$ 27.1</b>	<b>\$ 173.3</b>

- (1) In the second quarter of 2016, we terminated the Kyndrisa and other exon programs.
- (2) In the second quarter of 2016, we terminated the reveglucosidase alfa development program.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

- (3) In October 2015, we sold talazoparib to Medivation. For the year ended December 31, 2016, talazoparib R&D expense primarily related to employee-related wind-down costs.

### 2016 compared to 2015

The increase in R&D expense for Brineura, pegvaliase, and vosoritide was attributable to increased clinical trial activities related to these product candidates as they advanced to later stages of development. The increase in R&D expense for BMN 250 and BMN 270 was attributable to increased pre-clinical and clinical activities related to these product candidates. During the fourth quarter of 2016, R&D expense related to vosoritide and BMN 270 included payments totaling \$12.0 million due to achievement of certain development milestones. The development expenses for Kyndrisa relate to clinical and European regulatory activities for this product candidate, which are expected to decrease in 2017 due to the termination of the related development program, as well as a charge taken in 2016 of \$4.9 million for one-time employee termination benefits. The decrease in R&D expense for reveglucosidase alfa was due to the termination of the respective development program. The decrease in R&D expense for talazoparib was due to the completion of the sale of the assets to Medivation in the fourth quarter of 2015.

During the remainder of 2017, we expect our R&D spending to increase over 2016 levels due to our pegvaliase, vosoritide and Brineura programs progressing in their development. We also expect increased spending on pre-clinical and clinical activities for our early development stage programs, including BMN 270, BMN 250 and other pre-clinical programs. Additionally, we expect to continue incurring significant R&D expense for the foreseeable future due to long-term clinical activities related to post-approval regulatory commitments for our approved products. We continuously evaluate the recoverability of costs associated with pre-launch manufacturing activities, and if it is determined that recoverability is highly likely and therefore future revenues are expected, the costs subsequently incurred related to pre-launch manufacturing activities for purposes of commercial sales will likely be capitalized. When regulatory approval and the likelihood of future revenues for a product candidate are less certain, the related manufacturing costs are expensed as R&D expenses. In the second quarter of 2016, we began capitalizing Brineura pre-launch manufacturing costs incurred in preparation for anticipated commercial sales.

### 2015 compared to 2014

The increase in R&D expense for talazoparib, reveglucosidase alfa, vosoritide and pegvaliase was attributable to increased clinical trial activities related to these product candidates. The development expenses for Kyndrisa related to clinical and regulatory activities for this product candidate, which was acquired with Prosensa Holding N.V (Prosensa) in January 2015. The increase in development expense on early development stage programs was primarily attributable to the pre-clinical activity related to BMN 250 and BMN 270. The increase in non-allocated R&D expense was primarily attributable to an increase in R&D personnel costs and facility costs that are not allocated to specific programs. The increase in R&D personnel costs was attributable to an increase in the number of R&D employees and increased stock-based compensation due to the increase in the number of equity awards outstanding and the weighted-average fair value of the equity awards granted in 2015. Non-allocated R&D expense for the year ended December 31, 2014 included a \$6.1 million gain on early lease termination of our SRCC lease resulting from the recognition of the remaining deferred rent and asset retirement liabilities upon acquisition of SRCC. There was no similar gain during the year ended December 31, 2015.

### Selling, General and Administrative

SG&A expense increased to \$476.6 million for the year ended December 31, 2016, compared to \$402.3 million and \$302.2 million for the years ended December 31, 2015 and 2014, respectively. SG&A expenses consisted of the following (in millions):

	Years Ended December 31,			2016 vs. 2015	2015 vs. 2014
	2016	2015	2014		
Sales and marketing (S&M) expense	\$ 252.9	\$ 202.9	\$ 150.8	\$ 50.0	\$ 52.1
General and administrative (G&A) expense	223.7	199.4	151.4	24.3	48.0
Total SG&A expense	<u>\$ 476.6</u>	<u>\$ 402.3</u>	<u>\$ 302.2</u>	<u>\$ 74.3</u>	<u>\$ 100.1</u>

**Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)**

	Years Ended December 31,			2016 vs.	2015 vs.
	2016	2015	2014	2015	2014
S&M expense by product:					
Kuvan	\$ 65.2	\$ 40.7	\$ 34.9	\$ 24.5	\$ 5.8
Naglazyme	50.9	46.8	51.9	4.1	(5.1)
Vimizim	66.7	56.4	43.0	10.3	13.4
Other and non-allocated	70.1	59.0	21.0	11.1	38.0
Total S&M expense	<u>\$ 252.9</u>	<u>\$ 202.9</u>	<u>\$ 150.8</u>	<u>\$ 50.0</u>	<u>\$ 52.1</u>

**2016 compared to 2015**

S&M expense primarily consisted of employee-related expenses for our sales group, brand marketing, patient support groups and pre-commercialization expenses related to our product candidates. The increase in Kuvan S&M expense is attributable to expansion of worldwide commercial activities as a result of acquiring the worldwide rights to Kuvan, except for Japan, on January 1, 2016. We continue to incur S&M expense for Naglazyme and Vimizim as a result of continued expansion of our worldwide commercial activities. The increase in other S&M expense was driven by an increase in pre-commercialization marketing expense for Brineura.

G&A expense primarily consisted of corporate support and other administrative expenses, including employee-related expenses such as stock-based compensation expense, which increased in 2016, as compared to 2015, primarily due to increased headcount, partially offset by the impact of foreign currency fluctuations.

We expect SG&A expense to increase in future periods as a result of pre-commercialization expense related to product candidates, the continued international expansion of Naglazyme, Vimizim and Kuvan, and the increase in administrative support required for our expanding operations.

**2015 compared to 2014**

S&M expense primarily consisted of employee-related expenses for our sales group, brand marketing, patient support groups and pre-commercialization expenses related to our product candidates. We received regulatory approval to market Vimizim in the U.S. and the EU during 2014 and subsequently in other countries. The increase in Vimizim S&M expense is consistent with the timing of these approvals and its continued world-wide commercial launch. We continue to incur S&M expense for Naglazyme and Kuvan as a result of continued expansion of our international and U.S. activities, respectively. The increase in other and non-allocated S&M expense was driven by an increase in the number of commercial employees and pre-commercialization expense for Kyndrisa and vosoritide.

G&A expenses primarily consisted of corporate support and other administrative expenses, which increased primarily due to increased employee-related expenses as a result of an increase in the number of administrative employees, increased stock based compensation due to the increase in the number of equity awards outstanding and the weighted-average fair value of the equity awards granted in 2015, transaction costs related to the acquisition of Prosensa, consulting fees, legal fees and information technology expenses. G&A expenses for the year ended December 31, 2014, included a \$2.7 million gain on early lease termination of our SRCC lease resulting from the recognition of the remaining deferred rent and asset retirement liabilities upon acquisition of SRCC, which is where our corporate headquarters are located. There was no similar gain during the year ended December 31, 2015.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

### *Intangible Asset Amortization and Contingent Consideration*

Changes in the fair value of contingent acquisition consideration payable result from updates to the estimated probability of achievement or assumed timing of milestones and adjustments to the discount periods and rates. Intangible asset amortization and contingent consideration expense consisted of the following (in millions):

	Years Ended December 31,		
	2016	2015	2014
Increases (decreases) in the fair value of contingent acquisition consideration payable	\$ (57.2)	\$ (28.5)	\$ 13.0
Amortization of intangible assets	30.2	10.8	10.7
Total intangible asset amortization and contingent consideration	<u>\$ (27.0)</u>	<u>\$ (17.7)</u>	<u>\$ 23.7</u>

The changes in the fair value of the contingent acquisition consideration payable were primarily attributable to changes in the estimated probability of achieving development milestones based on the current status of the related development programs as well as the passage of time. During the year ended December 31, 2016, the majority of the changes related to the discontinuance of the Kyndrisa and reveglucosidase alfa development programs, which resulted in the reversal of the fair value of the remaining contingent consideration payable to the former Prosensa and ZyStor Therapeutics, Inc. shareholders, respectively, because the related sales milestones are no longer expected to be attained. The increase in amortization of intangible assets during the year ended December 31, 2016, was primarily attributable to the amortization of the Kuvan intangible assets acquired from Merck Serono in January 2016.

### *Impairment of Intangible Asset*

In 2016, we recorded an impairment charge of \$599.1 million related to the Kyndrisa and other exon and reveglucosidase alfa IPR&D assets based on the termination of the internal development of the respective programs. In 2015, we recorded an impairment charge of \$198.7 million related to the Kyndrisa IPR&D assets based on the then current status of our U.S. development efforts and the related discounted cash flows that no longer supported the full carrying-value of the Kyndrisa IPR&D assets. See Note 7 to our accompanying Consolidated Financial Statements for additional information regarding our Intangible Assets.

### *Gain on Sale of Intangible Asset*

In 2015, we recognized a net gain of \$369.5 million for the sale of talazoparib to Medivation.

### *Interest Income*

We invest our cash, short-term and long-term investments in U.S. government securities and other high credit quality securities in order to limit default and market risk. Interest income totaled \$7.5 million for the year ended December 31, 2016, compared to \$4.5 million and \$5.9 million for the years ended December 31, 2015 and 2014, respectively. The increase in interest income during the year ended December 31, 2016, as compared to the years ended December 31, 2015 and 2014 was primarily due to higher investment balances, which increased due to the August 2016 public offering of our common stock, and higher average interest rate on investments. Due to low interest rates and planned spend, we do not expect interest income to fluctuate significantly over the next 12 months.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

### Interest Expense

We incur interest expense on our convertible debt. Interest expense consisted of the following (in millions):

	Years Ended December 31,		
	2016	2015	2014
Coupon interest	\$ 9.6	\$ 9.8	\$ 9.4
Amortization of debt issuance costs	3.4	3.3	3.3
Accretion of discount on convertible notes	26.5	25.1	23.9
Total interest expense	<u>\$ 39.5</u>	<u>\$ 38.2</u>	<u>\$ 36.6</u>

Interest expense for the years ended December 31, 2016, 2015 and 2014 was primarily attributable to our October 2013 issuance of \$750.0 million in aggregate principal amount of senior subordinated convertible debt of which \$375.0 million is due in October 2018 and \$375.0 million is due in October 2020. The increased interest expense in the year ended December 31, 2016, compared to the years ended December 31, 2015 and 2014 was attributable to an increase in the accretion of the discount on our October 2013 issuance using the effective interest rate method. We do not expect interest expense to fluctuate significantly over the next 12 months. See Note 13 to our accompanying Consolidated Financial Statements for additional information regarding our debt.

### Other Expense

During the second quarter of 2015, we recorded write-offs of \$12.8 million for investments and advances related to a supplier of one of our multi-sourced materials due to a deterioration in its financial condition during the quarter.

### Provision for (Benefit from) Income Taxes

For the year ended December 31, 2016 we recognized an income tax benefit of \$200.8 million, compared to income tax expense of \$17.1 million and \$9.1 million in the years ended December 31, 2015 and 2014, respectively. Provision for (benefit from) income taxes for 2016, 2015 and 2014 consisted of state, federal and foreign current tax expense which was offset by tax benefits related to stock option exercises and deferred tax benefits from federal orphan drug credits, federal R&D credits and California R&D credits. The provision for (benefit from) income taxes for the years ended December 31, 2016, 2015 and 2014 were further reduced by the following discrete items:

- 2016 included a deferred tax benefit of \$143.5 million associated with the GAAP impairment of the Kyndrisa IPR&D;
- 2015 included a deferred tax benefit of \$49.7 million associated with the GAAP impairment of the Kyndrisa IPR&D, which was offset by a \$29.7 million increase in the valuation allowance related to future contingent consideration on the sale of talazoparib that is reasonably uncertain of receipt; and
- 2014 included a renewable energy investment tax credit under the flow-through method totaling \$1.6 million.

During 2015 and 2014, the federal R&D credit was reinstated retroactively. In accordance with ASC Topic 740, Income Taxes (ASC 740), we accounted for the effects of change in the tax law in the period that included the enactment date of the change, resulting in the recognition of a \$5.9 million deferred tax benefit related to R&D expenses incurred during the reinstatement period. See Note 15 to our accompanying Consolidated Financial Statements for additional information regarding the components of our provision for (benefit from) income taxes.

The consolidated U.S. GAAP net loss includes all of our foreign subsidiaries. In accordance with ASC 740, we calculate our provision for (benefit from) income taxes on an entity-by-entity and jurisdiction-by-jurisdiction basis as adjusted for differences between book-basis income and tax-basis income, which results in certain foreign entities being profitable and incurring foreign current income tax expense. Certain foreign entities incur significant amounts of R&D expense that results in significant losses that more than offset the income reported by the profitable foreign entities on a consolidated basis. The majority of these material R&D losses are in foreign jurisdictions that do not have net operating loss carryforward provisions that result in deferred tax assets, which results in an effective



## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

tax rate of 0% on approximately \$316.3 million of foreign net losses. For the year ended December 31, 2016, our Dutch operations had a GAAP loss of \$539.2 million, which included the impairment of the Kyndrisa IPR&D and a resulting deferred tax benefit of \$143.5 million associated with the reversal of the deferred tax liability of such IPR&D. For the year ended December 31, 2016, other foreign operations generated U.S. GAAP income of approximately \$13.8 million with an effective tax rate of approximately 25%.

### Financial Position, Liquidity and Capital Resources

As of December 31, 2016, we had \$1.4 billion in cash, cash equivalents, and short-term and long-term investments. We expect to fund our operations with our net product revenues from our commercial products, cash, cash equivalents, and short-term and long-term investments, supplemented by proceeds from equity or debt financings and loans, or collaborative agreements with corporate partners, each to the extent necessary. This expectation could change depending on how much we elect to spend on our development programs, potential licenses and acquisitions of complementary technologies, products and companies or if we elect to settle all or a portion of our convertible debt in cash. We will be highly dependent on our net product revenues to supplement our current liquidity and fund our operations for the foreseeable future. We may in the future elect to supplement this with further debt or equity offerings or commercial borrowing.

In managing our liquidity needs in the U.S., we do not rely on unrepatriated earnings as a source of funds and we have not provided for U.S. federal or state income taxes on these undistributed foreign earnings.

We do not record U.S. tax expense on the undistributed earnings of our controlled foreign subsidiaries as these earnings are intended to be permanently reinvested offshore. As of December 31, 2016, the cumulative amount of these earnings was approximately \$3.9 million.

As of December 31, 2016, \$138.9 million of our \$1.4 billion balance of cash, cash equivalents, and short-term and long-term investments was held in foreign subsidiaries, a significant portion of which is required to fund the liquidity needs of these foreign subsidiaries. See Note 15 to our accompanying Consolidated Financial Statements for additional discussion.

We are mindful that conditions in the current macroeconomic environment could affect our ability to achieve our goals. Some of the factors that could affect our business include: future changes to healthcare reform in the U.S., a continuation of uncertainty with respect to, or worsening of, global economic conditions, patent expirations of competitive products and the launch of generic competitors, continued government pricing pressures internationally and the potential volatility in foreign currency exchange rates. We will continue to monitor these conditions and will attempt to adjust our business processes, as appropriate, to mitigate these risks to our business.

Our liquidity and capital resources as of December 31 were as follows (in millions):

	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
Cash and cash equivalents	\$ 408.3	\$ 397.0	\$ 875.5	\$ 11.3	\$ (478.5)
Short-term investments	381.3	195.6	69.7	185.7	125.9
Long-term investments	572.8	425.7	97.9	147.1	327.8
Cash, cash equivalents and investments	<u>\$ 1,362.4</u>	<u>\$ 1,018.3</u>	<u>\$ 1,043.1</u>	<u>\$ 344.1</u>	<u>\$ (24.8)</u>
Convertible debt, net	\$ 683.2	\$ 662.3	\$ 642.9	\$ 20.9	\$ 19.4

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

Our cash flows for each of the years ended December 31 are summarized as follows (in millions):

	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
Cash & cash equivalents at the beginning of the period	\$ 397.0	\$ 875.5	\$ 568.8	\$ (478.5)	\$ 306.7
Net cash used in operating activities	(227.8)	(219.5)	(70.4)	(8.3)	(149.1)
Net cash provided by (used in) investing activities	(484.0)	(1,179.6)	196.3	695.6	(1,375.9)
Net cash provided by financing activities	727.1	925.7	184.2	(198.6)	741.5
Foreign exchange impact	(4.0)	(5.1)	(3.4)	1.1	(1.7)
Cash & cash equivalents at the end of the period	\$ 408.3	\$ 397.0	\$ 875.5	\$ 11.3	\$ (478.5)
Short-term and long-term investments	954.1	621.3	167.6	332.8	453.7
Cash, cash equivalents and investments	<u>\$ 1,362.4</u>	<u>\$ 1,018.3</u>	<u>\$ 1,043.1</u>	<u>\$ 344.1</u>	<u>\$ (24.8)</u>

Our product sales to government-owned or government-funded customers in certain countries, including Italy, Spain, Portugal, Greece and Russia, are subject to payment terms that are imposed by government authorities. Because these customers are government-owned or government-funded, we may be impacted by declines in sovereign credit ratings or sovereign defaults in these countries. A significant or further decline in sovereign credit ratings, or default in these countries, may decrease the likelihood that we will collect accounts receivable or may increase the discount rates and the length of time until receivables are collected, which could result in a negative impact to our operating results. Historically we have not experienced a significant level of uncollected receivables and have received continued payments from our more aged accounts. We believe that the allowances for doubtful accounts for these countries are adequate based on our analysis of the specific business circumstances and expectations of collection for each of the underlying accounts in these countries. As of December 31, 2016, approximately 11% of our outstanding accounts receivable relate to such countries. See Note 19 to our accompanying Consolidated Financial Statements for additional discussion. We also sell our products in other countries that face economic crises and local currency devaluation. Although we have historically collected receivables from customers in those countries, sustained weakness or further deterioration of the local economies and currencies may cause our customers in those countries to be unable to pay for our products with the same negative effect on our operations.

### **Cash Used in Operating Activities**

Cash used in operating activities for the year ended December 31, 2016 was \$227.8 million, compared to cash used in operating activities of \$219.5 million for the year ended December 31, 2015. Cash used in operating activities primarily consisted of net loss of \$630.2 million, adjusted for non-cash items such as \$599.1 million of asset impairment charges, \$134.6 million for stock-based compensation expenses, \$96.9 million for depreciation and amortization expense, and \$29.9 million of non-cash interest expense, offset by \$228.1 million for deferred income taxes benefit and \$57.2 million related to the decrease in the fair value of contingent acquisition consideration payable. Changes in operating assets and liabilities resulted in a net cash outflow of \$160.3 million that consisted primarily of increased cash outflow for R&D expenses and increased inventory spending to meet anticipated future sales demand.

Cash used in operating activities for the year ended December 31, 2015 was \$219.5 million, compared to cash used in operating activities of \$70.4 million for the year ended December 31, 2014. Our net loss in the year ended December 31, 2015, excluding the \$369.5 million gain on the sale of talazoparib and the \$211.5 million asset impairment charges increased \$128.3 million compared to our net loss for the year ended December 31, 2014 excluding the \$67.5 million net gain on the sale of the Rare Pediatric Disease Priority Review Voucher. The increase in cash used in operating activities is primarily attributable to increased R&D expense related to clinical trial activities for Kyndrisa and vosoritide and increased inventory purchases.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

### *Cash Provided by (Used in) Investing Activities*

Net cash used in investing activities for the year ended December 31, 2016 was \$484.0 million, compared to net cash used in investing activities of \$1,179.6 million for the year ended December 31, 2015. The decrease in net cash used in investing activities for the year ended December 31, 2016 compared to the prior year was primarily attributable to the absence of 2015 payments of \$538.4 million to acquire Prosensa and \$371.8 million deposit for the PKU rights from Merck Serono, a \$79.3 million decrease in the purchases of property, plant and equipment, and a decrease of \$116.3 million in net purchases of available-for-sale securities. We expect to continue to make significant capital investments in our manufacturing facilities and our corporate headquarters to accommodate anticipated headcount growth.

Net cash used in investing activities for the year ended December 31, 2015 was \$1,179.6 million, compared to net cash provided by investing activities of \$196.3 million for the years ended December 31, 2014. The increase in net cash used in investing activities for the year ended December 31, 2015 compared to the year ended December 31, 2014 primarily consisted of the \$538.4 million paid to acquire Prosensa, a \$371.8 million deposit to acquire the PKU rights, a \$110.6 million increase in the purchases of property, plant and equipment, and a \$749.7 million increase in net purchases of available-for-sale securities. Those increases were partially offset by a \$342.5 million increase in proceeds related to the sale of intangible assets.

### *Cash Provided by Financing Activities*

Net cash provided by financing activities for the year ended December 31, 2016 was \$727.1 million, compared to net cash provided by financing activities of \$925.7 million for the year ended December 31, 2015. The decrease in net cash provided by financing activities for the year ended December 31, 2016 compared to the prior year was primarily attributable a \$175.3 million decrease in net proceeds from public offerings of common stock, a \$36.5 million increase in taxes paid related to net share settlement of employee equity awards, partially offset by a \$11.2 million increase in proceeds from employee equity transactions.

Net cash provided by financing activities for the year ended December 31, 2015 was \$925.7 million, compared to net cash provided by financing activities of \$184.2 million for the year ended December 31, 2014. The increase in net cash provided by financing activities for the year ended December 31, 2015 was primarily attributable to a \$770.8 million increase in net proceeds from our January 2015 equity offering compared to the March 2014 equity offering, partially offset by a \$16.9 million decrease in proceeds from employee equity transactions and a \$15.2 million increase in taxes paid related to net share settlement of employee equity awards.

### *Other Information*

Our \$772.5 million (undiscounted) of total convertible debt as of December 31, 2016 will impact our liquidity due to the semi-annual cash interest payments and will further impact our liquidity if we elect to settle all or portions of the 2018 Notes or the 2020 Notes in cash upon conversion or if the holders of our 2017 Notes do not convert on or prior to the scheduled repayments of the debt. Further, depending on market conditions, our financial position and performance and other factors, we may in the future choose to use a portion of our cash or cash equivalents to repurchase our convertible debt or other securities.

On August 12, 2016, we sold 7.5 million shares of our common stock at a price of \$96.00 per share in an underwritten public offering pursuant to an effective registration statement previously filed with the SEC. We received net proceeds of approximately \$712.9 million from this public offering after accounting for the underwriting discount and offering costs.

In November 2016 we entered into a new Credit Agreement providing for up to \$100.0 million in revolving loans (the Revolving Credit Facility). We expect to use the proceeds of the Revolving Credit Facility to finance ongoing working capital needs (including timing differences resulting from the strategic reduction of short-term investments) and for other general corporate purposes. As of December 31, 2016, we have not drawn on the Revolving Credit Facility. Although quarterly interest payments will be due on any outstanding balance due, we anticipate any balance due to be short-term in nature. See Note 13 to our accompanying Consolidated Financial Statements for additional discussion.

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

### Funding Commitments

We cannot estimate with certainty the cost to complete any of our product development programs. Additionally, except as disclosed under "Overview" above, we cannot precisely estimate the time to complete any of our product development programs or when we expect to receive net cash inflows from any of our product development programs. Please see "Risk Factors" included in Part I, Item 1A of this Annual Report on Form 10-K, for a discussion of the reasons we are unable to estimate such information, and in particular the following risk factors:

- *If we fail to obtain regulatory approval to commercially market and sell our product candidates, or if approval of our product candidates is delayed, we will be unable to generate revenue from the sale of these product candidates, our potential for generating positive cash flow will be diminished, and the capital necessary to fund our operations will increase;*
- *If we are unable to successfully develop and maintain manufacturing processes for our products to produce sufficient quantities at acceptable costs, we may be unable to meet demand for our products and lose potential revenue, have reduced margins or be forced to terminate a program;*
- *If we fail to compete successfully with respect to product sales, we may be unable to generate sufficient sales to recover our expenses related to the development of a product program or to justify continued marketing of a product and our revenue could be adversely affected.*
- *If we do not achieve our projected development goals in the timeframes we announce and expect, the commercialization of our product candidates may be delayed and the credibility of our management may be adversely affected and, as a result, our stock price may decline.*

Our investment in our product development programs and continued development of our existing commercial products has a major impact on our operating performance. Our R&D expenses in the period since inception of our key programs were as follows (in millions):

	Since Program Inception
BMN 250	\$ 98.6
BMN 270	121.1
Brineura	188.2
Kyndrisa (1)	134.1
Pegvaliase	400.8
Reveglucosidase alfa (1)	249.9
Vosoritide	174.6
Approved products	907.7
Other and non-allocated	Not meaningful

- (1) In June 2016, we discontinued the clinical and regulatory development programs for these programs.

We may elect to increase our spending above our current long-term plans and consequently we may be unable to achieve our long-term goals. This may increase our capital requirements, including: costs associated with the commercialization of our products; additional clinical trials; investments in the manufacturing of our commercial products; pre-clinical studies and clinical trials for our other product candidates; potential licenses and other acquisitions of complementary technologies, products and companies; and general corporate purposes.

Our future capital requirements will depend on many factors, including, but not limited to:

- product sales and profitability of our products;
- manufacturing, supply or distribution of our product candidates and commercial products;
- progress of our product candidates through the regulatory process and our ability to successfully commercialize any such products that receive regulatory approval;
- results of clinical trials, announcements of technological innovations or new products by us or our competitors;

## Management's Discussion and Analysis of Financial Condition and Results of Operations – (Continued)

- results relating to our lawsuits against Par and DRL to protect our patents relating to Kuvan tablets and powder and generic competition to Kuvan relating to our settlement with DRL related to Kuvan tablets;
- government regulatory action affecting our product candidates, our products or our competitors' product candidates and products in both the U.S. and non-U.S. countries;
- developments or disputes concerning patent or proprietary rights;
- general market conditions and fluctuations for the emerging growth and pharmaceutical market sectors;
- economic conditions in the U.S. or abroad;
- negative publicity about our company or the pharmaceutical industry;
- broad market fluctuations in the U.S., the EU or in other parts of the world;
- actual or anticipated fluctuations in our operating results, including due to timing of large order for our products, in particular in Latin America, where governments place large periodic orders for Naglazyme and Vimizim;
- changes in company assessments or financial estimates by securities analysts;
- acquisitions of products, businesses, or other assets; and
- sales of our shares of stock by us, our significant shareholders, or members of our management or Board of Directors.

### *Off-Balance Sheet Arrangements*

We do not have any off-balance sheet arrangements that are currently material or reasonably likely to be material to our consolidated financial position or results of operations.

### *Contractual and Commercial Obligations*

We have contractual and commercial obligations under our debt, operating leases and other obligations related to R&D activities, purchase commitments, licenses and sales royalties with annual minimums. Our contractual obligations as of December 31, 2016 are presented in the table below (in millions).

	Payments Due within				Total
	1 Year or Less	>1 -3 Years	> 3 - 5 Years	More Than 5 Years	
2017 Notes and related interest	\$ 22.7	\$ —	\$ —	\$ —	\$ 22.7
2018 Notes and related interest	2.8	377.8	—	—	380.6
2020 Notes and related interest	5.6	11.3	380.6	—	397.5
Operating leases	9.1	12.6	6.1	6.6	34.4
R&D and purchase commitments	41.5	4.3	—	—	45.8
Total	<u>\$ 81.7</u>	<u>\$ 406.0</u>	<u>\$ 386.7</u>	<u>\$ 6.6</u>	<u>\$ 881.0</u>

We are also subject to contingent payments related to certain development and regulatory activities and commercial sales and licensing milestones totaling approximately \$576.5 million as of December 31, 2016, which are due upon achievement of certain development and commercial milestones, if they occur before certain dates in the future. Of this amount, \$194.3 million (USD equivalent of €185 million translated at 1.05 USD per Euro in effect on December 31, 2016) relates to the Merck PKU Business acquisition and \$50.8 million relates to programs that are no longer being developed.

Any outstanding amounts due under the Revolving Credit Facility will be due in full in November 2018 with related interest due on a quarterly basis. As of December 31, 2016, there is no outstanding balance.

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

We are exposed to market risks that may result from changes in foreign currency exchange rates, interest rates and credit risks. To reduce certain of these risks, we enter into foreign currency derivative hedging transactions, follow investment guidelines and monitor outstanding trade receivables as part of our risk management program.

### ***Foreign Currency Exchange Rate Risk***

Our operations include manufacturing and sales activities in the U.S. as well as sales activities in regions outside the U.S, including Europe, Latin America and Asia Pacific. As a result our financial results can be significantly affected by factors such as changes in foreign currency exchange rates or weak economic conditions in the foreign markets in which we sell our products. Our operating results are exposed to changes in foreign currency exchange rates between the U.S. dollar and various foreign currencies, primarily the Euro. When the U.S. dollar strengthens against these currencies, the relative value of the sales made in the respective foreign currency decreases. Conversely, when the U.S. dollar weakens against these currencies, the relative value of such sales increases. Overall, we are a net receiver of foreign currencies and, therefore, benefit from a weaker U.S. dollar and are adversely affected by a stronger U.S. dollar relative to those foreign currencies in which we transact significant business.

During 2016, approximately 42% of our net product sales were denominated in foreign currencies and 18% of our operating expenses were denominated foreign currencies. To partially mitigate the impact of changes in currency exchange rates on net cash flows from our foreign currency denominated sales and operating expenses, we may enter into forward foreign currency contracts. We also hedge certain monetary assets and liabilities denominated in Euros and British pounds using forward foreign currency exchange contracts, which reduces but does not eliminate our exposure to currency fluctuations between the date the transaction is recorded and the date the cash is collected or paid. Generally, the market risks of these contracts are offset by the corresponding gains and losses on the transactions being hedged.

We do not use derivative financial instruments for speculative trading purposes, nor do we hedge foreign currency exchange rate exposure in a manner that entirely offsets the effects of changes in foreign currency exchange rates. The counterparties to these forward foreign currency exchange contracts are creditworthy multinational commercial banks, which minimizes the risk of counterparty nonperformance. We regularly review our hedging program and may, as part of this review, make changes to the program.

As of December 31, 2016 and 2015, we had open forward foreign currency exchange contracts with notional amounts of \$223.5 million and \$260.9 million, respectively. A hypothetical 10% strengthening in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates at December 31, 2016 would have resulted in a reduction in the value received over the remaining life of these contracts of approximately \$21.0 million on this date and, if realized, would negatively affect earnings during the remaining life of the contracts. The same hypothetical movement in foreign currency exchange rates with the U.S. dollar relative to exchange rates at December 31, 2015, would have resulted in a reduction of the value received over the remaining life of the contracts by approximately \$25.5 million on this date and, if realized, would have negatively affect earnings during the remaining life of these contracts. This analysis does not consider the impact of the hypothetical changes in foreign currency rates would have on the forecasted transactions that these foreign currency sensitive instruments were designated to offset.

Based on our overall foreign currency exchange rate exposures at December 31, 2016, we believe that a near-term 10% fluctuation of the U.S. dollar exchange rate could result in a potential change in the fair value of our foreign currency sensitive assets, excluding our investments and open forward foreign currency contracts by approximately \$3.7 million. We expect to enter into new transactions based in foreign currencies that could be impacted by changes in exchange rates.

### ***Interest Rate Market Risk***

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. By policy, we place our investments with highly rated credit issuers and limit the amount of credit exposure to any one

issuer. As stated in our investment policy, we seek to improve the safety and likelihood of preservation of our invested funds by limiting default risk and market risk.

We mitigate default risk by investing in high credit quality securities and by positioning our portfolio to respond appropriately to a significant reduction in a credit rating of any investment issuer or guarantor. The portfolio includes only marketable securities with active secondary or resale markets to ensure portfolio liquidity.

We have outstanding \$22.5 million of the 2017 Notes, \$375.0 million of the 2018 Notes and \$375.0 million of the 2020 Notes. The interest rates on these notes are fixed and therefore they do not expose us to risk related to rising interest rates. At December 31, 2016 the fair value of our convertible debt was \$956.9 million.

In connection with the October 2013 offering of the 2018 Notes and the 2020 Notes, we paid \$29.8 million to purchase a capped call covering 3,982,988 shares of our common stock. If the per share price of our common stock remains below \$94.15, these capped call transactions would be not applicable and, therefore, would provide us no benefit in offsetting potential dilution from the 2018 Notes and the 2020 Notes. If the per share price of our common stock exceeds \$121.05, then, to the extent of the excess, these capped call transactions would result in additional dilution from conversion of the 2018 Notes and the 2020 Notes.

As of December 31, 2016, our investment portfolio did not include any investments with significant exposure to the subprime mortgage market issues or the European debt crisis. Based on our investment portfolio and interest rates at December 31, 2016, we believe that a 100 basis point increase in interest rates could result in a potential loss in fair value of our investment portfolio of approximately \$11.4 million. Changes in interest rates may affect the fair value of our investment portfolio. However, we will not recognize such gains or losses in our Consolidated Statement of Operations unless the investments are sold or we determine that the decline in the investment's value is other-than-temporary.

The table below summarizes the expected maturities and average interest rates of our interest-generating investments at December 31, 2016 (in millions):

	Expected Maturity						Total
	2017	2018	2019	2020	2021	Thereafter	
Available-for-sale securities	\$ 381.3	\$ 323.3	\$ 243.3	\$ 6.0	\$ —	\$ 0.2	\$ 954.1
Average interest rate	1.0%	1.4%	1.8%	2.1%	—	7.6%	1.3%

#### **Counterparty credit risks**

Our financial instruments, including derivatives, are subject to counterparty credit risk that we consider as part of the overall fair value measurement. Our financial risk management policy limits derivative transactions by requiring transactions to be with institutions with minimum credit ratings of A or equivalent by Standards & Poor's, Moody's or Fitch. In addition, we have an investment policy that limits investments to certain types of debt and money market instruments issued by institutions primarily with investment grade credit ratings and places restriction on maturities and concentrations by asset class and issuer.

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

The information required to be filed in this item appears on pages F-1 to F-51 of this report.

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

None.

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

### ***Evaluation of Disclosure Controls and Procedures***

An evaluation was carried out, under the supervision of and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based on the evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2016.

### ***Management's Annual Report on Internal Control Over Financial Reporting***

Our management is responsible for establishing and maintaining an adequate internal control structure and procedures for financial reporting. Under the supervision of and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, our management has assessed the effectiveness of our internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act as of December 31, 2016. Our management's assessment was based on criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), Internal Control-Integrated Framework (2013).

Based on the COSO criteria, our management has concluded that our internal control over financial reporting as of December 31, 2016 was effective.

Our independent registered public accounting firm, KPMG LLP, has audited the financial statements included in this Annual Report on Form 10-K and has issued a report on the effectiveness of our internal control over financial reporting. The report of KPMG LLP is incorporated by reference to Item 8 of this Annual Report on Form 10-K.

### ***Changes in Internal Control Over Financial Reporting***

There were no changes in our internal control over financial reporting during our most recently completed quarter that have materially affected or are reasonably likely to materially affect our internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act.

### ***Scope of the Effectiveness of Controls***

Our 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 GAAP. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our board of 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. 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.

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

None



## Part III

### Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item regarding our directors, executive officers and corporate governance is incorporated into this section by reference to the sections captioned “Election of Directors” and “Executive Officers” in the proxy statement for our 2017 annual meeting of stockholders.

### Item 11. Executive Compensation

The information required by this Item regarding executive compensation is incorporated into this section by reference to the section captioned “Executive Compensation” in the proxy statement for our 2017 annual meeting of stockholders.

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

The information required by this Item regarding security ownership of our beneficial owners, management and related stockholder matters is incorporated into this section by reference to the section captioned “Security Ownership of Certain Beneficial Owners” in the proxy statement for our 2017 annual meeting of stockholders. The information required by this Item regarding the securities authorized for issuance under our equity compensation plans is incorporated into this section by reference to the section captioned “Equity Compensation Plan Information” in the proxy statement for our 2017 annual meeting of stockholders.

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

The information required by this Item regarding certain relationships, related transactions and director independence is incorporated into this section by reference to the section captioned “Transactions with Related Persons, Promoters and Certain Control Persons” in the proxy statement for our 2017 annual meeting of stockholders.

### Item 14. Principal Accounting Fees and Services

The information required by this Item regarding our principal accountant fees and services is incorporated into this section by reference to the section captioned “Independent Registered Public Accounting Firm” in the proxy statement for our 2017 annual meeting of stockholders.

## Part IV

### Item 15. Exhibits, Financial Statement Schedules

#### Financial Statements

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Consolidated Financial Statements as of December 31, 2016 and 2015 and for the three years ended December 31, 2016:	
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## Exhibit Index

- 2.1 Purchase Agreement, dated as of November 23, 2014, among BioMarin Falcons B.V., BioMarin Pharmaceutical Inc. and Prosensa Holding N.V., previously filed with the SEC on November 26, 2014 as Exhibit 2.01 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated by reference herein.
- 2.2 Asset Purchase Agreement between BioMarin Pharmaceutical Inc. and Medivation, Inc., dated August 21, 2015, previously filed with the SEC on October 7, 2015 as Exhibit 2.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference. The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.
- 2.3 Amended and Restated Termination and Transition Agreement, dated as of December 23, 2015, between BioMarin Pharmaceutical Inc. and Ares Trading S.A., previously filed with the SEC on January 7, 2016 as Exhibit 2.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference. Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment. Omitted portions have been filed separately with the SEC.
- 2.4 Termination Agreement, dated as of October 1, 2015, between BioMarin Pharmaceutical Inc. and Ares Trading S.A., previously filed with the SEC on January 7, 2016 as Exhibit 2.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference. Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment. Omitted portions have been filed separately with the SEC.
- 2.5 Termination and Transition Agreement, dated as of October 1, 2015, between BioMarin Pharmaceutical Inc. and Ares Trading S.A., previously filed with the SEC on January 7, 2016 as Exhibit 2.3 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference. Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment. Omitted portions have been filed separately with the SEC.
- 2.6\* First Amendment, dated as of December, 12, 2016, to the Amended and Restated Termination and Transition Agreement, dated as of December 23, 2015 and effective as of October 1, 2015, between BioMarin Pharmaceutical Inc. and Ares Trading S.A. Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment. Omitted portions have been filed separately with the SEC.
- 3.1 Amended and Restated Certificate of Incorporation of BioMarin Pharmaceutical Inc., as amended June 12, 2003, previously filed with the SEC on June 23, 2003 as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 3.2 Certificate of Correction to Certificate of Amendment to the Amended and Restated Certificate of Incorporation of BioMarin Pharmaceutical Inc., dated April 4, 2005, previously filed with the SEC on April 5, 2005 as Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 3.3 Certificate of Amendment to the Amended and Restated Certificate of Incorporation of BioMarin Pharmaceutical Inc. as filed with the Delaware Secretary of State on October 12, 2007, previously filed with the SEC on February 22, 2012 as Exhibit 3.3 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference.
- 3.4 Amended and Restated Bylaws of BioMarin Pharmaceutical Inc., previously filed with the SEC on June 15, 2015 as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 4.1 Indenture dated as of March 29, 2006, between BioMarin Pharmaceutical Inc. and Wilmington Trust Company, previously filed with the SEC on March 29, 2006 as Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.

- 4.2 Second Supplemental Indenture, dated as of April 23, 2007, between BioMarin Pharmaceutical Inc. and Wilmington Trust Company, previously filed with the SEC on April 23, 2007 as Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 4.3 Form of 1.875% Senior Subordinated Convertible Notes due 2017, previously filed with the SEC on April 23, 2007 as Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 4.4 Indenture, dated as of October 15, 2013, between BioMarin Pharmaceutical Inc. and Wilmington Trust, National Association, previously filed with the SEC on October 15, 2013 as Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 4.5 First Supplemental Indenture, dated as of October 15, 2013, between BioMarin Pharmaceutical Inc. and Wilmington Trust, National Association, previously filed with the SEC on October 15, 2013 as Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 4.6 Second Supplemental Indenture, dated as of October 15, 2013, between BioMarin Pharmaceutical Inc. and Wilmington Trust, National Association, previously filed with the SEC on October 15, 2013 as Exhibit 4.3 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 4.7 Form of 0.75% Senior Subordinated Convertible Notes due 2018, previously filed with the SEC on October 15, 2013 as included in Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 4.8 Form of 1.50% Senior Subordinated Convertible Notes due 2020, previously filed with the SEC on October 15, 2013 as included in Exhibit 4.3 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.1† Form of Indemnification Agreement for Directors and Officers, previously filed with the SEC on October 19, 2010 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.2† Form of Indemnification Agreement for Directors and Officers, previously filed with the SEC on December 19, 2016 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.3† Amended and Restated Severance Plan and Summary Plan Description as originally adopted on January 27, 2004 and amended and restated on May 12, 2009 and further amended and restated on July 29, 2013 and October 7, 2014, previously filed with the SEC on October 14, 2014 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated by reference herein.
- 10.4† Amendment to BioMarin Pharmaceutical Inc. 1997 Stock Plan, as amended, as adopted March 20, 2002, previously filed with the SEC on March 21, 2002 as Exhibit 99.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.5† Amendment No. 2 to BioMarin Pharmaceutical Inc. 1997 Stock Plan, as amended, as adopted May 5, 2004, previously filed with the SEC on August 9, 2004 as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.
- 10.6† BioMarin Pharmaceutical Inc. 1998 Director Option Plan and forms of agreements thereunder, previously filed with the SEC on May 4, 1999 as Exhibit 10.3 to the Company's Registration Statement on Form S-1 (File No. 333-77701), which is incorporated herein by reference.
- 10.7† Amendment No. 1 to BioMarin Pharmaceutical Inc. 1998 Director Plan as adopted March 26, 2003 previously filed with the SEC on May 15, 2003 as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.

- 10.8† Amendment No. 2 to BioMarin Pharmaceutical Inc. 1998 Director Option Plan, effective as of June 12, 2003 and July 21, 2003, previously filed with the SEC on August 12, 2003 as Exhibit 10.1 to the Company's Quarterly report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.
- 10.9† Amendment No. 3 to BioMarin Pharmaceutical Inc. 1998 Director Option Plan, as amended, as adopted May 5, 2004, previously filed with the SEC on August 9, 2004 as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.
- 10.10† BioMarin Pharmaceutical Inc. Amended and Restated 2006 Employee Stock Purchase Plan, as adopted on June 21, 2006 and amended on March 5, 2014, previously filed with the SEC on June 10, 2014 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.11† BioMarin Pharmaceutical Inc. Amended and Restated 2006 Share Incentive Plan, as adopted on May 2, 2006 and as amended and restated on April 16, 2015, previously filed with the SEC on June 15, 2015 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference..
- 10.12† Form of Agreement Regarding Restricted Share Units for the BioMarin Pharmaceutical Inc. 2006 Share Incentive Plan, previously filed with the SEC on May 16, 2013 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.13† Form of Amendment to Agreement Regarding Restricted Share Units for the BioMarin Pharmaceutical Inc. 2006 Share Incentive Plan, previously filed with the SEC on December 9, 2016 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.14† Amended and Restated BioMarin Pharmaceutical Inc. Nonqualified Deferred Compensation Plan, as adopted on December 1, 2005 and as amended and restated on January 1, 2009 and further amended and restated on December 19, 2013 and October 7, 2014, previously filed with the SEC on October 14, 2014 as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.15† Summary of Bonus Plan, previously filed with the SEC on February 27, 2009 as Exhibit 10.33 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference.
- 10.16† Amended and Restated Employment Agreement with Jean-Jacques Bienaimé effective December 13, 2016 previously filed with the SEC on December 23, 2008 as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.17 Grant Terms and Conditions Agreement between BioMarin Pharmaceutical Inc. and Harbor-UCLA Research and Education Institute dated April 1, 1997, as amended, previously filed with the SEC on July 21, 1999 as Exhibit 10.17 to the Company's Amendment No. 3 to Registration Statement on Form S-1 (File No. 333-77701), which is incorporated herein by reference. The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.
- 10.18 License Agreement dated July 30, 2004, between BioMarin Pharmaceutical Inc. and Daiichi Suntory Pharma Co., Ltd., as amended by Amendment No. 1 to License Agreement dated November 19, 2004, previously filed with the SEC on March 16, 2005 as Exhibit 10.25 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference. The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.

- 10.19 Operating Agreement with Genzyme Corporation, previously filed with the SEC on July 6, 1999 as Exhibit 10.30 to the Company's Amendment No. 2 to Registration Statement on Form S-1 (File No. 333-77701), which is incorporated herein by reference.
- 10.20 Manufacturing, Marketing and Sales Agreement dated as of January 1, 2008, by and among BioMarin Pharmaceutical Inc., Genzyme Corporation and BioMarin/Genzyme LLC previously filed with the SEC on February 28, 2008 as Exhibit 10.30 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference. The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.
- 10.21 Amended and Restated Collaboration Agreement dated as of January 1, 2008, by and among BioMarin Pharmaceutical Inc., Genzyme Corporation and BioMarin/Genzyme LLC previously filed with the SEC on February 28, 2008 as Exhibit 10.31 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference. The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.
- 10.22 Members Agreement dated as of January 1, 2008 by and among BioMarin Pharmaceutical Inc., Genzyme Corporation, BioMarin Genetics Inc., and BioMarin/Genzyme LLC previously filed with the SEC on February 28, 2008 as Exhibit 10.32 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference. The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.
- 10.23† BioMarin Pharmaceutical Inc. 2012 Inducement Plan, adopted May 8, 2012, previously filed with the SEC on May 9, 2012 as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.24† Form of Stock Options Agreement for the BioMarin Pharmaceutical Inc. 2006 Share Incentive Plan. (as Amended and Restated 2010), previously filed with the SEC on August 2, 2012 as Exhibit 10.11 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.
- 10.25† Form of Stock Options Agreement for the BioMarin Pharmaceutical Inc. 2012 Inducement Plan, previously filed with the SEC on August 2, 2012 as Exhibit 10.13 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.
- 10.26† Form of Agreement Regarding Restricted Stock Units for the BioMarin Pharmaceutical Inc. 2012 Inducement Plan, previously filed with the SEC on August 2, 2012 as Exhibit 10.14 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.
- 10.27 Capped Call Confirmation for the 2018 Notes, dated October 8, 2013, between BioMarin Pharmaceutical Inc. and Bank of America, N.A., previously filed with the SEC on October 11, 2013 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.28 Capped Call Confirmation for the 2020 Notes, dated October 8, 2013, between BioMarin Pharmaceutical Inc. and Bank of America, N.A., previously filed with the SEC on October 11, 2013 as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.29 Capped Call Confirmation for the 2018 Notes, dated October 8, 2013, between BioMarin Pharmaceutical Inc. and Morgan Stanley & Co. LLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.3 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.

- 10.30 Capped Call Confirmation for the 2020 Notes, dated October 8, 2013, between BioMarin Pharmaceutical Inc. and Morgan Stanley & Co. LLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.4 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.31 Capped Call Confirmation for the 2018 Notes, dated October 8, 2013, between BioMarin Pharmaceutical Inc. and Barclays Bank PLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.5 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.32 Capped Call Confirmation for the 2020 Notes, dated October 8, 2013, between BioMarin Pharmaceutical Inc. and Barclays Bank PLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.6 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.33 Additional Capped Call Confirmation for the 2018 Notes, dated October 9, 2013, between BioMarin Pharmaceutical Inc. and Bank of America, N.A., previously filed with the SEC on October 11, 2013 as Exhibit 10.7 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.34 Additional Capped Call Confirmation for the 2020 Notes, dated October 9, 2013, between BioMarin Pharmaceutical Inc. and Bank of America, N.A., previously filed with the SEC on October 11, 2013 as Exhibit 10.8 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.35 Additional Capped Call Confirmation for the 2018 Notes, dated October 9, 2013, between BioMarin Pharmaceutical Inc. and Morgan Stanley & Co. LLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.9 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.36 Additional Capped Call Confirmation for the 2020 Notes, dated October 9, 2013, between BioMarin Pharmaceutical Inc. and Morgan Stanley & Co. LLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.10 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.37 Additional Capped Call Confirmation for the 2018 Notes, dated October 9, 2013, between BioMarin Pharmaceutical Inc. and Barclays Bank PLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.11 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.38 Additional Capped Call Confirmation for the 2020 Notes, dated October 9, 2013, between BioMarin Pharmaceutical Inc. and Barclays Bank PLC, previously filed with the SEC on October 11, 2013 as Exhibit 10.12 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.39 Contract of Purchase and Sale and Joint Escrow Instructions, dated December 17, 2013, for the San Rafael Corporate Center, by and among BioMarin Pharmaceutical Inc., through its wholly-owned subsidiary, California Corporate Center Acquisition, LLC, SR Corporate Center Phase One, LLC, and SR Corporate Center Phase Two, previously filed with the SEC on February 26, 2014 as Exhibit 10.68 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference.
- 10.40 Asset Purchase Agreement, between BioMarin Pharmaceutical Inc., BioMarin GALNS Ltd. and Regeneron Ireland dated July 29, 2014, previously filed with the SEC on October 28, 2014 as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference.

- 10.41 Form of Tender and Support Agreement by and among BioMarin Pharmaceutical Inc., BioMarin Falcons B.V. and shareholders of Prosensa Holding N.V., previously filed with the SEC on November 26, 2014 as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.42 Convertible Promissory Note, dated as of November 26, 2014, between Prosensa Holding N.V. and BioMarin Falcons B.V., previously filed as Exhibit 10.3 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.43† BioMarin Pharmaceutical Inc. 2014 Inducement Plan, adopted December 17, 2014, previously filed with the SEC on December 23, 2014 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.44 Form of Contingent Value Rights Agreement, dated as of January 14, 2015, by and between BioMarin Pharmaceutical Inc., BioMarin Falcons B.V. and American Stock Transfer & Trust Company, LLC, previously filed with the SEC on January 16, 2015 as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated by reference herein.
- 10.45† Form of Stock Options Agreement for the BioMarin Pharmaceutical Inc. 2014 Inducement Plan, previously filed with the SEC on March 2, 2015 as Exhibit 10.60 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference.
- 10.46† Form of Agreement Regarding Restricted Share Units for the BioMarin Pharmaceutical Inc. 2014 Inducement Plan, previously filed with the SEC on March 2, 2015 as Exhibit 10.61 to the Company's Annual Report on Form 10-K (File No. 000-26727), which is incorporated herein by reference.
- 10.47† Form of Amended and Restated Employment Agreement for the Company's Executive Officers (other than the Company's Chief Executive Officer) previously filed with the SEC on June 15, 2015 as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 000-26727), which is incorporated herein by reference.
- 10.48 Settlement and License Agreement among BioMarin Pharmaceutical Inc., Merck & Cie, Dr. Reddy's Laboratories, Inc. and Dr. Reddy's Laboratories, Ltd., dated September 14, 2015, previously filed with the SEC on November 2, 2015 as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 000-26727), which is incorporated herein by reference. The SEC has granted confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.
- 10.49\* Credit Agreement by and among BioMarin Pharmaceutical Inc., as the Borrower, Bank of America, N.A., as Administrative Agent, Swing Line Lender, L/C Issuer and a Lender, and the Lenders party thereto, dated as of November 29, 2016.
- 10.50\*† Form of Agreement Regarding Performance Compensation Award in the Form of Restricted Stock Units for the BioMarin Pharmaceutical Inc. 2006 Share Incentive Plan.
- 21.1\* Subsidiaries of BioMarin Pharmaceutical Inc.
- 23.1\* Consent of KPMG LLP, Independent Registered Public Accounting Firm for BioMarin Pharmaceutical Inc.
- 24.1\* Power of Attorney (Included in Signature Page to this Report)
- 31.1\* Certification of Chief Executive Officer pursuant to Rules 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended.
- 31.2\* Certification of Chief Financial Officer pursuant to Rules 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended.
- 32.1\* Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. This Certification accompanies this report and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed for purposes of §18 of the Securities Exchange Act of 1934, as amended.



101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Link Document

\* Filed herewith

† Management contract or compensatory plan or arrangement

**Item 16. Form 10-K Summary**

None.



## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Jean-Jacques Bienaimé and Daniel Spiegelman, his or her attorney-in-fact, with the power of substitution, for him or her in any and all capacities, to sign any amendments to the Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/S/ JEAN-JACQUES BIENAIMÉ</u> <b>Jean-Jacques Bienaimé</b>	Chairman and Chief Executive Officer (Principal Executive Officer)	February 27, 2017
<u>/S/ DANIEL SPIEGELMAN</u> <b>Daniel Spiegelman</b>	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 27, 2017
<u>/S/ BRIAN R. MUELLER</u> <b>Brian R. Mueller</b>	Senior Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	February 27, 2017
<u>/S/ WILLARD H. DERE, M.D.</u> <b>Willard H. Dere, M.D.</b>	Director	February 27, 2017
<u>/S/ KATHRYN E. FALBERG</u> <b>Kathryn E. Falberg</b>	Director	February 27, 2017
<u>/S/ MICHAEL G. GREY</u> <b>Michael G. Grey</b>	Director	February 27, 2017
<u>/S/ ELAINE HERON</u> <b>Elaine Heron</b>	Director	February 27, 2017
<u>/S/ V. BRYAN LAWLIS</u> <b>V. Bryan Lawlis</b>	Director	February 27, 2017
<u>/S/ ALAN J. LEWIS</u> <b>Alan J. Lewis</b>	Director	February 27, 2017
<u>/S/ RICHARD A. MEIER</u> <b>Richard A. Meier</b>	Lead Independent Director	February 27, 2017
<u>/S/ DAVID PYOTT</u> <b>David Pyott</b>	Director	February 27, 2017
<u>/S/ DENNIS J. SLAMON</u> <b>Dennis J. Slamon</b>	Director	February 27, 2017

**BIOMARIN PHARMACEUTICAL INC.  
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## Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
BioMarin Pharmaceutical Inc.:

We have audited the accompanying consolidated balance sheets of BioMarin Pharmaceutical Inc. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three year period ended December 31, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of BioMarin Pharmaceutical Inc. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the three year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), BioMarin Pharmaceutical Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 27, 2017 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

As discussed in Note 4 to the consolidated financial statements, the company has changed its method of accounting for share-based compensation due to the adoption of the amendments to the FASB Accounting Standards Codification Topic 718- "Compensation – Stock compensation", effective January 1, 2016.

/s/ KPMG LLP

San Francisco, California  
February 27, 2017

## Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
BioMarin Pharmaceutical Inc.:

We have audited BioMarin Pharmaceutical Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting in Item 9a. 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, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of BioMarin Pharmaceutical Inc. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and our report dated February 27, 2017 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

San Francisco, California  
February 27, 2017

**BIOMARIN PHARMACEUTICAL INC.**  
**CONSOLIDATED BALANCE SHEETS**

**December 31, 2016 and 2015**

(In thousands of U.S. dollars, except per share amounts)

	December 31, 2016	December 31, 2015
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 408,330	\$ 397,040
Short-term investments	381,347	195,579
Accounts receivable, net (allowance for doubtful accounts: \$73 and \$93, at December 31, 2016 and 2015, respectively)	215,280	164,959
Inventory	355,126	271,683
Other current assets	61,708	60,378
Total current assets	<u>1,421,791</u>	<u>1,089,639</u>
Noncurrent assets:		
Long-term investments	572,711	425,652
Property, plant and equipment, net	798,768	704,207
Intangible assets, net	553,780	683,996
Goodwill	197,039	197,039
Deferred tax assets	446,786	220,191
Other assets	32,815	408,644
Total assets	<u>\$ 4,023,690</u>	<u>\$ 3,729,368</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 370,505	\$ 392,511
Short-term convertible debt, net	22,478	—
Short-term contingent acquisition consideration payable	46,327	52,946
Total current liabilities	<u>439,310</u>	<u>445,457</u>
Noncurrent liabilities:		
Long-term convertible debt, net	660,761	662,286
Long-term contingent acquisition consideration payable	115,310	32,663
Deferred tax liabilities	—	143,527
Other long-term liabilities	42,034	44,588
Total liabilities	<u>1,257,415</u>	<u>1,328,521</u>
Stockholders' equity:		
Common stock, \$0.001 par value: 250,000,000 shares authorized at December 31, 2016 and 2015: 172,647,588 and 161,526,044 shares issued and outstanding at December 31, 2016 and 2015, respectively.	173	162
Additional paid-in capital	4,288,113	3,414,837
Company common stock held by Nonqualified Deferred Compensation Plan (the NQDC)	(14,321)	(13,616)
Accumulated other comprehensive income	12,816	21,033
Accumulated deficit	(1,520,506)	(1,021,569)
Total stockholders' equity	<u>2,766,275</u>	<u>2,400,847</u>
Total liabilities and stockholders' equity	<u>\$ 4,023,690</u>	<u>\$ 3,729,368</u>

The accompanying notes are an integral part of these Consolidated Financial Statements.

**BIOMARIN PHARMACEUTICAL INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**Years Ended December 31, 2016, 2015 and 2014**  
(In thousands of U.S. dollars, except per share amounts)

	2016	2015	2014
<b>REVENUES:</b>			
Net product revenues	\$ 1,110,381	\$ 884,522	\$ 738,416
Royalty and other revenues	6,473	5,373	10,868
Total revenues	<u>1,116,854</u>	<u>889,895</u>	<u>749,284</u>
<b>OPERATING EXPENSES:</b>			
Cost of sales (excludes amortization of intangible assets)	209,620	152,008	122,267
Research and development	661,905	634,806	461,543
Selling, general and administrative	476,593	402,271	302,156
Intangible asset amortization and contingent consideration	(26,953)	(17,690)	23,709
Impairment of intangible asset	599,118	198,700	—
Gain on sale of intangible asset	—	(369,498)	(67,500)
Total operating expenses	<u>1,920,283</u>	<u>1,000,597</u>	<u>842,175</u>
<b>LOSS FROM OPERATIONS</b>	<b>(803,429)</b>	<b>(110,702)</b>	<b>(92,891)</b>
Equity in the loss of BioMarin/Genzyme LLC	(538)	(817)	(877)
Interest income	7,487	4,501	5,937
Interest expense	(39,499)	(38,244)	(36,642)
Other income (expense)	4,929	(9,462)	(395)
<b>LOSS BEFORE INCOME TAXES</b>	<b>(831,050)</b>	<b>(154,724)</b>	<b>(124,868)</b>
Provision for (benefit from) income taxes	(200,840)	17,075	9,101
<b>NET LOSS</b>	<b>\$ (630,210)</b>	<b>\$ (171,799)</b>	<b>\$ (133,969)</b>
<b>NET LOSS PER SHARE, BASIC</b>	<b>\$ (3.80)</b>	<b>\$ (1.07)</b>	<b>\$ (0.92)</b>
<b>NET LOSS PER SHARE, DILUTED</b>	<b>\$ (3.81)</b>	<b>\$ (1.07)</b>	<b>\$ (0.92)</b>
Weighted average common shares outstanding, basic	<u>165,985</u>	<u>160,025</u>	<u>146,349</u>
Weighted average common shares outstanding, diluted	<u>166,219</u>	<u>160,025</u>	<u>146,349</u>

The accompanying notes are an integral part of these Consolidated Financial Statements.



**BIOMARIN PHARMACEUTICAL INC.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**  
**Years Ended December 31, 2016, 2015 and 2014**  
(In thousands of U.S. dollars, except per share amounts)

	2016	2015	2014
<b>NET LOSS</b>	\$ (630,210)	\$ (171,799)	\$ (133,969)
<b>OTHER COMPREHENSIVE INCOME (LOSS):</b>			
Net foreign currency gain (loss)	(2)	(59)	(75)
Available-for-sale securities:			
Unrealized holding gain (loss) arising during the period, net of tax impact of \$4,412, \$1,581 and \$(2,931) for the years ended December 31, 2016, 2015 and 2014, respectively.	(7,692)	(2,878)	5,088
Less reclassifications to net loss, net of tax impact of \$42, \$(681) and \$0 for the years ended December 31, 2016, 2015 and 2014, respectively.	(73)	1,192	—
Net change in unrealized holding gains, net of tax	(7,619)	(4,070)	5,088
Cash flow hedges:			
Unrealized holding gain arising during the period, net of tax impact of \$0, \$0 and \$(1,214) for the years ended December 31, 2016, 2015 and 2014, respectively.	9,677	17,300	18,078
Less reclassifications to net loss, net of tax impact of \$0, \$0 and \$(365) for the years ended December 31, 2016, 2015 and 2014, respectively.	10,273	19,604	643
Net change in unrealized holding gains (loss), net of tax	(596)	(2,304)	17,435
<b>OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX</b>	(8,217)	(6,433)	22,448
<b>COMPREHENSIVE LOSS</b>	<u>\$ (638,427)</u>	<u>\$ (178,232)</u>	<u>\$ (111,521)</u>

The accompanying notes are an integral part of these Consolidated Financial Statements.

**BIOMARIN PHARMACEUTICAL INC.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
**Years Ended December 31, 2016, 2015 and 2014**  
**(In thousands of U.S. dollars and share amounts in thousands)**

	Common stock		Additional Paid-in Capital	Company Stock Held by NQDC	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount					
Balance at December 31, 2013	143,464	\$ 144	\$ 2,059,101	\$ (7,421)	\$ 5,018	\$ (715,801)	\$ 1,341,041
Net loss						(133,969)	(133,969)
Other comprehensive income					22,448		22,448
Issuance of common stock, net of offering costs	1,500	1	117,463				117,464
Issuance of common stock under ESPP	258		8,714				8,714
Issuances under equity incentive plans, net of tax	2,817	3	63,419				63,422
Conversion of convertible notes, net	1,055	1	21,323				21,324
Company stock held by NQDC				(2,274)			(2,274)
Excess tax benefit from stock option exercises			1,491				1,491
Stock-based compensation			88,233				88,233
Balance at December 31, 2014	149,094	\$ 149	\$ 2,359,744	\$ (9,695)	\$ 27,466	\$ (849,770)	\$ 1,527,894
Net loss						(171,799)	(171,799)
Other comprehensive loss					(6,433)		(6,433)
Issuance of common stock, net of offering costs	9,775	10	888,247				888,257
Issuance of common stock under ESPP	185		9,957				9,957
Issuances under equity incentive plans, net of tax	2,023	2	30,097				30,099
Conversion of convertible notes, net	449	1	9,111				9,112
Company stock held by NQDC				(3,921)			(3,921)
Excess tax benefit from stock option exercises			2,190				2,190
Stock-based compensation			115,491				115,491
Balance at December 31, 2015	161,526	\$ 162	\$ 3,414,837	\$ (13,616)	\$ 21,033	\$ (1,021,569)	\$ 2,400,847
Net loss						(630,210)	(630,210)
Cumulative-effect adjustment of new share-based compensation guidance						131,273	131,273
Other comprehensive loss					(8,217)		(8,217)
Issuance of common stock, net of offering costs	7,500	8	712,930				712,938
Issuance of common stock under ESPP	197		11,998				11,998
Issuances under equity incentive plans, net of tax	2,987	3	2,757				2,760
Conversion of convertible notes, net	438		8,928				8,928
Company stock held by NQDC				(705)			(705)
Stock-based compensation			136,663				136,663
Balance at December 31, 2016	172,648	\$ 173	\$ 4,288,113	\$ (14,321)	\$ 12,816	\$ (1,520,506)	\$ 2,766,275

The accompanying notes are an integral part of these Consolidated Financial Statements.

**BIOMARIN PHARMACEUTICAL INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**Years Ended December 31, 2016, 2015 and 2014**  
**(In thousands of U.S. dollars)**

	2016	2015	2014
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net loss	\$ (630,210)	\$ (171,799)	\$ (133,969)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization expense	96,912	47,187	45,871
Non-cash interest expense	29,930	28,493	27,225
Accretion of discount on investments	1,300	2,177	7,211
Stock-based compensation expense	134,641	111,525	86,410
Gain on sale of intangible asset	—	(369,498)	(67,500)
Gain on termination of leases	—	—	(10,092)
(Gain) loss on sale of equity investment	108	(3,022)	—
Impairment of assets	599,118	211,502	—
Deferred income taxes	(228,054)	(76,827)	(25,617)
Unrealized foreign exchange gain on forward contracts	(14,481)	(19,575)	(832)
Non-cash changes in the fair value of contingent acquisition consideration payable	(57,161)	(28,457)	11,567
Other	336	2,463	5,188
Changes in operating assets and liabilities:			
Accounts receivable, net	(51,483)	(16,367)	(25,951)
Inventory	(64,512)	(50,989)	(22,339)
Other current assets	19,316	25,800	(2,211)
Other assets	(4,979)	(3,157)	(6,516)
Accounts payable and accrued liabilities	(53,205)	90,298	38,040
Other long-term liabilities	(5,413)	747	3,093
Net cash used in operating activities	(227,837)	(219,499)	(70,422)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchases of property, plant and equipment	(148,380)	(227,653)	(117,062)
Deposit on purchase of PKU rights	—	(371,756)	—
Maturities and sales of investments	367,569	424,713	808,313
Purchase of available-for-sale investments	(699,749)	(873,184)	(507,036)
Proceeds from sale of intangible asset	—	410,000	67,500
Business acquisitions, net of cash acquired	(2,789)	(538,392)	—
Investment in convertible promissory note	—	(3,326)	(52,288)
Other	(698)	—	(3,100)
Net cash provided by (used in) investing activities	(484,047)	(1,179,598)	196,327
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Proceeds from exercises of stock options and the ESPP	74,227	63,045	79,904
Taxes paid related to net share settlement of equity awards	(59,469)	(22,989)	(7,768)
Proceeds from public offering of common stock, net	712,938	888,257	117,464
Payment of contingent acquisition consideration payable	—	—	(4,691)
Other	(588)	(2,590)	(711)
Net cash provided by financing activities	727,108	925,723	184,198
Effect of exchange rate changes on cash	(3,934)	(5,072)	(3,398)
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>11,290</b>	<b>(478,446)</b>	<b>306,705</b>
Cash and cash equivalents:			
Beginning of period	397,040	\$ 875,486	568,781
End of period	<u>408,330</u>	<u>\$ 397,040</u>	<u>\$ 875,486</u>
<b>SUPPLEMENTAL CASH FLOW DISCLOSURES:</b>			
Cash paid for interest, net of interest capitalized into fixed assets	8,643	9,307	9,324
Cash paid for income taxes	95,857	16,084	34,986
Stock-based compensation capitalized into inventory	11,449	11,140	8,166
Depreciation capitalized into inventory	17,375	14,627	10,952
<b>SUPPLEMENTAL CASH FLOW DISCLOSURES FOR NON-CASH INVESTING AND FINANCING ACTIVITIES:</b>			
Increase (decrease) in accounts payable and accrued liabilities related to fixed assets	20,158	(4,651)	16,766
Conversion of convertible debt, net	8,928	9,112	21,324

The accompanying notes are an integral part of these Consolidated Financial Statements.

**BIOMARIN PHARMACEUTICAL INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

**(1) NATURE OF OPERATIONS AND BUSINESS RISKS**

BioMarin Pharmaceutical Inc. (the Company or BioMarin) is a global biotechnology company that develops and commercializes innovative therapies for people with serious and life-threatening rare diseases and medical conditions. BioMarin selects product candidates for diseases and conditions that represent a significant unmet medical need, have well-understood biology and provide an opportunity to be first-to-market or offer a significant benefit over existing products. The Company's therapy portfolio consists of five products and multiple clinical and pre-clinical product candidates.

The Company expects to continue to finance future cash needs that exceed its operating activities primarily through its current cash, cash equivalents, short-term and long-term investments, and to the extent necessary, through proceeds from debt or equity offerings, commercial borrowing, or through collaborative agreements with corporate partners. If the Company elects to increase its spending on development programs significantly above current long-term plans or enters into potential licenses and other acquisitions of complementary technologies, products or companies, the Company may need additional capital.

The Company is subject to a number of risks, including: the financial performance of its commercial products; the potential need for additional financings; the Company's ability to successfully commercialize its approved product candidates; the uncertainty of the Company's research and development (R&D) efforts resulting in future successful commercial products; the Company's ability to successfully obtain regulatory approval for new products; significant competition from larger organizations; reliance on the proprietary technology of others; dependence on key personnel; uncertain patent protection; dependence on corporate partners and collaborators; and possible restrictions on reimbursement from governmental agencies and healthcare organizations, as well as other changes in the health care industry.

**(2) BASIS OF PRESENTATION**

***Basis of Presentation***

These Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP) and include the accounts of BioMarin and its wholly owned subsidiaries. All significant intercompany transactions have been eliminated. Management performed an evaluation of the Company's activities through the date of filing of this Annual Report on Form 10-K, and has concluded that there are no subsequent events.

***Use of Estimates***

The preparation of financial statements in conformity with U.S. GAAP requires management to make judgments, estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the dates of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**(3) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

***Cash and Cash Equivalents***

The Company treats liquid investments with original maturities of three months or less when purchased as cash and cash equivalents.

**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

***Investments***

The Company determines the appropriate classification of its investments in debt and equity securities at the time of purchase and reevaluates such designations at each balance sheet date. All of the Company's securities are classified as available-for-sale and reported in short-term investments, long-term investments or other assets. Available-for-sale investments are recorded at fair market value, with unrealized gains or losses included in Accumulated Other Comprehensive Income on the Company's Consolidated Balance Sheets, exclusive of other-than-temporary impairment losses, if any. Investments consist of corporate securities, commercial paper, U.S. federal government agency securities and certificates of deposit.

***Inventory***

The Company values inventory at the lower of cost and net realizable value and determines the cost of inventory using the average-cost method. Inventories consist of currently marketed products and may contain certain products awaiting regulatory approval.

The Company analyzes its inventory levels quarterly and writes down inventory that has become obsolete, or has a cost basis in excess of its expected net realizable value and inventory quantities in excess of expected requirements. Expired inventory is disposed of and the related costs are recognized as Cost of Sales in the Company's Consolidated Statements of Operations.

***Inventories Produced in Preparation for Product Launches***

The Company capitalizes inventories produced in preparation for product launches based upon the probability of regulatory approval and earning future revenues. Typically, capitalization of such inventory begins when positive results have been obtained for the clinical trials that the Company believes are necessary to support regulatory approval, uncertainties regarding ultimate regulatory approval have been significantly reduced and the Company has determined it is probable that these capitalized costs will provide some future economic benefit in excess of capitalized costs. The material factors considered by the Company in evaluating these uncertainties include the receipt and analysis of positive pivotal clinical trial results for the underlying product candidate, results from meetings with the relevant regulatory authorities prior to the filing of regulatory applications, and the compilation of the regulatory application. The Company closely monitors the status of each respective product within the regulatory approval process, including all relevant communication with regulatory authorities. The Company also considers its historical experience with manufacturing and commercializing similar products and the relevant product candidate. If the Company is aware of any specific material risks or contingencies other than the normal regulatory review and approval process, or if there are any specific issues identified relating to safety, efficacy, manufacturing, marketing or labeling, the related inventory would generally not be capitalized.

For inventories that are capitalized in preparation of product launch, anticipated future sales, expected approval date and shelf lives are evaluated in assessing realizability. The shelf life of a product is determined as part of the regulatory approval process; however, in evaluating whether to capitalize pre-launch inventory production costs, the Company considers the product stability data of all of the pre-approval production to date to determine whether there is adequate expected shelf life for the capitalized pre-launch production costs. In applying the lower of cost or net realizable value to pre-launch inventory, the Company estimates a range of likely commercial prices based on its comparable commercial products.

BIOMARIN PHARMACEUTICAL INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

**Property, Plant and Equipment**

Property, plant and equipment are stated at cost net of accumulated depreciation. Depreciation is computed using the straight-line method over the related estimated useful lives as presented in the table below. Significant additions and improvements are capitalized, while repairs and maintenance are charged to expense as incurred. Property and equipment purchased for specific R&D projects with no alternative uses are expensed as incurred.

Leasehold improvements	Shorter of life of asset or lease term
Building and improvements	Lesser of useful life of the asset or remaining life of the building
Manufacturing and laboratory equipment	5 to 15 years
Computer hardware and software	3 to 8 years
Office furniture and equipment	5 years
Vehicles	5 years
Land improvements	10 years
Land	Not applicable
Construction-in-progress	Not applicable

Certain of the Company's operating lease agreements include scheduled rent escalations over the lease term, as well as tenant improvement allowances. Scheduled increases in rent expense are recognized on a straight-line basis over the lease term. The difference between rent expense and rent paid is recorded as deferred rent and included in other liabilities in the accompanying Consolidated Balance Sheets. The tenant improvement allowances and free rent periods are recognized as a reduction of rent expense over the lease term on a straight-line basis.

**Impairment of Long-Lived Assets**

The Company records goodwill in a business combination when the total consideration exceeds the fair value of the net tangible and identifiable intangible assets acquired. Goodwill and intangible assets with indefinite lives are not amortized but subject to an annual impairment analysis. Intangible assets with finite lives are amortized over their estimated useful lives on a straight-line basis.

The Company performs its annual impairment review of goodwill and indefinite lived intangibles during the fourth quarter and whenever events or circumstances indicate that the carrying amount of an asset may not be recoverable. If it is determined that the full carrying amount of an asset is not recoverable, an impairment loss is recorded in the amount by which the carrying amount of the asset exceeds its fair value.

During the fourth quarter of 2016, the Company performed its annual impairment review and determined no impairments of goodwill existed and, other than the impairments recognized in the second quarter of 2016, there were no additional impairments of intangible assets at December 31, 2016. See Note 7 to these Consolidated Financial Statements for further details on impairments to intangible assets.

The Company tests finite-lived intangible assets for impairment when facts or circumstances suggest that the carrying value of the asset may not be recoverable. If the carrying value exceeds the projected undiscounted pre-tax cash flows of the intangible asset, an impairment loss equal to the excess of the carrying value over the estimated fair value (discounted after-tax cash flows) is recognized.

The recoverability of the carrying value of the Company's buildings, leasehold improvements for its facilities and equipment depends on the successful execution of the Company's business initiatives and its ability to earn sufficient returns on approved products and product candidates. The Company continually monitors events and changes in circumstances that could indicate carrying amounts of its fixed assets may not be recoverable. When such events or changes in circumstances occur, the Company assesses recoverability by determining whether the carrying value of such assets will be recovered through the undiscounted expected future cash flows. If the future undiscounted cash flows are less than the carrying amount of these assets, the Company recognizes an impairment loss based on the excess of the carrying amount over the fair value of the assets.

BIOMARIN PHARMACEUTICAL INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

**Revenue Recognition**

The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the price to the buyer is fixed or determinable and collection from the customer is reasonably assured.

*Net Product Revenues*—The Company recognizes revenues from product sales when title and risk of loss have passed to the customer, which typically occurs upon delivery. Product sales transactions are evidenced by customer purchase orders, customer contracts, invoices and/or the related shipping documents. Amounts collected from customers and remitted to governmental authorities, which primarily consists of value-added taxes related to product sales in foreign jurisdictions, are presented on a net basis in the Company's Consolidated Statements of Operations, in that taxes billed to customers are not included as a component of net product revenues.

In the U.S., the Company's commercial products are generally sold to specialty pharmacies or end-users, such as hospitals, which act as retailers. Through December 31, 2015, the Company also sold Kuvan to Ares Trading S.A. (Merck Serono) at a price near its manufacturing cost, and Merck Serono resold the product to end users outside the U.S., Canada and Japan. The royalty earned from Kuvan product sold by Merck Serono in the EU was included as a component of net product revenues in the period earned. Outside the U.S., the Company's commercial products were sold to its authorized distributors or directly to government purchasers or hospitals, which act as the end-users.

The Company receives a payment ranging from 39.5% to 50% on worldwide net Aldurazyme sales by Genzyme Corporation (Genzyme) depending on sales volume, which is included in Net Product Revenues in the Company's Consolidated Statements of Operations. The Company recognizes a portion of this amount as product transfer revenue when the product is released to Genzyme because all of the Company's performance obligations are fulfilled at that point and title to, and risk of loss for, the product has transferred to Genzyme. The product transfer revenue represents the fixed amount per unit of Aldurazyme that Genzyme is required to pay the Company if the product is unsold by Genzyme. The amount of product transfer revenue will eventually be deducted from the calculated royalty recognized when the product is sold by Genzyme. The company records the Aldurazyme revenues based on net sales information provided by Genzyme and record product transfer revenue based on the fulfillment of Genzyme purchase orders in accordance with the terms of the related agreements with Genzyme and when the title and risk of loss for the product is transferred to Genzyme. Although described as royalties in the Company's agreements with Genzyme, the revenues that the Company receives for Aldurazyme and, for the periods through 2015, for Kuvan are similar to direct product sales because the Company manufactures the product and the revenue is highly dependent on substantial operational activities performed by the Company, including responsibility for global regulatory compliance. These responsibilities, and the operational risk that could reduce or eliminate the Company's receipt of these percentage of net sales amounts, are similar to many of the responsibilities and risks associated with the Company's direct sales of other commercial products. Due to the significant role the Company plays in the operations of Aldurazyme and, through 2015, Kuvan as well as the rights and responsibilities to deliver the products to Genzyme and previously to Merck Serono, respectively, the Company includes Aldurazyme revenues as a component of Net Product Revenues in the Company's Consolidated Statements of Operations.

The Company records reserves for rebates payable under Medicaid and other government programs as a reduction of revenue at the time product revenues are recorded. The Company's reserve calculations require estimates, including estimates of customer mix, to determine which sales will be subject to rebates and the amount of such rebates. The Company updates its estimates and assumptions on a quarterly basis and records any necessary adjustments to its reserves. The Company records fees paid to distributors and cash discounts as a reduction of revenue.

The Company records allowances for product returns, if appropriate, as a reduction of revenue at the time product sales are recorded. Several factors are considered in determining whether an allowance for product returns is required, including market exclusivity of the products based on their orphan drug status, the patient population, the customers' limited return rights and the Company's experience with returns. Because of the pricing of the Company's commercial products, the limited number of patients and the customers' limited return rights, most customers and retailers carry a limited inventory.

BIOMARIN PHARMACEUTICAL INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

However, certain international customers, usually government entities, tend to purchase larger quantities of product less frequently. Although such buying patterns may result in revenue fluctuations from quarter to quarter, the Company has not experienced any increased product returns or risk of product returns. The Company relies on historical return rates to estimate returns. Genzyme's contractual return rights for Aldurazyme are limited to defective product. Based on these factors and the fact that the Company has not experienced significant product returns to date, management has concluded that product returns will be minimal. In the future, if any of these factors and/or the history of product returns change, an allowance for product returns may be required.

*Royalty and Other Revenues*—Royalty and other revenues includes royalties on net sales of products with which the Company has no direct involvement, collaborative agreement revenues and rental income.

*Royalty revenue* is recognized as earned in accordance with the contract terms at the time the royalty amount is fixed or determinable based on information received from the licensees and sublicensees and at the time collectibility is reasonably assured.

*Collaborative agreement revenues* includes both license revenue and contract research revenue. Activities under collaborative agreements are evaluated to determine if they represent a multiple element revenue arrangement. The Company allocates the arrangement consideration to those units of accounting. The amount of allocable arrangement consideration is limited to amounts that are fixed or determinable. Arrangement consideration is allocated at the inception of the arrangement to the identified units of accounting based on their relative estimated selling price. Revenue is recognized for each unit of accounting when the appropriate revenue recognition criteria are met.

*Rental income* associated with the tenants in the San Rafael Corporate Center (SRCC) is recognized on a straight-line basis over the term of the respective lease.

Revenue from non-refundable up-front license fees and milestone payments, such as under a development collaboration or an obligation to supply product, is recognized as performance occurs and the Company's obligations are completed. In accordance with the specific terms of the Company's obligations under these arrangements, revenue is recognized as the obligation is fulfilled or ratably over the development or manufacturing period. Revenue associated with substantive at-risk milestones is recognized based upon the achievement of the milestones set forth in the respective agreements. Advance payments received in excess of amounts earned are classified as deferred revenue on the Company's Consolidated Balance Sheets.

***Research and Development***

R&D expenses include expenses associated with contract R&D provided by third-parties, most product manufacturing prior to regulatory approval, clinical and regulatory costs, and internal R&D costs. In instances where the Company enters into agreements with third-parties for R&D activities, costs are expensed upon the earlier of when non-refundable amounts are due or as services are performed unless there is an alternative future use of the funds in other R&D projects. Amounts due under such arrangements may be either fixed fee or fee for service and may include upfront payments, monthly payments and payments upon the completion of milestones or receipt of deliverables. The Company accrues costs for clinical trial activities based upon the services received and estimates of related expenses incurred that have yet to be invoiced by the vendors that perform the activities.

***Convertible Debt Transactions***

The Company separately accounts for the liability and equity components of convertible debt instruments that can be settled in cash by allocating the proceeds from issuance between the liability component and the embedded conversion option, or equity component, in accordance with accounting for convertible debt instruments that may be settled in cash (including partial cash settlement) upon conversion. The value of the equity component is calculated by first measuring the fair value of the liability component, using the interest rate of a similar liability that does not have a conversion feature, as of the issuance date. The difference between the proceeds from the convertible debt issuance and the amount measured as the liability component is recorded as the equity component with a



**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

corresponding discount recorded on the debt. The Company recognizes the accretion of the resulting discount using the effective interest method as part of Interest Expense in its Consolidated Statements of Operations.

***Net Loss Per Common Share***

Basic net loss per share is calculated by dividing net loss by the weighted average shares of common stock outstanding during the period. Diluted net loss per share reflects the potential dilution that would occur if securities or other contracts to issue common stock were exercised or converted into common stock; however, potential common equivalent shares are excluded if their effect is anti-dilutive. See Note 14 to these Consolidated Financial Statements for further details.

***Stock-Based Compensation***

The Company uses the Black-Scholes option-pricing model to determine the fair value of stock options and the Company's ESPP awards. The determination of the fair value of stock-based payment awards using an option-pricing model is affected by the Company's stock price as well as assumptions regarding a number of complex and subjective variables. Stock-based compensation expense is recognized on a straight-line basis over the requisite service period for each award.

The Company uses a lattice model with a Monte Carlo simulation to value restricted stock unit awards with performance and market conditions. This valuation methodology utilizes the closing price of the Company's common stock on grant date and several key assumptions, including expected volatility of the Company's stock price, risk-free rates of return, expected dividend yield and estimated total shareholder return.

In the fourth quarter of 2016, the Company elected to early adopt Accounting Standards Update No. 2016-09, Compensation-Stock Compensation (Topic 718): Improvement to Employee Share-based Payment Accounting issued by the Financial Accounting Standards Board (FASB), which among other items, provides an accounting policy election to account for forfeitures as they occur, rather than to account for them based on an estimate of expected forfeitures. The Company elected to account for forfeitures as they occur. See Note 4 to these Consolidated Financial Statements for further information on the impact of adoption.

If factors change and different assumptions are employed in determining the fair value of stock-based awards, the stock-based compensation expense recorded in future periods may differ significantly from what was recorded in the current period. See Note 17 to these Consolidated Financial Statements for further information.

***Nonqualified Deferred Compensation Plan***

The Company's NQDC Plan allows eligible employees, including members of the Company's Board of Directors (the Board), management and certain highly-compensated employees as designated by the NQDC Plan's administrative committee, to make voluntary deferrals of compensation to specified dates, retirement or death. Participants are permitted to defer portions of their salary, annual cash bonus and restricted stock. The Company is not allowed to make additional direct contributions to the NQDC Plan on behalf of the participants without further action by the Board.

All of the investments held in the NQDC Plan are classified as trading securities and recorded at fair value with changes in the investments' fair values recognized as earnings in the period they occur. Company stock issued and held by the NQDC Plan is accounted for similarly to treasury stock in that the value of the employer stock is determined on the date the restricted stock vests and the shares are issued into the NQDC Plan. The restricted stock issued into the NQDC Plan is recorded as stockholders' equity and changes in the fair value of the corresponding liability are recognized in earnings as incurred. The corresponding liabilities for the NQDC Plan are included in Accounts Payable and Accrued Liabilities and Other Long-Term Liabilities in the Company's Consolidated Balance Sheets. The corresponding assets for the NQDC Plan are included in Other Current Assets and Other Assets in the Company's Consolidated Balance Sheets.

**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

***Income Taxes***

The Company calculates and provides for income taxes in each of the tax jurisdictions in which it operates. Deferred tax assets and liabilities, measured using enacted tax rates, are recognized for the future tax consequences of temporary differences between the tax and financial statement basis of assets and liabilities. A valuation allowance reduces the deferred tax assets to the amount that is more likely than not to be realized. The Company establishes liabilities or reduces assets for uncertain tax positions when the Company believes certain tax positions are not more likely than not of being sustained if challenged. Each quarter, the Company evaluates these uncertain tax positions and adjusts the related tax assets and liabilities in light of changing facts and circumstances.

The Company uses financial projections to support its net deferred tax assets, which contain significant assumptions and estimates of future operations. If such assumptions were to differ significantly, it may have a material impact on the Company's ability to realize its deferred tax assets. At the end of each period, the Company will reassess the ability to realize its deferred tax benefits. If it is more likely than not that the Company would not realize the deferred tax benefits, a valuation allowance may need to be established against all or a portion of the deferred tax assets, which will result in a charge to tax expense.

***Foreign Currency and Other Hedging Instruments***

The Company engages in transactions denominated in foreign currencies and, as a result, is exposed to changes in foreign currency exchange rates. To manage the volatility resulting from fluctuating foreign currency exchange rates, the Company nets a portion of its exposures to take advantage of natural offsets and enters into forward foreign currency exchange contracts for a portion of the remaining exposures.

The Company accounts for its derivative instruments as either assets or liabilities on the balance sheet and measures them at fair value. Derivatives that are not defined as hedging instruments are adjusted to fair value through earnings. Gains and losses resulting from changes in fair value are accounted for depending on the use of the derivative and whether it is designated and qualifies for hedge accounting.

The Company assesses, both at inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting the changes in cash flows of the hedged items. The Company also assesses hedge ineffectiveness on a monthly basis and records the gain or loss related to the ineffective portion to current earnings. If the Company determines that a forecasted transaction is no longer probable of occurring, it discontinues hedge accounting for the affected portion of the hedge instrument, and if the forecasted transaction becomes unlikely to occur, any related unrealized gain or loss on the contract is recognized in current earnings.

See Note 11 to these Consolidated Financial Statements for further information.

***Fair Value of Financial Instruments***

The Company discloses the fair value of financial instruments for assets and liabilities for which the value is practicable to estimate. The carrying amounts of all cash equivalents, short-term and long-term investments and forward exchange contracts approximate fair value based upon quoted market prices. The fair values of trade accounts receivables, accounts payable and other financial instruments approximate carrying value due to their short-term nature, and would be considered level 2 items in the fair value hierarchy.

***Segment Information***

The Company currently operates in one business segment focused on the development and commercialization of innovative therapies for people with serious and life threatening rare diseases and medical conditions. The Company is not organized by market and is managed and operated as one business. A single management team reports to the chief operating decision maker who comprehensively manages the entire business. The Company does not operate any separate lines of business or separate business entities with respect to its products. Accordingly, the Company does not accumulate discrete financial information with respect to separate products, other than revenues, and does not have separately reportable segments.

BIOMARIN PHARMACEUTICAL INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

**Business Combinations**

The Company allocates the purchase price of acquired businesses to the tangible and intangible assets acquired and liabilities assumed based upon their estimated fair values on the acquisition date. The purchase price allocation process requires management to make significant estimates and assumptions, especially at the acquisition date with respect to intangible assets and in-process research and development (IPR&D). In connection with the purchase price allocations for acquisitions, the Company estimates the fair value of contingent payments utilizing a probability-based income approach inclusive of an estimated discount rate.

**Contingent Acquisition Consideration Payable**

The Company determines the fair value of contingent acquisition consideration payable on the acquisition date using a probability-based income approach utilizing an appropriate discount rate. Each reporting period thereafter, the Company revalues these obligations and records increases or decreases in their fair value as adjustments to Intangible Asset Amortization and Contingent Consideration in the Company's Consolidated Statements of Operations. Changes in the fair value of the contingent acquisition consideration payable can result from adjustments to the estimated probability and assumed timing of achieving the underlying milestones, as well as from changes to the discount period and rates.

**Comprehensive Income (Loss) and Accumulated Other Comprehensive Income**

Comprehensive income (loss) includes net income (loss) and certain changes in stockholders' equity that are excluded from net income (loss), such as changes in unrealized gains and losses on the Company's available-for-sale securities, unrealized gains (losses) on foreign currency hedges and changes in the Company's cumulative foreign currency translation account.

**(4) RECENT ACCOUNTING PRONOUNCEMENTS**

*Accounting Pronouncements Not Yet Adopted*

In January 2017, the FASB issued Accounting Standards Update (ASU) No. 2017-04, *Goodwill and Other - Simplifying the Test for Goodwill Impairment* (ASU 2017-04), which eliminates the requirement to determine the fair value of individual assets and liabilities of a reporting unit to measure goodwill impairment. Under the amendments in the new ASU, goodwill impairment testing will be performed by comparing the fair value of the reporting unit with its carrying amount and recognizing an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. The new standard is effective for annual and interim goodwill impairment tests in fiscal years beginning after December 15, 2019, and should be applied on a prospective basis. Early adoption is permitted for annual or interim goodwill impairment testing performed after January 1, 2017, therefore an early election to adopt as of December 31, 2016 is not applicable. The Company will evaluate the potential impact the adoption of ASU 2017-04 will have on its consolidated financial statements when it becomes necessary.

In January 2017, the FASB issued ASU No. 2017-01, *Clarifying the Definition of a Business* (ASU 2017-01), which is intended to clarify the definition of a business. ASU 2017-01 is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. ASU 2017-01 will be effective for the Company's fiscal year beginning January 1, 2018 unless it elects early adoption. The Company will evaluate the potential impact the adoption of ASU 2017-01 will have on its consolidated financial statements when it becomes necessary. As of December 31, 2016, the Company has not elected to early adopt the amendments of ASU 2017-01.

In February 2016, the FASB issued ASU No. 2016-02, *Leases* (ASU 2016-02). The amended guidance requires balance sheet recognition of lease assets and liabilities by lessees for leases classified as operating leases, with an option to not recognize lease assets and lease liabilities for leases with a term of 12 months or less. The amendments also require new disclosures providing additional qualitative and quantitative information about the amounts recorded in the financial statements. Lessor accounting is largely unchanged. ASU 2016-02 is effective for

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
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fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted, but the Company has not made the election to do so. ASU 2016-02 will be effective for the Company's fiscal year beginning January 1, 2019 unless it elects early adoption. The amendments require a modified retrospective approach with optional practical expedients. The Company is currently evaluating the potential impact the adoption of ASU 2016-02 may have on its consolidated financial statements, however, recognition of additional assets and corresponding liabilities related to operating leases on the Company's Consolidated Balance Sheets is required. See Note 23 to these Consolidated Financial Statements for further details on the Company's operating leases.

In May 2014, the FASB issued ASU No. 2014-09 (ASU 2014-09) regarding Accounting Standards Codification (ASC) Topic 606, *Revenue from Contracts with Customers*. ASU 2014-09 provides principles for recognizing revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14 to defer the effective date by one year with early adoption permitted as of the original effective date. ASU 2014-09 will be effective for the Company's fiscal year beginning January 1, 2018. In 2016, the FASB issued several ASUs to help provide interpretive clarifications on the new guidance for ASC Topic 606.

As of December 31, 2016, the Company has not elected early adoption and has not concluded on an adoption method. The Company has formed a task force that is in the process of analyzing the Company's customer contracts and the potential impacts the standard may have on previously reported revenues and future revenues. After completing the analysis of the accounting for the Company's customer contracts under the new revenue standard, the Company will assess the required changes to its accounting policies, systems and internal control over financial reporting. Based on its preliminary analysis of its material contracts with customers, the Company does not anticipate that ASU 2014-09 will have a material impact on its net product revenues for products that are marketed by the Company (e.g., Kuvan, Naglazyme, and Vimizim). The Company is still assessing the application of ASU 2014-09 to its Aldurazyme revenues from Genzyme, which are currently recognized in two components upon delivery and upon sale of the product by Genzyme to third parties. ASU 2014-09 may have an impact on the timing of Aldurazyme revenue recognition, however the Company is in the early stages of its analysis and has not yet concluded on the impact of the new revenue standard on its Aldurazyme revenue recognition.

*Accounting Pronouncements Adopted*

In March 2016, the FASB issued ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09), which is intended to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. ASU 2016-09 is effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. Early application is permitted and the Company adopted the amendments in ASU 2016-09 during the fourth quarter of fiscal 2016, which required the Company to reflect any adjustments as of January 1, 2016, the beginning of the annual period that includes the interim period of adoption.

The impact of adopting ASU 2016-09 resulted in the following:

- The Company recorded \$15.1 million of tax benefits within income tax expense for the year ended December 31, 2016 related to employee equity award activity. Prior to adoption the excess tax benefit had not been realized through a reduction in taxes payable. In a small number of states, there had been a benefit to taxes payable and for these states the benefit was recorded as additional paid-in capital. This change could create future volatility in the Company's effective tax rate depending upon the amount of exercise or vesting activity from stock-based awards.
- The Company recorded a \$131.3 million cumulative-effect adjustment to accumulated deficit as of January 1, 2016 related to historical excess tax benefits.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
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- The Company elected to recognize forfeitures as they occur. The cumulative effect adjustment as a result of the adoption of this amendment on a modified retrospective basis was insignificant.
- The Company elected to apply the change in classification of cash flows resulting from excess tax benefits or deficiencies on a retrospective basis. Accordingly, \$2.2 million and \$1.5 million of excess tax benefits previously reported as a cash flow provided by financing activities during the years ended December 31, 2015 and 2014, respectively, have been reclassified to be included in cash flows from operating activities. The reclassification of excess tax benefits on the Consolidated Statements of Cash Flows is not material.

There were no other material impacts to our consolidated financial statements as a result of adopting this updated standard.

**(5) ACQUISITIONS**

*The Merck PKU Business*

On October 1, 2015, the Company entered into a Termination and Transition Agreement with Ares Trading S.A. (Merck Serono), as amended and restated on December 23, 2015 (the A&R Kuvan Agreement), to terminate the Development, License and Commercialization Agreement, dated May 13, 2005, as amended (the License Agreement), between the Company and Merck Serono, including the license to Kuvan the Company had granted to Merck Serono under the License Agreement. Also on October 1, 2015, the Company and Merck Serono entered into a Termination Agreement (the Pegvaliase Agreement) to terminate the license to pegvaliase the Company had granted to Merck Serono under the License Agreement. On January 1, 2016, pursuant to the A&R Kuvan Agreement and the Pegvaliase Agreement, the Company completed the acquisition from Merck Serono and its affiliates of certain rights and other assets with respect to Kuvan and pegvaliase (the Merck PKU Business). As a result, the Company acquired all global rights to Kuvan and pegvaliase from Merck Serono, with the exception of Kuvan in Japan. Previously, the Company had exclusive rights to Kuvan in the United States (U.S.) and Canada and pegvaliase in the U.S. and Japan. In connection with the acquisition of the Merck PKU Business, the Company recognized transaction costs of \$0.6 million, of which \$0.3 million was recognized in each of the years ended December 31, 2016 and 2015.

Pursuant to the A&R Kuvan Agreement, the Company paid Merck Serono \$374.5 million, in cash and is obligated to pay Merck Serono up to a maximum of €60.0 million, in cash, if future sales milestones are met. Pursuant to the Pegvaliase Agreement, the Company is obligated to pay Merck Serono up to a maximum of €125.0 million, in cash, if future development milestones are met. Merck Serono transferred certain inventory, regulatory materials and approvals, and intellectual property rights to the Company and will perform certain transition services for the Company. As of December 31, 2016, the inventory acquired from Merck Serono has been sold through to customers.

The Company and Merck Serono have no further rights or obligations under the License Agreement with respect to pegvaliase. As of December 31, 2016, the License Agreement, as amended in December 2016, will continue in effect in order for Merck Serono to provide critical transition services for the sales and distribution of Kuvan in four remaining countries until marketing authorizations can be transferred in such countries.

Prior to the consummation of the transactions described above, the Company sold Kuvan to Merck Serono at a price near its manufacturing costs, and Merck Serono resold the product to end users outside the U.S., Canada and Japan. The royalty earned by the Company from Kuvan product sold by Merck Serono was included as a component of Net Product Revenues in the period earned.

Kuvan is a commercialized product for the treatment of patients with phenylketonuria (PKU) and/or for primary BH4 deficiency in certain countries. Pegvaliase is currently in pivotal studies as a potential therapeutic option for adult patients with PKU. In March 2016, the Company announced that its pivotal Phase 3 PRISM-2 study of pegvaliase met the primary endpoint of change in blood Phe compared with placebo ( $p < 0.0001$ ); and the

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

Company also announced its plans to submit a marketing application in the U.S. Kuvan has Orphan Drug exclusivity in the European Union (EU) until 2020, and pegvaliase has Orphan Drug designation in the U.S. and the EU.

The acquisition date fair value of the contingent acquisition consideration payments, Kuvan global marketing rights, with the exception of Japan, and pegvaliase IPR&D acquired was estimated by applying a probability-based income approach utilizing an appropriate discount rate. This estimation was based on significant inputs that are not observable in the market, referred to as level 3 inputs. Key assumptions include a discount rate and various probability factors. The range of outcomes and assumptions used to develop these estimates has been updated to estimate the fair value of the contingent acquisition consideration payable at December 31, 2016. See Note 12 to these Consolidated Financial Statements for additional discussion regarding fair value measurements of the contingent acquisition consideration payable included on the Company's Consolidated Balance Sheet.

The following table presents the final allocation of the purchase consideration for the Merck PKU Business acquisition, including the contingent acquisition consideration payable based on the acquisition date fair value. The allocation of the purchase price below reflects an inventory adjustment in the second quarter of 2016.

Cash payments	\$	374,545
Estimated fair value of contingent acquisition consideration payable		138,974
Total consideration	\$	<u>513,519</u>
Kuvan intangible assets	\$	172,961
Pegvaliase IPR&D		326,359
Inventory		14,199
Total identifiable assets acquired	\$	<u>513,519</u>

The amount allocated to the Kuvan intangible assets is considered to be finite-lived and will be amortized on a straight-line basis over its estimated useful life through 2024.

The amount allocated to acquired pegvaliase IPR&D is considered to be indefinite-lived until the completion or abandonment of the associated R&D efforts. During the period the assets are considered indefinite-lived, they will not be amortized but will be tested for impairment on an annual basis and between annual tests if the Company becomes aware of any events occurring or changes in circumstances that would indicate the reduction in the fair value of the IPR&D assets below their respective carrying amounts. When development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point. See Note 7 to these Consolidated Financial Statements for further discussion of the indefinite-lived intangible asset.

**Pro Forma Financial Information**

The following unaudited pro forma financial information presents the combined results of operations of the Company and the Merck PKU Business as if the acquisition occurred on January 1, 2015. This unaudited pro forma financial information is presented for informational purposes only and is not necessarily indicative of the results of future operations that would have been achieved had the acquisitions taken place at the beginning of 2015.

		<b>2015</b>
Total revenues	\$	962,853
Net loss	\$	(143,506)
Net loss per share, basic and dilutive	\$	(0.90)
Weighted average common shares outstanding, basic and diluted		160,025

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

**Prosensa Holding N.V.**

On January 29, 2015, the Company completed the acquisition of Prosensa Holding N.V. (Prosensa), a public limited liability company organized under the laws of the Netherlands, for a total purchase price of \$751.5 million. Prosensa was an innovative biotechnology company engaged in the discovery and development of ribonucleic acid (RNA)-modulating therapeutics for the treatment of genetic disorders. Prosensa's primary focus was on rare neuromuscular and neurodegenerative disorders with a large unmet medical need, including subsets of patients with Duchenne muscular dystrophy (DMD), myotonic dystrophy and Huntington's disease.

In connection with its acquisition of Prosensa, the Company made cash payments totaling \$680.1 million, which consisted of \$620.7 million for approximately 96.8% of Prosensa's ordinary shares (the Prosensa Shares), \$38.6 million for the options that vested pursuant to the Company's tender offer for the Prosensa Shares and \$20.8 million to the remaining Prosensa shareholders that did not tender their shares under the tender offer. The fair value of non-transferable contingent value rights and acquired in-process research and development (IPR&D) on the acquisition date was \$71.4 million and \$772.8 million, respectively. In connection with the acquisition of Prosensa, the Company recognized transaction costs of \$9.7 million, of which \$7.0 million and \$2.7 million, was recognized in the years ended December 31, 2015 and 2014, respectively.

The following table presents the allocation of the purchase consideration for the Prosensa acquisition based on fair value.

Cash and cash equivalents	\$ 141,669
Trade accounts receivable	3,086
Other current assets	1,537
Property, plant and equipment	2,683
Intangible assets	497
Other assets	104
Acquired IPR&D	772,808
Total identifiable assets acquired	922,384
Accounts payable and accrued expenses	(68,799)
Debt assumed	(57,053)
Deferred tax liability	(193,202)
Total liabilities assumed	(319,054)
Net identifiable assets acquired	603,330
Goodwill	148,134
Net assets acquired	\$ 751,464

See Note 7 to these Consolidated Financial Statements for further discussion of the indefinite-lived intangible assets.

The deferred tax liability relates to the tax impact of future amortization or possible impairments associated with the identified intangible assets acquired, which are not deductible for tax purposes.

Prosensa's results of operations prior to and since the acquisition date are insignificant to the Company's Consolidated Financial Statements.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

**(6) INVESTMENTS**

All investments were classified as available-for-sale at December 31, 2016 and 2015. The amortized cost, gross unrealized holding gains or losses, and fair value of the Company's available-for-sale securities by major security type at December 31, 2016 and 2015 are summarized in the tables below:

	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Aggregate Fair Value at December 31, 2016
Certificates of deposit	\$ 2,800	\$ —	\$ —	\$ 2,800
Corporate debt securities	633,072	329	(2,277)	631,124
Commercial paper	16,075	—	—	16,075
U.S. government agency securities	304,635	37	(747)	303,925
Greek government-issued bonds	48	86	—	134
Total	<u>\$ 956,630</u>	<u>\$ 452</u>	<u>\$ (3,024)</u>	<u>\$ 954,058</u>

	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Aggregate Fair Value at December 31, 2015
Certificates of deposit	\$ 63,919	\$ 1	\$ —	\$ 63,920
Corporate debt securities	358,625	20	(732)	357,913
Commercial paper	12,733	—	—	12,733
U.S. government agency securities	186,882	—	(344)	186,538
Greek government-issued bonds	48	79	—	127
Total	<u>\$ 622,207</u>	<u>\$ 100</u>	<u>\$ (1,076)</u>	<u>\$ 621,231</u>

As of December 31, 2016, the Company had one investment in marketable equity securities measured using quoted prices in its active market that is considered a strategic investment. During 2016, shares of strategic investments were sold for net realized losses of \$0.1 million. As of December 31, 2016, the fair value of the Company's strategic investment of \$4.1 million included an unrealized gain of \$2.3 million. As of December 31, 2015, the fair value of the Company's strategic investments of \$18.1 million included an unrealized gain of \$12.7 million. Strategic investments are recorded in Other Assets in the Company's Consolidated Balance Sheets.

The fair values of available-for-sale securities by contractual maturity were as follows:

	December 31,	
	2016	2015
Maturing in one year or less	\$ 381,347	\$ 195,579
Maturing after one year through five years	572,711	425,652
Total	<u>\$ 954,058</u>	<u>\$ 621,231</u>

Impairment assessments are made at the individual security level each reporting period. When the fair value of an investment is less than its cost at the balance sheet date, a determination is made as to whether the impairment is other-than-temporary and, if it is other-than-temporary, an impairment loss is recognized in earnings equal to the difference between the investment's amortized cost and fair value at such date. As of December 31, 2016, some of the Company's investments were in an unrealized loss position. However, the Company has the ability and intent to hold all investments that have been in a continuous loss position until maturity or recovery, thus no other-than-temporary impairment is deemed to have occurred.

See Note 12 to these Consolidated Financial Statements for additional discussion regarding the fair value of the Company's available-for-sale securities.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

**(7) INTANGIBLE ASSETS**

Intangible assets consisted of the following:

	December 31,	
	2016	2015
<b>Intangible assets:</b>		
Finite-lived intangible assets	\$ 305,122	\$ 129,572
Indefinite-lived intangible assets	332,199	607,548
Gross intangible assets:	637,321	737,120
Less: Accumulated amortization	(83,541)	(53,124)
Net carrying value	<u>\$ 553,780</u>	<u>\$ 683,996</u>

*Finite-Lived Intangible Assets*

The following table summarizes the net-book-value and estimated remaining life of the Company's finite-lived intangible assets as of December 31, 2016:

	Net Balance at December 31, 2016	Average Remaining Life
Repurchased royalty rights	\$ 46,688	6.9 years
Acquired intellectual property	172,256	8.1 years
License payments for marketing approvals	1,869	4.9 years
SRCC in-place and above market tenant leases	768	Remaining lease terms
Total	<u>\$ 221,581</u>	

As of December 31, 2016, the estimated future amortization expense associated with the Company's finite-lived intangible assets for each of the five succeeding fiscal years is as follows:

Fiscal Year	Amount
2017	\$ 30,430
2018	30,400
2019	30,086
2020	27,605
2021	26,681
Thereafter	76,379
	<u>\$ 221,581</u>

*Indefinite-Lived Intangible Assets*

Indefinite-lived intangible assets consisted of the following:

	December 31,	
	2016	2015
<b>In-Process Research and Development:</b>		
Pegvaliase	\$ 326,359	\$ —
Kyndrisa	—	533,064
Other exons acquired with Prosensa	—	41,044
Reveglucosidase alfa	—	25,010
Other acquired pre-clinical compounds	5,840	8,430
Net carrying value	<u>\$ 332,199</u>	<u>\$ 607,548</u>

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

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

Related to the Kyndrisa and other exon IPR&D assets, the Company recorded impairment charges of \$198.7 million in the fourth quarter of 2015 and impairment charges of \$574.1 million in the second quarter of 2016 based on the status of development efforts. These impairments reduced the remaining book value to zero due to the termination of the programs. The Company also recognized an impairment charge of \$25.0 million in the second quarter of 2016 related to the reveglucosidase alfa IPR&D assets due to the decision to terminate that development program.

In 2015, the Company completed the sale of talazoparib to Medivation Inc. (Medivation). Pursuant to the Asset Purchase Agreement, Medivation paid the Company an upfront payment of \$410.0 million upon the closing of the transaction. In addition, contingent upon the successful development and commercialization of talazoparib, Medivation will pay the Company milestone payments of up to \$160.0 million and mid-single digit percentage royalties on net sales of talazoparib. During the fourth quarter of 2015, the Company recognized a net gain of \$369.5 million related to the sale of the talazoparib intangible assets.

**(8) PROPERTY, PLANT AND EQUIPMENT**

Property, plant and equipment, net consisted of the following:

	December 31,	
	2016	2015
Building and improvements	\$ 510,805	\$ 442,100
Manufacturing and laboratory equipment	242,899	145,313
Computer hardware and software	129,506	113,442
Leasehold improvements	44,184	44,247
Furniture and equipment	27,229	22,817
Land improvements	4,881	4,881
Land	55,412	45,727
Construction-in-progress	126,446	164,283
	<u>1,141,362</u>	<u>982,810</u>
Less: Accumulated depreciation	(342,594)	(278,603)
Total property, plant and equipment, net	<u>\$ 798,768</u>	<u>\$ 704,207</u>

The construction-in-process balance primarily includes costs related to the Company's significant in-process projects at its facilities in Marin County, California, and its manufacturing facility in Shanbally, Cork, Ireland.

Depreciation for the years ended December 31, 2016, 2015 and 2014 was \$73.2 million, \$50.1 million and \$44.3 million, respectively, of which \$17.4 million, \$14.6 million and \$11.0 million was capitalized into inventory, respectively.

Capitalized interest related to the Company's property, plant and equipment purchases for each of the three years ended December 31, 2016 was insignificant.

**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

**(9) INVENTORY**

Inventory consisted of the following:

	December 31,	
	2016	2015
Raw materials	\$ 51,250	\$ 46,115
Work-in-process	167,788	150,289
Finished goods	136,088	75,279
Total inventory	<u>\$ 355,126</u>	<u>\$ 271,683</u>

In the first quarter of 2016, process qualification production activities commenced in the Company's Shanbally facility related to Vimizim production. As of December 31, 2016, the value of the qualification campaign was \$30.0 million, which was capitalized as inventory because the product is expected to be sold commercially. While the Company believes it is unlikely that the manufacturing process will not be approved for Vimizim production, should that occur, the value of the inventory would be expensed at that time.

Inventory as of December 31, 2016 included \$39.1 million of pre-launch Brineura (formerly referred to as cerliponase alfa) inventory for production that commenced in the second quarter of 2016. Brineura is an investigational therapy to treat children with CLN2 disease, or late infantile neuronal ceroid lipofuscinosis, a lysosomal storage disorder primarily affecting the brain. The Company must receive marketing approval from the applicable regulators before the Brineura inventory can be sold commercially. Although regulatory approval cannot be assured, the Company expects to receive regulatory approval and realize the costs of the inventory through future sales. The Company believes that all material uncertainties related to the ultimate regulatory approval of Brineura for commercial sale have been significantly reduced based on positive data from Phase I/II clinical trial results and the filings of Biologics License Application (BLA) with the Food and Drug Administration (FDA) and the MAA with the European Medicines Agency (EMA) during the second quarter of 2016. In its evaluation, the Company also considered its historical experience with developing and commercially producing similar products for rare genetic disorders.

**(10) SUPPLEMENTAL BALANCE SHEET INFORMATION**

Other assets consisted of the following:

	December 31,	
	2016	2015
Deposit for business acquisition	\$ —	\$ 371,756
Deposits	10,722	8,606
Strategic investments	4,064	18,056
Long-term forward foreign currency exchange contract assets	8,194	3,533
Other	9,835	6,693
Total other assets	<u>\$ 32,815</u>	<u>\$ 408,644</u>

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

Accounts payable and accrued liabilities consisted of the following:

	December 31,	
	2016	2015
Accounts payable and accrued operating expenses	\$ 191,353	\$ 179,294
Accrued compensation expense	109,038	95,345
Accrued rebates payable	34,737	32,553
Accrued royalties payable	15,151	10,412
Value added taxes payable	7,848	6,377
Accrued income taxes	—	59,572
Other	12,378	8,958
<b>Total accounts payable and accrued liabilities</b>	<b>\$ 370,505</b>	<b>\$ 392,511</b>

The roll forward of significant estimated accrued rebates, reserve for cash discounts and allowance for doubtful accounts for the years ended December 31, 2016, 2015 and 2014 were as follows:

	Balance at Beginning of Period	Provision for Current Period Sales	Provision/ (Reversals) for Prior Period Sales	Actual Charges Related to Current Period Sales	Actual Charges Related to Prior Period Sales	Balance at End of Period
<b>Year ended December 31, 2016:</b>						
Accrued rebates	\$ 32,553	\$ 44,347	\$ (5,205)	\$ (23,879)	\$ (13,079)	\$ 34,737
Reserve for cash discounts	831	8,889	(22)	(8,160)	(650)	888
Sales return reserve	40	—	(40)	—	—	—
Allowance for doubtful accounts	93	—	(20)	—	—	73
<b>Year ended December 31, 2015:</b>						
Accrued rebates	\$ 14,859	\$ 45,356	\$ (1,245)	\$ (18,421)	\$ (7,996)	\$ 32,553
Reserve for cash discounts	688	7,402	—	(6,722)	(537)	831
Sales return reserve	—	40	—	—	—	40
Allowance for doubtful accounts	490	—	(397)	—	—	93
<b>Year ended December 31, 2014:</b>						
Accrued rebates	\$ 10,429	\$ 24,431	\$ (1,159)	\$ (12,768)	\$ (6,074)	\$ 14,859
Reserve for cash discounts	388	6,435	—	(5,747)	(388)	688
Sales return reserve	907	—	(907)	—	—	—
Allowance for doubtful accounts	529	410	(319)	—	(130)	490

**(11) DERIVATIVE INSTRUMENTS AND HEDGING STRATEGIES**

**Foreign Currency Exchange Rate Exposure**

The Company uses forward foreign currency exchange contracts to hedge certain operational exposures resulting from potential changes in foreign currency exchange rates. Such exposures result from portions of the Company's forecasted revenues and operating expenses being denominated in currencies other than the U.S. dollar, primarily the Euro.

The Company designates certain of these forward foreign currency exchange contracts as hedging instruments and enters into some forward foreign currency exchange contracts that are considered to be economic hedges that are not designated as hedging instruments. Whether designated or undesignated, these forward foreign currency exchange contracts protect against the reduction in value of forecasted foreign currency cash flows resulting from product revenues, royalty revenues, operating expenses and asset or liability positions designated in currencies other than the U.S. dollar. The fair values of forward foreign currency exchange contracts are estimated using current

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exchange rates and interest rates, and take into consideration the current creditworthiness of the counterparties or the Company, as applicable. Information regarding the specific instruments used by the Company to hedge its exposure to foreign currency exchange rate fluctuations is provided below. See Note 12 to these Consolidated Financial Statements for additional discussion regarding the fair value of forward foreign currency exchange contracts.

The Company enters into forward foreign currency exchange contracts in order to protect against the fluctuations in revenue and operating expenses associated with foreign currency-denominated cash flows. The Company has formally designated these forward foreign currency exchange contracts as cash flow hedges and expects them to be highly effective in offsetting fluctuations in operating expenses denominated in Euros and revenues denominated in currencies other than the U.S. dollar related to changes in foreign currency exchange rates.

The following table summarizes the Company's designated forward foreign currency exchange contracts outstanding as of December 31, 2016 (notional amounts in millions):

Foreign Exchange Contracts	Number of Contracts	Aggregate Notional Amount in Foreign Currency	Maturity
Euros - Purchase	82	104.2	Jan. 2017 - Dec. 2019
Euros - Sell	311	340.2	Jan. 2017 - Dec. 2019
Canadian Dollars - Sell	24	23.3	Jan. 2017 - Dec. 2017
Colombian Pesos - Sell	12	62,304.0	Jan. 2017 - Dec. 2017
Brazilian Reais - Sell	3	64.5	May 2017
Total	<u>432</u>		

The maximum length of time over which the Company is hedging its exposure to the reduction in value of forecasted foreign currency revenues through forward foreign currency exchange contracts is through December 2019. Over the next twelve months, the Company expects to reclassify \$7.1 million from Accumulated Other Comprehensive Income to earnings as the forecasted revenue and operating expense transactions occur.

The Company also enters into forward foreign currency exchange contracts that are not designated as hedges for accounting purposes. The changes in fair value of these forward foreign currency exchange contracts are included as a part of selling, general and administrative (SG&A) expense in the Company's Consolidated Statements of Comprehensive Loss.

The following table summarizes the Company's non-designated forward foreign currency exchange contracts outstanding as of December 31, 2016 (notional amounts in millions):

Foreign Exchange Contracts	Number of Contracts	Aggregate Notional Amount in Foreign Currency	Maturity
Euros - Purchase	1	94.9	January 2017
British Pounds - Sell	1	2.7	January 2017
Total	<u>2</u>		

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The fair value carrying amounts of the Company's derivative instruments were as follows:

	Asset Derivatives December 31, 2016		Liability Derivatives December 31, 2016	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
<b>Derivatives designated as hedging instruments:</b>				
Forward foreign currency exchange contracts	Other current assets	\$ 13,048	Accounts payable & accrued liabilities	\$ 5,176
Forward foreign currency exchange contracts	Other assets	8,194	Other long- term liabilities	2,342
Total		\$ 21,242		\$ 7,518
<b>Derivatives not designated as hedging instruments:</b>				
Forward foreign currency exchange contracts	Other current assets	\$ 964	Accounts payable & accrued liabilities	\$ 25
Total		964		25
Total value of derivative contracts		\$ 22,206		\$ 7,543

	Asset Derivatives December 31, 2015		Liability Derivatives December 31, 2015	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
<b>Derivatives designated as hedging instruments:</b>				
Forward foreign currency exchange contracts	Other current assets	\$ 10,478	Accounts payable & accrued liabilities	\$ 1,986
Forward foreign currency exchange contracts	Other assets	3,533	Other long- term liabilities	3,057
Total		\$ 14,011		\$ 5,043
<b>Derivatives not designated as hedging instruments:</b>				
Forward foreign currency exchange contracts	Other current assets	\$ —	Accounts payable & accrued liabilities	\$ 22
Total		—		22
Total value of derivative contracts		\$ 14,011		\$ 5,065

The effect of the Company's derivative instruments on the Consolidated Financial Statements for the years ended December 31, 2016, 2015 and 2014 was as follows:

	Years Ended December 31,		
	2016	2015	2014
<b>Derivatives Designated as Hedging Instruments:</b>			
Net gain recognized in Other Comprehensive Income (OCI) (1)	\$ 9,677	\$ 17,300	\$ 18,078
Net gain reclassified from accumulated OCI into earnings (2)	6,529	19,604	643
Net gain (loss) recognized in net loss (3)	5,070	(727)	(294)
<b>Derivatives Not Designated as Hedging Instruments:</b>			
Net gain (loss) recognized in net loss(4)	\$ (8,687)	\$ 4,493	\$ 8,010

- (1) Net change in the fair value of the effective portion classified as OCI.
- (2) Effective portion classified as Net Product Revenues and SG&A expense.
- (3) Ineffective portion and amount excluded from effectiveness testing classified as SG&A expense.
- (4) Classified as SG&A expense.

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At December 31, 2016, 2015 and 2014, accumulated other comprehensive income before taxes associated with forward foreign currency exchange contracts qualifying for hedge accounting treatment was a gain of \$13.0 million, \$13.6 million and \$15.9 million, respectively.

The Company is exposed to counterparty credit risk on all of its derivative financial instruments. The Company has established and maintains strict counterparty credit guidelines and enters into hedges only with financial institutions that are investment grade or better to minimize the Company's exposure to potential defaults. The Company does not require collateral to be pledged under these agreements.

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(12) FAIR VALUE MEASUREMENTS

The Company measures certain financial assets and liabilities at fair value on a recurring basis, including available-for-sale fixed income securities and foreign currency derivatives.

The tables below present the fair value of these financial assets and liabilities determined using the following input levels.

	Fair Value Measurements at December 31, 2016			
	Quoted Price in Active Markets For Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
<b>Assets:</b>				
Cash and cash equivalents:				
Overnight deposits	\$ 235,571	\$ —	\$ —	\$ 235,571
Money market instruments	—	172,759	—	172,759
Total cash and cash equivalents	235,571	172,759	—	408,330
Available-for-sale securities:				
Short-term:				
Certificates of deposit	—	2,800	—	2,800
Corporate debt securities	—	193,974	—	193,974
Commercial paper	—	16,075	—	16,075
U.S. government agency securities	—	168,499	—	168,499
Long-term:				
Corporate debt securities	—	437,150	—	437,150
U.S. government agency securities	—	135,426	—	135,426
Greek government-issued bonds	—	134	—	134
Total available-for-sale securities	—	954,058	—	954,058
Other Current Assets:				
Nonqualified Deferred Compensation Plan assets	—	163	—	163
Forward foreign currency exchange contract (1)	—	14,012	—	14,012
Restricted investments (2)	—	3,754	—	3,754
Total other current assets	—	17,929	—	17,929
Other Assets:				
Nonqualified Deferred Compensation Plan assets	—	9,121	—	9,121
Forward foreign currency exchange contract (1)	—	8,194	—	8,194
Strategic investment (3)	4,064	—	—	4,064
Total other assets	4,064	17,315	—	21,379
Total assets	\$ 239,635	\$ 1,162,061	\$ —	\$ 1,401,696
<b>Liabilities:</b>				
Current Liabilities:				
Nonqualified Deferred Compensation Plan liability	\$ 2,073	\$ 163	\$ —	\$ 2,236
Forward foreign currency exchange contract (1)	—	5,201	—	5,201
Contingent acquisition consideration payable	—	—	46,327	46,327
Total current liabilities	2,073	5,364	46,327	53,764
Other long-term liabilities:				
Nonqualified Deferred Compensation Plan liability	17,303	9,121	—	26,424
Forward foreign currency exchange contract (1)	—	2,342	—	2,342
Contingent acquisition consideration payable	—	—	115,310	115,310
Total other long-term liabilities	17,303	11,463	115,310	144,076
Total liabilities	\$ 19,376	\$ 16,827	\$ 161,637	\$ 197,840



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	Fair Value Measurements at December 31, 2015			Total
	Quoted Price in Active Markets For Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
<b>Assets:</b>				
<b>Cash and cash equivalents:</b>				
Overnight deposits	\$ 290,731	\$ —	\$ —	\$ 290,731
Money market instruments	—	106,309	—	106,309
Total cash and cash equivalents	290,731	106,309	—	397,040
<b>Available-for-sale securities:</b>				
Short-term:				
Certificates of deposit	—	56,951	—	56,951
Corporate debt securities	—	42,673	—	42,673
Commercial paper	—	12,733	—	12,733
U.S. government agency securities	—	83,222	—	83,222
Long-term:				
Certificates of deposit	—	6,969	—	6,969
Corporate debt securities	—	315,240	—	315,240
U.S. government agency securities	—	103,316	—	103,316
Greek government-issued bonds	—	127	—	127
Total available-for-sale securities	—	621,231	—	621,231
<b>Other Current Assets:</b>				
Nonqualified Deferred Compensation Plan assets	—	440	—	440
Forward foreign currency exchange contract (1)	—	10,478	—	10,478
Restricted investments (2)	—	7,348	—	7,348
Total other current assets	—	18,266	—	18,266
<b>Other Assets:</b>				
Nonqualified Deferred Compensation Plan assets	—	6,362	—	6,362
Forward foreign currency exchange contract (1)	—	3,533	—	3,533
Strategic investment (3)	18,056	—	—	18,056
Total other assets	18,056	9,895	—	27,951
Total assets	\$ 308,787	\$ 755,701	\$ —	\$ 1,064,488
<b>Liabilities:</b>				
<b>Current Liabilities:</b>				
Nonqualified Deferred Compensation Plan liability	\$ 1,151	\$ 440	\$ —	\$ 1,591
Forward foreign currency exchange contract (1)	—	2,008	—	2,008
Contingent acquisition consideration payable	—	—	52,946	52,946
Total current liabilities	1,151	2,448	52,946	56,545
<b>Other long-term liabilities:</b>				
Nonqualified Deferred Compensation Plan liability	24,341	6,362	—	30,703
Forward foreign currency exchange contract (1)	—	3,057	—	3,057
Contingent acquisition consideration payable	—	—	32,663	32,663
Total other long-term liabilities	24,341	9,419	32,663	66,423
Total liabilities	\$ 25,492	\$ 11,867	\$ 85,609	\$ 122,968

- (1) See Note 11 to these Consolidated Financial Statements for further information regarding the derivative instruments.
- (2) The restricted investments at December 31, 2016 and 2015 secure the Company's irrevocable standby letter of credit obtained in connection with certain commercial agreements.
- (3) The Company has investments in marketable equity securities measured using quoted prices in an active market that are considered strategic investments. See Note 6 to these Consolidated Financial Statements for additional discussion regarding the Company's strategic investments.

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There were no transfers between levels during the year ended December 31, 2016.

The Company's Level 2 securities are valued using third-party pricing sources. The pricing services utilize industry standard valuation models, including both income and market-based approaches, for which all significant inputs are observable, either directly or indirectly, to estimate fair value. These inputs include reported trades of and broker/dealer quotes on the same or similar securities, issuer credit spreads, benchmark securities, prepayment/default projections based on historical data and other observable inputs.

The Company validates the prices provided by its third-party pricing services by understanding the models used, obtaining market values from other pricing sources, analyzing pricing data in certain instances and confirming those securities traded in active markets. See Note 6 to these Consolidated Financial Statements for further information regarding the Company's financial instruments.

Liabilities measured at fair value using Level 3 inputs consisted of contingent acquisition consideration payable and asset retirement obligations.

The Company's contingent acquisition consideration payable is estimated using a probability-based income approach utilizing an appropriate discount rate. Key assumptions used by management to estimate the fair value of contingent acquisition consideration payable include estimated probabilities, the estimated timing of when a milestone may be attained and assumed discount periods and rates. Subsequent changes in the fair value of the contingent acquisition consideration payable, resulting from management's revision of key assumptions, will be recorded in Intangible Asset Amortization and Contingent Consideration in the Company's Consolidated Statements of Operations. The probability-based income approach used by management to estimate the fair value of the contingent acquisition consideration is most sensitive to changes in the estimated probabilities.

Contingent acquisition consideration payable at December 31, 2015	\$	85,609
Addition of contingent acquisition consideration payable related to the purchase of the Merck PKU Business		138,974
Changes in the fair value of contingent acquisition consideration payable for continuing development programs		6,825
Reduction of fair value related to termination of Kyndrisa development program		(43,652)
Reduction of fair value related to termination of reveglucosidase alfa development program		(20,334)
Foreign exchange remeasurement of Euro denominated contingent acquisition consideration payable		(5,785)
Contingent acquisition consideration payable at December 31, 2016	\$	<u>161,637</u>

Under certain of the Company's lease agreements, the Company is contractually obligated to return leased space to its original condition upon termination of the lease agreement. The Company records an asset retirement obligation liability and a corresponding capital asset in an amount equal to the estimated fair value of the obligation, when estimable. In subsequent periods, for each such lease, the Company records interest expense to accrete the asset retirement obligation liability to full value and depreciates each capitalized asset retirement obligation asset, both over the term of the associated lease agreement.

Asset retirement obligations at December 31, 2015	\$	4,704
Accretion expense		107
Additions		—
Settlements and reversals		(665)
Asset retirement obligations at December 31, 2016	\$	<u>4,146</u>

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The Company acquired intangible assets as a result of various business acquisitions. The estimated fair value of these long-lived assets was measured using Level 3 inputs as of the acquisition date.

**(13) DEBT**

*2018/2020 Convertible Notes*

On October 15, 2013, the Company issued \$750.0 million in aggregate principal amount of senior subordinated convertible notes consisting of \$375.0 million in aggregate principal amount of 0.75% senior subordinated convertible notes due in October 2018 (the 2018 Notes) and \$375.0 million in aggregate principal amount of 1.50% senior subordinated convertible notes due in October 2020 (the 2020 Notes and, together with the 2018 Notes, the Notes). Net proceeds from the offering were \$726.2 million.

The 2018 Notes and the 2020 Notes bear interest at a rate of 0.75% and 1.5% per year, respectively, which is payable semiannually in arrears on April 15 and October 15 of each year.

The Notes are senior unsecured obligations, and rank (i) subordinated to any of the Company's existing and future unsecured senior debt, (ii) equally to any of the Company's existing and future senior subordinated debt, (iii) senior to any of the Company's future indebtedness that is expressly subordinated to the Notes, and (iii) effectively junior to any secured indebtedness to the extent of the value of the assets securing such indebtedness. Upon the occurrence of a "fundamental change", as defined in the indenture, the holders may require the Company to repurchase all or a portion of the Notes for cash at 100% of the principal amount of the Notes being purchased, plus any accrued and unpaid interest.

The Notes are convertible into 7,965,975 shares of the Company's common stock under certain circumstances prior to maturity at a conversion rate of 10.6213 shares per \$1,000 principal amount of the Notes, which represents a conversion price of \$94.15 per share, subject to adjustment under certain conditions. Holders may convert their notes at their option at any time prior to July 15, 2018, in the case of the 2018 Notes, and July 15, 2020, in the case of the 2020 Notes, only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on March 31, 2014 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the applicable conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the measurement period) in which the trading price per \$1,000 principal amount of the relevant notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the applicable conversion rate on each such trading day; or (3) upon the occurrence of specified corporate events.

Upon conversion, the Company may pay cash, shares of the Company's common stock or a combination of cash and stock, as determined by the Company in its discretion.

The Company has separately accounted for the liability and equity components of the Notes by allocating the proceeds from issuance of the Notes between the liability component and the embedded conversion option, or equity component. This allocation was done by first estimating an interest rate at the time of issuance for similar notes that do not include the embedded conversion option. The Company allocated \$156.2 million to the equity component, net of offering costs of \$5.1 million. The Company recorded a discount on the notes of \$161.3 million which will be accreted and recorded as additional interest expense over the life of the Notes. Additionally, in connection with the issuance of the Notes, the Company incurred \$23.8 million of issuance costs, which are being amortized and recorded as additional interest expense over the life of the Notes. The effective interest rate on the liability component of the Notes for the years ended December 31, 2016, 2015 and 2014 was 7.5%, 7.3% and 7.5%.

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The following table summarizes the additional interest expense recognized for the accretion of the debt discount and amortization of the deferred offering costs.

	Years Ended December 31,		
	2016	2015	2014
<b>Convertible Notes due 2018</b>			
Amortization of issuance costs	\$ 1,931	\$ 1,921	\$ 1,910
Accretion of discount on convertible notes	14,337	13,633	12,963
<b>Convertible Notes due 2020</b>			
Amortization of issuance costs	1,288	1,283	1,279
Accretion of discount on convertible notes	12,240	11,567	10,930
<b>Total</b>	<u>\$ 29,796</u>	<u>\$ 28,404</u>	<u>\$ 27,082</u>

To minimize the impact of potential dilution upon conversion of the 2018 Notes and the 2020 Notes, the Company entered into capped call transactions separate from the issuance of the Notes with certain counterparties covering 3,982,988 shares of the Company's common stock, subject to adjustment. The capped calls have a strike price of \$94.15 and a cap price of \$121.05 and are exercisable when and if the Notes are converted. If upon conversion of the Notes, the price of the Company's common stock is above the strike price of the capped calls, the counterparties will deliver shares of the Company's common stock and/or cash with an aggregate value equal to the difference between the price of the Company's common stock at the conversion date and the strike price, multiplied by the number of shares of the Company's common stock related to the capped calls being exercised. The Company paid \$29.8 million for these capped calls transactions, which was recorded as additional paid-in capital.

**2017 Convertible Notes**

In April 2007, the Company sold \$324.9 million in aggregate principal amount of senior subordinated convertible notes due in April 2017 (the 2017 Notes). The 2017 Notes were issued at face value and bear interest at the rate of 1.875% per annum, payable semi-annually in cash. The 2017 Notes are convertible, at the option of the holder, at any time prior to maturity or redemption, into shares of the Company's common stock at a conversion price of \$20.36 per share, subject to adjustment in certain circumstances. The 2017 Notes do not include a call provision and the Company is unable to unilaterally redeem the 2017 Notes prior to maturity on April 23, 2017. The Company also must repay the 2017 Notes if there is a qualifying change in control or termination of trading of its common stock. If a change of control occurs, the Company will pay a make whole premium by increasing the conversion rate applicable to the 2017 Notes.

In connection with the placement of the 2017 Notes, the Company paid \$8.5 million in offering costs, which have been deferred and are presented as a direct reduction of the outstanding 2017 Notes. The deferred offering costs are being amortized as interest expense over the life of the debt. For the year ended December 31, 2016, the Company recognized amortization expense of \$0.1 million, compared to \$0.1 million and \$0.1 million for the years ended December 31, 2015 and 2014, respectively.

During 2016, certain existing holders of the Company's senior subordinated notes due in 2017 elected to convert \$8.9 million in aggregate principal amount of the 2017 Notes into 438,462 shares of the Company's common stock. During 2015, the Company entered into separate agreements with three existing holders of its senior subordinated convertible notes due in 2017 pursuant to which such holders converted \$8.1 million in aggregate principal amount of the 2017 Notes into 399,469 share of the Company's common stock. In addition to issuing the requisite number of the Company's common stock, the Company also made varying cash payments to the holders totaling \$0.2 million in the aggregate, which was recognized as Debt Conversion Expense on the Consolidated Statement of Operations for the year ended December 31, 2015. During 2014, the Company entered into two separate agreements with an existing holder of its senior subordinated convertible notes due in 2017 pursuant to which such holder converted \$16.5 million in aggregate principal amount of the 2017 Notes into 809,351 shares of the Company's common stock. In addition to issuing the requisite number of shares of the Company's common stock, the Company also made varying cash payments to the holder totaling \$0.7 million in aggregate, of which \$0.7

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million was recognized in total as Debt Conversion Expense on the Consolidated Statement of Operations for the year ended December 31, 2014.

The following table summarizes information regarding the Company's convertible debt at December 31:

	2016	2015
Convertible Notes due 2017	\$ 22,503	\$ 31,430
Unamortized deferred offering costs	(25)	(110)
Convertible Notes due 2017, net	22,478	31,320
Convertible Notes due 2018	374,980	374,980
Unamortized discount	(27,566)	(41,904)
Unamortized deferred offering costs	(3,484)	(5,415)
Convertible Notes due 2018, net	343,930	327,661
Convertible Notes due 2020	374,993	374,993
Unamortized discount	(53,239)	(65,478)
Unamortized deferred offering costs	(4,923)	(6,210)
Convertible Notes due 2020, net	316,831	303,305
<b>Total convertible debt, net</b>	<b>\$ 683,239</b>	<b>\$ 662,286</b>
<b>Fair value of fixed rate convertible debt</b>		
Convertible Notes due in 2017 (1)	\$ 90,977	\$ 162,016
Convertible Notes due in 2018 (1)	423,202	482,584
Convertible Notes due in 2020 (1)	442,754	502,701
<b>Total</b>	<b>\$ 956,933</b>	<b>\$ 1,147,301</b>

(1) The fair value of the Company's fixed rate convertible debt is based on open market trades and is classified as Level 1 in the fair value hierarchy.

See Note 14 to these Consolidated Financial Statements for further discussion of the effect of conversion on net loss per common share.

***Revolving Credit Facility***

In November 2016, the Company entered into a credit agreement (Credit Agreement) with Bank of America, N.A., as the administrative agent, swing line lender and letter of credit issuer. The Credit Agreement provides for up to \$100.0 million (Revolving Credit Facility), a \$10.0 million letter of credit subfacility and a \$15.0 million swing line loan subfacility. The maturity date of the Revolving Credit Facility will occur on November 29, 2018. Interest on any outstanding balance of the Revolving Credit Facility is payable quarterly and draws may be voluntary prepaid at any time without penalty. In connection with entering into the Credit Agreement, \$0.6 million in financing costs was incurred and will be amortized as Interest Expense over the term of the Credit Agreement. As of December 31, 2016, there were no outstanding amounts due under the Revolving Credit Facility.

In connection with the Revolving Credit Facility, the Company and certain of its subsidiaries are required to comply with covenants, including, among other things, restrictions on the Company's and such subsidiaries' ability to incur additional indebtedness, dispose of its assets, incur liens, make investments, and pay dividends or other distributions, in each case subject to specified exceptions. The Credit Agreement also contains customary indemnification obligations and customary events of default. If the Company's Global Liquidity, which is defined as the sum of the market value of unrestricted cash, marketable securities and other assets to the extent constituting "cash and cash equivalents," "short-term investments" or "long-term investments" as reflected in the Company's Consolidated Balance Sheet, in each case, held by the Company or certain of the Company's subsidiaries at such

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time, regardless of where such assets are domiciled, falls below \$225.0 million at the end of any month or at the time of any borrowing or issuance of a letter of credit under the Revolving Credit Facility, then the Company's obligations under the Credit Agreement will also be secured by the assets held by the Company in the custody account. The custody account will be established in the first quarter of 2017. As of December 31, 2016, the Company and certain of its subsidiaries that serve as guarantors are in compliance with all covenants.

Interest expense on the Company's debt consisted of the following:

	Years Ended December 31,		
	2016	2015	2014
Coupon interest	\$ 9,555	\$ 9,750	\$ 9,417
Amortization of debt issuance costs	3,367	3,294	3,332
Accretion of discount on convertible notes	26,577	25,200	23,893
Total interest expense on convertible debt	<u>\$ 39,499</u>	<u>\$ 38,244</u>	<u>\$ 36,642</u>

**(14) NET LOSS PER COMMON SHARE**

Potentially issuable shares of common stock include shares issuable upon the exercise of outstanding employee stock option awards, common stock issuable under the Company's ESPP, unvested restricted stock units (RSUs), common stock held by the NQDC and contingent issuances of common stock related to convertible debt.

The following table sets forth the computation of basic and diluted earnings per common share (in thousands of common shares):

	Years Ended December 31,		
	2016	2015	2014
<b>Numerator:</b>			
Net loss, basic	\$ (630,210)	\$ (171,799)	\$ (133,969)
Gain on common stock held by the NQDC	(3,184)	—	—
Net loss, diluted	<u>(633,394)</u>	<u>(171,799)</u>	<u>(133,969)</u>
<b>Denominator:</b>			
Weighted-average common shares outstanding, basic	165,985	160,025	146,349
Effect of dilutive securities:			
Common shares held by the NQDC	234	—	—
Weighted-average common shares outstanding, diluted	<u>166,219</u>	<u>160,025</u>	<u>146,349</u>
Net loss per common share, basic	<u>\$ (3.80)</u>	<u>\$ (1.07)</u>	<u>\$ (0.92)</u>
Net loss per common share, diluted	<u>\$ (3.81)</u>	<u>\$ (1.07)</u>	<u>\$ (0.92)</u>

**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

In addition to the equity instruments included in the table above, the table below presents potential shares of common stock that were excluded from the computation as they were anti-dilutive using the treasury stock method (in thousands):

	Years Ended December 31,		
	2016	2015	2014
Options to purchase common stock	8,856	10,323	11,477
Common stock issuable under the 2017 Notes	1,105	1,544	1,992
Common stock issuable under the 2018 and 2020 Notes	7,966	7,966	7,966
Unvested restricted stock units	2,618	1,743	1,244
Common stock potentially issuable for ESPP purchases	246	316	351
Common stock held by the NQDC	—	243	224
Total number of potentially issuable shares	<u>20,791</u>	<u>22,135</u>	<u>23,254</u>

The effect of the Company's 0.7% senior subordinated convertible notes due in 2018 (the 2018 Notes) and the Company's 1.50% senior subordinated convertible notes due in 2020 (the 2020 Notes, and together with the 2018 Notes, the Notes) were excluded from the diluted net loss per common share because they were antidilutive. The Company's closing stock price on December 31, 2016 and 2014 did not exceed the conversion price of \$94.15 per share for the Notes. Although the Company's stock price exceeded the conversion price \$94.15 at December 31, 2015, the potential shares issuable under the Notes were excluded from the calculation of diluted loss per share as they were anti-dilutive using the if-converted method.

**(15) INCOME TAXES**

The provision for (benefit from) income taxes is based on loss before income taxes as follows:

	Years Ended December 31,		
	2016	2015	2014
U.S. Source	\$ 10,696	\$ 182,215	\$ 49,411
Non-U.S. Source	(841,746)	(336,939)	(174,279)
Loss before income taxes	<u>\$ (831,050)</u>	<u>\$ (154,724)</u>	<u>\$ (124,868)</u>

The U.S. and foreign components of the provision for (benefit from) income taxes are as follows:

	Years Ended December 31,		
	2016	2015	2014
Provision for current income tax expense:			
Federal	\$ 22,239	\$ 84,743	\$ 28,093
State and local	1,418	5,323	3,011
Foreign	3,557	3,836	3,614
	<u>27,214</u>	<u>93,902</u>	<u>34,718</u>
Provision for (benefit from) deferred income tax expense:			
Federal	(78,428)	(17,741)	(20,367)
State and local	(6,012)	(8,770)	(4,982)
Foreign	(143,614)	(50,316)	(268)
	<u>(228,054)</u>	<u>(76,827)</u>	<u>(25,617)</u>
Provision for (benefit from) income taxes	<u>\$ (200,840)</u>	<u>\$ 17,075</u>	<u>\$ 9,101</u>

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
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For the year ended December 31, 2016, the Company's Dutch operations had a GAAP loss of \$539.2 million, which included the impairment of the Kyndrisa IPR&D assets and a resulting deferred tax benefit of \$143.5 million associated with the reversal of the deferred tax liability of such IPR&D assets.

The following is a reconciliation of the statutory federal income tax rate to the Company's effective income tax rate expressed as a percentage of loss before income taxes:

	Years Ended December 31,		
	2016	2015	2014
Federal statutory income tax rate	35.0%	35.0%	35.0%
State and local taxes	0.4%	(2.2)%	(1.6)%
Orphan Drug & General Business Credit	7.5%	34.8%	29.3%
Stock compensation expense	4.6%	(2.8)%	(2.4)%
Changes in the fair value of contingent acquisition consideration payable	0.9%	0.2%	(3.6)%
Subpart F income	—%	(8.4)%	(9.2)%
Foreign tax rate differential	(18.6)%	(46.2)%	(51.5)%
Section 162(m) limitation	(5.4)%	(1.3)%	(1.7)%
Other	0.3%	(1.6)%	(1.9)%
Valuation allowance/deferred benefit	(0.5)%	(18.5)%	0.3%
Effective income tax rate	<u>24.2%</u>	<u>(11.0)%</u>	<u>(7.3)%</u>

The significant components of the Company's net deferred tax assets are as follows:

	December 31,	
	2016	2015
<b>Net deferred tax assets:</b>		
Net operating loss carryforwards	\$ 49,787	\$ 44,942
Tax credit carryforwards	352,535	143,987
Accrued expenses, reserves, and prepaids	77,904	79,029
Intangible assets	26,751	16,177
Stock-based compensation	47,713	49,322
Inventory	15,581	18,942
Impairment	5,017	5,005
Other	1,415	1,155
Valuation allowance	(73,037)	(67,708)
Total deferred tax assets	<u>503,666</u>	<u>290,851</u>
Joint venture basis difference	(1,714)	(1,888)
Acquired intangibles	(8,773)	(162,689)
Convertible notes discount	(24,394)	(32,162)
Property, plant and equipment	(22,103)	(13,192)
Unrealized (gains) losses	104	(4,256)
Total deferred tax liabilities	<u>(56,880)</u>	<u>(214,187)</u>
Net deferred tax assets	<u>\$ 446,786</u>	<u>\$ 76,664</u>

The increase to the tax credit carryforwards was primarily attributed to the adoption of ASU 2016-09 in 2016. See Note 4 to these Consolidated Financial Statements for additional discussion related to the adoption of ASU 2016-09. The decrease in the acquired intangibles was primarily attributed to the reversal of the deferred tax liability for impairment of the Kyndrisa IPR&D. See Note 7 to these Consolidated Financial Statements for additional discussion related to the impairment of the Kyndrisa IPR&D assets.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

As of December 31, 2016, the Company had federal net operating loss carryforwards of \$18.9 million, state net operating loss carryforwards of \$174.7 million and Dutch net operating loss carryforwards of \$125.1 million. The Company also had federal R&D and orphan drug credit carryforwards of \$377.4 million and state research credit carryovers of \$71.7 million.

The federal net operating loss carryforwards will expire at various dates beginning in 2028 through 2033 if not utilized. The federal credit carryforward will expire at various dates beginning in 2024 through 2036 if not utilized. The state net operating loss carryforwards will expire at various dates beginning in 2017 through 2036 if not utilized. The Dutch net operating loss carryforwards will expire at various dates beginning in 2017 through 2025 if not utilized. Certain state research credit carryovers will begin to expire in 2019 if not utilized, with others carrying forward indefinitely.

The Company's net operating losses and credits could be subject to annual limitations due to ownership change limitations provided by Internal Revenue Code Section 382 and similar state provisions. An annual limitation could result in the expiration of net operating losses and tax credit carryforward before utilization. There are limitations on the tax attributes of acquired entities however, the Company does not believe the limitations will have a material impact on the utilization of the net operating losses or tax credits.

In 2016, the valuation allowance increased by \$5.3 million primarily due to California net operating losses that may not be realized. In 2015, the Company established deferred tax assets related to the future contingent consideration on the sale of talazoparib and the net operating loss carryforwards acquired with Prosensa. Due to the uncertainty of the Company's ability to realize the benefits from these deferred tax assets, the Company has recorded a full valuation allowance on these assets resulting in a \$59.9 million increase in the valuation allowance.

The financial statement recognition of the benefit for a tax position is dependent upon the benefit being more likely than not to be sustainable upon audit by the applicable taxing authority. If this threshold is met, the tax benefit is then measured and recognized at the largest amount that is greater than 50% likely of being realized upon ultimate settlement. A reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2016 is as follows:

	December 31,	
	2016	2015
Balance at beginning of period	\$ 86,731	\$ 71,663
Additions based on tax positions related to the current year	15,982	13,614
Additions for tax positions of prior years	497	1,454
Balance at end of period	<u>\$ 103,210</u>	<u>\$ 86,731</u>

Included in the balance of unrecognized tax benefits at December 31, 2016 are potential benefits of \$103.2 million that, if recognized, would affect the effective tax rate. The Company's policy for classifying interest and penalties associated with unrecognized income tax benefits is to include such items in the income tax expense. The total amount of accrued interest and penalties was not significant as of December 31, 2016.

The Company files income tax returns in the U.S. and various foreign jurisdictions. The U.S. and foreign jurisdictions have statute of limitations ranging from three to five years. However, carryforward tax attributes that were generated in 2013 and earlier may still be adjusted upon examination by tax authorities. Currently, the Company is under audit by the Internal Revenue Service for the years 2012 through 2014 and various states for similar periods.

U.S. income and foreign withholding taxes have not been recognized on the excess of the amount for financial reporting over the tax basis of investments in foreign subsidiaries that are essentially permanent in duration. This excess totaled approximately \$3.9 million as of December 31, 2016, which will be indefinitely reinvested; deferred income taxes have not been provided on such foreign earnings.

BIOMARIN PHARMACEUTICAL INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

**(16) EQUITY COMPENSATION PLANS**

***Share Incentive Plan***

The 2006 Share Incentive Plan, which replaced the Company's previous stock option plans (the 1997 Stock Plan and the 1998 Directors Options Plan), provides for grants of options to employees to purchase common stock at the fair market value of such shares on the grant date, as well as other forms of equity compensation. During the year ended December 31, 2016, awards issued under the 2006 Share Incentive Plan include both stock options and RSUs. Stock option awards granted to employees generally vest over a four-year period on a cliff basis six months after the grant date and then monthly thereafter. The term of the outstanding options is generally ten years. RSUs granted to employees generally vest annually over a straight-line four-year period after the grant date. RSUs granted to directors generally vest in full one year after the grant date.

As of December 31, 2016, options to purchase approximately 8.9 million shares were outstanding under the Company's stock option plans.

As of December 31, 2016, an aggregate of approximately 41.5 million shares were authorized and 24.3 million shares were authorized for future issuance under the Share Incentive Plan.

***Employee Stock Purchase Plan***

Under BioMarin's ESPP, which was initially approved in June 2006, replacing the Company's previous plan, and was further amended on March 5, 2014, employees meeting specific employment qualifications are eligible to participate and can purchase shares on established dates (each purchase date) semi-annually through payroll deductions at the lower of 85% of the fair market value of the stock at the commencement of the offering period or each purchase date of the offering period. Each offering period will span up to two years. The ESPP permits eligible employees to purchase common stock through payroll deductions for up to 10% of qualified compensation, up to an annual limit of \$25,000. The ESPP is intended to qualify as an "employee stock purchase plan" under Section 423 of the Internal Revenue Code. During the year ended December 31, 2016, the Company issued 0.2 million shares under the ESPP.

As of December 31, 2016, there were approximately 3.5 million shares were authorized and 0.8 million shares reserved for future issuance under the ESPP.

***Board of Director Grants***

The Board of Directors have approved the following awards to directors under the 2006 Share Incentive Plan. Each Independent Director is automatically granted an initial equity grant valued at \$550,000, based on the Black-Scholes model valuation using a three-month trailing average closing price of the Company's common stock, with such valuation allocated 40% to RSUs and 60% to options to purchase shares of the Company's common stock on the date that such person first becomes an Independent Director. The shares of common stock subject to the initial grant vest quarterly over three years and the initial RSU grant vest annually over three years. On the date of the Company's annual meeting of shareholders, each re-elected Independent Director is granted an additional equity grant valued at \$375,000, based on the Black-Scholes model valuation using a three-month trailing average closing price of the Company's common stock, with such valuation allocated 50% to RSUs and 50% to options. The shares of common stock subject to the annual option grant vest quarterly over one year and the additional annual RSUs vest in full on the one-year anniversary of the grant date. The additional option grant or RSU grant for a director that has served for less than a year is prorated to the nearest quarter. These options and RSUs continue to vest only while the director serves on the Board. The exercise price per share of each of these options is 100% of the fair market value of a share of the Company's common stock on the date of the grant. These options have a term of 10 years.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

**Shares Available Under Equity Compensation Plans**

At December 31, 2016, an aggregate of approximately 27.2 million unissued shares was authorized for future issuance under the Company's stock plans, which includes shares issuable under the 2006 Share Incentive Plan, the ESPP and the Company's expired plans. Under the 2006 Share Incentive Plan, awards that expire or are cancelled generally become available for future issuance under the respective plan.

**(17) STOCK-BASED COMPENSATION**

The following table summarizes activity under the Company's stock option plans, including the 2012 and 2014 Inducement Plans and those suspended upon the adoption of the 2006 Share Incentive Plan, for the year ended December 31, 2016. All option grants presented in the table had exercise prices not less than the fair value of the underlying common stock on the grant date:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Years	Aggregate Intrinsic Value (1)
Options outstanding as of				
December 31, 2015	10,322,903	\$ 44.50	5.6	\$ 630,949
Granted	847,450	\$ 84.31		
Exercised	(2,129,090)	\$ 29.23		
Expired and forfeited	(185,055)	\$ 84.78		
Options outstanding as of				
December 31, 2016	<u>8,856,208</u>	\$ 51.13	5.4	\$ 304,356
Options expected to vest at				
December 31, 2016	1,753,013	\$ 84.38	8.3	\$ 10,707
Exercisable at December 31, 2016	7,103,016	\$ 42.92	4.6	\$ 293,646

- (1) The aggregate intrinsic value for outstanding options is calculated as the difference between the exercise price of the underlying awards and the quoted price of the Company's common stock as of the last trading day for the respective year. The aggregate intrinsic value of options outstanding and exercisable includes options with an exercise price below \$82.84, the closing price of the Company's common stock on December 31, 2016.

The weighted-average fair value per option granted in the years ended December 31, 2016, 2015 and 2014 were \$40.70, \$56.76 and \$30.93, respectively. The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was \$127.4 million, \$146.6 million and \$130.1 million, respectively. The aggregate intrinsic value of options exercised was determined as of the date of option exercise. Upon the exercise of the options, the Company issues new common stock from its authorized shares. There were 7.4 million options that were in-the-money at December 31, 2016.

**Determining the Fair Value of Stock Options and Stock Purchase Rights**

The fair value of each option award is estimated on the date of grant using the Black-Scholes valuation model and the assumptions noted in the tables below. The expected life of options is based on observed historical exercise patterns. Groups of employees that have similar historical exercise patterns were considered separately for valuation purposes. The Company has identified two groups with distinctly different exercise patterns. The two groups identified are executive and non-executive employees. The executive employee group has a history of holding options for longer periods than non-executive employees. The expected volatility of stock options is based upon the weighted average of the historical volatility of the Company's common stock and the implied volatility of traded options on the Company's common stock for fiscal periods in which there is sufficient trading volume in options on the Company's common stock. The risk-free interest rate is based on the implied yield on a U.S. Treasury zero-coupon issue with a remaining term equal to the expected term of the option. The dividend yield reflects that the

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

Company has not paid any cash dividends since inception and does not intend to pay any cash dividends in the foreseeable future. Effective January 1, 2016, forfeitures were accounted for as they occurred.

The assumptions used to estimate the per share fair value of stock options granted during the periods presented were as follows:

	Years Ended December 31,		
	2016	2015	2014
Expected volatility	36 – 44%	36 – 45%	44 – 45%
Dividend yield	0.00%	0.00%	0.00%
Expected life	5.0 - 8.1 years	6.4 - 8.0 years	6.9 years
Risk-free interest rate	1.1 – 2.3%	1.5 – 2.2%	1.8 – 2.3%

The Company recorded \$45.5 million, \$41.5 million and \$41.1 million of compensation costs related to current period vesting of stock options for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, the total unrecognized compensation cost related to unvested stock options was \$63.4 million. These costs are expected to be recognized over a weighted average period of 2.4 years.

The assumptions used to estimate the per share fair value of stock purchase rights granted under the ESPP were as follows:

	Years Ended December 31,		
	2016	2015	2014
Expected volatility	42 - 50%	36 - 38%	38 - 39%
Dividend yield	0.00%	0.00%	0.00%
Expected life	6-24 months	6-24 months	6-24 months
Risk-free interest rate	0.4 - 0.8%	0.1 - 0.8%	0.1 - 0.5%

The Company recorded \$10.1 million, \$7.1 million and \$4.8 million of compensation costs related to shares granted under the ESPP for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, there was \$13.8 million of total unrecognized compensation cost related to unvested stock options issuable under the ESPP. These costs are expected to be recognized over a weighted average period of 1.8 years.

***Restricted Stock Unit Awards with Service-Based Vesting Conditions***

RSUs are generally subject to forfeiture if employment terminates prior to the release of vesting restrictions. The Company expenses the cost of the RSUs, which is determined to be the fair market value of the shares of common stock underlying the RSUs at the date of grant, ratably over the period during which the vesting restrictions lapse.

A summary of RSU activity under the plan for the year ended December 31, 2016 as follows:

	Shares	Weighted Average Grant Date Fair Value	Weighted Average Remaining Years	Aggregate Intrinsic Value
Non-vested units as of December 31, 2015	2,147,209	\$ 93.89	2.8	\$ 224,942
Granted	1,321,224	\$ 84.18		
Vested	(751,203)	\$ 80.42		
Forfeited	(272,264)	\$ 94.52		
Non-vested units as of December 31, 2016	<u>2,444,966</u>	\$ 92.70	1.4	\$ 202,541
Non-vested units expected to vest at December 31, 2016	2,444,966	\$ 92.70		\$ 202,541

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

The weighted-average grant date fair value per share of RSUs granted during the years ended December 31, 2016, 2015 and 2014, was \$84.18, \$119.86 and \$64.37, respectively. The total intrinsic value of restricted stock that vested and was released in the years ended December 31, 2016, 2015 and 2014 was \$63.5 million, \$59.5 million and \$22.9 million, respectively.

The Company recorded \$74.7 million, \$47.9 million and \$21.3 million of compensation costs related to RSUs with service-based vesting conditions for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, there was \$168.5 million of total unrecognized compensation cost related to unvested RSUs with service-based vesting conditions. These costs are expected to be recognized over a weighted average period of 2.6 years.

***Restricted Stock Unit Awards with Performance and Market-Based Vesting Conditions***

During 2012 and 2011, pursuant to the approval of the Board, the Company granted 860,000 RSU awards with performance and market-based vesting conditions (the 2011/2012 Base RSUs) under the 2006 Share Incentive Plan and the 2012 Inducement Plan to certain executive officers. The 2011/2012 Base RSUs had a weighted-average grant date fair value of \$34.66 and vested on February 29, 2016, based upon the achievement of the Vimizim approval and the 2015 revenue goal. The number of Base RSUs earned was 799,800 shares, which were issued on February 29, 2016. Stock-based compensation expense for this award was recognized over the remaining service period beginning in the period the Company determined the achievement of the strategic performance goal or goals were probable. For the years ended December 31, 2016, 2015 and 2014, the Company recorded \$1.1 million, \$5.8 million and \$12.9 million, respectively, of compensation expense related to performance awards.

***Restricted Stock Unit Awards with Performance Conditions***

On March 15, 2016, pursuant to Board approval, the Company granted 130,310 RSU awards with performance-vesting conditions (the 2016 Base RSUs) under the 2006 Share Incentive Plan to certain executive officers. The vesting of the 2016 Base RSUs under this specific grant is contingent upon the achievement of a 2016 revenue target and a three-year service period. The number of RSUs awarded from the 2016 Base RSUs is determined based on the Company's performance against the revenue target which could range between 80% and 120%. Based on the Company's performance against the revenue target, the Company applied a multiplier of 103% will issue 134,219 shares on the first anniversary from the date of grant.

Stock-based compensation for these awards is recognized over the service period beginning in the period that the Company determined it is probable that the revenue target will be achieved. The cost of the 2016 Base RSUs was determined to be \$83.43 per RSU, based on the fair value of the common stock underlying the 2016 Base RSUs on the grant date. The Company recognized approximately \$3.0 million of compensation expense related to these awards during the year ended December 31, 2016.

On March 3, 2015, pursuant to Board approval, the Company granted 58,300 RSU awards with performance-vesting conditions (the 2015 Base RSUs) under the 2006 Share Incentive Plan to certain executive officers. The vesting of the 2015 Base RSUs under this specific grant is contingent upon the achievement of a 2015 revenue target and a three-year service period. The number of RSUs awarded from the 2015 Base RSUs is determined based on the Company's performance against the revenue target which could range between 80% to 120%. Based on the Company's performance against the revenue target, the Company applied a multiplier of 111% and issued 64,713 shares was issued on the first anniversary from the date of grant.

Stock-based compensation for these awards is recognized over the service period beginning in the period that the Company determined it is probable that the revenue target will be achieved. The cost of the 2015 Base RSUs was determined to be \$108.36 per RSU, based on the fair value of the common stock underlying the 2015 Base RSUs on the grant date. The Company recognized approximately \$2.3 million and \$1.8 million of compensation expense related to these awards during the year ended December 31, 2016 and 2015, respectively.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
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As of December 31, 2016, total unrecognized compensation costs of \$11.0 million related to RSU awards with performance-vesting conditions are expected to be recognized over a weighted average period of 2.0 years.

Compensation expense included in the Company's Consolidated Statements of Operations for all stock-based compensation arrangements was as follows:

	Years Ended December 31,		
	2016	2015	2014
Cost of sales	\$ 9,121	\$ 6,836	\$ 6,076
Research and development	58,279	49,399	33,835
Selling, general and administrative	67,241	55,290	46,499
Total stock-based compensation expense	<u>\$ 134,641</u>	<u>\$ 111,525</u>	<u>\$ 86,410</u>

Stock-based compensation of \$11.4 million, \$11.1 million and \$8.2 million was capitalized into inventory, for the years ended December 31, 2016, 2015 and 2014, respectively. Capitalized stock-based compensation is recognized as cost of sales when the related product is sold.

**(18) COMPREHENSIVE INCOME**

The following table summarizes amounts reclassified out of Accumulated Other Comprehensive Income (AOCI) and their effect on the Company's Consolidated Statements of Operations for the years ended December 31, 2016 and 2015.

Details about AOCI Components	Amount Reclassified from AOCI (Gain) Loss		Consolidated Statement of Operations Classification
	Years Ended December 31,		
	2016	2015	
Gains on cash flow hedges:			
Forward foreign currency exchange contracts	\$ 6,112	\$ 17,715	Net product revenues
Forward foreign currency exchange contracts	4,161	1,889	Selling, general and administrative
Total gain on cash flow hedges	10,273	19,604	
Other-than-temporary impairment on available-for-sale securities	—	(1,160)	Other income (expense)
Gain (loss) on sale of available-for-sale securities	(115)	3,033	Other income (expense)
Total gain (loss) on available-for-sale securities	(115)	1,873	
Less income tax effect of the above	42	681	Provision for (benefit from) income taxes
	<u>\$ 10,116</u>	<u>\$ 20,796</u>	Net loss

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

The following table summarizes changes in the accumulated balances for each component of other comprehensive loss, including current period reclassifications out of AOCI and other amounts of current-period other comprehensive income, for the years ended December 31, 2016 and 2015.

	Year Ended December 31, 2016			
	Gains and Losses on Cash Flow Hedges	Unrealized Gains on Available-for-Sale Securities	Foreign Currency Items	Total
AOCI balance at December 31, 2015	13,602	7,441	(10)	21,033
Other comprehensive income (loss) before reclassifications	9,677	(12,104)	(2)	(2,429)
Less net gain (loss) reclassified from AOCI	10,273	(115)		10,158
Tax effect	—	4,370	—	4,370
Net current-period other comprehensive loss	(596)	(7,619)	(2)	(8,217)
AOCI balance at December 31, 2016	\$ 13,006	\$ (178)	\$ (12)	\$ 12,816

	Year Ended December 31, 2015			
	Gains and Losses on Cash Flow Hedges	Unrealized Gains on Available-for-Sale Securities	Foreign Currency Items	Total
AOCI balance at December 31, 2014	15,906	11,511	49	27,466
Other comprehensive income (loss) before reclassifications	17,300	(4,459)	(59)	12,782
Less gain reclassified from AOCI	19,604	1,873	—	21,477
Tax effect	—	2,262	—	2,262
Net current-period other comprehensive loss	(2,304)	(4,070)	(59)	(6,433)
AOCI balance at December 31, 2015	13,602	7,441	(10)	21,033

**(19) REVENUE AND CREDIT CONCENTRATIONS**

Net Product Revenue - The Company considers there to be revenue concentration risks for regions where net product revenue exceeds 10% of consolidated net product revenue. The concentration of the Company's net product revenue within the regions below may have a material adverse effect on the Company's revenue and results of operations if sales in the respective regions experience difficulties.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

The table below summarizes consolidated net product revenue concentrations based on patient location for Vimizim, Naglazyme, Kuvan and Firdapse which are sold directly by the Company and global sales of Aldurazyme which is marketed by Genzyme. Genzyme is the Company's sole customer for Aldurazyme and is responsible for marketing and selling Aldurazyme to third-parties.

Region:	Years Ended December 31,		
	2016	2015	2014
United States	37%	39%	37%
Europe	23%	19%	18%
Latin America	13%	16%	16%
Rest of world	19%	15%	15%
Total net product revenues marketed by the Company	92%	89%	86%
Aldurazyme net product revenues marketed by Genzyme	8%	11%	14%
Total net product revenue	100%	100%	100%

The following table illustrates the percentage of the Company's consolidated net product revenues attributed to the Company's largest customers.

	For the Years Ended December 31,		
	2016	2015	2014
Customer A	19%	15%	15%
Customer B	13%	13%	11%
Customer C	10%	—	—
Customer D	8%	11%	14%
Customer E	6%	10%	12%
Total	56%	49%	52%

On a consolidated basis, the Company's two largest customers accounted for 26% and 20% of the December 31, 2016 accounts receivable balance, respectively, compared to December 31, 2015 when the two largest customers accounted for 37% and 18% of the accounts receivable balance, respectively. As of December 31, 2016 and 2015, accounts receivable balance for Genzyme included \$30.7 million and \$36.1 million, respectively, of unbilled accounts receivable related to net incremental Aldurazyme product transfers to Genzyme. The Company does not require collateral from its customers, but does perform periodic credit evaluations of its customers' financial condition and requires immediate payment in certain circumstances.

The Company is subject to credit risk from accounts receivable related to product sales. The majority of the Company's trade accounts receivable arises from product sales in the U.S. and the European Union (the EU). The Company's product sales to government-owned or government-funded customers in certain European countries, including Greece, Italy, Portugal, Spain and Russia, are subject to payment terms that are statutorily determined. Because these customers are government-owned or government-funded, the Company may be impacted by declines in sovereign credit ratings or sovereign defaults in these countries. A significant or further decline in sovereign credit ratings or a default in these countries may decrease the likelihood that the Company will collect accounts receivable or may increase the discount rates and the length of time until receivables are collected, which could result in a negative impact to the Company's operating results. In the year ended December 31, 2016, the Company's net product revenues for these countries was 6%. Additionally, approximately 11% of the Company's outstanding accounts receivable at December 31, 2016 related to such countries.

As of December 31, 2016, the Company's accounts receivable in certain European countries, specifically Greece, Italy, Portugal, Spain and Russia, totaled approximately \$23.5 million, of which \$1.6 million were greater than 90 days past due.



**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

The Company also sells its products in other countries that face economic crises and local currency devaluation. Although the Company has historically collected receivables from customers in those countries, sustained weakness or further deterioration of the local economies and currencies may cause customers in those countries to be unable to pay for the Company's products. The Company has not historically experienced a significant level of uncollected receivables and has received continued payments from its more aged accounts. The Company believes that the allowances for doubtful accounts related to these countries is adequate based on its analysis of the specific business circumstances and expectations of collection for each of the underlying accounts in these countries.

**(20) SEGMENT INFORMATION**

The Company operates in one business segment, which primarily focuses on the development and commercialization of innovative therapies for people with serious and life threatening rare diseases and medical conditions. All products are included in one segment because the majority of the Company's products have similar economic and other characteristics, including the nature of the products and production processes, type of customers, distribution methods and regulatory environment.

	Years Ended December 31,		
	2016	2015	2014
<b>Net product revenues by product:</b>			
Aldurazyme	\$ 93,749	\$ 97,912	\$ 105,616
Kuvan	348,009	239,336	202,987
Naglazyme	296,537	303,090	334,447
Vimizim	354,058	228,147	77,319
Firdapse	18,028	16,037	18,047
<b>Total net product revenues</b>	<b>\$ 1,110,381</b>	<b>\$ 884,522</b>	<b>\$ 738,416</b>

The following table summarizes total revenues from external customers and collaborative partners by geographic region. Net product revenues by geographic region are based on patient location for the Company's commercial products, except for Aldurazyme, which is based on the location of Genzyme's headquarters. Although Genzyme sells Aldurazyme worldwide, the revenues earned by the Company based on Genzyme's net sales are included in the U.S. region, as the transactions are with Genzyme whose headquarters are located in the U.S.

	Years Ended December 31,		
	2016	2015	2014
<b>Total revenues by geographic region:</b>			
United States	\$ 507,539	\$ 444,075	\$ 383,770
Europe	252,633	171,216	136,251
Latin America	147,471	142,305	118,562
Rest of world	209,211	132,299	110,701
<b>Total revenues</b>	<b>\$ 1,116,854</b>	<b>\$ 889,895</b>	<b>\$ 749,284</b>

The following table summarizes non-monetary long-lived assets by geographic region. Non-monetary long-lived assets primarily consists of property, plant and equipment, intangible assets, goodwill and deferred tax assets.

	December 31,	
	2016	2015
<b>Long-lived assets by geography:</b>		
United States	\$ 1,183,938	\$ 940,512
Europe	812,833	865,233
Rest of world	2,568	2,253
<b>Total long-lived assets</b>	<b>\$ 1,999,339</b>	<b>\$ 1,807,998</b>

**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

**(21) COLLABORATIVE AGREEMENTS**

*Merck Serono*

In May 2005, the Company entered into an agreement with Merck Serono for the further development and commercialization of 6R-BH4, both in Kuvan for PKU and for other indications, and pegvaliase (phenylalanine ammonia lyase). Through the agreement and subsequent amendment, Merck Serono acquired exclusive rights to market these products in all territories outside the U.S., Canada and Japan, and the Company retained exclusive rights to market these products in the U.S. and Canada. Through December 31, 2015, the Company and Merck Serono were individually responsible for the costs of commercializing the products within their respective territories, with pay the Company royalties on its net sales of these products. On January 1, 2016, the Merck PKU Business acquisition was completed. As of January 1, 2016, the Company and Merck Serono have no further rights or obligations under the License Agreement with respect to pegvaliase. As of December 31, 2016, the License Agreement, as amended in December 2016, will continue in effect in order for Merck Serono to provide critical transition services for the sales and distribution of Kuvan in four remaining countries until marketing authorizations can be transferred in such countries.

See Note 5 to these Consolidated Financial Statements for additional discussion regarding the acquisition.

*Other Agreements*

The Company is engaged in R&D collaborations with various other entities. These provide for sponsorship of R&D by the Company and may also provide for exclusive royalty-bearing intellectual property licenses or rights of first negotiation regarding licenses to intellectual property development under the collaborations. Typically, these agreements can be terminated for cause by either party upon 90 days written notice.

In September 2007, the Company licensed to Asubio Pharma Co., Ltd. (a subsidiary of Daiichi Sankyo) exclusive rights to data and intellectual property contained in the Kuvan new drug application. The Company receives royalties on net sales of the product in Japan.

In October 2012, the Company licensed to Catalyst Pharmaceutical Partners, Inc., (Catalyst) the North American rights to develop and market Firdapse. In consideration of this licensing arrangement, the Company received from Catalyst a \$5.0 million convertible promissory note. Under the terms of the note agreement, the Company received 6.7 million shares of Catalyst common stock upon the automatic conversion of the convertible promissory note on December 10, 2012. In exchange for the North American rights to Firdapse the Company may receive royalties of 7% to 10% on net product sales of Firdapse in North America. As of December 31, 2016, there were no amounts due from Catalyst for reimbursable development costs.

**(22) COMPENSATION AGREEMENTS AND PLANS**

*Employment Agreements*

The Company has entered into employment agreements with certain officers. Generally, these agreements can be terminated without cause by the Company upon prior written notice and payment of specified severance, or by the officer upon four weeks' prior written notice to the Company.

*401(k) Plan*

The Company sponsors the BioMarin Retirement Savings Plan (the 401(k) Plan). Most employees (Participants) are eligible to participate following the start of their employment, at the beginning of each calendar month. Participants may contribute to the 401(k) Plan up to the lesser of 100% of their current compensation or an amount up to a statutorily prescribed annual limit. The Company pays the direct expenses of the 401(k) Plan and matched 100% of each Participant's contributions, up to a maximum of the lesser of 6% of the employee's annual compensation or \$12,000 per year (\$14,000 per year effective January 1, 2017). The Company's matching

BIOMARIN PHARMACEUTICAL INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)  
(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)

contribution vests over four years from employment commencement and was approximately \$16.0 million, \$15.1 million and \$8.3 million for the years ended December 31, 2016, 2015 and 2014, respectively. Employer contributions not vested upon employee termination are forfeited.

*Deferred Compensation Plan*

In December 2005, the Company adopted the Deferred Compensation Plan. The Deferred Compensation Plan allows eligible employees, including members of the Board, management and certain highly-compensated employees as designated by the Deferred Compensation Plan's Administrative Committee, the opportunity to make voluntary deferrals of compensation to specified future dates, retirement or death. Participants are permitted to defer portions of their salary, annual cash bonus and restricted stock. The Company may not make additional direct contributions to the Deferred Compensation Plan on behalf of the participants, without further action by the Board. Deferred compensation is held in trust and generally invested to match the investment benchmarks selected by participants. The recorded cost of any investments will approximate fair value. Company stock issued into the Deferred Compensation Plan is recorded and accounted for similarly to treasury stock in that the value of the employer stock is determined on the date the restricted stock vests and the shares are issued into the Deferred Compensation Plan. The Company stock issued into the Deferred Compensation Plan upon vesting is recorded in stockholders' equity. As of December 31, 2016 and 2015, the fair value of Company stock held by the Deferred Compensation Plan, was \$19.4 million and \$25.5 million, respectively, which is included in current and non-current liabilities. The change in market value amounted to a gain of \$5.0 million, a gain of \$2.5 million and a loss of \$4.8 million in the years 2016, 2015 and 2014, respectively. See Note 12 to these Consolidated Financial Statements for additional discussion regarding the fair value of the Deferred Compensation Plan assets and liabilities.

**(23) COMMITMENTS AND CONTINGENCIES**

*Lease Commitments*

The Company leases office space and research, testing and manufacturing laboratory space in various facilities under operating agreements expiring at various dates through 2025. Certain of the leases provide for options by the Company to extend the lease for multiple five-year renewal periods and also provide for annual minimum increases in rent, usually based on a consumer price index or annual minimum increases. Minimum lease payments for future years are as follows:

2017	\$	9,051
2018		7,739
2019		4,893
2020		3,391
2021		2,728
Thereafter		6,637
Total	\$	<u>34,439</u>

Rent expense for the years ended December 31, 2016, 2015 and 2014 was \$11.6 million, \$9.3 million and \$7.9 million, respectively. Deferred rent accruals at December 31, 2016 totaled \$2.4 million, of which \$2.0 million was current. Deferred rent accruals at December 31, 2015 totaled \$1.7 million, of which \$1.2 million was current.

*Research and Development Funding and Technology Licenses*

The Company uses experts and laboratories at universities and other institutions to perform certain R&D activities. These amounts are included as R&D expense as services are provided. The Company has also licensed technology, for which it is required to pay royalties upon future sales, subject to certain annual minimums.

**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

*Other Commitments*

In the normal course of business, the Company enters into various firm purchase commitments primarily related to active pharmaceutical ingredients and certain inventory related items. As of December 31, 2016, these commitments for the next five years were approximately \$45.8 million. The amounts primarily related to active pharmaceutical ingredients represent minimum purchase requirements and post marketing commitments related to the Company's approved products.

*Contingencies*

From time to time the Company is involved in legal actions arising in the normal course of its business. The most significant of these actions are described below.

The process of resolving matters through litigation or other means is inherently uncertain and it is possible that an unfavorable resolution of these matters could adversely affect the Company, its results of operations, financial condition and cash flows. The Company's general practice is to expense legal fees as services are rendered in connection with legal matters, and to accrue for liabilities when losses are probable and reasonably estimable.

*Paragraph IV Notices*

The Company received a paragraph IV notice letter, dated January 22, 2015, from Par Pharmaceutical, Inc. (Par), notifying it that Par had filed an abbreviated new drug application (ANDA) seeking approval of a proposed generic version of Kuvan (sapropterin dihydrochloride) 100 mg oral tablets prior to the expiration of the Company's patents listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (the Orange Book). Together with Merck & Cie, on March 6, 2015, the Company filed a lawsuit against Par in the U.S. District Court for the District of New Jersey alleging infringement of its patents relating to Kuvan tablets and seeking an injunction to prevent Par from introducing a generic version of Kuvan tablets that would infringe its patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of Par's ANDA in accordance with the Hatch-Waxman Act, which expires in July 2017. In response, Par alleged, inter alia, that the asserted patents are not infringed and/or are invalid.

The Company also received a paragraph IV notice letter, dated January 14, 2016, from Par, notifying it that Par has filed a separate ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral powder prior to the expiration of the Company's patents listed in the FDA's Orange Book. On February 22, 2016, the Company filed a lawsuit against Par in the U.S. District Court for the District of New Jersey alleging infringement of its patents relating to Kuvan powder and seeking an injunction to prevent Par from introducing a generic version of Kuvan powder that would infringe its patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of Par's ANDA in accordance with the Hatch-Waxman Act, which expires in July 2018. In response, Par alleged, inter alia, that the asserted patents are not infringed and/or are invalid.

The two cases against Par have been consolidated in the District of New Jersey for all purposes, including pretrial and trial. The Court held a claim construction hearing on May 5, 2016 but has not yet issued its ruling. Fact discovery closed on September 22, 2016, and expert discovery closes on March 31, 2017. No trial date has been set, but the Court has indicated that trial is likely to occur in May or June 2017.

The Company also received a paragraph IV notice letter, dated December 23, 2016, from Dr. Reddy's Laboratories, Inc. and Dr. Reddy's Laboratories, Ltd. (DRL), notifying it that DRL has filed a separate ANDA seeking approval of a proposed generic version of Kuvan 100 mg oral powder prior to the expiration of the Company's patents listed in the FDA's Orange Book. On February 6, 2017, the Company filed a lawsuit against DRL in the U.S. District Court for the District of New Jersey alleging infringement of its patents relating to Kuvan powder and seeking an injunction to prevent DRL from introducing a generic version of Kuvan powder that would infringe the Company's patents prior to their expiration. The filing of that lawsuit triggered the automatic 30-month stay on the approval of DRL's ANDA in accordance with the Hatch-Waxman Act, which expires in June 2019. DRL has not yet answered the complaint, and no schedule has been set by the Court to date.

**BIOMARIN PHARMACEUTICAL INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)**  
**(In thousands of U.S. dollars, except per share amounts or as otherwise disclosed)**

*SEC Subpoena*

In August 2016, the Company received a subpoena from the staff of the SEC requesting that the Company produce documents in connection with a non-public, fact-finding inquiry related to its former drisapersen program. The letter enclosing the subpoena states that the investigation and the subpoena do not mean that the Company or anyone else has broken the law, or that the SEC has a negative opinion of any person, entity or security. The Company intends to cooperate fully with the SEC in this matter. The Company is not able to predict whether any proceeding may be instituted in connection with the subpoena, or the outcome of any proceeding that may be instituted.

*Contingent Payments*

As of December 31, 2016, the Company is also subject to contingent payments totaling approximately \$576.5 million upon achievement of development and regulatory activities and commercial sales and licensing milestones if they occur before certain dates in the future. Of this amount, \$194.3 million (or €185 million based on the exchange rate of 1.05 USD per Euro in effect on December 31, 2016) relates to the Merck PKU Business acquisition and \$50.8 million relates to programs that are no longer being developed.

As of December 31, 2016, the Company has recorded \$161.6 million of contingent acquisition consideration payable on its Consolidated Balance Sheets in Short-term and Long-term Contingent Acquisition Consideration Payable, of which \$46.3 million is expected to be paid in the next twelve months.

[\*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.

EXECUTION VERSION

**FIRST AMENDMENT TO THE  
AMENDED AND RESTATED TERMINATION AND TRANSITION AGREEMENT**

This First Amendment to the AMENDED AND RESTATED TERMINATION AND TRANSITION AGREEMENT (“First Amendment”) is made on December 12, 2016 (“First Amendment Effective Date”) by and between:

ARES TRADING S.A., a corporation organized under the laws of Switzerland, hereinafter “Merck Serono” on the one hand,

AND

BIOMARIN PHARMACEUTICAL INC a Delaware corporation, hereinafter “BioMarin” on the other hand,

(Merck Serono and BioMarin are individually referred to herein as “Party” and collectively as “Parties”)

**Recitals**

**WHEREAS**, the Parties have signed the Amended and Restated Termination and Transition Agreement, dated as of December 23, 2015, and effective as of October 1, 2015, (hereinafter refer as to the “**Kuvan Agreement**”) pursuant to which BioMarin would acquire certain Transferred Assets from Merck Serono;

**AS**, the Parties have signed the Transition Plan, dated and effective as of December 23, 2015, to facilitate the transfer of the Transferred Assets, Merck Serono has agreed to perform the Transition Services during the Transition Service Period;

**AS**, for reasons out of the control of both Parties, it has not been possible to transfer the MA of Kuvan from Merck Serono to BioMarin in several countries;

**AS**, the Parties have agreed that it is in the interest of the patients, as well in their mutual best interest, to enter into this First Amendment and the 2017 Transition Plan (as defined below); which will be executed on this same date between the Parties;

[\*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.

AS, in order to properly make the changes effective, the Parties agree to amend the Kuvan Agreement, as set forth in this First Amendment; and

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NOW, THEREFORE, the Parties agree as follows to amend, pursuant with its Section 11.11, the Kuvan Agreement, in the following terms:

1. The Parties agree to amend Section 2.01 of the Kuvan Agreement as follows:

“Section 2.01 Termination of License Agreement. Except as otherwise provided in this section, the Parties hereby agree to terminate the License Agreement, which termination will be effective on a country per country basis as follows: (1) for all countries in the Territory other than those included in (2) (3) (4) and (5) below, on the earlier of (a), the date of receipt of the Governmental Body approval for the transfer of the MA of Kuvan from Merck Serono to BioMarin for such country, (in each case, the “**Transfer Approval Date**”), (b) on the date agreed to in writing by the Parties, and (c) December 31, 2016; [\*\*\*] (the “**License Termination Date**”). The Parties further agree that, on and following the License Termination Date for a country, the License Agreement will have no further force or effect with respect to such country and all rights and obligations, including all rights and obligations identified in the License Agreement as surviving the termination of the License Agreement, of BioMarin and Merck Serono with respect to such country under the License Agreement shall cease and terminate on the License Termination Date; provided, however, that nothing in this Section 2.01 shall (i) prejudice any rights, claims, or causes of action that may have accrued to a party under the License Agreement with respect to a country prior to the applicable License Termination Date, or (ii) relieve any party to the License Agreement from liability for any breach of any of its representations, warranties, covenants or agreements set forth in the License Agreement with respect to a country prior to the applicable License Termination Date, including any obligation of any party relating to payments, fees or costs under the License Agreement. On the License Termination Date, Merck Serono shall cease all Exploitation of the Products and shall have no further rights thereafter to Exploit the Products in the applicable country, except to the extent necessary to provide the Transition Services hereunder.”

2. Notwithstanding Section 5.01 of the Kuvan Agreement, the Parties agree to comply with the terms and conditions of the 2017 Transition Plan attached to the First Amendment as Exhibit A.

3. The Parties agree that Schedule 1.37 “Inventory Pricing Terms – BioMarin Merck Serono Termination Agreement (Kuvan)” of the Kuvan Agreement shall not be applicable to the inventory in [\*\*\*].

[\*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.

4. Capitalized terms used, but not otherwise defined, herein shall have the meanings ascribed thereto in the Kuvan Agreement.

5. Article XI of the Kuvan Agreement is hereby incorporated by reference into this Plan, *mutatis mutandis*.

6. All the remaining provisions of the Kuvan Agreement not expressly modified by this First Amendment shall remain in full force and effect and shall be fully applicable to and interpreted in accordance with this First Amendment.

*[Signature Page Follows]*



[\*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.

IN WITNESS WHEREOF, the parties hereto have caused this First Amendment to be executed as of the 12th day of December 2016 by their respective authorized representatives thereunto duly authorized.

**“Merck Serono”**

**ARES TRADING S.A.**

By: /s/ Cedric Hyde

Name: Cedric Hyde

Title: Authorized Representative

By: /s/ Luigia Bocola

Name: Luigi Bocola

Title: Authorized Representative

**“BioMarin”**

**BIOMARIN PHARMACEUTICAL INC.**

By: /s/ G. Eric Davis

Name: G. Eric Davis

Title: Executive Vice President, General Counsel

[\*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.

List of Schedules:

Exhibit A          2017 Transition Plan\*

\* The schedules to the First Amendment have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of the omitted schedules will be furnished supplementally to the Securities and Exchange Commission upon request.

CREDIT AGREEMENT

Dated as of November 29, 2016

among

BIOMARIN PHARMACEUTICAL INC.,

as the Borrower,

BANK OF AMERICA, N.A.,  
as Administrative Agent, Swing Line Lender,  
L/C Issuer and a Lender,

and

the other Lenders from time to time party hereto

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## CREDIT AGREEMENT

This CREDIT AGREEMENT (“Agreement”) is entered into as of November 29, 2016, among BIOMARIN PHARMACEUTICAL INC., a Delaware corporation (the “Borrower”), each lender from time to time party hereto (collectively, the “Lenders” and individually, a “Lender”), and BANK OF AMERICA, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer.

### PRELIMINARY STATEMENTS:

The Borrower has requested that the Lenders provide a revolving credit facility, and the Lenders have indicated their willingness to lend and the L/C Issuer has indicated its willingness to issue letters of credit, in each case, on the terms and subject to the conditions set forth herein.

In consideration of the mutual covenants and agreements herein contained, the parties hereto covenant and agree as follows:

### ARTICLE I DEFINITIONS AND ACCOUNTING TERMS

1.01 Defined Terms. As used in this Agreement, the following terms shall have the meanings set forth below:

“Administrative Agent” means Bank of America in its capacity as administrative agent under any of the Loan Documents, or any successor administrative agent.

“Administrative Agent’s Office” means the Administrative Agent’s address and, as appropriate, account as set forth on Schedule 10.02, or such other address or account as the Administrative Agent may from time to time notify to the Borrower and the Lenders.

“Administrative Questionnaire” means an Administrative Questionnaire in substantially the form of Exhibit E-2 or any other form approved by the Administrative Agent.

“Advance Rate” means, at any time, with respect to any asset held in the Custody Account, the maximum amount of Credit Extensions that can be advanced to the Borrower in respect of such asset, expressed as a percentage of the Market Value of such asset.

“Affiliate” means, with respect to any Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified.

“Aggregate Commitments” means the Commitments of all the Lenders.

“Agreement” means this Credit Agreement.

“Applicable Fee Rate” means, at any time, 0.20% per annum.

“Applicable Percentage” means, with respect to any Lender at any time, the percentage (carried out to the ninth decimal place) of the Revolving Credit Facility represented by such Lender’s Commitment at such time, subject to adjustment as provided in Section 2.15. If the commitment of each Lender to make Loans and the obligation of the L/C Issuer to make L/C Credit Extensions have been terminated pursuant to Section 8.02, or if the Commitments have expired, then the Applicable Percentage

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of each Lender shall be determined based on the Applicable Percentage of such Lender most recently in effect, giving effect to any subsequent assignments. The initial Applicable Percentage of each Lender is set forth opposite the name of such Lender on Schedule 2.01 or in the Assignment and Assumption pursuant to which such Lender becomes a party hereto, as applicable.

“Applicable Rate” means (i) –0.15% per annum for Base Rate Loans and (ii) 0.85% per annum for Eurodollar Rate Loans and Letter of Credit Fees.

“Appropriate Lender” means, at any time, (a) with respect to the Revolving Credit Facility, a Lender that has a Commitment or holds a Revolving Credit Loan at such time, (b) with respect to the Letter of Credit Sublimit, (i) the L/C Issuer and (ii) if any Letters of Credit have been issued pursuant to Section 2.03(a), the Revolving Credit Lenders and (c) with respect to the Swing Line Sublimit, (i) the Swing Line Lender and (ii) if any Swing Line Loans are outstanding pursuant to Section 2.04(a), the Revolving Credit Lenders.

“Approved Fund” means any Fund that is administered or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers or manages a Lender.

“Assignment and Assumption” means an assignment and assumption entered into by a Lender and an Eligible Assignee (with the consent of any party whose consent is required by Section 10.06(b)), and accepted by the Administrative Agent, in substantially the form of Exhibit E-1 or any other form (including electronic documentation generated by use of an electronic platform) approved by the Administrative Agent.

“Attributable Indebtedness” means, on any date, (a) in respect of any Capitalized Lease of any Person, the capitalized amount thereof that would appear on a balance sheet of such Person prepared as of such date in accordance with GAAP, (b) in respect of any Synthetic Lease Obligation, the capitalized amount of the remaining lease or similar payments under the relevant lease or other applicable agreement or instrument that would appear on a balance sheet of such Person prepared as of such date in accordance with GAAP if such lease or other agreement or instrument were accounted for as a Capitalized Lease and all Synthetic Debt of such Person.

“Audited Financial Statements” means the audited consolidated balance sheet of the Borrower and its Subsidiaries for the fiscal year ended December 31, 2015, and the related consolidated statements of operations, comprehensive income (or loss), stockholders’ equity and cash flows for such fiscal year of the Borrower and its Subsidiaries, including the notes thereto.

“Availability Period” means, the period from and including the Closing Date to the earliest of (i) the Maturity Date, (ii) the date of termination of the Commitments pursuant to Section 2.06, and (iii) the date of termination of the commitment of each Revolving Credit Lender to make Revolving Credit Loans and of the obligation of the L/C Issuer to make L/C Credit Extensions pursuant to Section 8.02.

“Available Amount” means, as at any date, an amount, not less than zero in the aggregate, determined on a cumulative basis equal to (without duplication):

(a) \$712,900,000; plus

(b) 100% of the Net Cash Proceeds received after the Closing Date and on or prior to such date from any issuance of Qualified Equity Interests of the Borrower; plus

(c) 100% of the aggregate amount of cash contributions to the common capital of the Borrower after the Closing Date and on or prior to such date; plus

(d) 100% of the aggregate principal amount of any Indebtedness of the Borrower and its Restricted Subsidiaries issued following the Closing Date that has been converted into Qualified Equity Interests of the Borrower on or prior to such date; plus

(e) 100% of the aggregate milestone payments or other similar contingent or deferred payments received after the Closing Date and on or prior to such date in connection with the Asset Purchase Agreement between the Borrower and Medivation, Inc., dated August 21, 2015; plus

(f) the net cash proceeds received by the Borrower or any Restricted Subsidiary after the Closing Date and on or prior to such date from any distribution, dividend, return of capital, repayment of loans or upon the disposition of any Investment, in each case to the extent received in respect of an Investment made in reliance on the Available Amount (and not in excess of the amount of such Investment); plus

(g) the lesser of the Fair Market Value of any Unrestricted Subsidiary at the time it is redesignated as a Restricted Subsidiary and the amount of Investments made in such Unrestricted Subsidiary in reliance on the Available Amount; minus

(h) the amount of any usage of such Available Amount pursuant to Section 7.03(k) and Section 7.06(d), in each case prior to such date.

“Bail-In Action” means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“Bail-In Legislation” means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“Bank of America” means Bank of America, N.A. and its successors.

“Base Rate” means for any day a fluctuating rate per annum equal to the highest of (a) the Federal Funds Rate plus 1/2 of 1% (b) the rate of interest in effect for such day as publicly announced from time to time by Bank of America as its “prime rate”, and (c) the Eurodollar Rate plus 1.00. The “prime rate” is a rate set by Bank of America based upon various factors including Bank of America’s costs and desired return, general economic conditions and other factors, and is used as a reference point for pricing some loans, which may be priced at, above, or below such announced rate. Any change in such rate announced by Bank of America shall take effect at the opening of business on the day specified in the public announcement of such change.

“Base Rate Loan” means a Revolving Credit Loan that bears interest based on the Base Rate.

“Borrower” has the meaning specified in the introductory paragraph hereto.

“Borrower Materials” has the meaning specified in Section 6.02.

“**Borrowing**” means a borrowing consisting of simultaneous Revolving Credit Loans of the same Type and, in the case of Eurodollar Rate Loans, having the same Interest Period made by each of the Revolving Credit Lenders pursuant to Section 2.01.

“**Borrowing Base**” means, at any time, the sum of the Dollars and the Market Value of the marketable securities and other liquid assets (of the types set forth in the table below) of the Borrower held in the Custody Account, based on the Advance Rates set forth in the table below:

<b>Marketable Securities / Other Liquid Collateral Type</b>	<b>Advance Rates</b>
U.S. government-sovereign debt securities	92%
U.S. government agency	85%
State & local municipal debt	80%
<b>U.S. Corporate Debt Securities</b>	
Commercial paper with agency ratings of:	
A1/P1	85%
A2/P2	80%
Non-convertible issues (investment grade)	80%
Convertible issues	70%
US corporate bonds (investment grade)	80%
US corporate bonds (investment grade) convertible into margin stock	80%
<b>Mutual Funds</b>	
Money market	90%
US government agency	85%
Corporate bonds (investment grade)	80%
Municipal bonds (investment grade)	80%
<b>Equity Securities</b>	
Common equities	70%
Preferred non-convertible equities	70%
Preferred convertible equities	70%
American depository receipts	70%
Global depository receipts	70%
<b>Other Debt Securities</b>	
BAC sponsored issues (US Agency Backed)	75%
Non-BAC sponsored issues (US Agency Backed)	70%
<b>Cash Deposits held at BAC</b>	
Cash deposits in savings accounts including money market deposit accounts	100%
BAC negotiable certificates of deposit	100%
<b>Other Liquid Collateral</b>	

Bankers acceptances	90%
Cash surrender value of life insurance	95%

“Borrowing Base Assets” means Dollars and marketable securities and other liquid assets of the types set forth in the table set forth under the definition of “Borrowing Base”.

“Borrowing Base Certificate” means a certificate substantially in the form of Exhibit I.

“Borrowing Base Deficiency” means, at any time, the failure of the Custody Maintenance Value at such time to equal or exceed the Total Outstandings at such time.

“Business Day” means any day other than a Saturday, Sunday or other day on which commercial banks are authorized to close under the Laws of, or are in fact closed in, the state where the Administrative Agent’s Office is located and, if such day relates to any Eurodollar Rate Loan, means any such day that is also a London Banking Day.

“Capitalized Leases” means all leases that have been or should be, in accordance with GAAP, recorded as capitalized leases; provided that any lease or other arrangement that, under GAAP as in effect on the Closing Date, would not be required to be accounted for as a capital lease shall not constitute a “Capital Lease” hereunder.

“Cash Collateral Account” means a blocked, non-interest bearing deposit account of one or more of the Loan Parties at Bank of America in the name of the Administrative Agent and under the sole dominion and control of the Administrative Agent, and otherwise established in a manner satisfactory to the Administrative Agent.

“Cash Collateralize” means to deposit in a Cash Collateral Account or pledge and deposit with or deliver to the Administrative Agent, for the benefit of one or more of the L/C Issuer or Swing Line Lender (as applicable) and the Lenders, as collateral for L/C Obligations, Obligations in respect of Swing Line Loans, or obligations of Lenders to fund participations in respect of either thereof (as the context may require), cash or deposit account balances or, if the Administrative Agent, the L/C Issuer or Swing Line Lender shall agree in their sole discretion, other credit support, in each case pursuant to documentation in form and substance satisfactory to (a) the Administrative Agent and (b) the L/C Issuer or the Swing Line Lender (as applicable). “Cash Collateral” shall have a meaning correlative to the foregoing and shall include the proceeds of such cash collateral and other credit support.

“Cash Equivalents” means any of the following types of Investments, to the extent owned by the Borrower or any of its Subsidiaries free and clear of all Liens (other than (x) Liens created under the Collateral Documents after a Collateral Trigger Event and (y) other Liens permitted hereunder):

(a) readily marketable obligations issued or directly and fully guaranteed or insured by the United States of America or any agency or instrumentality thereof having maturities of not more than 2 years from the date of acquisition thereof; provided that the full faith and credit of the United States of America is pledged in support thereof;

(b) time deposits with, or insured certificates of deposit or bankers’ acceptances of, any commercial bank that (i) (A) is a Lender or (B) is organized under the laws of the United States of America, any state thereof or the District of Columbia or is the principal banking subsidiary of a bank holding company organized under the laws of the United States of America, any state thereof or the District of Columbia, and is a member of the Federal Reserve System, (ii)

issues (or the parent of which issues) commercial paper rated as described in clause (c) of this definition and (iii) has combined capital and surplus of at least \$1,000,000,000, in each case with maturities of not more than one year from the date of acquisition thereof;

(c) commercial paper issued by any Person organized under the laws of any state of the United States of America and rated at least "Prime-1" (or the then equivalent grade) by Moody's or at least "A-1" (or the then equivalent grade) by S&P, in each case with maturities of not more than 1 year from the date of acquisition thereof;

(d) Investments, classified in accordance with GAAP as current assets of the Borrower or any of its Restricted Subsidiaries, in money market investment programs registered under the Investment Company Act of 1940, which are administered by financial institutions that have the highest rating obtainable from either Moody's or S&P, and the portfolios of which are limited solely to Investments of the character, quality and maturity described in clauses (a), (b) and (c) of this definition;

(e) securities issued or fully guaranteed by any state, district or commonwealth of the United States of America or by any political subdivision (including any municipality) or taxing authority of any such state, district or commonwealth the securities of which state, district or commonwealth political subdivision or taxing authority (as the case may be) are rated at least "A" (or A-1, SP1 or other then equivalent grade) by S&P or at least "A1" (or "Prime-1" or MIG-1 or other then equivalent grade) by Moody's as of the date of acquisition and, in each case, with a maturity of not more than two years from the date of acquisition thereof;

(f) securities of United States government sponsored entities having ratings of at least Aaa by Moody's (or the then equivalent grade) or AAA by S&P (or the then equivalent grade) as of the date of acquisition and having maturities not more than two years from the date of acquisition thereof;

(g) repurchase obligations of any commercial bank (or any Affiliate thereof) satisfying the requirements of clause (b) above, having a term of not more than 12 months;

(h) in the case of any Foreign Subsidiary, other short-term investments that are analogous to the foregoing, are of comparable credit quality and are customarily used by companies in the jurisdiction of such Foreign Subsidiary for cash management purposes; and

(i) investments permitted pursuant to the Borrower's investment policy as approved by the Board of Directors (or a committee thereof) of the Borrower as in effect on the Closing Date.

"CERCLA" means the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

"CERCLIS" means the Comprehensive Environmental Response, Compensation and Liability Information System maintained by the U.S. Environmental Protection Agency.

"CFC" means a Person that is a controlled foreign corporation as such term is defined in Section 957 of the Code.

"Change in Law" means the occurrence, after the date of this Agreement, of any of the following: (a) the adoption or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule,

regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (y) all requests, rules, guidelines or directives promulgated by the Bank for International settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a “Change in Law”, regardless of the date enacted, adopted or issued.

“Change of Control” means an event or series of events by which:

(a) any “person” or “group” (as such terms are used in Sections 13(d) and 14(d) of the Securities Exchange Act, but excluding any employee benefit plan of such person or its subsidiaries, and any person or entity acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan) becomes the “beneficial owner” (as defined in Rules 13d-3 and 13d-5 under the Securities Exchange Act, except that a person or group shall be deemed to have “beneficial ownership” of all securities that such person or group has the right to acquire, whether such right is exercisable immediately or only after the passage of time (such right, an “option right”)), directly or indirectly, of 35% or more of the equity securities of the Borrower entitled to vote for members of the board of directors or equivalent governing body of the Borrower on a fully-diluted basis (and taking into account all such securities that such “person” or “group” has the right to acquire pursuant to any option right); or

(b) a “change of control” or any comparable term under, and as defined in, the Subordinated Notes Documents or any other Indebtedness of the Borrower or any of its Subsidiaries (other than Indebtedness arising under this Agreement) in an aggregate principal amount exceeding the Threshold Amount shall have occurred and, in any event, such occurrence triggers a default, mandatory prepayment or mandatory offer of prepayment, which default, mandatory prepayment or mandatory offer of prepayment has not been waived in writing (other than Indebtedness permitted under Section 7.02(h)).

“Closing Date” means the first date all the conditions precedent in Section 4.01 are satisfied or waived in accordance with Section 10.01.

“Closing Fee” has the meaning specified in Section 2.09(b).

“Code” means the United States Internal Revenue Code of 1986, as amended.

“Collateral” has the meaning specified in Section 2.1 of the Security Agreement.

“Collateral Documents” means, collectively, the Security Agreement, the Control Agreement and each of the other agreements, instruments or documents that creates or purports to create or perfect a Lien in favor of the Administrative Agent for the benefit of the Secured Parties.

“Collateral Security Deadline” means 10 Business Days after the first Collateral Trigger Event (or such longer period as may be agreed by the Administrative Agent).

“Collateral Security Deadline Requirements” means the requirements of the Borrower to (a) cause the Custody Account and the other Collateral to be subject to the valid and perfected Lien of the Administrative Agent (for the benefit of the Secured Parties) prior and superior in right to any other

Person by delivering to the Administrative Agent a duly executed Security Agreement, the Control Agreement and/or such other Collateral Documents as the Administrative Agent shall reasonably deem appropriate for such purpose, (b) deliver to the Administrative Agent such opinions, documents and certificates as may be reasonably requested by the Administrative Agent and (c) take such actions and execute and/or deliver to the Administrative Agent such documents as the Administrative Agent shall reasonably request (including, without limitation, filing of UCC financing statements) to effect or confirm the validity, perfection and priority of the Lien of the Collateral Documents.

“Collateral Trigger Event” means the failure of the Borrower to be in compliance with the Minimum Liquidity Test as of (i) the last day of any month and (ii) the time of any Credit Extension.

“Commitment” means, as to each Revolving Credit Lender, its obligation to (a) make Revolving Credit Loans to the Borrower pursuant to Section 2.01, (b) purchase participations in L/C Obligations, and (c) purchase participations in Swing Line Loans, in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Lender’s name on Schedule 2.01 under the caption “Commitment” or opposite such caption in the Assignment and Assumption pursuant to which such Lender becomes a party hereto, as applicable, as such amount may be adjusted from time to time in accordance with this Agreement. The aggregate amount of Commitments as of the date hereof is \$100,000,000.

“Committed Loan Notice” means a notice of (a) a Borrowing, (b) a conversion of Loans from one Type to the other, or (c) a continuation of Eurodollar Rate Loans, pursuant to Section 2.02(a), which shall be substantially in the form of Exhibit A or such other form as may be approved by the Administrative Agent (including any form on an electronic platform or electronic transmission system as shall be approved by the Administrative Agent), appropriately completed and signed by a Responsible Officer of the Borrower.

“Compliance Certificate” means a certificate substantially in the form of Exhibit D.

“Connection Income Taxes” means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

“Consolidated Total Assets” means, the consolidated total assets of the Borrower and its Restricted Subsidiaries as set forth on the consolidated balance sheet of the Borrower as of the most recent period for which financial statements were required to have been delivered pursuant to Sections 6.01(a) and (b).

“Contractual Obligation” means, as to any Person, any provision of any security issued by such Person or of any agreement, instrument or other undertaking to which such Person is a party or by which it or any of its property is bound.

“Control” means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. “Controlling” and “Controlled” have meanings correlative thereto.

“Control Agreement” means an agreement establishing the Administrative Agent’s control (as such term is defined in Section 8.106 of the UCC or Section 9.104 of the UCC, as applicable) with respect to the Custody Account in form that is reasonably satisfactory to the Administrative Agent.

“Credit Extension” means each of the following: (a) a Borrowing and (b) an L/C Credit Extension.

“Custody Account” means an account of the Borrower domiciled in the United States at the Administrative Agent, which shall be designated by the Borrower to the Administrative Agent as the “Custody Account” hereunder and which shall otherwise be established in a manner satisfactory to the Administrative Agent.

“Custody Maintenance Value” means, at any time, an amount equal to the sum of the Dollars and the Market Value of the marketable securities and other liquid assets (of the types set forth in the table below) of the Borrower held in the Custody Account, based on the Maintenance Rates set forth in the table below:

<b>Marketable Securities / Other Liquid Collateral Type</b>	<b>Maintenance Rates</b>
U.S. government-sovereign debt securities	95%
U.S. government agency	90%
State & local municipal debt	85%
<b>U.S. Corporate Debt Securities</b>	
Commercial paper with agency ratings of:	90%
A1/P1	90%
A2/P2	85%
Non-convertible issues (investment grade)	85%
Convertible issues	75%
US corporate bonds (investment grade)	85%
US corporate bonds (investment grade) convertible into margin stock	85%
<b>Mutual Funds</b>	
Money market	95%
US government agency	90%
Corporate bonds (investment grade)	85%
Municipal bonds (investment grade)	85%
<b>Equity Securities</b>	
Common equities	75%
Preferred non-convertible equities	75%
Preferred convertible equities	75%
American depository receipts	75%
Global depository receipts	75%
<b>Other Debt Securities</b>	
BAC sponsored issues (US Agency Backed)	85%
Non-BAC sponsored issues (US Agency Backed)	75%
<b>Cash Deposits held at BAC</b>	
Cash deposits in savings accounts including money market deposit accounts	100%
BAC negotiable certificates of deposit	100%
<b>Other Liquid Collateral</b>	



Bankers acceptances	90%
Cash surrender value of life insurance	95%

“Debtor Relief Laws” means the Bankruptcy Code of the United States, and all other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief Laws of the United States or other applicable jurisdictions from time to time in effect.

“Default” means any event or condition that constitutes an Event of Default or that, with the giving of any notice, the passage of time, or both, would be an Event of Default.

“Default Rate” means (a) when used with respect to Obligations other than Letter of Credit Fees, an interest rate equal to (i) the Base Rate plus (ii) the Applicable Rate, if any, applicable to Base Rate Loans plus (iii) 2% per annum; provided that with respect to a Eurodollar Rate Loan, the Default Rate shall be an interest rate equal to the interest rate (including any Applicable Rate) otherwise applicable to such Loan plus 2% per annum and (b) when used with respect to Letter of Credit Fees, a rate equal to the Applicable Rate plus 2% per annum.

“Defaulting Lender” means, subject to Section 2.15(b), any Lender that (a) has failed to (i) fund all or any portion of its Loans within two Business Days of the date such Loans were required to be funded hereunder unless such Lender notifies the Administrative Agent and the Borrower in writing that such failure is the result of such Lender’s determination that one or more conditions precedent to funding (each of which conditions precedent, together with any applicable default, shall be specifically identified in such writing) has not been satisfied, or (ii) pay to the Administrative Agent, the L/C Issuer, the Swing Line Lender or any other Lender any other amount required to be paid by it hereunder (including in respect of its participation in Letters of Credit or Swing Line Loans) within two Business Days of the date when due, (b) has notified the Borrower, the Administrative Agent, the L/C Issuer or the Swing Line Lender in writing that it does not intend to comply with its funding obligations hereunder, or has made a public statement to that effect (unless such writing or public statement relates to such lender’s obligation to fund a Loan hereunder and states that such position is based on such Lender’s determination that a condition precedent to funding (which condition precedent, together with any applicable default, shall be specifically identified in such writing or public statement) cannot be satisfied), (c) has failed, within three Business Days after written request by the Administrative Agent or the Borrower, to confirm in writing to the Administrative Agent and the Borrower that it will comply with its prospective funding obligations hereunder (provided that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon receipt of such written confirmation by the Administrative Agent and the Borrower), or (d) has, or has a direct or indirect parent company that has, (i) become the subject of a proceeding under any Debtor Relief Law, (ii) had appointed for it a receiver, custodian, conservator, trustee, administrator, assignee for the benefit of creditors or similar Person charged with reorganization or liquidation of its business or assets, including the Federal Deposit Insurance Corporation or any other state or federal regulatory authority acting in such a capacity or (iii) become the subject of a Bail-In Action; provided that a Lender shall not be a Defaulting Lender solely by virtue of the ownership or acquisition of any Equity Interest in that Lender or any direct or indirect parent company thereof by a Governmental Authority so long as such ownership interest does not result in or provide such Lender with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Lender (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made with such Lender. Any determination by the Administrative Agent that a Lender is a Defaulting Lender under any one or more of clauses (a) through (d) above, and of the effective date of such status, shall be conclusive and binding absent manifest error, and such Lender shall be deemed to be a Defaulting Lender (subject to Section 2.15(b)) as of the date established therefor by the

Administrative Agent in a written notice of such determination, which shall be delivered by the Administrative Agent to the Borrower, the L/C Issuer, the Swing Line Lender and each other Lender promptly following such determination.

“Designated Jurisdiction” means any country or territory that is subject to comprehensive Sanctions.

“Designated Non-Cash Consideration” means the Fair Market Value of non-cash consideration received by the Borrower or any of the Restricted Subsidiaries in connection with a Disposition made pursuant to Section 7.05(h) that is designated as “Designated Non-Cash Consideration” on the date received pursuant to a certificate of a Responsible Officer of the Borrower setting forth the basis of such Fair Market Value (with the amount of Designated Non-Cash Consideration in respect of any Disposition being reduced for purposes of Section 7.05(h) to the extent the Borrower or any of the Restricted Subsidiaries converts the same to cash or Cash Equivalents within 180 days following the closing of the applicable Disposition).

“Disclosure Letter” means the disclosure letter dated the Closing Date and delivered to the Administrative Agent and the Lenders in respect of this Agreement.

“Disposition” or “Dispose” means the sale, transfer, Exclusive License, lease or other disposition (including any sale and leaseback transaction) of any property by any Person (or the granting of any option or other right to do any of the foregoing), including any sale, assignment, transfer or other disposal, with or without recourse, of any notes or accounts receivable or any rights and claims associated therewith.

“Disqualified Stock” means any Equity Interest which, by its terms (or by the terms of any security or other Equity Interests into which it is convertible or for which it is exchangeable), or upon the happening of any event or condition (a) matures or is mandatorily redeemable (other than solely for Qualified Equity Interests), pursuant to a sinking fund obligation or otherwise (except as a result of a change of control or asset sale so long as any rights of the holders thereof upon the occurrence of a change of control or asset sale event shall be subject to the prior repayment in full of the Loans and all other Obligations that are accrued and payable and the termination of the Commitments), (b) is redeemable at the option of the holder thereof (other than solely for Qualified Equity Interests), in whole or in part, (c) provides for the scheduled payments of dividends in cash, or (d) is or becomes convertible into or exchangeable for Indebtedness or any other Equity Interests that would constitute Disqualified Stock, in each case, prior to the date that is ninety-one (91) days after the Maturity Date; provided that if such Equity Interests are issued pursuant to a plan for the benefit of current or former employees, directors, independent contractors or other service providers of the Borrower or the Restricted Subsidiaries or by any such plan to such current or former employees, directors, independent contractors or other service providers, such Equity Interests shall not constitute Disqualified Stock solely because it may be required to be repurchased by the Borrower or its Restricted Subsidiaries in order to satisfy applicable statutory or regulatory obligations, including tax withholding, or as a result of such current or former employee’s, director’s, independent contractor’s or other service provider’s termination, death or disability; provided further that Disqualified Stock shall exclude Permitted Equity Derivatives.

“Dollar” and “\$” mean lawful money of the United States.

“Domestic Subsidiary” means any direct or indirect Subsidiary that is organized under the laws of the United States, any state or commonwealth thereof, or the District of Columbia.

“Drug Acquisition” means any acquisition (including any license or any acquisition of any license) solely or primarily of all or any portion of the rights in respect of one or more drugs or pharmaceutical products, whether in development or on market (including related intellectual property), but not of Equity Interests in any Person or any operating business unit unless such rights constitute all or substantially all of such Person’s or operating business’ assets.

“EEA Financial Institution” means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a Subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

“EEA Member Country” means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

“EEA Resolution Authority” means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

“Eligible Assignee” means any Person that meets the requirements to be an assignee under Section 10.06(b)(iii) and (iv) (subject to such consents, if any, as may be required under Section 10.06(b)(iii)).

“Environment” means ambient air, indoor air, surface water, groundwater, drinking water, soil, surface and subsurface strata, and natural resources such as wetland, flora and fauna.

“Environmental Laws” means any and all Federal, state, local, and foreign statutes, laws, regulations, ordinances, rules, judgments, orders, decrees, permits, agreements or governmental restrictions relating to pollution or the protection of the Environment or human health (to the extent related to exposure to Hazardous Materials), including those relating to the manufacture, generation, handling, transport, storage, treatment, Release threat of Release of Hazardous Materials.

“Environmental Liability” means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of the Borrower, any other Loan Party or any of their respective Subsidiaries directly or indirectly resulting from or based upon (a) violation of any Environmental Law, (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Materials, (c) exposure to any Hazardous Materials, (d) Release or threatened Release of any Hazardous Materials or (e) any contract, agreement or other consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

“Environmental Permit” means any permit, approval, identification number, license or other authorization required under any Environmental Law.

“Equity Interests” means, with respect to any Person, all of the shares of capital stock of (or other ownership or profit interests in) such Person, all of the warrants, options or other rights for the purchase or acquisition from such Person of shares of capital stock of (or other ownership or profit interests in) such Person, all of the securities convertible into or exchangeable for shares of capital stock of (or other ownership or profit interests in) such Person or warrants, rights or options for the purchase or acquisition from such Person of such shares (or such other interests), and all of the other ownership or profit interests in such Person (including partnership, member or trust interests therein), whether voting or nonvoting,

and whether or not such shares, warrants, options, rights or other interests are outstanding on any date of determination, provided that Equity Interests shall exclude debt securities and other Indebtedness convertible into or exchangeable for any of the foregoing.

“ERISA” means the Employee Retirement Income Security Act of 1974.

“ERISA Affiliate” means any trade or business (whether or not incorporated) under common control with the Borrower within the meaning of Section 414(b) or (c) of the Code (and Sections 414(m) and (o) of the Code for purposes of provisions relating to Section 412 of the Code).

“ERISA Event” means (a) a Reportable Event with respect to a Pension Plan; (b) the withdrawal of the Borrower or any ERISA Affiliate from a Pension Plan subject to Section 4063 of ERISA during a plan year in which such entity was a “substantial employer” as defined in Section 4001(a)(2) of ERISA or a cessation of operations that is treated as such a withdrawal under Section 4062(e) of ERISA; (c) a complete or partial withdrawal by the Borrower or any ERISA Affiliate from a Multiemployer Plan or notification that a Multiemployer Plan is in reorganization; (d) the filing of a notice of intent to terminate, the treatment of a Pension Plan amendment as a termination under Section 4041 or 4041A of ERISA; (e) the institution by the PBGC of proceedings to terminate a Pension Plan; (f) any event or condition which constitutes grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Pension Plan; (g) the determination that any Pension Plan is considered an at-risk plan or a plan in endangered or critical status within the meaning of Sections 430, 431 and 432 of the Code or Sections 303, 304 and 305 of ERISA; (h) the imposition of any liability under Title IV of ERISA, other than for PBGC premiums due but not delinquent under Section 4007 of ERISA, upon the Borrower or any ERISA Affiliate; or (i) a failure by the Borrower or any ERISA Affiliate to meet all applicable requirements under the Pension Funding Rules in respect of a Pension Plan, whether or not waived, or the failure by the Borrower or any ERISA Affiliate to make any required contribution to a Multiemployer Plan.

“EU Bail-In Legislation Schedule” means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

“Eurodollar Rate” means:

(a) for any Interest Period with respect to a Eurodollar Rate Loan, the rate per annum equal to the London Interbank Offered Rate (“LIBOR”) or a comparable or successor rate, which rate is approved by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at approximately 11:00 a.m., London time, two Business Days prior to the commencement of such Interest Period, for Dollar deposits (for delivery on the first day of such Interest Period) with a term equivalent to such Interest Period; and

(b) for any interest calculation with respect to a Base Rate Loan on any date, the rate per annum equal to LIBOR, at or about 11:00 a.m., London time determined two Business Days prior to such date for U.S. Dollar deposits with a term of one month commencing that day; and

(c) if the Eurodollar Rate shall be less than zero, such rate shall be deemed zero for purposes of this Agreement;

provided that to the extent a comparable or successor rate is approved by the Administrative Agent in connection herewith, the approved rate shall be applied in a manner consistent with market practice; provided, further, that to the extent such market practice is not administratively feasible for the

Administrative Agent, such approved rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“Eurodollar Rate Loan” means a Revolving Credit Loan that bears interest at a rate based on clause (a) of the definition of the Eurodollar Rate.

“Event of Default” has the meaning specified in Section 8.01.

“Excluded Subsidiary” means (a) any Domestic Subsidiary of a Subsidiary that is a CFC, (b) any Domestic Subsidiary that owns no material assets (directly or through one or more disregarded entities) other than Equity Interests (including any debt instrument treated as equity for U.S. federal income tax purposes) of one or more Foreign Subsidiaries that are CFCs, (c) any Subsidiary that is prohibited by applicable Law, rule or regulation or by any contractual obligation (with respect to any such contractual obligation, only to the extent existing on the Closing Date or at the time such Subsidiary is acquired, as applicable (and not entered into in contemplation of such acquisition)), from guaranteeing the Obligations or which would require governmental (including regulatory) consent, approval, license or authorization to provide a guarantee unless such consent, approval, license or authorization has been received, (d) any Foreign Subsidiary, (e) any Immaterial Subsidiary or (f) any Unrestricted Subsidiary.

“Excluded Taxes” means any of the following Taxes imposed on or with respect to any Recipient or required to be withheld or deducted from a payment to a Recipient, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its Lending Office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan or Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the applicable Commitment (or, to the extent such Lender did not fund an applicable Loan pursuant to a prior commitment, on the date on which such Lender acquires its interest in such Loan); provided that this clause (i) shall not apply to a Lender that became a Lender pursuant to an assignment request by the Borrower under Section 10.13 or (ii) such Lender changes its Lending Office, except in each case to the extent that, pursuant to Section 3.01, amounts with respect to such Taxes were payable either to such Lender’s assignor immediately before such Lender acquired the applicable interest in the applicable Loan or Commitment or to such Lender immediately before it changed its Lending Office, (c) Taxes attributable to such Recipient’s failure to comply with Section 3.01(e) and (d) any U.S. federal withholding Taxes imposed pursuant to FATCA. For purposes of clause (b)(i) of this definition, a participation acquired pursuant to Section 2.13 shall be treated as having been acquired on the earlier date(s) on which the applicable Lender acquired the applicable interests in the Commitments or Loans to which such participation relates.

“Exclusive License” means, with respect to any drug or pharmaceutical product, any license to develop, commercialize, sell, market and promote such drug or pharmaceutical product with a term greater than one (1) year (unless terminable prior to such time without material penalty or premium by the licensor) and which provides for exclusive rights to develop, commercialize, sell, market and promote such drug or product in any geographic region or territory; provided that an “Exclusive License” shall not include (a) any licenses, which may be exclusive, to manufacture or package any such drug or product, (b) any license to manufacture, use, offer for sale or sell any authorized generic version of such drug or product and (c) any license in connection with any companion diagnostics. “Exclusively License” shall have the correlative meaning.

“Fair Market Value” means the price that would be paid in an arm’s length transaction between an informed and willing seller under no compulsion to sell and an informed and willing buyer under no compulsion to buy, as determined in good faith by a Responsible Officer of the Borrower or by the board of directors (or a committee thereof) of the Borrower, evidenced by an officers’ certificate or board resolution, as applicable.

“FASB ASC” means the Accounting Standards Codification of the Financial Accounting Standards Board.

“FATCA” means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with) and any current or future regulations or official interpretations thereof and any agreements entered into pursuant to Section 1471(b)(1) of the Code, as of the date of this Agreement (or any amended or successor version described above), and any intergovernmental agreements (or related Laws, treaties, regulations or other official administrative guidance) implementing the foregoing.

“Federal Funds Rate” means, for any day, the rate per annum equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; provided that if such day is not a Business Day, the Federal Funds Rate for such day shall be such rate on such transactions on the next preceding Business Day as so published on the next succeeding Business Day, if no such rate is so published on such next succeeding Business Day, the Federal Funds Rate for such day shall be the average rate (rounded upward, if necessary, to a whole multiple of 1/100 of 1%) charged to Bank of America on such day on such transactions as determined by the Administrative Agent and (c) if the Federal Funds Rate shall be less than zero, such rate shall be deemed zero for purposes of this Agreement.

“Foreign Lender” means a Lender that is not a U.S. Person.

“Foreign Subsidiary” means any direct or indirect Subsidiary of the Borrower that is not a Domestic Subsidiary.

“FRB” means the Board of Governors of the Federal Reserve System of the United States.

“Fronting Exposure” means, at any time there is a Defaulting Lender, (a) with respect to the L/C Issuer, such Defaulting Lender’s Applicable Percentage of the outstanding L/C Obligations other than L/C Obligations as to which such Defaulting Lender’s participation obligation has been reallocated to other Lenders or Cash Collateralized in accordance with the terms hereof, and (b) with respect to the Swing Line Lender, such Defaulting Lender’s Applicable Percentage of Swing Line Loans other than Swing Line Loans as to which such Defaulting Lender’s participation obligation has been reallocated to other Lenders in accordance with the terms hereof.

“Fund” means any Person (other than a natural Person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its activities.

“GAAP” means generally accepted accounting principles in the United States set forth in the opinions and pronouncements of the Accounting Principles Board and the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or such other principles as may be approved by a significant segment of the accounting profession in the

United States, that are applicable to the circumstances as of the date of determination, consistently applied.

“Global Liquidity” means, at any time, the sum of the Market Value of unrestricted cash, marketable securities and other assets to the extent constituting “cash and cash equivalents”, “short-term investments” or “long-term investments” as reflected in the consolidated balance sheet of the Borrower and its Subsidiaries, in each case, held by the Borrower and its Restricted Subsidiaries at such time, regardless of where such assets are domiciled (it being understood that assets in the Custody Account shall be considered “unrestricted” for purposes of this definition).

“Governmental Authority” means the government of the United States or any other nation, or of any political subdivision thereof, whether state, local or otherwise, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including any supra-national bodies such as the European Union or the European Central Bank).

“Guarantee” means, as to any Person, any (a) any obligation, contingent or otherwise, of such Person guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation payable or performable by another Person (the “primary obligor”) in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation, (ii) to purchase or lease property, securities or services for the purpose of assuring the obligee in respect of such Indebtedness or other obligation of the payment or performance of such Indebtedness or other obligation, (iii) to maintain working capital, equity capital or any other financial statement condition or liquidity or level of income or cash flow of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation, or (iv) entered into for the purpose of assuring in any other manner the obligee in respect of such Indebtedness or other obligation of the payment or performance thereof or to protect such obligee against loss in respect thereof (in whole or in part), or (b) any Lien on any assets of such Person securing any Indebtedness or other obligation of any other Person, whether or not such Indebtedness or other obligation is assumed by such Person (or any right, contingent or otherwise, of any holder of such Indebtedness to obtain any such Lien). The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith. The term “Guarantee” as a verb has a corresponding meaning.

“Guarantors” means, collectively, each Subsidiary of the Borrower (other than any Excluded Subsidiary) that shall be required to execute and deliver a guaranty or guaranty supplement pursuant to Section 6.12.

“Guaranty” means, collectively, the Guaranty made by the Guarantors in favor of the Secured Parties, substantially in the form of Exhibit F, together with each other guaranty and guaranty supplement delivered pursuant to Section 6.12.

“Hazardous Materials” means all explosive or radioactive substances or wastes and all hazardous or toxic substances, wastes or other pollutants including petroleum or petroleum distillates, pharmaceutical or medical waste, natural gas, natural gas liquids, asbestos or asbestos-containing materials, polychlorinated biphenyls, radon gas, toxic mold, infectious or medical wastes and all other substances, wastes, chemicals, pollutants, contaminants or compounds of any nature in any form regulated pursuant to any Environmental Law.

“Impacted Loans” has the meaning assigned to such term in Section 3.03.

“Indebtedness” means, as to any Person at a particular time, without duplication, all of the following, whether or not included as indebtedness or liabilities in accordance with GAAP:

- (a) all obligations of such Person for borrowed money and all obligations of such Person evidenced by bonds, debentures, notes, loan agreements or other similar instruments;
- (b) the maximum amount of all direct or contingent obligations of such Person arising under letters of credit (including standby and commercial), bankers’ acceptances, bank guaranties, surety bonds and similar instruments;
- (c) net obligations of such Person under any Swap Contract;
- (d) all obligations of such Person to pay the deferred purchase price of property or services (other than (i) accounts payable and accrued expenses incurred in the ordinary course of business and not past due more than 60 days, and (ii) payroll liabilities and deferred compensation);
- (e) indebtedness (excluding prepaid interest thereon) secured by a Lien on property owned or being purchased by such Person (including indebtedness arising under conditional sales or other title retention agreements), whether or not such indebtedness shall have been assumed by such Person or is limited in recourse;
- (f) all Attributable Indebtedness in respect of Capitalized Leases and Synthetic Lease Obligations of such Person and all Synthetic Debt of such Person;
- (g) all obligations of such Person to purchase, redeem, retire, defease or otherwise make any payment in respect of any Equity Interest in such Person or any other Person or any warrant, right or option to acquire such Equity Interest, valued, in the case of a redeemable preferred interest, at the greater of its voluntary or involuntary liquidation preference plus accrued and unpaid dividends; and
- (h) all Guarantees of such Person in respect of any of the foregoing.

For all purposes hereof, the Indebtedness of any Person shall include the Indebtedness of any partnership or joint venture (other than a joint venture that is itself a corporation or limited liability company) in which such Person is a general partner or a joint venturer, unless such Indebtedness is expressly made non-recourse to such Person. The amount of any net obligation under any Swap Contract on any date shall be deemed to be the Swap Termination Value thereof as of such date.

“Indemnified Taxes” means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Loan Party under any Loan Document and (b) to the extent not otherwise described in (a), Other Taxes.

“Indemnitee” has the meaning specified in Section 10.04(b).

“Information” has the meaning specified in Section 10.07.

“Interest Payment Date” means, (a) as to any Eurodollar Rate Loan, the last day of each Interest Period applicable to such Loan and the Maturity Date; provided that if any Interest Period for a



Eurodollar Rate Loan exceeds three months, the respective dates that fall every three months after the beginning of such Interest Period shall also be Interest Payment Dates; and (b) as to any Base Rate Loan or Swing Line Loan, the last Business Day of each March, June, September and December and the Maturity Date.

“Interest Period” means, as to each Eurodollar Rate Loan, the period commencing on the date such Eurodollar Rate Loan is disbursed or converted to or continued as a Eurodollar Rate Loan and ending on the date one, two, three or six months thereafter (or twelve months if requested by the Borrower and consented to by all the Appropriate Lenders) (in each case, subject to availability), as selected by the Borrower in its Committed Loan Notice; provided that:

(i) any Interest Period that would otherwise end on a day that is not a Business Day shall be extended to the next succeeding Business Day unless, in the case of a Eurodollar Rate Loan, such Business Day falls in another calendar month, in which case such Interest Period shall end on the next preceding Business Day;

(ii) any Interest Period pertaining to a Eurodollar Rate Loan that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of the calendar month at the end of such Interest Period; and

(iii) no Interest Period shall extend beyond the Maturity Date.

“Investment” means, as to any Person, any direct or indirect acquisition or investment by such Person, whether by means of (a) the purchase or other acquisition of Equity Interests of another Person, (b) a loan, advance or capital contribution to, Guarantee or assumption of debt of, or purchase or other acquisition of any other debt or interest in, another Person, or (c) the purchase or other acquisition (in one transaction or a series of transactions) of assets of another Person that constitute a business unit or all or substantially all of the assets of, such Person. For purposes of covenant compliance, the amount of any Investment shall be the amount actually invested, without adjustment for subsequent increases or decreases in the value of such Investment.

“IP Monetization Transaction” means any transaction or series of transactions pursuant to which the Borrower or any of its Restricted Subsidiaries sells, conveys, assigns, pledges or otherwise transfers for value any IP Rights to any Person that is not an Affiliate of the Borrower, or creates a Lien in IP Rights in favor of any Person that is not an Affiliate of the Borrower to secure Indebtedness incurred in connection with such IP Monetization Transaction, and such Indebtedness is recourse only to the IP Rights so monetized.

“IP Rights” has the meaning specified in Section 5.17.

“IRS” means the United States Internal Revenue Service.

“ISP” means, with respect to any Letter of Credit, the “International Standby Practices 1998” published by the Institute of International Banking Law & Practice, Inc. (or such later version thereof as may be in effect at the time of issuance).

“Issuer Documents” means with respect to any Letter of Credit, the Letter of Credit Application, and any other document, agreement and instrument entered into by the L/C Issuer and the Borrower (or any Restricted Subsidiary) or in favor of the L/C Issuer and relating to such Letter of Credit.

“Laws” means, collectively, all international, foreign, Federal, state and local statutes, treaties, rules, guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority, in each case whether or not having the force of law.

“L/C Advance” means, with respect to each Revolving Credit Lender, such Lender’s funding of its participation in any L/C Borrowing in accordance with its Applicable Percentage.

“L/C Borrowing” means an extension of credit resulting from a drawing under any Letter of Credit which has not been reimbursed on the date when made or refinanced as a Borrowing.

“L/C Credit Extension” means, with respect to any Letter of Credit, the issuance thereof or extension of the expiry date thereof, or the increase of the amount thereof.

“L/C Issuer” means Bank of America in its capacity as issuer of Letters of Credit hereunder, or any successor issuer of Letters of Credit hereunder.

“L/C Obligations” means, as at any date of determination, the aggregate amount available to be drawn under all outstanding Letters of Credit plus the aggregate of all Unreimbursed Amounts, including all L/C Borrowings. For purposes of computing the amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.06. For all purposes of this Agreement, if on any date of determination a Letter of Credit has expired by its terms but any amount may still be drawn thereunder by reason of the operation of Rule 3.14 of the ISP, such Letter of Credit shall be deemed to be “outstanding” in the amount so remaining available to be drawn.

“Lender” has the meaning specified in the introductory paragraph hereto and, as the context requires, includes the Swing Line Lender.

“Lending Office” means, as to any Lender, the office or offices of such Lender described as such in such Lender’s Administrative Questionnaire, or such other office or offices as a Lender may from time to time notify the Borrower and the Administrative Agent, which office may include any Affiliate of such Lender or any domestic or foreign branch of such Lender or such Affiliate. Unless the context otherwise requires each reference to a Lender shall include its applicable Lending Office.

“Letter of Credit” means any standby letter of credit issued hereunder, providing for the payment of cash upon the honoring of a presentation thereunder.

“Letter of Credit Application” means an application and agreement for the issuance or amendment of a Letter of Credit in the form from time to time in use by the L/C Issuer.

“Letter of Credit Expiration Date” means the day that is seven days prior to the Maturity Date then in effect for the Revolving Credit Facility (or, if such day is not a Business Day, the next preceding Business Day).

“Letter of Credit Fee” has the meaning specified in Section 2.03(h).

“Letter of Credit Sublimit” means an amount equal to \$10,000,000. The Letter of Credit Sublimit is part of, and not in addition to, the Revolving Credit Facility.

“Lien” means any mortgage, pledge, hypothecation, assignment, deposit arrangement, encumbrance, easement, right-of-way or other encumbrance on title to real property, lien (statutory or other), charge, or preference, priority or other security interest or preferential arrangement in the nature of a security interest of any kind or nature whatsoever (including any conditional sale or other title retention agreement, and any financing lease having substantially the same economic effect as any of the foregoing); provided that any operating lease or license (other than an Exclusive License), and any filing of a UCC financing statement that is a protective lease filing in respect of an operating lease and any filings with the Governmental Authority in respect of any license (other than an Exclusive License) do not constitute Liens.

“Loan” means an extension of credit by a Lender to the Borrower under Article II in the form of a Revolving Credit Loan or a Swing Line Loan.

“Loan Documents” means, collectively, (a) this Agreement, (b) the Notes, (c) any agreement creating or perfecting rights in cash collateral pursuant to the provisions of Section 2.14 of this Agreement, (d) the Guaranty, (e) the Disclosure Letter, (f) if a Collateral Trigger Event occurs, the Collateral Documents, and (g) each Issuer Document.

“Loan Parties” means, collectively, the Borrower and each Guarantor.

“London Banking Day” means any day on which dealings in Dollar deposits are conducted by and between banks in the London interbank eurodollar market.

“Maintenance Rates” means, at any time, with respect to any asset held in the Custody Account, the maximum Revolving Credit Exposure that shall be permitted to remain outstanding in respect of such asset, expressed as a percentage of the Market Value of such asset at such time.

“Market Value” means, with respect to any asset, the amount determined as the mark-to-market value of such asset, as determined by the Administrative Agent, in accordance with customary business practices, based on (x) independent market value pricing information from (i) Interactive Data Corporation for calculations made after the close of each Business Day and (ii) Bloomberg for calculations made at the end of each calendar month or (y) other sources and/or methodologies as may be mutually agreed by the Administrative Agent and the Borrower.

“Material Adverse Effect” means (a) a material adverse change in, or a material adverse effect upon, the operations, business, properties or financial condition or prospects of the Borrower and its Restricted Subsidiaries, taken as a whole; (b) a material impairment of the rights and remedies of the Administrative Agent or any Lender under any Loan Document, or of the ability of any Loan Party to perform its obligations under any Loan Document to which it is a party; or (c) a material adverse effect upon the legality, validity, binding effect or enforceability against any Loan Party of any Loan Document to which it is a party.

“Material Subsidiary” means as of the Closing Date and thereafter at any date of determination, each Subsidiary (a) whose assets (on a consolidated basis with its Subsidiaries) as of the date of the most recent financial statements required to be delivered pursuant to Section 6.01(a) or (b) were equal to or greater than 5.0 % of Consolidated Total Assets at such date or (b) whose revenues (on a consolidated basis with its Subsidiaries) for the latest four fiscal quarter period covered by the most recent financial statements required to be delivered pursuant to Section 6.01(a) or (b) were equal to or greater than 5.0 % of the total revenues of the Borrower and its Restricted Subsidiaries for such period; provided that if at any time Subsidiaries that are not Guarantors solely because they do not meet the threshold set forth in clause (a) or (b) (each such Subsidiary, an “Immaterial Subsidiary” and collectively, the “Immaterial

Subsidiaries”) comprise in the aggregate more than (a) 10.0% of Consolidated Total Assets at such date or (b) 10.0% of the total revenues of the Borrower and its Restricted Subsidiaries for such period, then the Borrower shall, not later than ten (10) days after the date by which financial statements for such quarter are required to be delivered pursuant to this Agreement (or such longer period as the Administrative Agent may agree in its reasonable discretion), (i) designate in writing to the Administrative Agent one or more of such formerly Immaterial Subsidiaries as “Material Subsidiaries” to the extent required such that the foregoing condition ceases to be true and (ii) comply with the provisions of Section 6.12 applicable to such Subsidiary to the extent such Material Subsidiary is not otherwise an Excluded Subsidiary.

“Maturity Date” means November 29, 2018; provided, however, that, in each case, if such date is not a Business Day, the Maturity Date shall be the next preceding Business Day.

“Maximum Borrowing Amount” means, at any time, the lesser of (i) the aggregate amount of the Commitments and (ii) the Borrowing Base, in each case as in effect at such time.

“Minimum Collateral Amount” means, at any time, (i) with respect to Cash Collateral consisting of cash or deposit account balances provided to reduce or eliminate Fronting Exposure during the existence of a Defaulting Lender, an amount equal to 103% of the Fronting Exposure of the L/C Issuer with respect to Letters of Credit issued and outstanding at such time, (ii) with respect to Cash Collateral consisting of cash or deposit account balances provided in accordance with the provisions of Section 2.14(a)(i), (a)(ii) or (a)(iii), an amount equal to 103% of the Outstanding Amount of all LC Obligations, and (iii) otherwise, an amount determined by the Administrative Agent and the L/C Issuer in their sole discretion.

“Minimum Liquidity Test” means, as of any date of determination, that Global Liquidity shall be greater than or equal to \$225,000,000.

“Moody’s” means Moody’s Investors Service, Inc. and any successor thereto.

“Multiemployer Plan” means any employee benefit plan of the type described in Section 4001(a)(3) of ERISA, to which the Borrower or any ERISA Affiliate makes or is obligated to make contributions, or during the preceding five plan years, has made or been obligated to make contributions.

“Multiple Employer Plan” means a Plan which has two or more contributing sponsors (including the Borrower or any ERISA Affiliate) at least two of whom are not under common control, as such a plan is described in Section 4064 of ERISA.

“Net Cash Proceeds” means with respect to the sale or issuance of any Equity Interest by the Borrower, the excess of (i) the sum of the cash and Cash Equivalents received in connection with such transaction over (ii) the underwriting discounts and commissions, and other reasonable and customary out-of-pocket expenses, incurred by the Borrower in connection therewith.

“Non-Consenting Lender” means any Lender that does not approve any consent, waiver or amendment that (i) requires the approval of all Lenders or all affected Lenders in accordance with the terms of Section 10.01 and (ii) has been approved by the Required Lenders.

“Non-Defaulting Lender” means, at any time, each Lender that is not a Defaulting Lender at such time.

“Note” means a promissory note made by the Borrower in favor of a Revolving Credit Lender evidencing Revolving Credit Loans or Swing Line Loans, as the case may be, made by such Revolving Credit Lender, substantially in the form of Exhibit C.

“NPL” means the National Priorities List under CERCLA.

“Obligations” means all advances to, and debts, liabilities, obligations, covenants and duties of, any Loan Party arising under any Loan Document or otherwise with respect to any Loan or Letter of Credit, in each case whether direct or indirect (including those acquired by assumption), absolute or contingent, due or to become due, now existing or hereafter arising and including interest and fees that accrue after the commencement by or against any Loan Party or any Affiliate thereof of any proceeding under any Debtor Relief Laws naming such Person as the debtor in such proceeding, regardless of whether such interest and fees are allowed claims in such proceeding.

“OFAC” means the Office of Foreign Assets Control of the United States Department of the Treasury.

“Organization Documents” means, (a) with respect to any corporation, the certificate or articles of incorporation and the bylaws (or equivalent or comparable constitutive documents with respect to any non-U.S. jurisdiction); (b) with respect to any limited liability company, the certificate or articles of formation or organization and operating agreement; and (c) with respect to any partnership, joint venture, trust or other form of business entity, the partnership, joint venture or other applicable agreement of formation or organization and any agreement, instrument, filing or notice with respect thereto filed in connection with its formation or organization with the applicable Governmental Authority in the jurisdiction of its formation or organization and, if applicable, any certificate or articles of formation or organization of such entity.

“Other Connection Taxes” means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising solely from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, or engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Documents).

“Other Taxes” means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 3.06).

“Outstanding Amount” means (a) with respect to Revolving Credit Loans and Swing Line Loans on any date, the aggregate outstanding principal amount thereof after giving effect to any borrowings and prepayments or repayments of Revolving Credit Loans and Swing Line Loans, as the case may be, occurring on such date; and (b) with respect to any L/C Obligations on any date, the amount of such L/C Obligations on such date after giving effect to any L/C Credit Extension occurring on such date and any other changes in the aggregate amount of the L/C Obligations as of such date, including as a result of any reimbursements by the Borrower of Unreimbursed Amounts.

“Participant” has the meaning specified in Section 10.06(d).

“Participant Register” has the meaning specified in Section 10.06(d).

“PBGC” means the Pension Benefit Guaranty Corporation.

“Pension Act” means the Pension Protection Act of 2006.

“Pension Funding Rules” means the rules of the Code and ERISA regarding minimum required contributions (including any installment payment thereof) to Pension Plans and set forth in, with respect to plan years ending prior to the effective date of the Pension Act, Section 412 of the Code and Section 302 of ERISA, each as in effect prior to the Pension Act and, thereafter, Section 412, 430, 431, 432 and 436 of the Code and Sections 302, 303, 304 and 305 of ERISA.

“Pension Plan” means any employee pension benefit plan (including a Multiple Employer Plan or a Multiemployer Plan) that is maintained or is contributed to by the Borrower and any ERISA Affiliate and is either covered by Title IV of ERISA or is subject to the minimum funding standards under Section 412 of the Code.

“Permitted Equity Derivatives” means (i) those certain call option transaction confirmations and warrant transaction confirmations dated as of April 23, 2007 and October 8, 2013, October 9, 2013, October 15, 2013 entered into by the Borrower in connection with the issuance of the Subordinated Notes, and (ii) any forward purchase, accelerated share repurchase, call option, warrant or other derivative transactions in respect of the Borrower’s Equity Interests; provided, that such transaction shall be classified in the Borrower’s stockholders’ equity under ASC 815-40 or any successor provision.

“Permitted Exchange” means an exchange of real property of the Borrower or any Restricted Subsidiary that qualifies as a like-kind exchange pursuant to and in compliance with Section 1031 of the Code.

“Permitted Refinancing” means, with respect to any Person, any modification, refinancing, refunding, renewal, replacement, exchange or extension of any Indebtedness of such Person; provided that (a) the principal amount (or accreted value, if applicable) thereof does not exceed the principal amount (or accreted value, if applicable) of the Indebtedness so modified, refinanced, refunded, renewed, replaced, exchanged or extended except by an amount equal to accrued and unpaid interest and premium (including tender premium) thereon plus other reasonable amounts paid, and fees and expenses (including any upfront fees, commissions and original issue discount) reasonably incurred, in connection with such Permitted Refinancing; (b) such modification, refinancing, refunding, renewal, replacement, exchange or extension has a final maturity date equal to or later than the final maturity date of, and has a Weighted Average Life to Maturity equal to or greater than the Weighted Average Life to Maturity of, the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended (it being understood that, in each case, any provision requiring an offer to purchase such Indebtedness as a result of a change of control or asset sale shall not violate the foregoing restriction); (c) if the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended (other than with respect to the Subordinated Notes to the extent that such Subordinated Notes as so modified, refinanced, refunded, renewed, replaced, exchanged or extended are unsecured) is subordinated in right of payment to the Obligations, such modification, refinancing, refunding, renewal, replacement, exchange or extension is subordinated in right of payment to the Obligations on terms as favorable in all material respects to the Lenders as those contained in the documentation governing the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended; (d) the terms and conditions (including, if applicable, as to collateral) of any such modified, refinanced, refunded, renewed, replaced, exchanged or extended Indebtedness are, (A) either (i) on then-prevailing market terms and conditions or (ii) not materially less favorable to the Loan Parties or the Lenders, taken as a whole, than the terms and conditions of the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended (as reasonably determined by the Borrower in good faith), and (B) when taken as a whole (other

than interest rate and redemption premiums), not more restrictive to the Borrower and the Restricted Subsidiaries than those set forth in this Agreement (as reasonably determined by the Borrower in good faith); provided that any such Indebtedness may contain more restrictive covenants and events of default than those set forth in this Agreement, so long as such more restrictive covenants and events of default are either (i) also added for the benefit of the Lenders, which shall not require consent of the Lenders or (ii) only apply after the Maturity Date; provided, further that a certificate of a Responsible Officer of the Borrower delivered to the Administrative Agent in good faith at least five Business Days prior to the incurrence of such Indebtedness, together with a reasonably detailed description of the material terms and conditions of such Indebtedness or drafts of the documentation relating thereto, stating that the Borrower has determined in good faith that such terms and conditions satisfy the requirement set out in this clause (d), shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Administrative Agent provides notice to the Borrower of its objection during such five Business Day period); (e) such modification, refinancing, refunding, renewal, replacement, exchange or extension is incurred by the Person who is the obligor or guarantor on the Indebtedness being modified, refinanced, refunded, renewed, replaced or extended; and (f) at the time thereof, no Event of Default shall have occurred and be continuing.

“Person” means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

“Plan” means any employee benefit plan within the meaning of Section 3(3) of ERISA (including a Pension Plan), maintained for employees of the Borrower or any ERISA Affiliate or any such Plan to which the Borrower or any ERISA Affiliate is required to contribute on behalf of any of its employees.

“Platform” has the meaning specified in Section 6.02.

“Public Lender” has the meaning specified in Section 6.02.

“Qualified Equity Interests” means any Equity Interest other than Disqualified Stock.

“Recipient” means the Administrative Agent, any Lender, the L/C Issuer or any other recipient of any payment to be made by or on account of any obligation of any Loan Party hereunder.

“Register” has the meaning specified in Section 10.06(c).

“Related Parties” means, with respect to any Person, such Person’s Affiliates and the partners, directors, officers, employees, agents, trustees and advisors of such Person and of such Person’s Affiliates.

“Release” means any release, spill, emission, discharge, deposit, disposal, leaking, pumping, pouring, dumping, emptying, injection or leaching into the Environment, or into, from or through any building, structure or facility.

“Reportable Event” means any of the events set forth in Section 4043(c) of ERISA, other than events for which the 30 day notice period has been waived.

“Request for Credit Extension” means (a) with respect to a Borrowing, conversion or continuation of Revolving Credit Loans, a Committed Loan Notice, (b) with respect to an L/C Credit Extension, a Letter of Credit Application, and (c) with respect to a Swing Line Loan, a Swing Line Loan Notice.

“Required Lenders” means, at any time, Revolving Credit Lenders holding more than 50% of the sum of the (a) Total Outstandings (with the aggregate amount of each Revolving Credit Lender’s risk participation and funded participation in L/C Obligations and Swing Line Loans being deemed “held” by such Revolving Credit Lender for purposes of this definition) and (b) aggregate unused Commitments; provided that the unused Commitment of, and the portion of the Total Outstandings held or deemed held by, any Defaulting Lender shall be excluded for purposes of making a determination of Required Lenders.

“Responsible Officer” means the chief executive officer, president, chief financial officer, treasurer, assistant treasurer or controller of a Loan Party, solely for purposes of the delivery of incumbency certificates pursuant to Section 4.01, the secretary or any assistant secretary of a Loan Party and, solely for purposes of notices given to Article II, any other officer or employee of the applicable Loan Party so designated by any of the foregoing officers in a notice to the Administrative Agent or any other officer or employee of the applicable Loan Party designated in or pursuant to an agreement between the applicable Loan Party and the Administrative Agent. Any document delivered hereunder that is signed by a Responsible Officer of a Loan Party shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Loan Party and such Responsible Officer shall be conclusively presumed to have acted on behalf of such Loan Party.

“Restricted Payment” means any dividend or other distribution (whether in cash, securities or other property) with respect to any capital stock or other Equity Interest of the Borrower or any of its Subsidiaries, or any payment (whether in cash, securities or other property), including any sinking fund or similar deposit, on account of the purchase, redemption, retirement, defeasance, acquisition, cancellation or termination of any such capital stock or other Equity Interest of the Borrower or any of its Subsidiaries (other than any purchase or acquisition (i) by the Borrower of Equity Interests of any Restricted Subsidiary from such Restricted Subsidiary or another Restricted Subsidiary, (ii) by any Restricted Subsidiary of Equity Interests of any other Restricted Subsidiary from such Restricted Subsidiary, the Borrower or another Restricted Subsidiary, in each case to the extent such purchase constitutes an Investment permitted under Section 7.03 or (iii) by any Restricted Subsidiary of its Equity Interests from the Borrower or other Restricted Subsidiary), or on account of any return of capital to the stockholders, partners or members (or the equivalent of any thereof) of the Borrower or any of its Subsidiaries.

“Restricted Subsidiary” means any Subsidiary of the Borrower that is not an Unrestricted Subsidiary.

“Revolving Credit Exposure” means, as to any Lender at any time, the aggregate principal amount at such time of its outstanding Revolving Credit Loans and such Lender’s participation in L/C Obligations and Swing Line Loans at such time.

“Revolving Credit Facility” means, at any time, the aggregate amount of the Revolving Credit Lenders’ Commitments at such time.

“Revolving Credit Lender” means, at any time, any Lender that has a Commitment at such time.

“Revolving Credit Loan” has the meaning specified in Section 2.01.

“Sanction(s)” means any sanction administered or enforced by the United States government (including without limitation, OFAC), the United Nations Security Council, the European Union, Her Majesty’s Treasury (“HMT”) or other relevant sanctions authority.

“S&P” means Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., and any successor thereto.



“Schedule” means the schedules to the Disclosure Letter dated the Closing Date and attached to this Agreement.

“SEC” means the Securities and Exchange Commission, or any Governmental Authority succeeding to any of its principal functions.

“Secured Obligations” has the meaning specified in the Security Agreement.

“Secured Parties” means, collectively, the Administrative Agent, the Lenders, the L/C Issuer, each co-agent or sub-agent appointed by the Administrative Agent from time to time pursuant to Section 9.05, and the other Persons the Obligations owing to which are or are purported to be secured by the Collateral under the terms of the Collateral Documents.

“Securities Act” means the Securities Act of 1933 (15 U.S.C. §77a et seq.), as amended.

“Securities Exchange Act” means the Securities Exchange Act of 1934 (15 U.S.C. §78a et seq.), as amended.

“Security Agreement” means a security agreement, in substantially the form of Exhibit G (together with each other security agreement and security agreement supplement delivered pursuant to Section 6.12, in each case as amended).

“Solvent” and “Solvency” mean, with respect to any Person on any date of determination, that on such date (a) the fair value of the property of such Person is greater than the total amount of liabilities, including contingent liabilities, of such Person, (b) the present fair salable value of the assets of such Person is not less than the amount that will be required to pay the probable liability of such Person on its debts as they become absolute and matured, (c) such Person does not intend to, and does not believe that it will, incur debts or liabilities beyond such Person’s ability to pay such debts and liabilities as they mature, (d) such Person is not engaged in business or a transaction, and is not about to engage in business or a transaction, for which such Person’s property would constitute an unreasonably small capital, and (e) such Person is able to pay its debts and liabilities, contingent obligations and other commitments as they mature in the ordinary course of business. The amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability.

“Specified Foreign Subsidiary” means any Foreign Subsidiary of the Borrower, the Equity Interests of which are directly owned by, or on behalf of, (i) any Loan Party or (ii) any first tier Foreign Subsidiary, the Equity Interests of which are directly owned by or on behalf of any Loan Party; provided that (x) the Foreign Subsidiary receiving such intellectual property shall covenant and agree not to voluntarily pledge any security interest in such intellectual property to any Person (other than a Loan Party), (y) any Foreign Subsidiary receiving such intellectual property shall not incur any Indebtedness for borrowed money (other than Indebtedness owed to a Loan Party) and (z) in the case of any Foreign Subsidiary whose Equity Interests are owned by, or on behalf of, a first tier Foreign Subsidiary, such first tier Foreign Subsidiary shall not incur Indebtedness for borrowed money (other than Indebtedness owed to a Loan Party) or voluntarily pledge any security interest in such Equity Interests to any Person (other than a Loan Party).

“Subordinated Indebtedness” means the collective reference to the Subordinated Notes and any other Indebtedness incurred by the Borrower or any of its Restricted Subsidiaries that is contractually subordinated in right and time of payment to the Obligations.

“Subordinated Notes” means (i) the 0.75% senior subordinated convertible notes of the Borrower due 2018 in an aggregate principal amount of \$375,000,000 issued and sold on October 15, 2013, (ii) the 1.50% senior subordinated convertible notes of the Borrower due 2020 in an aggregate principal amount of \$375,000,000 issued and sold on October 15, 2013, and (iii) the 1.875% senior subordinated convertible notes of the Borrower due 2017 in an aggregate principal amount of \$324,900,000 issued and sold on April 23, 2007, in each case, pursuant to the respective Subordinated Notes Documents.

“Subordinated Notes Documents” means the Indenture dated as of March 29, 2006, Second Supplemental Indenture dated as of April 23, 2007, Indenture dated as of October 15, 2013, First Supplemental Indenture dated as of October 15, 2013, Second Supplemental Indenture dated as of October 15, 2013, the Subordinated Notes and all other agreements, instruments and other documents pursuant to which the Subordinated Notes have been or will be issued or otherwise setting forth the terms of the Subordinated Notes.

“Subsidiary” of a Person means a corporation, partnership, joint venture, limited liability company or other business entity of which a majority of the shares of securities or other interests having ordinary voting power for the election of directors or other governing body (other than securities or interests having such power only by reason of the happening of a contingency) are at the time beneficially owned, or the management of which is otherwise controlled, directly, or indirectly through one or more intermediaries, or both, by such Person. Unless otherwise specified, all references herein to a “Subsidiary” or to “Subsidiaries” shall refer to a Subsidiary or Subsidiaries of the Borrower.

“Swap Contract” means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement (any such master agreement, together with any related schedules, a “Master Agreement”), including any such obligations or liabilities under any Master Agreement.

“Swap Termination Value” means, in respect of any one or more Swap Contracts, after taking into account the effect of any legally enforceable netting agreement relating to such Swap Contracts, (a) for any date on or after the date such Swap Contracts have been closed out and termination value(s) determined in accordance therewith, such termination value(s), and (b) for any date prior to the date referenced in clause (a), the amount(s) determined as the mark-to-market value(s) for such Swap Contracts, as determined based upon one or more mid-market or other readily available quotations provided by any recognized dealer in such Swap Contracts (which may include a Lender or any Affiliate of a Lender).

“Swing Line Borrowing” means a borrowing of a Swing Line Loan pursuant to Section 2.04.

“Swing Line Lender” means Bank of America in its capacity as provider of Swing Line Loans, or any successor swing line lender hereunder.

“Swing Line Loan” has the meaning specified in Section 2.04(a).

“Swing Line Loan Notice” means a notice of a Swing Line Borrowing pursuant to Section 2.04(b), which shall be substantially in the form of Exhibit B or such other form as approved by the Administrative Agent (including any form on an electronic platform or electronic transmission system as shall be approved by the Administrative Agent), appropriately completed and signed by a Responsible Officer of the Borrower.

“Swing Line Sublimit” means an amount equal to the lesser of (a) \$15,000,000 and (b) the Revolving Credit Facility. The Swing Line Sublimit is part of, and not in addition to, the Revolving Credit Facility.

“Synthetic Debt” means, with respect to any Person as of any date of determination thereof, all obligations of such Person in respect of transactions entered into by such Person that are intended to function primarily as a borrowing of funds (including any minority interest transactions that function primarily as a borrowing) but are not otherwise included in the definition of “Indebtedness” or as a liability on the consolidated balance sheet of such Person and its Subsidiaries in accordance with GAAP.

“Synthetic Lease Obligation” means the monetary obligation of a Person under (a) a so-called synthetic, off-balance sheet or tax retention lease, or (b) an agreement for the use or possession of property (including sale and leaseback transactions), in each case, creating obligations that do not appear on the balance sheet of such Person but which, upon the application of any Debtor Relief Laws to such Person, would be characterized as the indebtedness of such Person (without regard to accounting treatment).

“Taxes” means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“Threshold Amount” means \$75,000,000.

“Total Credit Exposure” means, as to any Lender at any time, the unused Commitments and Revolving Credit Exposure of such Lender at such time.

“Total Outstandings” means the aggregate Outstanding Amount of all Loans and all L/C Obligations.

“Transaction” means, collectively, (a) the entering into by the Loan Parties of the Loan Documents, to which they are or are intended to be a party and (b) the payment of the fees and expenses incurred in connection with the consummation of the foregoing.

“Type” means, with respect to a Loan, its character as a Base Rate Loan or a Eurodollar Rate Loan.

“UCC” means the Uniform Commercial Code as in effect in the State of New York provided that, if perfection or the effect of perfection or non-perfection or the priority of any security interest in any Collateral is governed by the Uniform Commercial Code as in effect in a jurisdiction other than the State of New York, “UCC” means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions hereof relating to such perfection, effect of perfection or non-perfection or priority.

“United States” and “U.S.” mean the United States of America.

“Unreimbursed Amount” has the meaning specified in Section 2.03(c)(i).

“Unrestricted Subsidiary” means (a) any Subsidiary of the Borrower that is designated as an Unrestricted Subsidiary by the Borrower pursuant to Section 6.15 subsequent to the Closing Date and (b) any direct or indirect Subsidiary of an Unrestricted Subsidiary.

“U.S. Person” means any Person that is a “United States Person” as defined in Section 7701(a)(30) of the Code.

“U.S. Tax Compliance Certificate” has the meaning specified in Section 3.01(e)(ii)(B)(3).

“Weighted Average Life to Maturity” means, when applied to any Indebtedness at any date, the number of years obtained by dividing: (a) the sum of the products obtained by multiplying (i) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect thereof, by (ii) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment; by (b) the then outstanding principal amount of such Indebtedness.

“Write-Down and Conversion Powers” means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

1.02 Other Interpretive Provisions. With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document:

(a) The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “include,” “includes” and “including” shall be deemed to be followed by the phrase “without limitation.” The word “will” shall be construed to have the same meaning and effect as the word “shall.” Unless the context requires otherwise, (i) any definition of or reference to any agreement, instrument or other document (including any Organization Document) shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or in any other Loan Document), (ii) any reference herein to any Person shall be construed to include such Person’s successors and assigns, (iii) the words “hereto,” “herein,” “hereof” and “hereunder,” and words of similar import when used in any Loan Document, shall be construed to refer to such Loan Document in its entirety and not to any particular provision thereof, (iv) all references in a Loan Document to Articles, Sections, Preliminary Statements, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Preliminary Statements, Exhibits and Schedules to, the Loan Document in which such references appear, (v) any reference to any law shall include all statutory and regulatory provisions consolidating, amending, replacing or interpreting such law and any reference to any law or regulation shall, unless otherwise specified, refer to such law or regulation as amended, modified or supplemented from time to time, and (vi) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

(b) In the computation of periods of time from a specified date to a later specified date, the word “from” means “from and including,” the words “to” and “until” each mean “to but excluding,” and the word “through” means “to and including.”

(c) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

1.03 Accounting Terms. (a) Generally. All accounting terms not specifically or completely defined herein shall be construed in conformity with, and all financial data (including financial ratios and other financial calculations) required to be submitted pursuant to this Agreement shall be prepared in conformity with, GAAP applied on a consistent basis, as in effect from time to time, applied in a manner consistent with that used in preparing the Audited Financial Statements, except as otherwise specifically prescribed herein. Notwithstanding the foregoing, for purposes of determining compliance with any covenant (including the computation of any financial covenant) contained herein, Indebtedness of the Borrower and its Restricted Subsidiaries shall be deemed to be carried at 100% of the outstanding principal amount thereof, and the effects of FASB ASC 825 and FASB ASC 470-20 on financial liabilities shall be disregarded.

(b) Changes in GAAP. If at any time any change in GAAP would affect the computation of any financial ratio or requirement set forth in any Loan Document, and either the Borrower or the Required Lenders shall so request, the Administrative Agent, the Lenders and the Borrower shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in GAAP (subject to the approval of the Required Lenders); provided that, until so amended, (A) such ratio or requirement shall continue to be computed in accordance with GAAP prior to such change therein and (B) the Borrower shall provide to the Administrative Agent and the Lenders financial statements and other documents required under this Agreement or as reasonably requested hereunder setting forth a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in GAAP. Without limiting the foregoing, leases shall continue to be classified and accounted for on a basis consistent with that reflected in the Audited Financial Statements for all purposes of this Agreement, notwithstanding any change in GAAP relating thereto, unless the parties hereto shall enter into a mutually acceptable amendment addressing such changes, as provided for above.

1.04 Rounding. Any financial ratios required to be maintained by the Borrower pursuant to this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

1.05 Times of Day; Rates. Unless otherwise specified, all references herein to times of day shall be references to New York City time (daylight or standard, as applicable).

The Administrative Agent does not warrant, nor accept responsibility, nor shall the Administrative Agent have any liability with respect to the administration, submission or any other matter related to the rates in the definition of “Eurodollar Rate” or with respect to any comparable or successor rate thereto.

1.06 Letter of Credit Amounts. Unless otherwise specified herein, the amount of a Letter of Credit at any time shall be deemed to be the stated amount of such Letter of Credit in effect at such time; provided, however, that with respect to any Letter of Credit that, by its terms or the terms of any Issuer Document related thereto, provides for one or more automatic increases in the stated amount thereof, the amount of such Letter of Credit shall be deemed to be the maximum stated amount of such Letter of Credit after giving effect to all such increases, whether or not such maximum stated amount is in effect at such time.

1.07 Currency Equivalents Generally. Any amount specified in this Agreement (other than in Articles II, IX and X) or any of the other Loan Documents to be in Dollars shall also include the equivalent of such amount in any currency other than Dollars, such equivalent amount thereof in the applicable currency to be determined by the Administrative Agent at such time on the basis of the Spot Rate (as defined below) for the purchase of such currency with Dollars. For purposes of this Section 1.07, the “Spot Rate” for a currency means the rate determined by the Administrative Agent to be the rate quoted by the Person acting in such capacity as the spot rate for the purchase by such Person of such currency with another currency through its principal foreign exchange trading office at approximately 11:00 a.m. on the date two Business Days prior to the date of such determination; provided that the Administrative Agent may obtain such spot rate from another financial institution designated by the Administrative Agent if the Person acting in such capacity does not have as of the date of determination a spot buying rate for any such currency.

## ARTICLE II THE COMMITMENTS AND CREDIT EXTENSIONS

2.01 The Loans. Subject to the terms and conditions set forth herein, each Revolving Credit Lender severally agrees to make loans (each such loan, a “Revolving Credit Loan”) to the Borrower from time to time, on any Business Day during the Availability Period, in an aggregate amount not to exceed at any time outstanding the amount of such Lender’s Commitment; provided, however, that after giving effect to any Borrowing, (i) the Total Outstandings shall not exceed the Maximum Borrowing Amount at the time of such Borrowing, and (ii) the Revolving Credit Exposure of such Revolving Credit Lender shall not exceed such Revolving Credit Lender’s Commitment. Within the limits of each Revolving Credit Lender’s Commitment, and subject to the other terms and conditions hereof, the Borrower may borrow under this Section 2.01, prepay under Section 2.05, and reborrow under this Section 2.01. Revolving Credit Loans may be Base Rate Loans or Eurodollar Rate Loans, as further provided herein.

2.02 Borrowings, Conversions and Continuations of Loans. (a) Each Borrowing, each conversion of Revolving Credit Loans from one Type to the other, and each continuation of Eurodollar Rate Loans shall be made upon the Borrower’s irrevocable notice to the Administrative Agent, which may be given by (A) telephone, or (B) a Committed Loan Notice; provided that any telephone notice must be confirmed immediately by delivery to the Administrative Agent of a Committed Loan Notice. Each such Committed Loan Notice must be received by the Administrative Agent not later than 11:00 a.m. (i) three Business Days prior to the requested date of any Borrowing of, conversion to or continuation of Eurodollar Rate Loans or of any conversion of Eurodollar Rate Loans to Base Rate Loans, and (ii) on the requested date of any Borrowing of Base Rate Loans; provided, however, that if the Borrower wishes to request Eurodollar Rate Loans having an Interest Period other than one, two, three or six months in duration as provided in the definition of “Interest Period,” the applicable notice must be received by the Administrative Agent not later than 11:00 a.m. four Business Days prior to the requested date of such Borrowing, conversion or continuation, whereupon the Administrative Agent shall give prompt notice to the Appropriate Lenders of such request and determine whether the requested Interest Period is acceptable to all of them. Not later than 11:00 a.m., three Business Days before the requested date of such Borrowing, conversion or continuation, the Administrative Agent shall notify the Borrower (which notice may be by telephone) whether or not the requested Interest Period has been consented to by all the Lenders. Each Borrowing of, conversion to or continuation of Eurodollar Rate Loans shall be in a principal amount of \$1,000,000 or a whole multiple of \$500,000 in excess thereof. Except as provided in Sections 2.03(c) and 2.04(c), each Borrowing of or conversion to Base Rate Loans shall be in a principal amount of \$500,000 or a whole multiple of \$100,000 in excess thereof. Each Committed Loan Notice shall specify (i) whether the Borrower is requesting a Borrowing, a conversion of Revolving Credit Loans from one Type to the other, or a continuation of Eurodollar Rate Loans, (ii) the requested date of the Borrowing, conversion or continuation, as the case may be (which shall be a Business Day), (iii) the

principal amount of Loans to be borrowed, converted or continued, (iv) the Type of Loans to be borrowed or to which existing Revolving Credit Loans are to be converted, and (v) if applicable, the duration of the Interest Period with respect thereto. If the Borrower fails to specify a Type of Loan in a Committed Loan Notice or if the Borrower fails to give a timely notice requesting a conversion or continuation, then the applicable or Revolving Credit Loans shall be made as, or converted to, Base Rate Loans. Any such automatic conversion to Base Rate Loans shall be effective as of the last day of the Interest Period then in effect with respect to the applicable Eurodollar Rate Loans. If the Borrower requests a Borrowing of, conversion to, or continuation of Eurodollar Rate Loans in any such Committed Loan Notice, but fails to specify an Interest Period, it will be deemed to have specified an Interest Period of one month. Notwithstanding anything to the contrary herein, a Swing Line Loan may not be converted to a Eurodollar Rate Loan.

(b) Following receipt of a Committed Loan Notice, the Administrative Agent shall promptly notify each Lender of the amount of its Applicable Percentage of Revolving Credit Loans, and if no timely notice of a conversion or continuation is provided by the Borrower, the Administrative Agent shall notify each Lender of the details of any automatic conversion to Base Rate Loans described in Section 2.02(a). Each Appropriate Lender shall make the amount of its Loan available to the Administrative Agent in immediately available funds at the Administrative Agent's Office not later than 1:00 p.m. on the Business Day specified in the applicable Committed Loan Notice. Upon satisfaction of the applicable conditions set forth in Section 4.02 (and, if such Borrowing is the initial Credit Extension, Section 4.01), the Administrative Agent shall make all funds so received available to the Borrower in like funds as received by the Administrative Agent either by (i) crediting the account of the Borrower on the books of Bank of America with the amount of such funds or (ii) wire transfer of such funds, in each case in accordance with instructions provided to (and reasonably acceptable to) the Administrative Agent by the Borrower; provided, however, that if, on the date a Committed Loan Notice with respect to a Borrowing is given by the Borrower, there are L/C Borrowings outstanding, then the proceeds of such Borrowing, first, shall be applied to the payment in full of any such L/C Borrowings, and second, shall be made available to the Borrower as provided above.

(c) Except as otherwise provided herein, a Eurodollar Rate Loan may be continued or converted only on the last day of an Interest Period for such Eurodollar Rate Loan. During the existence of a Default, no Loans may be requested as, converted to or continued as Eurodollar Rate Loans without the consent of the Required Lenders.

(d) The Administrative Agent shall promptly notify the Borrower and the Lenders of the interest rate applicable to any Interest Period for Eurodollar Rate Loans upon determination of such interest rate.

(e) After giving effect to all Borrowings, all conversions of Revolving Credit Loans from one Type to the other, and all continuations of Revolving Credit Loans as the same Type, there shall not be more than eight Interest Periods in effect in respect of the Revolving Credit Facility.

(f) Notwithstanding anything to the contrary in this Agreement, any Lender may exchange, continue or rollover all of the portion of its Loans in connection with any refinancing, extension, loan modification or similar transaction permitted by the terms of this Agreement, pursuant to a cashless settlement mechanism approved by the Borrower, the Administrative Agent, and such Lender.

2.03 Letters of Credit. (a) The Letter of Credit Commitment. (1) Subject to the terms and conditions set forth herein, (A) the L/C Issuer agrees, in reliance upon the agreements of the Revolving Credit Lenders set forth in this Section 2.03, (1) from time to time on any Business Day during the period from the Closing Date until the Letter of Credit Expiration Date, to issue Letters of Credit for the account

of the Borrower or its Restricted Subsidiaries, and to amend Letters of Credit previously issued by it, in accordance with Section 2.03(b), and (2) to honor drawings under the Letters of Credit; and (B) the Revolving Credit Lenders severally agree to participate in Letters of Credit issued for the account of the Borrower or its Restricted Subsidiaries and any drawings thereunder; provided that after giving effect to any L/C Credit Extension with respect to any Letter of Credit, (x) the Total Outstandings shall not exceed the Maximum Borrowing Amount at the time of such L/C Credit Extension, (y) the Revolving Credit Exposure of such Revolving Credit Lender shall not exceed such Revolving Credit Lender's Commitment, and (z) the Outstanding Amount of the L/C Obligations shall not exceed the Letter of Credit Sublimit. Each request by the Borrower for the issuance or amendment of a Letter of Credit shall be deemed to be a representation by the Borrower that the L/C Credit Extension so requested complies with the conditions set forth in the proviso to the preceding sentence. Within the foregoing limits, and subject to the terms and conditions hereof, the Borrower's ability to obtain Letters of Credit shall be fully revolving, and accordingly the Borrower may, during the foregoing period, obtain Letters of Credit to replace Letters of Credit that have expired or that have been drawn upon and reimbursed.

(i) The L/C Issuer shall not issue any Letter of Credit if:

(A) the expiry date of the requested Letter of Credit would occur more than twelve months after the date of issuance, unless the Required Lenders have approved such expiry date; or

(B) the expiry date of the requested Letter of Credit would occur after the Letter of Credit Expiration Date, unless (x) all the Revolving Credit Lenders and the L/C Issuer have approved such expiry date or (y) such Letter of Credit is cash collateralized on terms and pursuant to arrangements satisfactory to the L/C Issuer.

(ii) The L/C Issuer shall not be under any obligation to issue any Letter of Credit if:

(A) any order, judgment or decree of any Governmental Authority or arbitrator shall by its terms purport to enjoin or restrain the L/C Issuer from issuing the Letter of Credit, or any Law applicable to the L/C Issuer or any request or directive (whether or not having the force of law) from any Governmental Authority with jurisdiction over the L/C Issuer shall prohibit, or request that the L/C Issuer refrain from, the issuance of letters of credit generally or the Letter of Credit in particular or shall impose upon the L/C Issuer with respect to the Letter of Credit any restriction, reserve or capital requirement (for which the L/C Issuer is not otherwise compensated hereunder) not in effect on the Closing Date, or shall impose upon the L/C Issuer any unreimbursed loss, cost or expense which was not applicable on the Closing Date and which the L/C Issuer in good faith deems material to it;

(B) the issuance of the Letter of Credit would violate one or more policies of the L/C Issuer applicable to letters of credit generally;

(C) except as otherwise agreed by the Administrative Agent and the L/C Issuer, the Letter of Credit is in an initial stated amount less than \$100,000;

(D) the Letter of Credit is to be denominated in a currency other than Dollars;

(E) any Revolving Credit Lender is at that time a Defaulting Lender, unless the L/C Issuer has entered into arrangements, including the delivery of Cash Collateral, satisfactory to the L/C Issuer (in its sole discretion) with the Borrower or such Lender to eliminate the L/C Issuer's actual or potential Fronting Exposure (after giving effect to Section 2.15(a)(iv) with respect to the Defaulting Lender arising from either the Letter of Credit then proposed to be issued or that



Letter of Credit and all other L/C Obligations as to which the L/C Issuer has actual or potential Fronting Exposure, as it may elect in its sole discretion; or

(F) the Letter of Credit contains any provisions for automatic reinstatement of the stated amount after any drawing thereunder.

(iii) The L/C Issuer shall not amend any Letter of Credit if the L/C Issuer would not be permitted at such time to issue the Letter of Credit in its amended form under the terms hereof.

(iv) The L/C Issuer shall be under no obligation to amend any Letter of Credit if (A) the L/C Issuer would have no obligation at such time to issue the Letter of Credit in its amended form under the terms hereof, or (B) the beneficiary of the Letter of Credit does not accept the proposed amendment to the Letter of Credit.

(v) The L/C Issuer shall act on behalf of the Revolving Credit Lenders with respect to any Letters of Credit issued by it and the documents associated therewith, and the L/C Issuer shall have all of the benefits and immunities (A) provided to the Administrative Agent in Article IX with respect to any acts taken or omissions suffered by the L/C Issuer in connection with Letters of Credit issued by it or proposed to be issued by it and Issuer Documents pertaining to such Letters of Credit as fully as if the term "Administrative Agent" as used in Article IX included the L/C Issuer with respect to such acts or omissions, and (B) as additionally provided herein with respect to the L/C Issuer.

(b) Procedures for Issuance and Amendment of Letters of Credit. (i) Each Letter of Credit shall be issued or amended, as the case may be, upon the request of the Borrower delivered to the L/C Issuer (with a copy to the Administrative Agent) in the form of a Letter of Credit Application, appropriately completed and signed by a Responsible Officer of the Borrower. Such Letter of Credit Application may be sent by facsimile, by United States mail, by overnight courier, by electronic transmission using the system provided by the L/C Issuer, by personal delivery or by any other means acceptable to the L/C Issuer. Such Letter of Credit Application must be received by the L/C Issuer and the Administrative Agent not later than 11:00 a.m. at least two Business Days (or such later date and time as the Administrative Agent and the L/C Issuer may agree in a particular instance in their sole discretion) prior to the proposed issuance date or date of amendment, as the case may be. In the case of a request for an initial issuance of a Letter of Credit, such Letter of Credit Application shall specify in form and detail satisfactory to the L/C Issuer: (A) the proposed issuance date of the requested Letter of Credit (which shall be a Business Day); (B) the amount thereof; (C) the expiry date thereof; (D) the name and address of the beneficiary thereof; (E) the documents to be presented by such beneficiary in case of any drawing thereunder; (F) the full text of any certificate to be presented by such beneficiary in case of any drawing thereunder; (G) the purpose and nature of the requested Letter of Credit; and (H) such other matters as the L/C Issuer may require. In the case of a request for an amendment of any outstanding Letter of Credit, such Letter of Credit Application shall specify in form and detail satisfactory to the L/C Issuer (1) the Letter of Credit to be amended; (2) the proposed date of amendment thereof (which shall be a Business Day); (3) the nature of the proposed amendment; and (4) such other matters as the L/C Issuer may require. Additionally, the Borrower shall furnish to the L/C Issuer and the Administrative Agent such other documents and information pertaining to such requested Letter of Credit issuance or amendment, including any Issuer Documents, as the L/C Issuer or the Administrative Agent may require.

(ii) Promptly after receipt of any Letter of Credit Application, the L/C Issuer will confirm with the Administrative Agent (by telephone or in writing) that the Administrative Agent has received a copy of such Letter of Credit Application from the Borrower and, if not, the L/C Issuer will provide the Administrative Agent with a copy thereof. Unless the L/C Issuer has received written notice from any Revolving Credit Lender, the Administrative Agent or any Loan

Party, at least one Business Day prior to the requested date of issuance or amendment of the applicable Letter of Credit, that one or more applicable conditions contained in Article IV shall not then be satisfied, then, subject to the terms and conditions hereof, the L/C Issuer shall, on the requested date, issue a Letter of Credit for the account of the Borrower (or the applicable Restricted Subsidiary) or enter into the applicable amendment, as the case may be, in each case in accordance with the L/C Issuer's usual and customary business practices. Immediately upon the issuance of each Letter of Credit, each Revolving Credit Lender shall be deemed to, and hereby irrevocably and unconditionally agrees to, purchase from the L/C Issuer a risk participation in such Letter of Credit in an amount equal to the product of such Revolving Credit Lender's Applicable Percentage times the amount of such Letter of Credit.

(iii) Promptly after its delivery of any Letter of Credit or any amendment to a Letter of Credit to an advising bank with respect thereto or to the beneficiary thereof, the L/C Issuer will also deliver to the Borrower and the Administrative Agent a true and complete copy of such Letter of Credit or amendment.

(c) Drawings and Reimbursements: Funding of Participations. (i) Upon receipt from the beneficiary of any Letter of Credit of any notice of a drawing under such Letter of Credit, the L/C Issuer shall notify the Borrower and the Administrative Agent thereof. Not later than 11:00 a.m. on the date of any payment by the L/C Issuer under a Letter of Credit (each such date, an "Honor Date"), the Borrower shall reimburse the L/C Issuer through the Administrative Agent in an amount equal to the amount of such drawing. If the Borrower fails to so reimburse the L/C Issuer by such time, the Administrative Agent shall promptly notify each Revolving Credit Lender of the Honor Date, the amount of the unreimbursed drawing (the "Unreimbursed Amount"), and the amount of such Revolving Credit Lender's Applicable Percentage thereof. In such event, the Borrower shall be deemed to have requested a Borrowing of Base Rate Loans to be disbursed on the Honor Date in an amount equal to the Unreimbursed Amount, without regard to the minimum and multiples specified in Section 2.02 for the principal amount of Base Rate Loans, but subject to the amount of the unutilized portion of the Commitments and the conditions set forth in Section 4.02 (other than the delivery of a Committed Loan Notice). Any notice given by the L/C Issuer or the Administrative Agent pursuant to this Section 2.03(c)(i) may be given by telephone if immediately confirmed in writing; provided that the lack of such an immediate confirmation shall not affect the conclusiveness or binding effect of such notice.

(ii) Each Revolving Credit Lender shall upon any notice pursuant to Section 2.03(c)(i) make funds available (and the Administrative Agent may apply Cash Collateral provided for this purpose) for the account of the L/C Issuer at the Administrative Agent's Office in an amount equal to its Applicable Percentage of the Unreimbursed Amount not later than 1:00 p.m. on the Business Day specified in such notice by the Administrative Agent, whereupon, subject to the provisions of Section 2.03(c)(iii), each Revolving Credit Lender that so makes funds available shall be deemed to have made a Base Rate Loan to the Borrower in such amount. The Administrative Agent shall remit the funds so received to the L/C Issuer.

(iii) With respect to any Unreimbursed Amount that is not fully refinanced by a Borrowing of Base Rate Loans because the conditions set forth in Section 4.02 cannot be satisfied or for any other reason, the Borrower shall be deemed to have incurred from the L/C Issuer an L/C Borrowing in the amount of the Unreimbursed Amount that is not so refinanced, which L/C Borrowing shall be due and payable on demand (together with interest) and shall bear interest at the Default Rate. In such event, each Revolving Credit Lender's payment to the Administrative Agent for the account of the L/C Issuer pursuant to Section 2.03(c)(ii) shall be deemed payment in respect of its participation in such L/C Borrowing and shall constitute an L/C Advance from such Lender in satisfaction of its participation obligation under this Section 2.03.

(iv) Until each Revolving Credit Lender funds its Revolving Credit Loan or L/C Advance pursuant to this Section 2.03(c) to reimburse the L/C Issuer for any amount drawn under any Letter of Credit, interest in respect of such Lender's Applicable Percentage of such amount shall be solely for the account of the L/C Issuer.

(v) Each Revolving Credit Lender's obligation to make Revolving Credit Loans or L/C Advances to reimburse the L/C Issuer for amounts drawn under Letters of Credit, as contemplated by this Section 2.03(c), shall be absolute and unconditional and shall not be affected by any circumstance, including (A) any setoff, counterclaim, recoupment, defense or other right which such Lender may have against the L/C Issuer, the Borrower or any other Person for any reason whatsoever; (B) the occurrence or continuance of a Default, or (C) any other occurrence, event or condition, whether or not similar to any of the foregoing; provided, however, that each Revolving Credit Lender's obligation to make Revolving Credit Loans pursuant to this Section 2.03(c) is subject to the conditions set forth in Section 4.02 (other than delivery by the Borrower of a Committed Loan Notice ). No such making of an L/C Advance shall relieve or otherwise impair the obligation of the Borrower to reimburse the L/C Issuer for the amount of any payment made by the L/C Issuer under any Letter of Credit, together with interest as provided herein.

(vi) If any Revolving Credit Lender fails to make available to the Administrative Agent for the account of the L/C Issuer any amount required to be paid by such Lender pursuant to the foregoing provisions of this Section 2.03(c) by the time specified in Section 2.03(c)(ii), then, without limiting the other provisions of this Agreement, the L/C Issuer shall be entitled to recover from such Lender (acting through the Administrative Agent), on demand, such amount with interest thereon for the period from the date such payment is required to the date on which such payment is immediately available to the L/C Issuer at a rate per annum equal to the greater of the Federal Funds Rate and a rate determined by the L/C Issuer in accordance with banking industry rules on interbank compensation, plus any administrative, processing or similar fees customarily charged by the L/C Issuer in connection with the foregoing. If such Lender pays such amount (with interest and fees as aforesaid), the amount so paid shall constitute such Lender's Revolving Credit Loan included in the relevant Revolving Credit Borrowing or L/C Advance in respect of the relevant L/C Borrowing, as the case may be. A certificate of the L/C Issuer submitted to any Revolving Credit Lender (through the Administrative Agent) with respect to any amounts owing under this Section 2.03(c)(vi) shall be conclusive absent manifest error.

(d) Repayment of Participations. (i) At any time after the L/C Issuer has made a payment under any Letter of Credit and has received from any Revolving Credit Lender such Lender's L/C Advance in respect of such payment in accordance with Section 2.03(c), if the Administrative Agent receives for the account of the L/C Issuer any payment in respect of the related Unreimbursed Amount or interest thereon (whether directly from the Borrower or otherwise, including proceeds of Cash Collateral applied thereto by the Administrative Agent), the Administrative Agent will distribute to such Lender its Applicable Percentage thereof in the same funds as those received by the Administrative Agent.

(ii) If any payment received by the Administrative Agent for the account of the L/C Issuer pursuant to Section 2.03(c)(i) is required to be returned under any of the circumstances described in Section 10.05 (including pursuant to any settlement entered into by the L/C Issuer in its discretion), each Revolving Credit Lender shall pay to the Administrative Agent for the account of the L/C Issuer its Applicable Percentage thereof on demand of the Administrative Agent, plus interest thereon from the date of such demand to the date such amount is returned by such Lender, at a rate per annum equal to the Federal Funds Rate from time to time in effect. The

obligations of the Lenders under this clause shall survive the payment in full of the Obligations and the termination of this Agreement.

(e) Obligations Absolute. The obligation of the Borrower to reimburse the L/C Issuer for each drawing under each Letter of Credit and to repay each L/C Borrowing shall be absolute, unconditional and irrevocable, and shall be paid strictly in accordance with the terms of this Agreement under all circumstances, including the following:

(i) any lack of validity or enforceability of such Letter of Credit, this Agreement, or any other Loan Document;

(ii) the existence of any claim, counterclaim, setoff, defense or other right that the Borrower or any Restricted Subsidiary may have at any time against any beneficiary or any transferee of such Letter of Credit (or any Person for whom any such beneficiary or any such transferee may be acting), the L/C Issuer or any other Person, whether in connection with this Agreement, the transactions contemplated hereby or by such Letter of Credit or any agreement or instrument relating thereto, or any unrelated transaction;

(iii) any draft, demand, certificate or other document presented under such Letter of Credit proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any respect; or any loss or delay in the transmission or otherwise of any document required in order to make a drawing under such Letter of Credit;

(iv) waiver by the L/C Issuer of any requirement that exists for the L/C Issuer's protection and not the protection of the Borrower or any waiver by the L/C Issuer which does not in fact materially prejudice the Borrower;

(v) honor of a demand for payment presented electronically even if such Letter of Credit requires that demand be in the form of a draft;

(vi) any payment made by the L/C Issuer in respect of an otherwise complying item presented after the date specified as the expiration date of, or the date by which documents must be received under such Letter of Credit if presentation after such date is authorized by the UCC or the ISP, as applicable;

(vii) any payment by the L/C Issuer under such Letter of Credit against presentation of a draft or certificate that does not strictly comply with the terms of such Letter of Credit; or any payment made by the L/C Issuer under such Letter of Credit to any Person purporting to be a trustee in bankruptcy, debtor-in-possession, assignee for the benefit of creditors, liquidator, receiver or other representative of or successor to any beneficiary or any transferee of such Letter of Credit, including any arising in connection with any proceeding under any Debtor Relief Law; or

(viii) any other circumstance or happening whatsoever, whether or not similar to any of the foregoing, including any other circumstance that might otherwise constitute a defense available to, or a discharge of, the Borrower or any of its Restricted Subsidiaries.

The Borrower shall promptly examine a copy of each Letter of Credit and each amendment thereto that is delivered to it and, in the event of any claim of noncompliance with the Borrower's instructions or other irregularity, the Borrower will immediately notify the L/C Issuer. The Borrower shall

be conclusively deemed to have waived any such claim against the L/C Issuer and its correspondents unless such notice is given as aforesaid.

(f) Role of L/C Issuer. Each Lender and the Borrower agree that, in paying any drawing under a Letter of Credit, the L/C Issuer shall not have any responsibility to obtain any document (other than any sight draft, certificates and documents expressly required by the Letter of Credit) or to ascertain or inquire as to the validity or accuracy of any such document or the authority of the Person executing or delivering any such document. None of the L/C Issuer, the Administrative Agent, any of their respective Related Parties nor any correspondent, participant or assignee of the L/C Issuer shall be liable to any Lender for (i) any action taken or omitted in connection herewith at the request or with the approval of the Revolving Credit Lenders or the Required Lenders, as applicable; (ii) any action taken or omitted in the absence of gross negligence or willful misconduct; or (iii) the due execution, effectiveness, validity or enforceability of any document or instrument related to any Letter of Credit or Issuer Document. The Borrower hereby assumes all risks of the acts or omissions of any beneficiary or transferee with respect to its use of any Letter of Credit; provided, however, that this assumption is not intended to, and shall not, preclude the Borrower's pursuing such rights and remedies as it may have against the beneficiary or transferee at law or under any other agreement. None of the L/C Issuer, the Administrative Agent, any of their respective Related Parties nor any correspondent, participant or assignee of the L/C Issuer shall be liable or responsible for any of the matters described in clauses (i) through (v) of Section 2.03(e); provided, however, that anything in such clauses to the contrary notwithstanding, the Borrower may have a claim against the L/C Issuer, and the L/C Issuer may be liable to the Borrower, to the extent, but only to the extent, of any direct, as opposed to consequential or exemplary, damages suffered by the Borrower which the Borrower proves were caused by the L/C Issuer's willful misconduct or gross negligence or the L/C Issuer's willful failure to pay under any Letter of Credit after the presentation to it by the beneficiary of a sight draft and certificate(s) strictly complying with the terms and conditions of a Letter of Credit. In furtherance and not in limitation of the foregoing, the L/C Issuer may accept documents that appear on their face to be in order, without responsibility for further investigation, regardless of any notice or information to the contrary, and the L/C Issuer shall not be responsible for the validity or sufficiency of any instrument transferring or assigning or purporting to transfer or assign a Letter of Credit or the rights or benefits thereunder or proceeds thereof, in whole or in part, which may prove to be invalid or ineffective for any reason. The L/C Issuer may send a Letter of Credit or conduct any communication to or from the beneficiary via the Society for Worldwide Interbank Financial Telecommunication ("SWIFT") message or overnight courier, or any other commercially reasonable means of communicating with a beneficiary.

(g) Applicability of ISP. Unless otherwise expressly agreed by the L/C Issuer and the Borrower when a Letter of Credit is issued the rules of the ISP shall apply. Notwithstanding the foregoing, the L/C Issuer shall not be responsible to the Borrower for, and the L/C Issuer's rights and remedies against the Borrower shall not be impaired by, any action or inaction of the L/C Issuer required or permitted under any law, order, or practice that is required or permitted to be applied to any Letter of Credit or this Agreement, including the Law or any order of a jurisdiction where the L/C Issuer or the beneficiary is located, the practice stated in the ISP, or in the decisions, opinions, practice statements, or official commentary of the ICC Banking Commission, the Bankers Association for Finance and Trade - International Financial Services Association (BAFT-IFSA), or the Institute of International Banking Law & Practice, whether or not any Letter of Credit chooses such law or practice.

(h) Letter of Credit Fees. The Borrower shall pay to the Administrative Agent for the account of each Revolving Credit Lender in accordance with its Applicable Percentage a Letter of Credit fee (the "Letter of Credit Fee") for each Letter of Credit equal to the Applicable Rate times the daily amount available to be drawn under such Letter of Credit. For purposes of computing the daily amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in

accordance with Section 1.06. Letter of Credit Fees shall be (i) due and payable on the first Business Day after the end of each March, June, September and December, commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand and (ii) computed on a quarterly basis in arrears. If there is any change in the Applicable Rate during any quarter, the daily amount available to be drawn under each Letter of Credit shall be computed and multiplied by the Applicable Rate separately for each period during such quarter that such Applicable Rate was in effect. Notwithstanding anything to the contrary contained herein, upon the request of the Required Lenders, while any Event of Default exists, all Letter of Credit Fees shall accrue at the Default Rate.

(i) Fronting Fee and Documentary and Processing Charges Payable to L/C Issuer. To the extent there are Revolving Credit Lenders other than Bank of America and its Affiliates, the Borrower shall pay directly to the L/C Issuer for its own account a fronting fee at the rate per annum equal to 0.125%, computed on the daily amount available to be drawn under such Letter of Credit on a quarterly basis in arrears. Such fronting fee shall be due and payable on the tenth Business Day after the end of each March, June, September and December in respect of the most recently-ended quarterly period (or portion thereof, in the case of the first payment), commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand. For purposes of computing the daily amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.06. In addition, the Borrower shall pay directly to the L/C Issuer for its own account the customary issuance, presentation, amendment and other processing fees, and other standard costs and charges, of the L/C Issuer relating to letters of credit as from time to time in effect. Such customary fees and standard costs and charges are due and payable on demand and are nonrefundable.

(j) Conflict with Issuer Documents. In the event of any conflict between the terms hereof and the terms of any Issuer Document, the terms hereof shall control.

(k) Letters of Credit Issued for Restricted Subsidiaries. Notwithstanding that a Letter of Credit issued or outstanding hereunder is in support of any obligations of, or is for the account of, a Restricted Subsidiary, the Borrower shall be obligated to reimburse the L/C Issuer hereunder for any and all drawings under such Letter of Credit. The Borrower hereby acknowledges that the issuance of Letters of Credit for the account of Restricted Subsidiaries inures to the benefit of the Borrower, and that the Borrower's business derives substantial benefits from the businesses of such Restricted Subsidiaries.

2.04 Swing Line Loans. (a) The Swing Line. Subject to the terms and conditions set forth herein, the Swing Line Lender, in reliance upon the agreements of the other Lenders set forth in this Section 2.04, may, in its sole discretion, make loans (each such loan, a "Swing Line Loan") to the Borrower from time to time on any Business Day during the Availability Period in an aggregate amount not to exceed at any time outstanding the amount of the Swing Line Sublimit, notwithstanding the fact that such Swing Line Loans, when aggregated with the Applicable Percentage of the Outstanding Amount of Revolving Credit Loans and L/C Obligations of the Lender acting as Swing Line Lender, may exceed the amount of such Lender's Commitment; provided, however, that after giving effect to any Swing Line Loan, (x)(i) the Total Outstandings shall not exceed the Maximum Borrowing Amount at the time of such Swing Line Loan, and (ii) the Revolving Credit Exposure of such Revolving Credit Lender shall not exceed such Revolving Credit Lender's Commitment, (y) the Borrower shall not use the proceeds of any Swing Line Loan to refinance any outstanding Swing Line Loan, and (z) the Swing Line Lender shall not be under any obligation to make any Swing Line Loan if it shall determine (which determination shall be conclusive and binding absent manifest error) that it has, or by such Credit Extension may have, Fronting Exposure. Within the foregoing limits, and subject to the other terms and conditions hereof, the Borrower may borrow under this Section 2.04, prepay under Section 2.05, and reborrow under this Section 2.04.

Each Swing Line Loan shall bear interest only at a rate based on the Base Rate. Immediately upon the making of a Swing Line Loan, each Revolving Credit Lender shall be deemed to, and hereby irrevocably and unconditionally agrees to, purchase from the Swing Line Lender a risk participation in such Swing Line Loan in an amount equal to the product of such Revolving Credit Lender's Applicable Percentage times the amount of such Swing Line Loan.

(b) Borrowing Procedures. Each Swing Line Borrowing shall be made upon the Borrower's irrevocable notice to the Swing Line Lender and the Administrative Agent, which may be given by (A) telephone or (B) by a Swing Line Loan Notice; provided that any telephonic notice must be confirmed promptly by delivery to the Swing Line Lender and the Administrative Agent of a Swing Line Loan Notice. Each such notice must be received by the Swing Line Lender and the Administrative Agent not later than 1:00 p.m. on the requested borrowing date, and shall specify (i) the amount to be borrowed, which shall be a minimum of \$100,000, and (ii) the requested borrowing date, which shall be a Business Day. Promptly after receipt by the Swing Line Lender of any Swing Line Loan Notice, the Swing Line Lender will confirm with the Administrative Agent (by telephone or in writing) that the Administrative Agent has also received such Swing Line Loan Notice and, if not, the Swing Line Lender will notify the Administrative Agent (by telephone or in writing) of the contents thereof. Unless the Swing Line Lender has received notice (by telephone or in writing) from the Administrative Agent (including at the request of any Revolving Credit Lender) prior to 2:00 p.m. on the date of the proposed Swing Line Borrowing (A) directing the Swing Line Lender not to make such Swing Line Loan as a result of the limitations set forth in the first proviso to the first sentence of Section 2.04(a), or (B) that one or more of the applicable conditions specified in Article IV is not then satisfied, then, subject to the terms and conditions hereof, the Swing Line Lender will, not later than 3:00 p.m. on the borrowing date specified in such Swing Line Loan Notice, make the amount of its Swing Line Loan available to the Borrower at its office by crediting the account of the Borrower on the books of the Swing Line Lender in immediately available funds.

(c) Refinancing of Swing Line Loans. (i) The Swing Line Lender at any time in its sole and absolute discretion may request, on behalf of the Borrower (which hereby irrevocably authorizes the Swing Line Lender to so request on its behalf), that each Revolving Credit Lender make a Base Rate Loan in an amount equal to such Lender's Applicable Percentage of the amount of Swing Line Loans then outstanding. Such request shall be made in writing (which written request shall be deemed to be a Committed Loan Notice for purposes hereof) and in accordance with the requirements of Section 2.02, without regard to the minimum and multiples specified therein for the principal amount of Base Rate Loans, but subject to the unutilized portion of the Revolving Credit Facility and the conditions set forth in Section 4.02. The Swing Line Lender shall furnish the Borrower with a copy of the applicable Committed Loan Notice promptly after delivering such notice to the Administrative Agent. Each Revolving Credit Lender shall make an amount equal to its Applicable Percentage of the amount specified in such Committed Loan Notice available to the Administrative Agent in immediately available funds (and the Administrative Agent may apply Cash Collateral available with respect to the applicable Swing Line Loan) for the account of the Swing Line Lender at the Administrative Agent's Office not later than 1:00 p.m. on the day specified in such Committed Loan Notice, whereupon, subject to Section 2.04(c)(ii), each Revolving Credit Lender that so makes funds available shall be deemed to have made a Base Rate Loan to the Borrower in such amount. The Administrative Agent shall remit the funds so received to the Swing Line Lender.

(ii) If for any reason any Swing Line Loan cannot be refinanced by such a Revolving Credit Borrowing in accordance with Section 2.04(c)(i), the request for Base Rate Loans submitted by the Swing Line Lender as set forth herein shall be deemed to be a request by the Swing Line Lender that each of the Revolving Credit Lenders fund its risk participation in the relevant Swing Line Loan and each Revolving Credit Lender's payment to the Administrative

Agent for the account of the Swing Line Lender pursuant to Section 2.04(c)(i) shall be deemed payment in respect of such participation.

(iii) If any Revolving Credit Lender fails to make available to the Administrative Agent for the account of the Swing Line Lender any amount required to be paid by such Lender pursuant to the foregoing provisions of this Section 2.04(c) by the time specified in Section 2.04(c)(i), the Swing Line Lender shall be entitled to recover from such Lender (acting through the Administrative Agent), on demand, such amount with interest thereon for the period from the date such payment is required to the date on which such payment is immediately available to the Swing Line Lender at a rate per annum equal to the greater of the Federal Funds Rate and a rate determined by the Swing Line Lender in accordance with banking industry rules on interbank compensation, plus any administrative, processing or similar fees customarily charged by the Swing Line Lender in connection with the foregoing. If such Lender pays such amount (with interest and fees as aforesaid), the amount so paid shall constitute such Lender's Revolving Credit Loan included in the relevant Revolving Credit Borrowing or funded participation in the relevant Swing Line Loan, as the case may be. A certificate of the Swing Line Lender submitted to any Lender (through the Administrative Agent) with respect to any amounts owing under this clause (iii) shall be conclusive absent manifest error.

(iv) Each Revolving Credit Lender's obligation to make Revolving Credit Loans or to purchase and fund risk participations in Swing Line Loans pursuant to this Section 2.04(c) shall be absolute and unconditional and shall not be affected by any circumstance, including (A) any setoff, counterclaim, recoupment, defense or other right which such Lender may have against the Swing Line Lender, the Borrower or any other Person for any reason whatsoever, (B) the occurrence or continuance of a Default, or (C) any other occurrence, event or condition, whether or not similar to any of the foregoing; provided, however, that each Revolving Credit Lender's obligation to make Revolving Credit Loans pursuant to this Section 2.04(c) is subject to the conditions set forth in Section 4.02. No such funding of risk participations shall relieve or otherwise impair the obligation of the Borrower to repay Swing Line Loans, together with interest as provided herein.

(d) Repayment of Participations. (i) At any time after any Revolving Credit Lender has purchased and funded a risk participation in a Swing Line Loan, if the Swing Line Lender receives any payment on account of such Swing Line Loan, the Swing Line Lender will distribute to such Revolving Credit Lender its Applicable Percentage thereof in the same funds as those received by the Swing Line Lender.

(ii) If any payment received by the Swing Line Lender in respect of principal or interest on any Swing Line Loan is required to be returned by the Swing Line Lender under any of the circumstances described in Section 10.05 (including pursuant to any settlement entered into by the Swing Line Lender in its discretion), each Revolving Credit Lender shall pay to the Swing Line Lender its Applicable Percentage thereof on demand of the Administrative Agent, plus interest thereon from the date of such demand to the date such amount is returned, at a rate per annum equal to the Federal Funds Rate. The Administrative Agent will make such demand upon the request of the Swing Line Lender. The obligations of the Lenders under this clause shall survive the payment in full of the Obligations and the termination of this Agreement.

(e) Interest for Account of Swing Line Lender. The Swing Line Lender shall be responsible for invoicing the Borrower for interest on the Swing Line Loans. Until each Revolving Credit Lender funds its Base Rate Loan or risk participation pursuant to this Section 2.04 to refinance such Revolving



Credit Lender's Applicable Percentage of any Swing Line Loan, interest in respect of such Applicable Percentage shall be solely for the account of the Swing Line Lender.

(f) Payments Directly to Swing Line Lender. The Borrower shall make all payments of principal and interest in respect of the Swing Line Loans directly to the Swing Line Lender.

2.05 Prepayments. (a) Optional. (i) Subject to the last sentence of this Section 2.05(a)(i), the Borrower may, upon notice to the Administrative Agent, at any time or from time to time voluntarily prepay Revolving Credit Loans in whole or in part without premium or penalty; provided that (A) such notice must be in a form acceptable to the Administrative Agent and be received by the Administrative Agent not later than 11:00 a.m. (1) three Business Days prior to any date of prepayment of Eurodollar Rate Loans and (2) on the date of prepayment of Base Rate Loans; (B) any prepayment of Eurodollar Rate Loans shall be in a principal amount of \$1,000,000 or a whole multiple of \$500,000 in excess thereof; and (C) any prepayment of Base Rate Loans shall be in a principal amount of \$500,000 or a whole multiple of \$100,000 in excess thereof or, in each case, if less, the entire principal amount thereof then outstanding. Each such notice shall specify the date and amount of such prepayment and the Type(s) of Loans to be prepaid and, if Eurodollar Rate Loans are to be prepaid, the Interest Period(s) of such Loans. The Administrative Agent will promptly notify each Lender of its receipt of each such notice, and of the amount of such Lender's ratable portion of such prepayment (based on such Lender's Applicable Percentage). If such notice is given by the Borrower, the Borrower shall make such prepayment and the payment amount specified in such notice shall be due and payable on the date specified therein; provided that such notice may be conditioned upon the occurrence of certain events specified therein. Any prepayment of a Eurodollar Rate Loan shall be accompanied by all accrued interest on the amount prepaid, together with any additional amounts required pursuant to Section 3.05.

(ii) The Borrower may, upon notice to the Swing Line Lender (with a copy to the Administrative Agent), at any time or from time to time, voluntarily prepay Swing Line Loans in whole or in part without premium or penalty; provided that (A) such notice must be received by the Swing Line Lender and the Administrative Agent not later than 1:00 p.m. on the date of the prepayment, and (B) any such prepayment shall be in a minimum principal amount of \$100,000. Each such notice shall specify the date and amount of such prepayment. If such notice is given by the Borrower, the Borrower shall make such prepayment and the payment amount specified in such notice shall be due and payable on the date specified therein; provided further that such notice may be conditioned upon the occurrence of certain events specified therein.

(b) Mandatory.

(i) If for any reason (x) there exists a Borrowing Base Deficiency or (y) the Total Outstandings at any time exceed the Maximum Borrowing Amount at such time, the Borrower shall either (i) immediately prepay Revolving Credit Loans, Swing Line Loans and L/C Borrowings and/or Cash Collateralize the L/C Obligations (other than the L/C Borrowings) in an aggregate amount equal to such excess or (ii) solely in the case of a Borrowing Base Deficiency, deposit Borrowing Base Assets into the Custody Account in an amount sufficient to eliminate such Borrowing Base Deficiency.

(ii) Prepayments of the Revolving Credit Facility made pursuant to this Section 2.05(b), *first*, shall be applied ratably to the L/C Borrowings and the Swing Line Loans, *second*, shall be applied ratably to the outstanding Revolving Credit Loans, and, *third*, shall be used to Cash Collateralize the remaining L/C Obligations. Upon the drawing of any Letter of Credit that has been Cash Collateralized, the funds held as Cash Collateral shall be applied (without any further action by or notice to or from the Borrower or any other Loan Party) to reimburse the L/C Issuer or the Revolving Credit Lenders, as applicable.

2.06 Termination or Reduction of Commitments. (a) Optional. The Borrower may, upon notice to the Administrative Agent, terminate the Revolving Credit Facility, the Letter of Credit Sublimit or the Swing Line Sublimit, or from time to time permanently reduce the Revolving Credit Facility, the Letter of Credit Sublimit or the Swing Line Sublimit; provided that (i) any such notice shall be received by the Administrative Agent not later than 11:00 a.m. five Business Days prior to the date of termination or reduction, (ii) any such partial reduction shall be in an aggregate amount of \$10,000,000 or any whole multiple of \$1,000,000 in excess thereof and (iii) the Borrower shall not terminate or reduce (A) the Revolving Credit Facility if, after giving effect thereto and to any concurrent prepayments hereunder, the Total Outstandings would exceed the Revolving Credit Facility, (B) the Letter of Credit Sublimit if, after giving effect thereto, the Outstanding Amount of L/C Obligations not fully Cash Collateralized hereunder would exceed the Letter of Credit Sublimit, or (C) the Swing Line Sublimit if, after giving effect thereto and to any concurrent prepayments hereunder, the Outstanding Amount of Swing Line Loans would exceed the Letter of Credit Sublimit. Such notice may be conditioned upon the occurrence of certain events specified therein.

(b) Mandatory. If after giving effect to any reduction or termination of Commitments under this Section 2.06, the Letter of Credit Sublimit or the Swing Line Sublimit exceeds the Revolving Credit Facility at such time, the Letter of Credit Sublimit or the Swing Line Sublimit, as the case may be, shall be automatically reduced by the amount of such excess.

(c) Application of Commitment Reductions; Payment of Fees. The Administrative Agent will promptly notify the Lenders of any termination or reduction of the Letter of Credit Sublimit, Swing Line Sublimit or the Commitment under this Section 2.06. Upon any reduction of the Commitments, the Commitment of each Revolving Credit Lender shall be reduced by such Lender's Applicable Percentage of such reduction amount. All fees in respect of the Revolving Credit Facility accrued until the effective date of any termination of the Revolving Credit Facility shall be paid on the effective date of such termination.

2.07 Repayment of Loans. (a) Revolving Credit Loans. The Borrower shall repay to the Revolving Credit Lenders on the Maturity Date for the Revolving Credit Facility the aggregate principal amount of all Revolving Credit Loans outstanding on such date.

(b) Swing Line Loans. The Borrower shall repay each Swing Line Loan on the earlier to occur of (i) the date ten Business Days after such Loan is made and (ii) the Maturity Date for the Revolving Credit Facility.

2.08 Interest. (a) Subject to the provisions of Section 2.08(b), (i) each Eurodollar Rate Loan shall bear interest on the outstanding principal amount thereof for each Interest Period at a rate per annum equal to the Eurodollar Rate for such Interest Period plus the Applicable Rate; (ii) each Base Rate Loan shall bear interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the Base Rate plus the Applicable Rate; and (iii) each Swing Line Loan shall bear interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the Base Rate plus the Applicable Rate.

(b) (i) If any amount of principal of any Loan is not paid when due (without regard to any applicable grace periods), whether at stated maturity, by acceleration or otherwise, such amount shall thereafter bear interest at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws.

(ii) If any amount (other than principal of any Loan, but including overdue interest) payable by the Borrower under any Loan Document is not paid when due (without regard to any

applicable grace periods), whether at stated maturity, by acceleration or otherwise, then upon the request of the Required Lenders such amount shall thereafter bear interest at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws.

(iii) Accrued and unpaid interest on past due amounts (including interest on past due interest) shall be due and payable upon demand.

(c) Interest on each Loan shall be due and payable in arrears on each Interest Payment Date applicable thereto and at such other times as may be specified herein. Interest hereunder shall be due and payable in accordance with the terms hereof before and after judgment, and before and after the commencement of any proceeding under any Debtor Relief Law.

2.09 Fees. In addition to certain fees described in Sections 2.03(i) and (j):

(a) Commitment Fee. The Borrower shall pay to the Administrative Agent for the account of each Revolving Credit Lender in accordance with its Applicable Percentage, a commitment fee equal to the Applicable Fee Rate times the actual daily amount by which the Revolving Credit Facility exceeds the sum of (i) the Outstanding Amount of Revolving Credit Loans and (ii) the Outstanding Amount of L/C Obligations, subject to adjustment as provided in Section 2.15. For the avoidance of doubt, to the extent there are Revolving Credit Lenders other than Bank of America and its Affiliates, the Outstanding Amount of Swing Line Loans shall not be counted towards or considered usage of the Aggregate Commitments for purposes of determining the commitment fee. The commitment fee shall accrue at all times during the Availability Period, including at any time during which one or more of the conditions in Article IV is not met, and shall be due and payable quarterly in arrears on the last Business Day of each March, June, September and December, commencing with the first such date to occur after the Closing Date, and on the last day of the Availability Period. The commitment fee shall be calculated quarterly in arrears, and if there is any change in the Applicable Fee Rate during any quarter, the actual daily amount shall be computed and multiplied by the Applicable Fee Rate separately for each period during such quarter that such Applicable Fee Rate was in effect.

(b) Closing Fee. The Borrower agrees to pay on the Closing Date to the Administrative Agent for the account of each Lender party to this Agreement on the Closing Date, as fee compensation for such Lender's Commitment, a closing fee (the "Closing Fee") in an amount equal to 0.10% of such Lender's Commitment on the Closing Date. Such Closing Fee will be in all respects fully earned, due and payable on the Closing Date and non-refundable and non-creditable thereafter.

(c) Other Fees. The Borrower shall pay to the Lenders such fees as shall have been separately agreed upon in writing in the amounts and at the times so specified. Such fees shall be fully earned when paid and shall not be refundable for any reason whatsoever.

2.10 Computation of Interest and Fees. All computations of interest for Base Rate Loans (including Base Rate Loans determined by reference to the Eurodollar Rate) shall be made on the basis of a year of 365 or 366 days, as the case may be, and actual days elapsed. All other computations of fees and interest shall be made on the basis of a 360-day year and actual days elapsed (which results in more fees or interest, as applicable, being paid than if computed on the basis of a 365-day year). Interest shall accrue on each Loan for the day on which the Loan is made, and shall not accrue on a Loan, or any portion thereof, for the day on which the Loan or such portion is paid; provided that any Loan that is repaid on the same day on which it is made shall, subject to Section 2.12(a), bear interest for one day. Each determination by the Administrative Agent of an interest rate or fee hereunder shall be conclusive and binding for all purposes, absent manifest error.

2.11 Evidence of Debt. (a) The Credit Extensions made by each Lender shall be evidenced by one or more accounts or records maintained by such Lender and by the Administrative Agent in the ordinary course of business. The accounts or records maintained by the Administrative Agent and each Lender shall be conclusive absent manifest error of the amount of the Credit Extensions made by the Lenders to the Borrower and the interest and payments thereon. Any failure to so record or any error in doing so shall not, however, limit or otherwise affect the obligation of the Borrower hereunder to pay any amount owing with respect to the Obligations. In the event of any conflict between the accounts and records maintained by any Lender and the accounts and records of the Administrative Agent in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error. Upon the request of any Lender made through the Administrative Agent, the Borrower shall execute and deliver to such Lender (through the Administrative Agent) a Note, which shall evidence such Lender's Loans in addition to such accounts or records. Each Lender may attach schedules to its Note and endorse thereon the date, Type (if applicable), amount and maturity of its Loans and payments with respect thereto.

(b) In addition to the accounts and records referred to in Section 2.11(a), each Lender and the Administrative Agent shall maintain in accordance with its usual practice accounts or records evidencing the purchases and sales by such Lender of participations in Letters of Credit and Swing Line Loans. In the event of any conflict between the accounts and records maintained by the Administrative Agent and the accounts and records of any Lender in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error.

2.12 Payments Generally; Administrative Agent's Clawback. (a) General. All payments to be made by the Borrower shall be made free and clear of and without condition or deduction for any counterclaim, defense, recoupment or setoff. Except as otherwise expressly provided herein, all payments by the Borrower hereunder shall be made to the Administrative Agent, for the account of the respective Lenders to which such payment is owed, at the Administrative Agent's Office in Dollars and in immediately available funds not later than 2:00 p.m. on the date specified herein. The Administrative Agent will promptly distribute to each Lender its Applicable Percentage (or other applicable share as provided herein) of such payment in like funds as received by wire transfer to such Lender's Lending Office. All payments received by the Administrative Agent after 2:00 p.m. shall be deemed received on the next succeeding Business Day and any applicable interest or fee shall continue to accrue. If any payment to be made by the Borrower shall come due on a day other than a Business Day, payment shall be made on the next following Business Day, and such extension of time shall be reflected on computing interest or fees, as the case may be.

(b) Funding by Lenders; Presumption by Administrative Agent. Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing of Eurodollar Rate Loans (or, in the case of any Borrowing of Base Rate Loans, prior to 12:00 noon on the date of such Borrowing) that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with Section 2.02 (or, in the case of a Borrowing of Base Rate Loans, that such Lender has made such share available in accordance with and at the time required by Section 2.02) and may, in reliance upon such assumption, make available to the Borrower a corresponding amount. In such event, if a Lender has not in fact made its share of the applicable Borrowing available to the Administrative Agent, then the applicable Lender and the Borrower severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount in immediately available funds with interest thereon, for each day from and including the date such amount is made available to the Borrower to but excluding the date of payment to the Administrative Agent, at (A) in the case of a payment to be made by such Lender, the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation, plus any

administrative, processing or similar fees customarily charged by the Administrative Agent in connection with the foregoing, and (B) in the case of a payment to be made by the Borrower, the interest rate applicable to Base Rate Loans. If the Borrower and such Lender shall pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Borrower the amount of such interest paid by the Borrower for such period. If such Lender pays its share of the applicable Borrowing to the Administrative Agent, then the amount so paid shall constitute such Lender's Loan included in such Borrowing. Any payment by the Borrower shall be without prejudice to any claim the Borrower may have against a Lender that shall have failed to make such payment to the Administrative Agent.

(i) Payments by Borrower; Presumptions by Administrative Agent. Unless the Administrative Agent shall have received notice from the Borrower prior to the time at which any payment is due to the Administrative Agent for the account of the Lenders or the L/C Issuer hereunder that the Borrower will not make such payment, the Administrative Agent may assume that the Borrower has made such payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the Appropriate Lenders or the L/C Issuer, as the case may be, the amount due. In such event, if the Borrower has not in fact made such payment, then each of the Appropriate Lenders or the L/C Issuer, as the case may be, severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender or the L/C Issuer, in immediately available funds with interest thereon, for each day from and including the date such amount is distributed to it to but excluding the date of payment to the Administrative Agent, at the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation.

A notice of the Administrative Agent to any Lender or the Borrower with respect to any amount owing under this subsection (b) shall be conclusive, absent manifest error.

(c) Failure to Satisfy Conditions Precedent. If any Lender makes available to the Administrative Agent funds for any Loan to be made by such Lender as provided in the foregoing provisions of this Article II, and such funds are not made available to the Borrower by the Administrative Agent because the conditions to the applicable Credit Extension set forth in Article IV are not satisfied or waived in accordance with the terms hereof, the Administrative Agent shall return such funds (in like funds as received from such Lender) to such Lender, without interest.

(d) Obligations of Lenders Several. The obligations of the Lenders hereunder to make Revolving Credit Loans, to fund participations in Letters of Credit and Swing Line Loans and to make payments pursuant to Section 10.04(c) are several and not joint. The failure of any Lender to make any Loan, to fund any such participation or to make any payment under Section 10.04(c) on any date required hereunder shall not relieve any other Lender of its corresponding obligation to do so on such date, and no Lender shall be responsible for the failure of any other Lender to so make its Loan, to purchase its participation or to make its payment under Section 10.04(c).

(e) Funding Source. Nothing herein shall be deemed to obligate any Lender to obtain the funds for any Loan in any particular place or manner or to constitute a representation by any Lender that it has obtained or will obtain the funds for any Loan in any particular place or manner.

(f) Insufficient Funds. If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, L/C Borrowings, interest and fees then due hereunder, such funds shall be applied (i) first, toward payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, toward payment of principal and L/C Borrowings then due hereunder,

ratably among the parties entitled thereto in accordance with the amounts of principal and L/C Borrowings then due to such parties.

2.13 Sharing of Payments by Lenders. If any Lender shall, by exercising any right of setoff or counterclaim or otherwise, obtain payment in respect of (a) Obligations due and payable to such Lender hereunder and under the other Loan Documents at such time in excess of its ratable share (according to the proportion of (i) the amount of such Obligations due and payable to such Lender at such time to (ii) the aggregate amount of the Obligations due and payable to all Lenders hereunder and under the other Loan Documents at such time) of payments on account of the Obligations due and payable to all Lenders hereunder and under the other Loan Documents at such time obtained by all the Lenders at such time or (b) Obligations owing (but not due and payable) to such Lender hereunder and under the other Loan Documents at such time in excess of its ratable share (according to the proportion of (i) the amount of such Obligations owing (but not due and payable) to such Lender at such time to (ii) the aggregate amount of the Obligations owing (but not due and payable) to all Lenders hereunder and under the other Loan Parties at such time) of payment on account of the Obligations owing (but not due and payable) to all Lenders hereunder and under the other Loan Documents at such time obtained by all of the Lenders at such time then the Lender receiving such greater proportion shall (a) notify the Administrative Agent of such fact, and (b) purchase (for cash at face value) participations in the Loans and subparticipations in L/C Obligations and Swing Line Loans of the other Lenders, or make such other adjustments as shall be equitable, so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of Obligations then due and payable to the Lenders or owing (but not due and payable) to the Lenders, as the case may be, provided that:

(i) if any such participations or subparticipations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations or subparticipations shall be rescinded and the purchase price restored to the extent of such recovery, without interest; and

(ii) the provisions of this Section shall not be construed to apply to (x) any payment made by or on behalf of the Borrower pursuant to and in accordance with the express terms of this Agreement (including the application of funds arising from the existence of a Defaulting Lender), (y) the application of Cash Collateral provided for in Section 2.14, or (z) any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Loans or subparticipations in L/C Obligations or Swing Line Loans to any assignee or participant, other than an assignment to the Borrower or any Affiliate thereof (as to which the provisions of this Section shall apply).

The Borrower consents to the foregoing and agrees, to the extent it may effectively do so under applicable law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against the Borrower rights of setoff and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of the Borrower in the amount of such participation.

2.14 Cash Collateral. (a) Certain Credit Support Events. If (i) the L/C Issuer has honored any full or partial drawing request under any Letter of Credit and such drawing has resulted in an L/C Borrowing, (ii) as of the Letter of Credit Expiration Date, any L/C Obligation for any reason remains outstanding, (iii) the Borrower shall be required to provide Cash Collateral pursuant to Section 8.02(c), or (iv) there shall exist a Defaulting Lender, the Borrower shall immediately (in the case of clause (iii) above) or within one Business Day (in all other cases), following any request by the Administrative Agent or the L/C Issuer, provide Cash Collateral in an amount not less than the applicable Minimum Collateral Amount (determined in the case of Cash Collateral provided pursuant to clause (iv) above, after giving effect to Section 2.15 (a)(iv) and any Cash Collateral provided by the Defaulting Lender). If at any time

the Administrative Agent determines that any funds held as Cash Collateral are subject to any right or claim of any Person other than the Administrative Agent or that the total amount of such funds is less than the aggregate Outstanding Amount of all L/C Obligations, the Borrower will, forthwith upon demand by the Administrative Agent, pay to the Administrative Agent, as additional funds to be deposited as Cash Collateral, an amount equal to the excess of (x) such aggregate Outstanding Amount over (y) the total amount of funds, if any, then held as Cash Collateral that the Administrative Agent determines to be free and clear of any such right and claim. Upon the drawing of any Letter of Credit for which funds are on deposit as Cash Collateral, such funds shall be applied, to the extent permitted under applicable Laws, to reimburse the L/C Issuer.

(b) Grant of Security Interest. The Borrower, and to the extent provided by any Defaulting Lender, such Defaulting Lender, hereby grants to (and subjects to the control of) the Administrative Agent, for the benefit of the Administrative Agent, the L/C Issuer and the Lenders, and agrees to maintain, a first priority security interest in all such cash, deposit accounts and all balances therein, and all other property so provided as collateral pursuant hereto, and in all proceeds of the foregoing, all as security for the obligations to which such Cash Collateral may be applied pursuant to Section 2.14(c). If at any time the Administrative Agent determines that Cash Collateral is subject to any right or claim of any Person other than the Administrative Agent or the L/C Issuer as herein provided, or that the total amount of such Cash Collateral is less than the Minimum Collateral Amount, the Borrower will, promptly upon demand by the Administrative Agent, pay or provide to the Administrative Agent additional Cash Collateral in an amount sufficient to eliminate such deficiency. All Cash Collateral (other than credit support not constituting funds subject to deposit) shall be maintained in one or more blocked, non-interest bearing deposit accounts at Bank of America. The Borrower shall pay on demand therefor from time to time all customary account opening, activity and other administrative fees and charges in connection with the maintenance and disbursement of Cash Collateral.

(c) Application. Notwithstanding anything to the contrary contained in this Agreement, Cash Collateral provided under any of this Section 2.14 or Sections 2.04, 2.05, 2.06, 2.15 or 8.02 in respect of Letters of Credit or Swing Line Loans shall be held and applied to the satisfaction of the specific L/C Obligations, Swing Line Loans, obligations to fund participations therein (including, as to Cash Collateral provided by a Defaulting Lender, any interest accrued on such obligation) and other obligations for which the Cash Collateral was so provided, prior to any other application of such property as may be provided for herein.

(d) Release. Cash Collateral (or the appropriate portion thereof) provided to reduce Fronting Exposure or to secure other obligations shall be released promptly following (i) the elimination of the applicable Fronting Exposure or other obligations giving rise thereto (including by the termination of Defaulting Lender status of the applicable Lender (or, as appropriate, its assignee following compliance with Section 10.06(b)(vi))) or (ii) the determination by the Administrative Agent and the L/C Issuer that there exists excess Cash Collateral; provided, however, (x) any such release shall be without prejudice to, and any disbursement or other transfer of Cash Collateral shall be and remain subject to, any other Lien conferred under the Loan Documents and the other applicable provisions of the Loan Documents, and (y) the Person providing Cash Collateral and the L/C Issuer may agree that Cash Collateral shall not be released but instead held to support future anticipated Fronting Exposure or other obligations.

2.15 Defaulting Lenders. (a) Adjustments. Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by applicable Law:

(i) Waivers and Amendments. Such Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in Section 10.01 and in the definition of "Required Lenders".

(ii) Defaulting Lender Waterfall. Any payment of principal, interest, fees or other amounts received by the Administrative Agent for the account of such Defaulting Lender (whether voluntary or mandatory, at maturity, pursuant to Article VIII or otherwise) or received by the Administrative Agent from a Defaulting Lender pursuant to Section 10.08 shall be applied at such time or times as may be determined by the Administrative Agent as follows: *first*, to the payment of any amounts owing by such Defaulting Lender to the Administrative Agent hereunder; *second*, to the payment on a pro rata basis of any amounts owing by such Defaulting Lender to the L/C Issuer or Swing Line Lender hereunder; *third*, to Cash Collateralize the L/C Issuer's Fronting Exposure with respect to such Defaulting Lender in accordance with Section 2.14; *fourth*, as the Borrower may request (so long as no Default or Event of Default exists), to the funding of any Loan in respect of which such Defaulting Lender has failed to fund its portion thereof as required by this Agreement, as determined by the Administrative Agent; *fifth*, if so determined by the Administrative Agent and the Borrower, to be held in a deposit account and released pro rata in order to (x) satisfy such Defaulting Lender's potential future funding obligations with respect to Loans under this Agreement and (y) Cash Collateralize the L/C Issuer's future Fronting Exposure with respect to such Defaulting Lender with respect to future Letters of Credit issued under this Agreement, in accordance with Section 2.14; *sixth*, to the payment of any amounts owing to the Lenders, the L/C Issuer or Swing Line Lender as a result of any judgment of a court of competent jurisdiction obtained by any Lender, the L/C Issuer or the Swing Line Lender against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; *seventh*, so long as no Default or Event of Default exists, to the payment of any amounts owing to the Borrower as a result of any judgment of a court of competent jurisdiction obtained by the Borrower against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; and *eighth*, to such Defaulting Lender or as otherwise directed by a court of competent jurisdiction; provided that if (x) such payment is a payment of the principal amount of any Loans or L/C Borrowings in respect of which such Defaulting Lender has not fully funded its appropriate share, and (y) such Loans were made or the related Letters of Credit were issued at a time when the conditions set forth in Section 4.02 were satisfied or waived, such payment shall be applied solely to pay the Loans of, and L/C Obligations owed to, all Non-Defaulting Lenders on a pro rata basis prior to being applied to the payment of any Loans of, or L/C Obligations owed to, such Defaulting Lender until such time as all Loans and funded and unfunded participations in L/C Obligations and Swing Line Loans are held by the Lenders pro rata in accordance with the Commitments hereunder without giving effect to Section 2.15(a)(iv). Any payments, prepayments or other amounts paid or payable to a Defaulting Lender that are applied (or held) to pay amounts owed by a Defaulting Lender or to post Cash Collateral pursuant to this Section 2.15(a)(ii) shall be deemed paid to and redirected by such Defaulting Lender, and each Lender irrevocably consents hereto.

(iii) Certain Fees.

(A) No Defaulting Lender shall be entitled to receive any fee payable under Section 2.09(a) for any period during which that Lender is a Defaulting Lender (and the Borrower shall not be required to pay any such fee that otherwise would have been required to have been paid to that Defaulting Lender).



(B) Each Defaulting Lender shall be entitled to receive Letter of Credit Fees for any period during which that Lender is a Defaulting Lender only to the extent allocable to its Applicable Percentage of the stated amount of Letters of Credit for which it has provided Cash Collateral pursuant to Section 2.14.

(C) With respect to any fee payable under Section 2.09(a) or any Letter of Credit Fee not required to be paid to any Defaulting Lender pursuant to clause (A) or (B) above, the Borrower shall (x) pay to each Non-Defaulting Lender that portion of any such fee otherwise payable to such Defaulting Lender with respect to such Defaulting Lender's participation in L/C Obligations or Swing Line Loans that has been reallocated to such Non-Defaulting Lender pursuant to clause (iv) below, (y) pay to the L/C Issuer and Swing Line Lender, as applicable, the amount of any such fee otherwise payable to such Defaulting Lender to the extent allocable to such L/C Issuer's or Swing Line Lender's Fronting Exposure to such Defaulting Lender, and (z) not be required to pay the remaining amount of any such fee.

(iv) Reallocation of Applicable Percentages to Reduce Fronting Exposure. All or any part of such Defaulting Lender's participation in L/C Obligations and Swing Line Loans shall be reallocated among the Non-Defaulting Lenders in accordance with their respective Applicable Percentages (calculated without regard to such Defaulting Lender's Commitment) but only to the extent that such reallocation does not cause the aggregate Revolving Credit Exposure of any Non-Defaulting Lender to exceed such Non-Defaulting Lender's Commitment. Subject to Section 10.19, no reallocation hereunder shall constitute a waiver or release of any claim of any party hereunder against a Defaulting Lender arising from that Lender having become a Defaulting Lender, including any claim of a Non-Defaulting Lender as a result of such Non-Defaulting Lender's increased exposure following such reallocation.

(v) Cash Collateral, Repayment of Swing Line Loans. If the reallocation described in clause (a)(iv) above cannot, or can only partially, be effected, the Borrower shall, without prejudice to any right or remedy available to it hereunder or under applicable Law, (x) first, prepay Swing Line Loans in an amount equal to the Swing Line Lenders' Fronting Exposure and (y) second, Cash Collateralize the L/C Issuers' Fronting Exposure in accordance with the procedures set forth in Section 2.14.

(b) Defaulting Lender Cure. If the Borrower, the Administrative Agent, Swing Line Lender and the L/C Issuer agree in writing that a Lender is no longer a Defaulting Lender, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any Cash Collateral), that Lender will, to the extent applicable, purchase at par that portion of outstanding Loans of the other Lenders or take such other actions as the Administrative Agent may determine to be necessary to cause the Revolving Credit Loans and funded and unfunded participations in Letters of Credit and Swing Line Loans to be held on a pro rata basis by the Lenders in accordance with their Applicable Percentages (without giving effect to Section 2.15(a)(iv)), whereupon such Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrower while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender's having been a Defaulting Lender.

ARTICLE III  
TAXES, YIELD PROTECTION AND ILLEGALITY

3.01 Taxes. (a) Payments Free of Taxes; Obligation to Withhold; Payments on Account of Taxes.

(i) Any and all payments by or on account of any obligation of any Loan Party under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable Laws.

(ii) If any applicable withholding agent shall be required by any applicable Laws to withhold or deduct any Taxes from any such payment, then (A) the applicable withholding agent, as required by such Laws, shall withhold or make such deductions as are determined by it to be required, (B) such withholding agent, to the extent required by such Laws, shall timely pay the full amount withheld or deducted to the relevant Governmental Authority in accordance with such Laws, and (C) to the extent that the withholding or deduction is made on account of Indemnified Taxes, the sum payable by the applicable Loan Party shall be increased as necessary so that after any required withholding or the making of all required deductions (including deductions applicable to additional sums payable under this Section 3.01) the applicable Lender (or, in the case of a payment received by the Administrative Agent for its own account, the Administrative Agent) receives an amount equal to the sum it would have received had no such withholding or deduction been made.

(b) Payment of Other Taxes by the Borrower. Without limiting the provisions of subsection (a) above, the Borrower shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Administrative Agent timely reimburse it for the payment of, any Other Taxes.

(c) Tax Indemnifications. The Borrower shall, and does hereby, indemnify each Recipient, and shall make payment in respect thereof within 10 days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 3.01) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to the Borrower by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(d) Evidence of Payments. As soon as practicable after any payment of Taxes by any Loan Party or by the Administrative Agent to a Governmental Authority as provided in this Section 3.01, such Loan Party shall deliver to the Administrative Agent, or the Administrative Agent shall deliver to the Borrower, as the case may be, the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of any return required by Laws to report such payment or other evidence of such payment reasonably satisfactory to the Borrower or the Administrative Agent, as the case may be.

(e) Status of Lenders: Tax Documentation.

(i) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Loan Document shall deliver to the Borrower and the Administrative Agent, at the time or times reasonably requested by the Borrower or the

Administrative Agent, such properly completed and executed documentation reasonably requested by the Borrower or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Borrower or the Administrative Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Borrower or the Administrative Agent as will enable the Borrower or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Section 3.01(e)(ii)(A), (ii)(B) and (ii)(D) below) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing,

(A) any Lender that is a U.S. Person shall deliver to the Borrower and the Administrative Agent, on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), two executed copies of IRS Form W-9 certifying that such Lender is exempt from U.S. federal backup withholding tax;

(B) any Foreign Lender shall deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), whichever of the following is applicable:

(1) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party, two executed copies of IRS Form W-8BEN-E (or W-8BEN, as applicable) establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to such tax treaty;

(2) two executed copies of IRS Form W-8ECI; .

(3) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit H-1 to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10 percent shareholder" of the Borrower within the meaning of Section 881(c)(3)(B) of the Code, or a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code (a "U.S. Tax Compliance Certificate") and (y) two executed copies of IRS Form W-8BEN-E (or W-8BEN, as applicable); or

(4) to the extent a Foreign Lender is not the beneficial owner, two executed copies of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN-E (or W-8BEN, as applicable), a U.S. Tax Compliance Certificate substantially in the form of Exhibit H-2 or Exhibit H-3, IRS Form W9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio

interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit H-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed copies of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit the Borrower or the Administrative Agent to determine the withholding or deduction required to be made; and

(D) if a payment made to a Lender under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Borrower and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Borrower or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower or the Administrative Agent as may be necessary for the Borrower and the Administrative Agent to comply with their obligations under FATCA to determine whether such Lender has complied with such Lender's obligations under FATCA or to determine the amount, if any, to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

(iii) On or prior to the date the Administrative Agent becomes a party to this Agreement, the Administrative Agent shall, in the event that the Administrative Agent is a U.S. Person, deliver an IRS Form W-9 to the Borrower, and in the event the Administrative Agent is not a U.S. Person, deliver (a) with respect to amounts payable by the Administrative Agent for its own account, an IRS Form W-8ECI, (b) with respect to amounts payable to the Administrative Agent on behalf of a Lender, an IRS Form W-8IMY certifying that the Administrative Agent agrees to be treated as a "U.S. person" for purposes of U.S. federal withholding taxes and (c) if a payment made to the Administrative Agent under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if the Administrative Agent were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), the Administrative Agent shall deliver to the Borrower such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower as may be necessary for the Borrower to comply with its obligations under FATCA, to determine whether the Administrative Agent has complied with the Administrative Agent's obligations under FATCA or to determine the amount, if any, to deduct and withhold from such payment (solely for purposes of this clause (iii) "FATCA" shall include any amendments made to FATCA after the date of this Agreement); provided that no Administrative Agent shall be required to provide any documentation pursuant to this clause (iii) that such Administrative Agent is not legally eligible to deliver as a result of a Change in Law after the date hereof.

(iv) The Administrative Agent and each Lender agrees that if any form or certification it previously delivered pursuant to this Section 3.01 expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Borrower and the Administrative Agent, if applicable, in writing of its legal ineligibility to do so.

(v) Notwithstanding anything to the contrary in this Section 3.01(e), no Lender shall be required to deliver any documentation that it is not legally eligible to deliver.

(vi) Each Lender hereby authorizes the Administrative Agent to deliver to the Loan Parties and to any successor Administrative Agent any documentation provided by such Lender to the Administrative Agent pursuant to this Section 3.01(e).

(f) Treatment of Certain Refunds. Unless required by applicable Laws, at no time shall the Administrative Agent have any obligation to file for or otherwise pursue on behalf of a Lender or the L/C Issuer, or have any obligation to pay to any Lender or the L/C Issuer, any refund of Taxes withheld or deducted from funds paid for the account of such Lender or the L/C Issuer, as the case may be. If any Recipient determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified by the Borrower or with respect to which the Borrower has paid additional amounts pursuant to this Section 3.01, it shall pay to the Borrower an amount equal to such refund (but only to the extent of indemnity payments made, or additional amounts paid, by the Borrower under this Section 3.01 with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) incurred by such Recipient, and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund), provided that the Borrower, upon the request of the Recipient, agrees to repay the amount paid over to the Borrower (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) to the Recipient in the event the Recipient is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this subsection, in no event will the applicable Recipient be required to pay any amount to the Borrower pursuant to this subsection the payment of which would place the Recipient in a less favorable net after-Tax position than such Recipient would have been in if Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This subsection shall not be construed to require any Recipient to make available its tax returns (or any other information relating to its Taxes that it deems confidential) to the Borrower or any other Person.

(g) Survival. Each party's obligations under this Section 3.01 shall survive the resignation or replacement of the Administrative Agent or any assignment of rights by, or the replacement of, a Lender or the L/C Issuer, the termination of the Commitments and the repayment, satisfaction or discharge of all other Obligations.

(h) For the avoidance of doubt, for purposes of this Section 3.01, the term "Lender" includes any L/C Issuer and any Swing Line Lender.

3.02 Illegality. If any Lender determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable Lending Office to perform any of its obligations hereunder or make, maintain or fund or charge interest with respect to any Credit Extension or to determine or charge interest rates based upon the Eurodollar Rate, or any Governmental Authority has imposed material restrictions on the authority of such Lender to purchase or sell, or to take deposits of, Dollars in the London interbank market, then, on notice thereof by such Lender to the Borrower through the Administrative Agent, (i) any obligation of such Lender to issue, make, maintain, fund or charge interest with respect to any such Credit Extension or continue Eurodollar Rate Loans or to convert Base Rate Loans to Eurodollar Rate Loans shall be suspended, and (ii) if such notice

asserts the illegality of such Lender making or maintaining Base Rate Loans the interest rate on which is determined by reference to the Eurodollar Rate component of the Base Rate, the interest rate on which Base Rate Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Eurodollar Rate component of the Base Rate, in each case until such Lender notifies the Administrative Agent and the Borrower that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, (x) the Borrower shall, upon demand from such Lender (with a copy to the Administrative Agent), prepay or, if applicable, convert all Eurodollar Rate Loans of such Lender to Base Rate Loans (the interest rate on which Base Rate Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Eurodollar Rate component of the Base Rate), either on the last day of the Interest Period therefor, if such Lender may lawfully continue to maintain such Eurodollar Rate Loans to such day, or immediately, if such Lender may not lawfully continue to maintain such Eurodollar Rate Loans and (y) if such notice asserts the illegality of such Lender determining or charging interest rates based upon the Eurodollar Rate, the Administrative Agent shall during the period of such suspension compute the Base Rate applicable to such Lender without reference to the Eurodollar Rate component thereof until the Administrative Agent is advised in writing by such Lender that it is no longer illegal for such Lender to determine or charge interest rates based upon the Eurodollar Rate. Upon any such prepayment or conversion, the Borrower shall also pay accrued interest on the amount so prepaid or converted.

3.03 Inability to Determine Rates. If in connection with any request for a Eurodollar Rate Loan or a conversion to or continuation thereof, (a) the Administrative Agent determines that (i) Dollar deposits are not being offered to banks in the interbank Eurodollar market for the applicable amount and Interest Period of such Eurodollar Rate Loan, or (ii) adequate and reasonable means do not exist for determining the Eurodollar Rate for any requested Interest Period with respect to a proposed Eurodollar Rate Loan or in connection with an existing or proposed Base Rate Loan (in each case with respect to clause (a)(i) above, “Impacted Loans”), or (b) the Administrative Agent or affected Lenders determine that for any reason the Eurodollar Rate for any requested Interest Period with respect to a proposed Eurodollar Rate Loan does not adequately and fairly reflect the cost to such Lenders of funding such Eurodollar Rate Loan, the Administrative Agent will promptly so notify the Borrower and each Lender. Thereafter, (x) the obligation of the Lenders to make or maintain Eurodollar Rate Loans shall be suspended (to the extent of the affected Eurodollar Rate Loans or Interest Periods) and (y) in the event of a determination described in the preceding sentence with respect to the Eurodollar Rate component of the Base Rate, the utilization of the Eurodollar Rate component in determining the Base Rate shall be suspended, in each case until the Administrative Agent upon the instruction of the affected Lenders revokes such notice. Upon receipt of such notice, the Borrower may revoke any pending request for a Borrowing of, conversion to or continuation of Eurodollar Rate Loans (to the extent of the affected Eurodollar Rate Loans or Interest Periods) or, failing that, will be deemed to have converted such request into a request for a Revolving Credit Borrowing of Base Rate Loans in the amount specified therein.

Notwithstanding the foregoing, if the Administrative Agent has made the determination described in clause (a)(i) of this section, the Administrative Agent, in consultation with the Borrower and the affected Lenders, may establish an alternative interest rate for the Impacted Loans, in which case, such alternative rate of interest shall apply with respect to the Impacted Loans until (1) the Administrative Agent revokes the notice delivered with respect to the Impacted Loans under clause (a) of the first sentence of this section, (2) the Administrative Agent or the affected Lenders notify the Administrative Agent and the Borrower that such alternative interest rate does not adequately and fairly reflect the cost to such Lenders of funding the Impacted Loans, or (3) any Lender determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for such Lender or its applicable Lending Office to make, maintain or fund Loans whose interest is determined by reference to such alternative rate of interest or to determine or charge interest rates based upon such rate or any

Governmental Authority has imposed material restrictions on the authority of such Lender to do any of the foregoing and provides the Administrative Agent and the Borrower written notice thereof.

3.04 Increased Costs: Reserves on Eurodollar Rate Loans. (a) Increased Costs Generally. If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Lender (except any reserve requirement contemplated by Section 3.04(e)) or the L/C Issuer;

(ii) subject any Recipient to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of "Excluded Taxes" and (C) Connection Income Taxes) with respect to its loans, letters of credit, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto; or

(iii) impose on any Lender or the L/C Issuer or the London interbank market any other condition, cost or expense affecting this Agreement or Eurodollar Rate Loans made by such Lender or any Letter of Credit or participation therein;

and the result of any of the foregoing shall be to increase the cost to such Lender of making, converting to, continuing or maintaining any Loan (or, in the case of clause (ii) above, any Loan), or of maintaining its obligation to make any such Loan, or to increase the cost to such Lender or the L/C Issuer of participating in, issuing or maintaining any Letter of Credit (or of maintaining its obligation to participate in or to issue any Letter of Credit), or to reduce the amount of any sum received or receivable by such Lender or the L/C Issuer hereunder (whether of principal, interest or any other amount) then, upon request of such Lender or the L/C Issuer, the Borrower will pay to such Lender or the L/C Issuer, as the case may be, such additional amount or amounts as will compensate such Lender or the L/C Issuer, as the case may be, for such additional costs incurred or reduction suffered.

(b) Capital Requirements. If any Lender or the L/C Issuer determines that any Change in Law affecting such Lender or the L/C Issuer or any Lending Office of such Lender or such Lender's or the L/C Issuer's holding company, if any, regarding capital or liquidity requirements has or would have the effect of reducing the rate of return on such Lender's or the L/C Issuer's capital or on the capital of such Lender's or the L/C Issuer's holding company, if any, as a consequence of this Agreement, the Commitments of such Lender or the Loans made by, or participations in Letters of Credit or Swing Line Loans held by, such Lender, or the Letters of Credit issued by the L/C Issuer, to a level below that which such Lender or the L/C Issuer or such Lender's or the L/C Issuer's holding company could have achieved but for such Change in Law (taking into consideration such Lender's or the L/C Issuer's policies and the policies of such Lender's or the L/C Issuer's holding company with respect to capital adequacy), then from time to time the Borrower will pay to such Lender or the L/C Issuer, as the case may be, such additional amount or amounts as will compensate such Lender or the L/C Issuer or such Lender's or the L/C Issuer's holding company for any such reduction suffered.

(c) Certificates for Reimbursement. A certificate of a Lender or the L/C Issuer setting forth the amount or amounts necessary to compensate such Lender or the L/C Issuer or its holding company, as the case may be, as specified in subsection (a) or (b) of this Section and delivered to the Borrower shall be conclusive absent manifest error. The Borrower shall pay such Lender or the L/C Issuer, as the case may be, the amount shown as due on any such certificate within 10 days after receipt thereof.

(d) Delay in Requests. Failure or delay on the part of any Lender or the L/C Issuer to demand compensation pursuant to the foregoing provisions of this Section 3.04 shall not constitute a waiver of such Lender's or the L/C Issuer's right to demand such compensation, provided that the Borrower shall not be required to compensate a Lender or the L/C Issuer pursuant to the foregoing provisions of this Section for any increased costs incurred or reductions suffered more than nine months prior to the date that such Lender or the L/C Issuer, as the case may be, notifies the Borrower of the Change in Law giving rise to such increased costs or reductions and of such Lender's or the L/C Issuer's intention to claim compensation therefor (except that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the nine-month period referred to above shall be extended to include the period of retroactive effect thereof).

(e) Reserves on Eurodollar Rate Loans. The Borrower shall pay to each Lender, as long as such Lender shall be required to maintain reserves with respect to liabilities or assets consisting of or including Eurocurrency funds or deposits (currently known as "Eurocurrency liabilities"), additional interest on the unpaid principal amount of each Eurodollar Rate Loan equal to the actual costs of such reserves allocated to such Loan by such Lender (as determined by such Lender in good faith, which determination shall be conclusive), which shall be due and payable on each date on which interest is payable on such Loan, provided the Borrower shall have received at least 10 days' prior notice (with a copy to the Administrative Agent) of such additional interest from such Lender. If a Lender fails to give notice 10 days prior to the relevant Interest Payment Date, such additional interest shall be due and payable 10 days from receipt of such notice.

3.05 Compensation for Losses. Upon demand of any Lender (with a copy to the Administrative Agent) from time to time, the Borrower shall promptly compensate such Lender for and hold such Lender harmless from any loss, cost or expense incurred by it as a result of:

(a) any continuation, conversion, payment or prepayment of any Loan other than a Base Rate Loan on a day other than the last day of the Interest Period for such Loan (whether voluntary, mandatory, automatic, by reason of acceleration, or otherwise);

(b) any failure by the Borrower (for a reason other than the failure of such Lender to make a Loan) to prepay, borrow, continue or convert any Loan other than a Base Rate Loan on the date or in the amount notified by the Borrower; or

(c) any assignment of a Eurodollar Rate Loan on a day other than the last day of the Interest Period therefor as a result of a request by the Borrower pursuant to Section 10.13;

including any loss of anticipated profits and any loss or expense arising from the liquidation or reemployment of funds obtained by it to maintain such Loan or from fees payable to terminate the deposits from which such funds were obtained. The Borrower shall also pay any customary administrative fees charged by such Lender in connection with the foregoing.

For purposes of calculating amounts payable by the Borrower to the Lenders under this Section 3.05, each Lender shall be deemed to have funded each Eurodollar Rate Loan made by it at the Eurodollar Rate for such Loan by a matching deposit or other borrowing in the London interbank eurodollar market for a comparable amount and for a comparable period, whether or not such Eurodollar Rate Loan was in fact so funded.

3.06 Mitigation Obligations; Replacement of Lenders. (a) Designation of a Different Lending Office. Each Lender may make any Credit Extension to the Borrower through any Lending Office, provided that the exercise of this option shall not affect the obligation of the Borrower to repay the Credit



Extension in accordance with the terms of this Agreement. If any Lender requests compensation under Section 3.04, or requires the Borrower to pay any Indemnified Taxes or additional amounts to any Lender, the L/C Issuer, or any Governmental Authority for the account of any Lender or the L/C Issuer pursuant to Section 3.01, or if any Lender gives a notice pursuant to Section 3.02, then at the request of the Borrower such Lender or the L/C Issuer shall, as applicable, use reasonable efforts to designate a different Lending Office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender or the L/C Issuer, such designation or assignment (i) would eliminate or reduce amounts payable pursuant to Section 3.01 or 3.04, as the case may be, in the future, or eliminate the need for the notice pursuant to Section 3.02, as applicable, and (ii) in each case, would not subject such Lender or the L/C Issuer, as the case may be, to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender or the L/C Issuer, as the case may be. The Borrower hereby agrees to pay all reasonable costs and expenses incurred by any Lender or the L/C Issuer in connection with any such designation or assignment.

(b) Replacement of Lenders. If any Lender requests compensation under Section 3.04, or if the Borrower is required to pay any Indemnified Taxes or additional amounts to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 3.01, and in each case, such Lender has declined or is unable to designate a different lending office in accordance with Section 3.06(a), the Borrower may replace such Lender in accordance with Section 10.13.

3.07 Survival. All of the Borrower's obligations under this Article III shall survive termination of the Aggregate Commitments, repayment of all other Obligations hereunder, and resignation of the Administrative Agent.

#### ARTICLE IV CONDITIONS PRECEDENT TO EFFECTIVENESS AND CREDIT EXTENSIONS

4.01 Conditions to Effectiveness. The effectiveness of this Agreement and the obligations of the L/C Issuer and each Lender hereunder are subject to satisfaction of the following conditions precedent:

(a) The Administrative Agent's receipt of the following, each of which shall be originals or telecopies (followed promptly by originals) unless otherwise specified, each properly executed by a Responsible Officer of the signing Loan Party, each dated the Closing Date (or, in the case of certificates of governmental officials, a recent date before the Closing Date) and each in form and substance satisfactory to the Administrative Agent and each of the Lenders:

(i) executed counterparts of this Agreement and the Guaranty, sufficient in number for distribution to the Administrative Agent, each Lender and the Borrower;

(ii) a Note executed by the Borrower in favor of each Lender requesting a Note;

(iii) such certificates of resolutions or other action, incumbency certificates and/or other certificates of Responsible Officers of each Loan Party as the Administrative Agent may require evidencing the identity, authority and capacity of each Responsible Officer thereof authorized to act as a Responsible Officer in connection with this Agreement and the other Loan Documents to which such Loan Party is a party or is to be a party;

(iv) such documents and certifications as the Administrative Agent may reasonably require to evidence that each Loan Party is duly organized or formed, and that each Loan Party is validly existing and in good standing in their respective jurisdictions of organization;

(v) a favorable opinion of Cooley LLP, counsel to the Borrower, addressed to the Administrative Agent and each Lender, in form and substance reasonably acceptable to the Administrative Agent;

(vi) [Reserved];

(vii) a certificate signed by a Responsible Officer of the Borrower certifying (A) that the conditions specified in Sections 4.02(a) and (b) have been satisfied and (B) that there has been no event or circumstance since the date of the Audited Financial Statements that has had or could be reasonably expected to have, either individually or in the aggregate, a Material Adverse Effect;

(viii) a certificate attesting to the Solvency of the Borrower and its Subsidiaries on a consolidated basis after giving effect to the Transaction, from its chief financial officer, substantially in the form of Exhibit J;

(ix) [Reserved];

(x) such other assurances, certificates, documents, consents or opinions as the Administrative Agent, the L/C Issuer, the Swing Line Lender or any Lender reasonably may require.

(b) (i) All fees required to be paid to the Administrative Agent on or before the Closing Date shall have been paid and (ii) all fees required to be paid to the Lenders on or before the Closing Date shall have been paid.

(c) Unless waived by the Administrative Agent, the Borrower shall have paid all fees, charges and disbursements of counsel to the Administrative Agent (directly to such counsel if requested by the Administrative Agent) to the extent invoiced prior to or on the Closing Date, plus such additional amounts of such fees, charges and disbursements as shall constitute its reasonable estimate of such fees, charges and disbursements incurred or to be incurred by it through the closing proceedings (provided that such estimate shall not thereafter preclude a final settling of accounts between the Borrower and the Administrative Agent).

(d) The Borrower and each of the Guarantors shall have provided to the Administrative Agent and the Lenders the documentation and other information requested by the Administrative Agent in order to comply with requirements of the Act and any applicable "know your customer" rules and regulations at least 3 Business Days prior to the Closing Date to the extent requested in writing at least 10 days prior to the Closing Date.

(e) Since the date of the balance sheet included in the Audited Financial Statements, there shall have not been any event or circumstance, either individually or in the aggregate, that has had or could reasonably be expected to have a Material Adverse Effect. Without limiting the generality of the provisions of the last paragraph of Section 9.03, for purposes of determining compliance with the conditions specified in this Section 4.01, each Lender that has signed this Agreement shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received notice from such Lender prior to the proposed Closing Date specifying its objection thereto.

4.02 Conditions to All Credit Extensions. The obligations of the L/C Issuer and each Lender to honor any Request for Credit Extension (other than a Committed Loan Notice requesting only a

conversion of Loans to the other Type, or a continuation of Eurodollar Rate Loans) are subject to the following conditions precedent:

(a) The representations and warranties of the Borrower and each other Loan Party contained in Article V or any other Loan Document, or which are contained in any document furnished at any time under or in connection herewith or therewith, shall be true and correct in all material respects, except for any representation and warranty that is qualified by materiality or reference to Material Adverse Effect, which such representation and warranty shall be true and correct in all respects, on and as of the date of such Credit Extension, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct in all material respects as of such earlier date except for any representation and warranty that is qualified by materiality or reference to Material Adverse Effect, which such representation and warranty shall be true and correct in all respects as of such earlier date, and except that for purposes of this Section 4.02, the representations and warranties contained in Sections 5.05(a) and (b) shall be deemed to refer to the most recent statements furnished pursuant to Sections 6.01(a) and (b), respectively.

(b) No Default or Event of Default shall exist, or would result from such proposed Credit Extension or from the application of the proceeds thereof.

(c) The Administrative Agent and, if applicable, the L/C Issuer or the Swing Line Lender shall have received a Request for Credit Extension in accordance with the requirements hereof.

(d) The Maximum Borrowing Amount is not less than the Outstanding Amount of the Revolving Credit Loans, Swing Line Loans and L/C Obligations at such time, after giving effect to such Credit Extension.

(e) In the case of the initial Credit Extension only, the Administrative Agent shall have received a Borrowing Base Certificate duly certified by the chief executive officer, chief financial officer, treasurer or controller of the Borrower relating to such initial Credit Extension.

(f) In the case of the initial Credit Extension only, the Administrative Agent shall have received evidence of the creation of the Custody Account, established in a manner satisfactory to the Administrative Agent.

Each Request for Credit Extension (other than a Committed Loan Notice requesting only a conversion of Loans to the other Type or a continuation of Eurodollar Rate Loans) submitted by the Borrower shall be deemed to be a representation and warranty that the conditions specified in Sections 4.02(a) and (b) have been satisfied on and as of the date of the applicable Credit Extension.

#### ARTICLE V REPRESENTATIONS AND WARRANTIES

The Borrower represents and warrants to the Administrative Agent and the Lenders that:

5.01 Existence, Qualification and Power. Each Loan Party and each of its Subsidiaries (a) is duly organized or formed, validly existing and, as applicable, in good standing under the Laws of the jurisdiction of its incorporation or organization, (b) has all requisite power and authority and all requisite governmental licenses, authorizations, consents and approvals to (i) own or lease its assets and carry on its business and (ii) execute, deliver and perform its obligations under the Loan Documents to which it is a party and consummate the Transaction, and (c) is duly qualified and is licensed and, as applicable, in good standing under the Laws of each jurisdiction where its ownership, lease or operation of properties or

the conduct of its business requires such qualification or license; except in each case referred to in clause (b)(i) or (c), to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect.

5.02 Authorization; No Contravention. The execution, delivery and performance by each Loan Party of each Loan Document to which such Person is or is to be a party have been duly authorized by all necessary corporate or other organizational action, and do not and will not (a) contravene the terms of any of such Person's Organization Documents; (b) conflict with or result in any breach or contravention of, or the creation of any Lien under, or require any payment to be made under (i) any Contractual Obligation to which such Person is a party or affecting such Person or the properties of such Person or any of its Subsidiaries or (ii) any order, injunction, writ or decree of any Governmental Authority or any arbitral award to which such Person or its property is subject; or (c) violate any Law, except in each case referred to in the foregoing clauses (b) and (c), to the extent that such conflict, breach, contravention or violation could not reasonably be expected to have a Material Adverse Effect.

5.03 Governmental Authorization; Other Consents. No approval, consent, exemption, authorization, or other action by, or notice to, or filing with, any Governmental Authority or any other Person is necessary or required in connection with (a) the execution, delivery or performance by, or enforcement against, any Loan Party of this Agreement or any other Loan Document, or for the consummation of the Transaction, (b) upon the occurrence of a Collateral Trigger Event, the grant by any Loan Party of the Liens granted by it pursuant to the Collateral Documents, (c) upon the occurrence of a Collateral Trigger Event, the perfection or maintenance of the Liens created under the Collateral Documents (including the first priority nature thereof) or (d) the exercise by the Administrative Agent or any Lender of (i) its rights under the Loan Documents or (ii) after the occurrence of a Collateral Trigger Event, the remedies in respect of the Collateral pursuant to the Collateral Documents, except for (1) the authorizations, approvals, actions, notices and filings that (A) in the case of clauses (b), (c) and (d)(ii), are part of the Collateral Security Deadline Requirements or (B) have been duly obtained, taken, given or made and are in full force effect, or (2) other approvals, consents, exemptions, authorizations, actions, notices or filing where the failure to obtain the same could not individually or aggregately, reasonably be expected to have a Material Adverse Effect.

5.04 Binding Effect. This Agreement has been, and each other Loan Document, when delivered hereunder, will have been, duly executed and delivered by each Loan Party that is party thereto. This Agreement constitutes, and each other Loan Document when so delivered will constitute, a legal, valid and binding obligation of such Loan Party, enforceable against each Loan Party that is party thereto in accordance with its terms, except as enforceability may be limited by applicable Debtor Relief Laws and by equitable principles regardless of whether considered in a proceeding in equity or at law.

5.05 Financial Statements; No Material Adverse Effect. (a) The Audited Financial Statements (i) were prepared in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein; (ii) fairly present in all material respects the financial condition of the Borrower and its Subsidiaries as of the date thereof and their results of operations, cash flows and changes in shareholders' equity for the period covered thereby in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein; and (iii) show all material indebtedness and other liabilities, direct or contingent, of the Borrower and its Subsidiaries as of the date thereof, including liabilities for Taxes, material commitments and Indebtedness.

(b) The unaudited consolidated balance sheet of the Borrower and its Subsidiaries dated June 30, 2016, and the related consolidated statements of operations, comprehensive income (or loss), stockholders' equity and cash flows for the six month period ended on that date (i) were prepared in

accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein, and (ii) fairly present in all material respects the financial condition of the Borrower and its Subsidiaries as of the date thereof and their results of operations, cash flows and changes in shareholders' equity for the period covered thereby, subject, in the case of clauses (i) and (ii), to normal year-end audit adjustments.

(c) Since the date of the balance sheet included in the Audited Financial Statements, except as disclosed in Borrower's public filings with the SEC made prior to the Closing Date, there has been no event or circumstance, either individually or in the aggregate, that has had or could reasonably be expected to have a Material Adverse Effect.

(d) The consolidated forecasted balance sheet, statements of income and cash flows of the Borrower and its Restricted Subsidiaries delivered pursuant to Section 4.01 or Section 6.01(d) were prepared in good faith on the basis of the assumptions stated therein, which assumptions were reasonable in light of the conditions existing at the time of delivery of such forecasts, and represented, at the time of delivery, the Borrower's best estimate of its future financial condition and performance.

5.06 Litigation. There are no actions, suits, proceedings, claims or disputes pending or, to the knowledge of the Borrower, threatened in writing, at law, in equity, in arbitration or before any Governmental Authority, by or against the Borrower or any of its Subsidiaries or against any of their properties or revenues, other than those specifically disclosed in Schedule 5.06, that (a) purport to affect or pertain to this Agreement, any other Loan Document or the consummation of the Transaction, or (b) either individually or in the aggregate, that could reasonably be expected to have a Material Adverse Effect.

5.07 No Default. Neither any Loan Party nor any Subsidiary thereof is in default under or with respect to, or a party to, any Contractual Obligation that could, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. No Default has occurred and is continuing or would result from the consummation of the transactions contemplated by this Agreement or any other Loan Document.

5.08 Ownership of Property; Liens; Investments. (a) Each Loan Party and each of its Subsidiaries has good record and marketable title in fee simple to, or valid leasehold interests in, all real and personal property necessary or used in the ordinary conduct of its business, except for such defects in title as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(a) The property of each Loan Party and each of its Restricted Subsidiaries is subject to no Liens, other than Liens permitted by Section 7.01.

5.09 Environmental Compliance. (a) The Loan Parties and their respective Subsidiaries conduct in the ordinary course of business a review of the effect of existing Environmental Laws and claims alleging potential liability or responsibility for violation of any Environmental Law on their respective businesses, operations and properties, and as a result thereof the Borrower has reasonably concluded that such Environmental Laws and claims could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect,

(b) none of the properties currently or formerly owned or operated by any Loan Party or any of its Subsidiaries is listed or formally proposed for listing on the NPL or on the CERCLIS or any analogous foreign, state or local list or is adjacent to any such property; there are no and to the knowledge of the Loan Parties and their Subsidiaries never have been any underground or above-ground storage

tanks or any surface impoundments, septic tanks, pits, sumps or lagoons in which Hazardous Materials are being or have been treated, stored or disposed on any property currently owned or operated by any Loan Party or any of its Subsidiaries or, to the best of the knowledge of the Loan Parties, on any property formerly owned or operated by any Loan Party or any of its Restricted Subsidiaries, in each case except in compliance with all applicable Environmental laws; there is no asbestos or asbestos-containing material on, at or in any property currently owned or operated by any Loan Party or any of its Restricted Subsidiaries, in each case except in compliance with all applicable Environmental laws; and there has been no Release of Hazardous Materials on, at, under or from any property currently or formerly owned or operated by any Loan Party or any of its Subsidiaries in a manner, form or amount which could reasonably be expected to result in liability of any Loan Party or any Subsidiary,

(c) neither any Loan Party nor any of its Subsidiaries is undertaking, and has not completed, either individually or together with other potentially responsible parties, any investigation or assessment or remedial or response action relating to any actual or threatened Release of Hazardous Materials at, on, under, or from any site, location or operation, either voluntarily or pursuant to the order of any Governmental Authority or the requirements of any Environmental Law; and all Hazardous Materials generated, used, treated, handled or stored at, or transported to or from, any property currently or formerly owned or operated by any Loan Party or any of its Subsidiaries have been disposed of in a manner which could not reasonably be expected to result in liability to any Loan Party or any of its Subsidiaries, and

(d) the Loan Parties and their respective Subsidiaries: (i) are, and within the period of all applicable statutes of limitation have been, in compliance with all applicable Environmental Laws; (ii) hold all Environmental Permits (each of which is in full force and effect) required for any of their current or intended operations or for any property owned, leased, or otherwise operated by any of them; (iii) are, and within the period of all applicable statutes of limitation have been, in compliance with all of their Environmental Permits; and (iv) to the extent within the control of the Loan Parties and their respective Subsidiaries, each of their Environmental Permits will be timely renewed and complied with, any additional Environmental permits that may be required of any of them will be timely obtained and complied with, without material expense, and compliance with any Environmental Law that is or is expected to become applicable to any of them will be timely attained and maintained, without material expense,

except in each case referred to in the foregoing clauses (b) through (d), to the extent that such action, investigation, violation or conduct could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

5.10 Insurance. The properties of the Borrower and its Subsidiaries are insured with financially sound and reputable insurance companies not Affiliates of the Borrower, in such amounts, with such deductibles and covering such risks as are customarily carried by companies engaged in similar businesses and owning similar properties in localities where the Borrower or the applicable Subsidiary operates.

5.11 Taxes. The Borrower and each of its Subsidiaries have filed all material federal, state and other tax returns and reports required to be filed, and have paid all material federal, state and other Taxes (whether or not shown on a tax return), including in its capacity as a withholding agent, levied or imposed upon it or its properties, income or assets otherwise due and payable, except those which are being contested in good faith by appropriate proceedings diligently conducted and for which adequate reserves have been provided in accordance with GAAP. To the knowledge of the Borrower, except as set forth in the Disclosure Letter, there is no proposed material tax assessment or other tax claim against, and no material tax audit with respect to, the Borrower or any Subsidiary. Neither any Loan Party nor any

Subsidiary thereof is party to any tax sharing agreement other than an agreement (such as a lease) the principal purpose of which is not the sharing of Tax.

5.12 ERISA Compliance. (a) Each Plan is in compliance in all material respects with the applicable provisions of ERISA, the Code and other Federal or state laws. Each Pension Plan that is intended to be a qualified plan under Section 401(a) of the Code has received a favorable determination letter from the Internal Revenue Service to the effect that the form of such Plan is qualified under Section 401(a) of the Code and the trust related thereto has been determined by the Internal Revenue Service to be exempt from federal income tax under Section 501(a) of the Code, or an application for such a letter is currently being processed by the Internal Revenue Service. To the knowledge of the Borrower, nothing has occurred that would prevent or cause the loss of such tax-qualified status.

(b) There are no pending or, to the knowledge of the Borrower, threatened claims, actions or lawsuits, or action by any Governmental Authority, with respect to any Plan that could reasonably be expected to have a Material Adverse Effect. There has been no prohibited transaction or violation of the fiduciary responsibility rules with respect to any Plan that has resulted or could reasonably be expected to result in a Material Adverse Effect.

(c) (i) No ERISA Event has occurred, and neither the Borrower nor any ERISA Affiliate is aware of any fact, event or circumstance that could reasonably be expected to constitute or result in an ERISA Event with respect to any Pension Plan or Multiemployer Plan; (ii) as of the most recent valuation date for any Pension Plan, the funding target attainment percentage (as defined in Section 430(d)(2) of the Code) is 60% or higher and neither the Borrower nor any ERISA Affiliate knows of any facts or circumstances that could reasonably be expected to cause the funding target attainment percentage for any such plan to drop below 60% as of the most recent valuation date; (iii) neither the Borrower nor any ERISA Affiliate has incurred any liability to the PBGC other than for the payment of premiums, and there are no premium payments which have become due that are unpaid; (iv) neither the Borrower nor any ERISA Affiliate has engaged in a transaction that could be subject to Section 4069 or Section 4212(c) of ERISA; and (v) no Pension Plan has been terminated by the plan administrator thereof nor by the PBGC, and no event or circumstance has occurred or exists that could reasonably be expected to cause the PBGC to institute proceedings under Title IV of ERISA to terminate any Pension Plan.

5.13 Subsidiaries; Equity Interests; Loan Parties. As of the Closing Date, no Loan Party has any Subsidiaries other than those specifically disclosed in Part (a) of Schedule 5.13, and all of the outstanding Equity Interests in such Subsidiaries have been validly issued, are fully paid and non-assessable and are owned by a Loan Party in the amounts specified on Part (a) of Schedule 5.13 free and clear of all Liens except those permitted by Section 7.01. As of the Closing Date, no Loan Party has any equity investments in any other corporation or entity other than those specifically disclosed in Part (b) of Schedule 5.13. All of the outstanding Equity Interests in the Borrower have been validly issued, are fully paid and non-assessable. Set forth on Part (d) of Schedule 5.13 is a complete and accurate list of all Loan Parties, showing as of the Closing Date (as to each Loan Party) the jurisdiction of its incorporation, the address of its principal place of business and its U.S. taxpayer identification number or, in the case of any non-U.S. Loan Party that does not have a U.S. taxpayer identification number, its unique identification number issued to it by the jurisdiction of its incorporation. The copy of the charter of each Loan Party and each amendment thereto provided pursuant to Section 4.01(a)(iii) is a true and correct copy of each such document, each of which is valid and in full force and effect.

5.14 Margin Regulations; Investment Company Act. (a) The Borrower is not engaged and will not engage, principally or as one of its important activities, in the business of purchasing or carrying margin stock (within the meaning of Regulation U issued by the FRB), or extending credit for the purpose of purchasing or carrying margin stock. No proceeds of any Credit Extension will be used, whether

directly or indirectly, and whether immediately, incidentally or ultimately, to purchase or carry margin stock (within the meaning of Regulation U issued by the FRB) or to extend credit to others for the purpose of purchasing or carrying margin stock or to refund Indebtedness originally incurred for such purpose.

(b) None of the Borrower, any Person Controlling the Borrower, or any Subsidiary is or is required to be registered as an “investment company” under the Investment Company Act of 1940.

5.15 Disclosure. No written report, financial statement, certificate or other information furnished by or on behalf of any Loan Party to the Administrative Agent or any Lender in connection with the transactions contemplated hereby and the negotiation of this Agreement or delivered hereunder or under any other Loan Document, at the Closing Date or at the time furnished (in the case of all other reports, financial statements, certificates or other information), contains any material misstatement of fact or omitted to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that, with respect to projected financial information, the Borrower represents only that such information was prepared in good faith based upon assumptions believed to be reasonable at the time of preparation; it being understood that such projections may vary from actual results and that such variances may be material

5.16 Compliance with Laws. Each Loan Party and each Subsidiary thereof is in compliance in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its properties, except in such instances in which (a) such requirement of Law or order, writ, injunction or decree is being contested in good faith by appropriate proceedings diligently conducted or (b) the failure to comply therewith, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

5.17 Intellectual Property; Licenses, Etc. Each Loan Party and each of its Subsidiaries own, or possess the right to use, all of the trademarks, service marks, trade names, copyrights, patents, patent rights, franchises, licenses and other intellectual property rights (collectively, “IP Rights”) that are reasonably necessary for the operation of their respective businesses, without conflict with the rights of any other Person. To the knowledge of the Borrower, no slogan or other advertising device, product, process, method, substance, part or other material now employed, or now contemplated to be employed, by any Loan Party or any of its Subsidiaries infringes upon any rights held by any other Person, except for such infringements, individually or in the aggregate, which could not reasonably be expected to have a Material Adverse Effect. No claim or litigation regarding any of the foregoing is pending or, to the knowledge of the Borrower, threatened, which, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

5.18 Solvency. The Borrower and its Subsidiaries, on a consolidated basis, are Solvent.

5.19 Labor Matters. There are no collective bargaining agreements or Multiemployer Plans covering the employees of the Borrower or any of its Subsidiaries as of the Closing Date and neither the Borrower nor any Subsidiary has suffered any strikes, walkouts, work stoppages or other material labor difficulty within the last five years.

5.20 Anti-Money Laundering Laws. Each of the Borrower, its Subsidiaries and, to the knowledge of the Borrower and its Subsidiaries, each director, officer, employee, agent, affiliate or representative thereof, has not violated any applicable anti-money laundering law any other applicable law, regulation or other binding measure implementing the “Forty Recommendations” and “Nine Special Recommendations” published by the Organisation for Economic Cooperation and Development’s Financial Action Task Force on Money Laundering.



5.21 Sanctions. Neither the Borrower, nor any of its Subsidiaries, nor, to the knowledge of the Borrower and its Subsidiaries, any director, officer, employee, agent, affiliate or representative thereof, is an individual or entity that is, or is owned or controlled by any individual or entity that is (i) currently the subject or target of any Sanctions, (ii) included on OFAC's List of Specially Designated nationals, HMT's Consolidated List of Financial Sanctions Targets and the Investment Ban List, or any similar list enforced by any other relevant sanctions authority or (iii) located, organized or resident in a Designated Jurisdiction.

5.22 Anti-Corruption Laws. The Borrower and its Subsidiaries have conducted their businesses in compliance with the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010, and other similar anti-corruption legislation in other jurisdictions and have instituted and maintained policies and procedures designed to promote and achieve compliance with such laws.

5.23 EEA Financial Institutions. No Loan Party is an EEA Financial Institution.

5.24 Collateral Matters. At all times following the Collateral Security Deadline, the Security Agreement, upon execution and delivery thereof by the parties thereto, is effective to create in favor of the Administrative Agent, for the benefit of the Secured Parties, a legal, valid and enforceable security interest in the Collateral and upon the execution and delivery of the Control Agreement and the filing of a UCC-1 financing statement, the security interest created under the Security Agreement will constitute a fully perfected security interest in all right, title and interest of the Loan Parties in the Collateral (subject to any limitations specified therein), prior and superior in right to any other Person.

## ARTICLE VI AFFIRMATIVE COVENANTS

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation hereunder shall remain unpaid or unsatisfied, or any Letter of Credit shall remain outstanding, the Borrower shall, and shall (except in the case of the covenants set forth in Sections 6.01, 6.02, 6.03 and 6.11) cause each Restricted Subsidiary to:

6.01 Financial Statements. Deliver to the Administrative Agent, on behalf of each Lender:

(a) within 90 days after the end of each fiscal year of the Borrower, a consolidated balance sheet of the Borrower and its Subsidiaries as at the end of such fiscal year, and the related consolidated statements of operations, comprehensive income (or loss), stockholders' equity, and cash flows for such fiscal year, setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail and certified by a Responsible Officer of the Borrower to have been prepared in accordance with GAAP, audited and accompanied by (x) a customary management discussion and analysis of results of operations and (y) a report and opinion of KPMG LLP or any other independent certified public accountant of nationally recognized standing, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any "going concern" or like qualification or exception or any qualification or exception as to the scope of such audit;

(b) within 45 days after the end of each of the first three fiscal quarters of each fiscal year of the Borrower, a consolidated balance sheet of the Borrower and its Subsidiaries as at the end of such fiscal quarter, and the related consolidated statements of operations, comprehensive income (or loss) and cash flows for such fiscal quarter and for the portion of the Borrower's fiscal year then ended, setting forth in each case in comparative form the figures for the corresponding fiscal quarter of the previous fiscal year and the corresponding portion of the previous fiscal year, all in reasonable detail, accompanied by a customary management discussion and analysis of results of operations and certified by a

Responsible Officer of the Borrower as fairly presenting in all material respects the financial condition, results of operations, shareholders' equity and cash flows of the Borrower and its Subsidiaries in accordance with GAAP, subject only to normal year-end audit adjustments;

(c) within 60 days after the end of each fiscal year of the Borrower, an annual business plan and budget of the Borrower and its Subsidiaries on a consolidated basis, including forecasts prepared by management of the Borrower, of consolidated balance sheets and statements of operations, comprehensive income (or loss) and cash flows of the Borrower and its Restricted Subsidiaries on a quarterly basis for the fiscal year then in progress; and

(d) concurrently with the delivery of each set of consolidated financial statements referred to in Sections 6.01(a) and 6.01(b) above, the related consolidating financial statements reflecting the adjustments necessary to eliminate the accounts of Unrestricted Subsidiaries (if any) from such consolidated financial statements.

As to any information contained in materials furnished pursuant to Section 6.02(d), the Borrower shall not be separately required to furnish such information under Section 6.01(a) or (b) above, but the foregoing shall not be in derogation of the obligation of the Borrower to furnish the information and materials described in Sections 6.01(a) and (b) above at the times specified therein.

6.02 Certificates; Other Information. Deliver to the Administrative Agent and each Lender, in form and detail satisfactory to the Administrative Agent and the Required Lenders:

(a) concurrently with the delivery of the financial statements referred to in Section 6.01(a), a certificate of its independent certified public accountants certifying such financial statements;

(b) concurrently with the delivery of the financial statements referred to in Sections 6.01(a) and (b), a duly completed Compliance Certificate signed by the chief executive officer, chief financial officer, treasurer or controller of the Borrower (which delivery may, unless the Administrative Agent, or a Lender requests executed originals, be by electronic communication including fax or email and shall be deemed to be an original authentic counterpart thereof for all purposes);

(c) promptly after any request by the Administrative Agent or any Lender, copies of any detailed audit reports, management letters or recommendations submitted to the board of directors (or the audit committee of the board of directors) of any Loan Party by independent accountants in connection with the accounts or books of any Loan Party or any of its Subsidiaries, or any audit of any of them;

(d) promptly after the same are sent or filed (as applicable), copies of each annual report, proxy or financial statement or other report or communication sent to the stockholders of the Borrower, and copies of all annual, regular, periodic and special reports and registration statements which the Borrower may file or be required to file with the SEC under Section 13 or 15(d) of the Securities Exchange Act, or with any national securities exchange, and in any case not otherwise required to be delivered to the Administrative Agent pursuant hereto;

(e) promptly after the furnishing thereof, copies of any material statement or report furnished to any holder of debt securities of any Loan Party or of any of its Subsidiaries pursuant to the terms of any indenture, loan or credit or similar agreement evidencing Indebtedness and not otherwise required to be furnished to the Lenders pursuant to Section 6.01 or any other clause of this Section 6.02;

(f) within five Business Days after the end of each calendar month, and on the date of any Credit Extension, a certificate signed by the chief executive officer, chief financial officer, treasurer or

controller of the Borrower setting forth a reasonably detailed calculation of Global Liquidity (accompanied by reasonable supporting documentation) as of the end of such month or as of the date of such Credit Extension, as applicable;

(g) promptly, and in any event within five Business Days after receipt thereof by any Loan Party or any Subsidiary thereof, copies of each notice or other correspondence received from the SEC (or comparable agency in any applicable non-U.S. jurisdiction) concerning any investigation or possible investigation or other inquiry by such agency regarding financial or other operational results of any Loan Party or any Subsidiary thereof;

(h) within five Business Days after receipt thereof by any Loan Party or any Subsidiary thereof, copies of all material notices, requests and other documents (including amendments, waivers and other modifications) so received under or pursuant to any instrument, indenture, loan or credit or similar agreement evidencing Indebtedness;

(i) promptly after the assertion or occurrence thereof, notice of any action or proceeding against or of any noncompliance by any Loan Party or any of its Subsidiaries with any Environmental Law or Environmental Permit that could reasonably be expected to have a Material Adverse Effect;

(j) within five Business Days after the end of each calendar month, a Borrowing Base Certificate, as at the end of such month, duly certified by the chief executive officer, chief financial officer, treasurer or controller of the Borrower; and

(k) promptly, such additional information regarding the business, financial, legal or corporate affairs of any Loan Party or any Subsidiary thereof, or compliance with the terms of the Loan Documents, as the Administrative Agent or any Lender may from time to time reasonably request.

Documents required to be delivered pursuant to [Section 6.01\(a\)](#) or [\(b\)](#) or [Section 6.02\(d\)](#) (to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date (i) on which the Borrower posts such documents, or provides a link thereto on the Borrower's website on the Internet at the website address listed on [Schedule 10.02](#); or (ii) on which such documents are posted on the Borrower's behalf on an Internet or intranet website, if any, to which each Lender and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent); provided that: (i) the Borrower shall deliver paper copies of such documents to the Administrative Agent or any Lender upon its request to the Borrower to deliver such paper copies until a written request to cease delivering paper copies is given by the Administrative Agent or such Lender and (ii) the Borrower shall notify the Administrative Agent and each Lender (by telecopier or electronic mail) of the posting of any such documents and provide to the Administrative Agent by electronic mail electronic versions (i.e., soft copies) of such documents. The Administrative Agent shall have no obligation to request the delivery of or to maintain paper copies of the documents referred to above, and in any event shall have no responsibility to monitor compliance by the Borrower with any such request by a Lender for delivery, and each Lender shall be solely responsible for requesting delivery to it or maintaining its copies of such documents.

The Borrower hereby acknowledges that (a) the Administrative Agent may, but shall not be obligated to, make available to the Lenders and the L/C Issuer materials and/or information provided by or on behalf of the Borrower hereunder (collectively, "[Borrower Materials](#)") by posting the Borrower Materials on IntraLinks, Syndtrak, ClearPar, or a substantially similar electronic transmission system (the "[Platform](#)") and (b) certain of the Lenders (each, a "[Public Lender](#)") may have personnel who do not wish to receive material non-public information with respect to the Borrower or its Affiliates, or the respective

securities of any of the foregoing, and who may be engaged in investment and other market-related activities with respect to such Persons' securities. The Borrower hereby agrees that it will use commercially reasonable efforts to identify that portion of the Borrower Materials that may be distributed to the Public Lenders and that (w) all such Borrower Materials shall be clearly and conspicuously marked "PUBLIC" which, at a minimum, shall mean that the word "PUBLIC" shall appear prominently on the first page thereof; (x) by marking Borrower Materials "PUBLIC," the Borrower shall be deemed to have authorized the Administrative Agent, the L/C Issuer and the Lenders to treat such Borrower Materials as not containing any material non-public information (although it may be sensitive and proprietary) with respect to the Borrower or its securities for purposes of United States Federal and state securities laws (provided, however, that to the extent such Borrower Materials constitute Information, they shall be treated as set forth in Section 10.07); (y) all Borrower Materials marked "PUBLIC" are permitted to be made available through a portion of the Platform designated "Public Side Information;" and (z) the Administrative Agent shall be entitled to treat any Borrower Materials that are not marked "PUBLIC" as being suitable only for posting on a portion of the Platform not designated "Public Side Information."

6.03 Notices. Promptly notify the Administrative Agent, on behalf of each Lender upon notice or knowledge thereof by a Responsible Officer:

- (a) of the occurrence of any Default;
- (b) of any matter that has resulted or could reasonably be expected to result in a Material Adverse Effect, including (i) breach or non-performance of, or any default under, a Contractual Obligation of the Borrower or any Restricted Subsidiary; (ii) any dispute, litigation, investigation, proceeding or suspension between the Borrower or any Restricted Subsidiary and any Governmental Authority; or (iii) the commencement of, or any material development in, any litigation or proceeding affecting the Borrower or any Restricted Subsidiary, including pursuant to any applicable Environmental Laws;
- (c) of the occurrence of any ERISA Event; and
- (d) of any withdrawal from the Custody Account, together with an updated Borrowing Base Certificate (which shall be delivered prior to any such withdrawal).

Each notice pursuant to this Section 6.03 shall be accompanied by a statement of a Responsible Officer of the Borrower setting forth details of the occurrence referred to therein (other than in the case of Section 6.03(e)) and stating what action the Borrower has taken and proposes to take with respect thereto. Each notice pursuant to Section 6.03(a) shall describe with particularity any and all provisions of this Agreement and any other Loan Document that have been breached.

6.04 Payment of Obligations. (a) Pay and discharge as the same shall become due and payable, all its obligations and liabilities, including (i) all Tax liabilities, assessments and governmental charges or levies upon it or its properties or assets, unless the same are being contested in good faith by appropriate proceedings diligently conducted and adequate reserves in accordance with GAAP are being maintained by the Borrower or such Restricted Subsidiary; (ii) all lawful claims which, if unpaid, would by law become a Lien upon its property; and (iii) all Indebtedness, as and when due and payable, but subject to any subordination provisions contained in any instrument or agreement evidencing such Indebtedness; and (b) timely file all material tax returns required to be filed.

6.05 Preservation of Existence, Etc. (a) Preserve, renew and maintain in full force and effect its legal existence and good standing under the Laws of the jurisdiction of its organization except in a transaction permitted by Section 7.04 or 7.05; (b) take all reasonable action to maintain all rights,

privileges, permits, licenses and franchises necessary or desirable in the normal conduct of its business, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect; and (c) preserve or renew all of its registered patents, trademarks, trade names and service marks, the non-preservation of which could reasonably be expected to have a Material Adverse Effect.

6.06 Maintenance of Properties. (a) Maintain, preserve and protect all of its material properties and equipment necessary in the operation of its business in good working order and condition, ordinary wear and tear excepted; and (b) make all necessary repairs thereto and renewals and replacements thereof except where the failure to do so could not reasonably be expected to have a Material Adverse Effect.

6.07 Maintenance of Insurance. Maintain with financially sound and reputable insurance companies not Affiliates of the Borrower, insurance with respect to its properties and business against loss or damage of the kinds customarily insured against by Persons engaged in the same or similar business, of such types and in such amounts (after giving effect to any self-insurance compatible with the following standards) as are customarily carried under similar circumstances by such other Persons.

6.08 Compliance with Laws. Comply in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its business or property, except in such instances in which (a) such requirement of Law or order, writ, injunction or decree is being contested in good faith by appropriate proceedings diligently conducted; or (b) the failure to comply therewith could not reasonably be expected to have a Material Adverse Effect.

6.09 Books and Records. Maintain proper books of record and account, in which full, true and correct entries in conformity with GAAP consistently applied shall be made of all financial transactions and matters involving the assets and business of the Borrower or such Restricted Subsidiary, as the case may be.

6.10 Inspection Rights. Permit representatives and independent contractors of the Administrative Agent and each Lender to visit and inspect any of its properties, to examine its corporate, financial and operating records, and make copies thereof or abstracts therefrom, and to discuss its affairs, finances and accounts with its directors, officers, and independent public accountants, all at the expense of the Borrower and at such reasonable times during normal business hours not more frequently than one time per year (unless an Event of Default has occurred and is continuing), upon reasonable advance notice to the Borrower; provided, however, that when an Event of Default has occurred and is continuing the Administrative Agent or any Lender (or any of their respective representatives or independent contractors) may do any of the foregoing at the expense of the Borrower at any time during normal business hours and without advance notice.

6.11 [Reserved].

6.12 Covenant to Guarantee Obligations and Give Security.

(a) Additional Material Domestic Subsidiaries. Upon the formation or acquisition of any new direct or indirect Subsidiary (other than any Excluded Subsidiary) by any Loan Party (provided that (i) any Subsidiary redesignation resulting in an Unrestricted Subsidiary becoming a Restricted Subsidiary and (ii) any Excluded Subsidiary ceasing to be an Excluded Subsidiary but remaining a Restricted Subsidiary shall, at the time of any determination thereof, be deemed to constitute the acquisition of a Restricted Subsidiary for all purposes of this Section 6.12), then the Borrower shall, at the Borrower's expense: within 30 days after such formation or acquisition, cause such Subsidiary, and cause each direct and indirect parent of such Subsidiary (if it has not already done so), to duly execute and deliver to the

Administrative Agent a guaranty or guaranty supplement, in form and substance reasonably satisfactory to the Administrative Agent, guaranteeing the other Loan Parties' obligations under the Loan Documents.

(b) Changes to Name, Location, Jurisdiction of Organization. If a Collateral Trigger Event has occurred, before the Borrower effects a change (i) in its legal name, (ii) in the location of its chief executive office, or (iii) in its jurisdiction of organization (in each case, including by merging with or into any other entity, reorganizing, dissolving, liquidating, reorganizing or organizing in any other jurisdiction), (A) give the Administrative Agent not less than ten (10) days' prior written notice or such lesser notice period agreed to by the Administrative Agent, of its intention so to do, describing such change and providing such other information in connection therewith as the Administrative Agent may reasonably request and (B) take all action reasonably satisfactory to the Administrative Agent to maintain the perfection and priority of the security interest of the Administrative Agent for the benefit of the Secured Parties in the Collateral. The Borrower agrees to promptly provide the Administrative Agent with certified organizational documents reflecting any of the changes described in the preceding sentence.

(c) Collateral. (i) Promptly notify the Administrative Agent in writing of the occurrence of any Collateral Trigger Event and (ii) no later than the Collateral Security Deadline, the Loan Parties shall satisfy the Collateral Security Deadline Requirements.

(d) Other. At any time upon request of the Administrative Agent, promptly execute and deliver any and all further instruments and documents and take all such other action as the Administrative Agent may reasonably deem necessary or desirable in obtaining the full benefits of, or, after any Collateral Trigger Event, in perfecting and preserving the Liens of, such guaranties and other security agreements.

6.13 Compliance with Environmental Laws. Comply, and cause all lessees and other Persons operating or occupying its properties to comply, in all material respects, with all applicable Environmental Laws and Environmental Permits; obtain and renew all Environmental Permits necessary for its operations and properties; and conduct any investigation, study, sampling and testing, and undertake any cleanup, response or other corrective action necessary to address all Hazardous Materials at, on, under or emanating from any of properties owned, leased or operated by it in accordance with the requirements of all Environmental Laws; provided, however, that neither the Borrower nor any of its Restricted Subsidiaries shall be required to undertake any such cleanup, removal, remedial or other action to the extent that its obligation to do so is being contested in good faith and by proper proceedings and appropriate reserves are being maintained with respect to such circumstances in accordance with GAAP.

6.14 Further Assurances. Promptly upon request by the Administrative Agent, or any Lender through the Administrative Agent, (a) correct any material defect or error that may be discovered in any Loan Document or in the execution, acknowledgment, filing or recordation thereof, and (b) do, execute, acknowledge, deliver, record, re-record, file, re-file, register and re-register any and all such further acts, deeds, certificates, assurances and other instruments as the Administrative Agent, or any Lender through the Administrative Agent, may reasonably require from time to time in order to (i) carry out more effectively the purposes of the Loan Documents, (ii) after any Collateral Trigger Event, (x) to the fullest extent permitted by applicable Law, subject any Loan Party's or any of its Restricted Subsidiaries' properties, assets, rights or interests to the Liens now or hereafter intended to be covered by any of the Collateral Documents, (y) perfect and maintain the validity, effectiveness and priority of any of the Collateral Documents and any of the Liens intended to be created thereunder and (z) assure, convey, grant, assign, transfer, preserve, protect and confirm more effectively unto the Secured Parties the rights granted or now or hereafter intended to be granted to the Secured Parties under any Loan Document or under any other instrument executed in connection with any Loan Document to which any Loan Party or

any of its Restricted Subsidiaries is or is to be a party, and cause each of its Restricted Subsidiaries to do so.

6.15 Designation of Subsidiaries. The Borrower may at any time designate any Subsidiary as an Unrestricted Subsidiary or any Unrestricted Subsidiary as a Restricted Subsidiary by delivering to the Administrative Agent a certificate of an Responsible Officer of the Borrower specifying such designation and certifying that the conditions to such designation set forth in this Section 6.15 are satisfied; provided that:

(a) after giving effect to any such designation, no Default or Event of Default shall have occurred and be continuing;

(b) in the case of the designation of a Subsidiary as an Unrestricted Subsidiary, (i) the Subsidiary to be so designated does not (directly, or indirectly through its Subsidiaries) own any Equity Interests or Indebtedness of, or own or hold any Lien on any property of, the Borrower or any of its Restricted Subsidiaries and (ii) neither the Borrower nor any of its Restricted Subsidiaries shall at any time be directly or indirectly liable for any Indebtedness of such Unrestricted Subsidiary that provides that the holder thereof may (with the passage of time or notice or both) declare a default thereon or cause the payment thereof to be accelerated or payable prior to its stated maturity upon the occurrence of a default with respect to any Indebtedness, Lien or other obligation of such Unrestricted Subsidiary (including any right to take enforcement action against such Subsidiary); and

(c) after giving effect to such designation, the Borrower shall be in compliance with Minimum Liquidity Test on a pro forma basis; and

(d) no Restricted Subsidiary may be designated as an Unrestricted Subsidiary if it is a “restricted subsidiary” pursuant to the terms of any other Indebtedness of the Borrower or any of its Subsidiaries; provided that the foregoing requirement shall apply only to the extent that the Borrower or any Subsidiary has the ability under such documents to designate any such Restricted Subsidiary as an “unrestricted subsidiary” under the terms of such other Indebtedness.

The designation of any Subsidiary as an Unrestricted Subsidiary after the Closing Date shall constitute an Investment by the Borrower in such Subsidiary on the date of designation in an amount equal to the Fair Market Value of the Borrower’s Investment therein. The designation of any Unrestricted Subsidiary as a Restricted Subsidiary shall constitute the incurrence at the time of designation of any Investment, Indebtedness or Liens of such Subsidiary existing at such time.

6.16 Designation as Senior Debt. Designate all Obligations as “Senior Debt” under, and defined in, any Subordinated Notes Documents and all supplemental indentures thereto.

6.17 Custody Account. At all times on and after the date of the initial Credit Extension, maintain the Custody Account with Bank of America and after the Collateral Security Deadline, cause such Custody Account to be subject to the valid and perfected Lien of the Administrative Agent (for the benefit of the Secured Parties) prior and superior in right to any other Person.

6.18 Anti-Corruption Laws. Conduct its businesses in compliance with the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010, and other similar anti-corruption legislation in other jurisdictions, and maintain policies and procedures designed to promote and achieve compliance with such laws.

ARTICLE VII  
NEGATIVE COVENANTS

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation hereunder shall remain unpaid or unsatisfied, or any Letter of Credit shall remain outstanding, the Borrower shall not, nor shall it permit any Restricted Subsidiary to, directly or indirectly:

7.01 Liens. Create, incur, assume or suffer to exist any Lien upon any (i) Collateral (other than pursuant to Section 7.01(a) below) or (ii) of its other property, assets or revenues, whether now owned or hereafter acquired, other than, in the case of clause (ii), the following:

(a) Liens pursuant to any Loan Document (including, without limitation, Liens in favor of the Swing Line Lender and/or the L/C Issuer, as applicable, on Cash Collateral granted pursuant to the Loan Documents);

(b) Liens existing on the date hereof and listed on Schedule 7.01 and any renewals, modifications or extensions thereof and any Lien granted as a replacement or substitute therefor; provided that (i) such Lien shall not apply to any other property or asset of the Borrower or any Restricted Subsidiary other than improvements thereon or proceeds from the Disposition of such property or asset, (ii) the amount secured or benefited thereby is not increased except as contemplated by Section 7.02(e), and (iii) any renewal, modification or extension of the obligations secured or benefited thereby is permitted by Section 7.02(e);

(c) Liens for *ad valorem* property taxes not yet due or Liens for taxes which are being contested in good faith and by appropriate proceedings diligently conducted, if adequate reserves with respect thereto are maintained on the books of the applicable Person in accordance with GAAP;

(d) carriers', warehousemen's, mechanics', materialmen's, repairmen's or other like Liens arising in the ordinary course of business which are not overdue for a period of more than 30 days or which are being contested in good faith and by appropriate proceedings diligently conducted (which proceedings have the effect of preventing the forfeiture or sale of the property or assets subject to any such Lien), if adequate reserves with respect thereto are maintained on the books of the applicable Person in accordance with GAAP;

(e) pledges or deposits in the ordinary course of business in connection with workers' compensation, unemployment insurance and other social security legislation, other than any Lien imposed by ERISA;

(f) deposits to secure the performance of bids, trade contracts and leases (other than Indebtedness), statutory obligations, surety and appeal bonds, performance bonds and other obligations of a like nature incurred in the ordinary course of business;

(g) easements, rights-of-way, restrictions and other similar encumbrances affecting real property which, in the aggregate, are not substantial in amount, and which do not in any case materially detract from the value of the property subject thereto or materially interfere with the ordinary conduct of the business of the applicable Person;

(h) Liens securing judgments for the payment of money not constituting an Event of Default under Section 8.01(h);



(i) Liens securing Indebtedness permitted under Section 7.02(g); provided that (i) such Liens do not at any time encumber any property other than the property financed by such Indebtedness and (ii) the Indebtedness secured thereby does not exceed the cost or Fair Market Value, whichever is lower, of the property being acquired (measured as of the date of such financing);

(j) Liens on property of a Person existing at the time such Person is merged into or consolidated with the Borrower or any Restricted Subsidiary of the Borrower or becomes a Restricted Subsidiary of the Borrower; provided that such Liens were not created in contemplation of such merger, consolidation or Investment and do not extend to any assets other than those of the Person merged into or consolidated with the Borrower or such Restricted Subsidiary or acquired by the Borrower or such Restricted Subsidiary, and the applicable Indebtedness secured by such Lien is permitted under Section 7.02(h);

(k) Liens securing Indebtedness outstanding in an aggregate principal amount not to exceed \$10,000,000;

(l) Liens on assets or property of Foreign Subsidiaries securing Indebtedness of such Foreign Subsidiaries permitted to be incurred pursuant to Section 7.02(i) or (t);

(m) Liens on cash collateral supporting Indebtedness permitted to be incurred pursuant to Section 7.02(a), (j) or (p);

(n) Liens on real property securing Indebtedness permitted to be incurred pursuant to Section 7.02(k); provided that (i) such Liens do not at any time encumber any property other than the real property financed by such Indebtedness and (ii) the Indebtedness secured thereby does not exceed the cost or Fair Market Value, whichever is lower, of the real property being acquired on the date of incurrence of such Indebtedness;

(o) Liens on IP Rights in connection with IP Monetization Transactions permitted to be incurred pursuant to Section 7.02(l);

(p) (i) Dispositions of assets not prohibited by Section 7.05 and in connection therewith, customary rights and restrictions contained in agreements relating to such Dispositions pending the completion thereof, or in the case of a license, during the term thereof and (ii) any option or other agreement to Dispose any asset not prohibited by Section 7.05;

(q) in the case of (A) any Subsidiary that is not a Wholly Owned Subsidiary or (B) the Equity Interests in any Person that is not a Subsidiary, any encumbrance or restriction, including any put and call arrangements, related to Equity Interests in such Subsidiary or such other Person set forth in the Organization Documents of such Subsidiary or such other Person or any related joint venture, shareholders' or similar agreement;

(r) licenses, sublicenses, leases or subleases granted to other Persons permitted under Section 7.05;

(s) Liens on earnest money deposits of cash or cash equivalents made, or escrow or similar arrangements entered into, in connection with any Investment permitted pursuant to Section 7.03 or other acquisitions not prohibited hereunder;

(t) any interest or title of a lessor or sublessor under leases or subleases entered into by the Borrower or any of its Restricted Subsidiaries in the ordinary course of business;

(u) Liens arising out of conditional sale, title retention, consignment or similar arrangements for sale of goods entered into by the Borrower or any of its Restricted Subsidiaries in the ordinary course of business;

(v) Liens that are contractual rights of set-off (i) relating to the establishment of depository relations with banks or other financial institutions not given in connection with the incurrence of Indebtedness, (ii) relating to pooled deposit or sweep accounts of the Borrower or any Restricted Subsidiary to permit satisfaction of overdraft or similar obligations incurred in the ordinary course of business of the Borrower or its Restricted Subsidiaries or (iii) relating to purchase orders and other agreements entered into with customers of the Borrower or any Restricted Subsidiary in the ordinary course of business;

(w) Liens arising from precautionary Uniform Commercial Code financing statement filings;

(x) Liens on insurance policies and the proceeds thereof securing the financing of the premiums with respect thereto;

(y) any zoning or similar law or right reserved to or vested in any Governmental Authority to control or regulate the use of any real property that does not materially interfere with the ordinary conduct of the business of the Borrower or any Restricted Subsidiary; and

(z) Liens on specific items of inventory or other goods and the proceeds thereof securing such Person's obligations in respect of documentary letters of credit issued for the account of such Person to facilitate the purchase, shipment or storage of such inventory or goods.

7.02 Indebtedness. Create, incur, assume or suffer to exist any Indebtedness, except:

(a) obligations (contingent or otherwise) existing or arising under any Swap Contract, provided that such obligations are (or were) entered into by such Person in the ordinary course of business and not for speculative purposes;

(b) Indebtedness in the form of unsecured convertible notes of the Borrower in an aggregate principal amount not to exceed \$1,000,000,000 at any time outstanding;

(c) Indebtedness of a Restricted Subsidiary of the Borrower owed to the Borrower or a wholly-owned Restricted Subsidiary of the Borrower, which Indebtedness shall be otherwise permitted under the provisions of Section 7.03 (other than Section 7.03(e));

(d) Indebtedness under the Loan Documents;

(e) (i) Indebtedness outstanding on the date hereof and listed on Schedule 7.02 (including the Subordinated Notes) and (ii) any Permitted Refinancing thereof;

(f) Guarantees of the Borrower or any Restricted Subsidiary in respect of Indebtedness otherwise permitted hereunder of the Borrower or any wholly-owned Restricted Subsidiary; provided that: (i) if the Indebtedness being Guaranteed is subordinated to the Obligations, such Guarantee shall be subordinated to the Guarantee of the Obligations on terms at least as favorable to the Lenders as those contained in the subordination provisions of such Indebtedness; and (ii) in the case of any Guarantee by a Loan Party of any Indebtedness of a Restricted Subsidiary that is not a Loan Party such Guarantee shall be permitted under this Section 7.02(f), solely to the extent that such Guarantee would be permitted as an Investment pursuant to Section 7.03 (other than Section 7.03(e));

(g) Indebtedness in respect of Capitalized Leases, Synthetic Lease Obligations and purchase money obligations for fixed or capital assets within the limitations set forth in Section 7.01(i); provided that the aggregate amount of all such Indebtedness at any one time outstanding shall not exceed \$10,000,000;

(h) (i) Indebtedness of any Person that becomes a Restricted Subsidiary of the Borrower after the date hereof in accordance with the terms of Section 7.03(i), which Indebtedness is existing at the time such Person becomes a Restricted Subsidiary of the Borrower (other than Indebtedness incurred solely in contemplation of such Person's becoming a Restricted Subsidiary of the Borrower) and (ii) any Permitted Refinancing thereof;

(i) (x) Indebtedness of Foreign Subsidiaries in an aggregate principal amount not to exceed \$10,000,000 at any time outstanding and (y) Guarantees thereof by any direct or indirect parent entity of such Foreign Subsidiary;

(j) Indebtedness in the form of letters of credit (other than Letters of Credit issued under the Revolving Credit Facility) in an amount not to exceed \$10,000,000 at any time outstanding;

(k) Indebtedness in the form of real property financings in an aggregate principal amount not to exceed \$10,000,000 at any time outstanding;

(l) Indebtedness incurred in connection with IP Monetization Transactions in an aggregate outstanding principal amount not to exceed (x) \$400,000,000 *minus* (y) an amount equal to the aggregate amount of Dispositions made under Section 7.05(j) *minus* (z) an amount equal to the aggregate amount of Investments made under Section 7.03(j);

(m) Indebtedness consisting of obligations under deferred or contingent consideration arrangements (including earn-outs, incentive non-competes, milestone payments and other contingent or deferred obligations that constitute Indebtedness) incurred in connection with any acquisition or other Investment permitted under this Agreement;

(n) Indebtedness (i) under warranty or contractual service obligations, letters of credit for operating purposes, payment (other than for payment of Indebtedness) and completion guarantees, indemnity, bid and performance bonds, surety bonds, release, appeal and similar bonds, (ii) with respect to workers' compensation claims, payment obligations in connection with health or other types of social security benefits, unemployment or other insurance obligations, reclamation and statutory obligations, or (iii) in connection with the financing of insurance premiums or self-insurance obligations or take-or-pay obligations contained in supply agreements in each case incurred in the ordinary course of business, and reimbursement obligations in respect of any of the foregoing;

(o) reimbursement obligations incurred, and customer advances or deposits received, in the ordinary course of business;

(p) Indebtedness in respect of treasury or cash management services, including deposit accounts, overnight draft, credit cards, debit cards, pcards (including purchasing cards and commercial cards), funds transfer, automated clearinghouse, zero balance accounts, returned check concentration, controlled disbursement, lockbox, account reconciliation and reporting and trade finance services and other cash management services;

(q) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or other similar instrument drawn against insufficient funds in the ordinary course of business;

(r) Indebtedness consisting of the financing of insurance premiums;

(s) Indebtedness in the form of an intercompany note issued in connection with an acquisition permitted under Section 7.03 involving a tender offer followed by a short form merger (i.e. a statutory short form merger that requires no further approvals to consummate); provided that (i) such short form merger is consummated within five Business Days of the incurrence of such Indebtedness and (ii) not later than three Business Days after consummation of the related short form merger, such Indebtedness (x) is extinguished or retired or (y) otherwise becomes a permitted Investment; and

(t) other Indebtedness in an aggregate principal amount not to exceed \$10,000,000 at any time outstanding.

7.03 Investments. Make or hold any Investments, except:

(a) Investments held by the Borrower and its Restricted Subsidiaries in the form of Cash Equivalents or, to the extent held in the Custody Account, Borrowing Base Assets;

(b) advances to officers, directors and employees of the Borrower and Restricted Subsidiaries in an aggregate amount not to exceed \$1,000,000 at any time outstanding, for travel, entertainment, relocation and other ordinary course purposes;

(c) (i) Investments by the Borrower and its Restricted Subsidiaries in their respective Restricted Subsidiaries outstanding on the date hereof, (ii) additional Investments by the Borrower and its Restricted Subsidiaries in Loan Parties, (iii) additional Investments by Restricted Subsidiaries of the Borrower that are not Loan Parties in other Restricted Subsidiaries that are not Loan Parties and (iv) so long as no Default has occurred and is continuing or would result from such Investment, additional Investments by the Loan Parties in Restricted Subsidiaries that are not Loan Parties (x) in an aggregate amount not to exceed \$100,000,000 at any time outstanding or (y) for the sole purpose of financing (A) product development expense that is reasonably expected to be payable within 120 days of the making of such Investment or (B) milestone and other similar contingent or deferred payments owed to third parties;

(d) Investments consisting of extensions of credit in the nature of accounts receivable or notes receivable arising from the grant of trade credit in the ordinary course of business, and Investments received in satisfaction or partial satisfaction thereof;

(e) Guarantees permitted by Section 7.02;

(f) Investments existing on the date hereof (other than those referred to in Section 7.03(c)(i)) and set forth on Schedule 7.03;

(g) the purchase or other acquisition of all (other than directors' qualifying shares) of the Equity Interests (including Equity Interests purchased or acquired in connection with a Drug Acquisition) in, or all or substantially all of the property (including property purchased or acquired in connection with a Drug Acquisition) of, any Person that, upon the consummation thereof, will be a Restricted Subsidiary wholly-owned directly by the Borrower or one or more of its wholly-owned Restricted Subsidiaries (including as a result of a merger or consolidation); provided that, with respect to each purchase or other acquisition made pursuant to this Section 7.03(g):

(i) any such newly-created or acquired Subsidiary shall comply with the requirements of Section 6.12;

(ii) the lines of business of the Person to be (or the property of which is to be) so purchased or otherwise acquired shall be permitted by Section 7.07;

(iii) the total cash and noncash consideration (including the Fair Market Value of all Equity Interests issued or transferred to the sellers thereof (but excluding Qualified Equity Interests of the Borrower), all indemnities, earnouts and other contingent payment obligations to, and the aggregate amounts paid or to be paid under noncompete, consulting and other affiliated agreements with, the sellers thereof, all write-downs of property and reserves for liabilities with respect thereto and all assumptions of debt, liabilities and other obligations in connection therewith (provided that any of the foregoing constituting a contingent obligation shall only be included as noncash consideration to the extent that such contingent obligation would be reflected as a liability on the consolidated balance sheet of the Borrower and its Subsidiaries in accordance with GAAP) paid by or on behalf of the Borrower and its Restricted Subsidiaries for any such purchase or other acquisition, when aggregated with the total cash and noncash consideration (excluding Qualified Equity Interests of the Borrower) paid by or on behalf of the Borrower and its Restricted Subsidiaries for all other purchases and other acquisitions made by the Borrower and its Restricted Subsidiaries pursuant to this Section 7.03(g) of a Person that does not become a Guarantor or of assets by a Restricted Subsidiary that is not a Guarantor, shall not exceed \$75,000,000;

(iv) immediately before and immediately after giving pro forma effect to any such purchase or other acquisition, no Default shall have occurred and be continuing; and

(v) the Borrower shall have delivered to the Administrative Agent and each Lender, at least five Business Days prior to the date on which any such purchase or other acquisition is to be consummated, a certificate of a Responsible Officer, in form and substance reasonably satisfactory to the Administrative Agent and the Required Lenders, certifying that all of the requirements set forth in this clause (iv) have been satisfied or will be satisfied on or prior to the consummation of such purchase or other acquisition;

(h) Investments by the Borrower and its Restricted Subsidiaries not otherwise permitted under this Section 7.03 in an aggregate amount not to exceed \$25,000,000 at any time outstanding; provided that, with respect to each Investment made pursuant to this Section 7.03(h):

(i) any determination of the amount of such Investment shall include all cash and noncash consideration (including the Fair Market Value of all Equity Interests issued or transferred to the sellers thereof, all indemnities, earnouts and other contingent payment obligations to, and the aggregate amounts paid or to be paid under noncompete, consulting and other affiliated agreements with, the sellers thereof, all write-downs of property and reserves for liabilities with respect thereto and all assumptions of debt, liabilities and other obligations in connection therewith) paid by or on behalf of the Borrower and its Restricted Subsidiaries in connection with such Investment; and

(ii) immediately before and immediately after giving pro forma effect to any such purchase or other acquisition, no Default shall have occurred and be continuing;

(i) other Investments (including Drug Acquisitions), so long as (x) no Default shall have occurred and be continuing or would result therefrom and (y) after giving effect thereto, Global Liquidity shall be greater than or equal to \$275,000,000;

(j) Investments (i) consisting of co-development agreements or the licensing or contribution of intellectual property, new drug applications or similar assets pursuant to development, marketing or manufacturing agreements, alliances or arrangements or similar agreements or arrangements with other Persons or (ii) in the form of contributions of IP Rights in connection with IP Monetization Transactions, in an aggregate amount for clauses (i) and (ii) taken together not to exceed (x) \$400,000,000 *minus* (y) an amount equal to the aggregate outstanding principal amount of Indebtedness incurred under Section 7.02(l) *minus* (z) an amount equal to the aggregate amount of Dispositions made under Section 7.05(j);

(k) Investments made with the portion, if any, of the Available Amount that the Borrower elects to apply to this Section 7.03(k); provided that immediately before and immediately after giving pro forma effect to any such Investment, no Default or Event of Default shall have occurred and be continuing or would result therefrom;

(l) Investments consisting of extensions of credit to the customers of the Borrower or of any of its Restricted Subsidiaries in the nature of accounts receivable, prepaid royalties, or notes receivable, arising from the grant of trade credit or licensing activities of the Borrower or such Restricted Subsidiary, in each case in the ordinary course of business;

(m) Investments received in settlement or partial settlement of obligations owed to the Borrower or any Restricted Subsidiary, including in satisfaction or compromise or partial satisfaction or compromise of judgments or claims or as a result of bankruptcy or insolvency proceedings or upon the foreclosure, perfection or enforcement of any Lien in favor of the Borrower or any Restricted Subsidiary;

(n) Investments the payment for which consists solely of Qualified Equity Interests of the Borrower;

(o) Payroll, travel and similar advances to cover matters that are expected at the time of such advances ultimately to be treated as expenses for accounting purposes and that are made in the ordinary course of business and consistent with past practice;

(p) Non-exclusive licenses of IP Rights;

(q) Investments arising out of the repurchase of any Indebtedness of the Borrower or any Restricted Subsidiary

(r) Investments consisting of UCC Article 3 endorsements of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business;

(s) any customary upfront, milestone, marketing or other funding payment in the ordinary course of business to another Person in connection with obtaining a right to receive royalty or other payments in the future in connection with commercialization and/or collaboration agreements and any Investments in joint ventures or strategic alliances or collaboration agreements in an aggregate amount not to exceed \$25,000,000 in any fiscal year;

(t) Investments by the Borrower in Swap Contracts permitted under Section 7.02(a); and

(u) the purchase by the Borrower of any option (or similar instrument) to purchase Equity Interests (other than Disqualified Stock) of the Borrower entered into contemporaneously and otherwise in connection with the issuance of convertible notes otherwise permitted to be issued under this Agreement; provided that the aggregate consideration for such option or options shall not exceed \$175.0 million plus the amount of any Net Cash Proceeds received by the Borrower from the sale of Equity

Interests (other than Disqualified Stock) of the Borrower entered into contemporaneously and otherwise in connection with the purchase of such option and incurrence of such convertible notes; provided, further, that no Default or Event of Default has occurred and is continuing or would result therefrom.

7.04 Fundamental Changes. Merge, dissolve, liquidate, consolidate with or into another Person, or Dispose of (whether in one transaction or in a series of transactions) all or substantially all of its assets (whether now owned or hereafter acquired) to or in favor of any Person, except that:

(a) any Restricted Subsidiary may merge or consolidate with or into, or be dissolved or liquidated into (i) the Borrower, provided that the Borrower shall be the continuing or surviving Person, or (ii) any one or more other Restricted Subsidiaries, provided that when any Loan Party is merging with another Restricted Subsidiary that is not a Loan Party, such Loan Party shall be the continuing or surviving Person;

(b) any Restricted Subsidiary may Dispose of all or substantially all of its assets (upon voluntary liquidation or otherwise) to the Borrower or to another Loan Party;

(c) any Restricted Subsidiary that is not a Loan Party may dispose of all or substantially all its assets (including any Disposition that is in the nature of a liquidation) to (i) another Restricted Subsidiary that is not a Loan Party or (ii) to a Loan Party;

(d) in connection with any acquisition permitted under Section 7.03, any Restricted Subsidiary of the Borrower may merge into or consolidate with any other Person or permit any other Person to merge into or consolidate with it; provided that (i) the Person surviving such merger shall be a wholly-owned Restricted Subsidiary of the Borrower and (ii) in the case of any such merger to which any Loan Party is a party, such Loan Party is the surviving Person;

(e) so long as no Default has occurred and is continuing or would result therefrom, each of the Borrower and any of its Restricted Subsidiaries may merge into or consolidate with any other Person or permit any other Person to merge into or consolidate with it; provided, however, that in each case, immediately after giving effect thereto (i) in the case of any such merger to which the Borrower is a party, the Borrower is the surviving corporation and (ii) in the case of any such merger to which any Loan Party (other than the Borrower) is a party, such Loan Party is the surviving corporation; and

(f) the Borrower and any of its Restricted Subsidiaries may make Dispositions permitted by Section 7.05.

7.05 Dispositions. Make any Disposition, except:

(a) Dispositions of obsolete or worn out property, whether now owned or hereafter acquired, in the ordinary course of business;

(b) Dispositions of inventory in the ordinary course of business;

(c) Dispositions of equipment or real property to the extent that (i) such property is exchanged for credit against the purchase price of similar replacement property or (ii) the proceeds of such Disposition are reasonably promptly applied to the purchase price of such replacement property;

(d) Dispositions of property to any Loan Party or by any Restricted Subsidiary to the Borrower or to a wholly-owned Restricted Subsidiary; provided that if the transferor of such property is a Guarantor, the transferee thereof must either be the Borrower or a Guarantor;

- (e) Dispositions permitted by Section 7.04;
- (f) Dispositions by the Borrower and its Restricted Subsidiaries of property pursuant to sale-leaseback transactions, provided that the book value of all property so Disposed of shall not exceed \$300,000,000 from and after the Closing Date;
- (g) non-exclusive licenses of IP Rights;
- (h) Dispositions by the Borrower and its Restricted Subsidiaries not otherwise permitted under this Section 7.05; provided that (i) at the time of such Disposition, no Default shall exist or would result from such Disposition and (ii) the consideration paid to the Borrower or such Restricted Subsidiary shall be no less than 75% in cash or Cash Equivalents (provided that for purposes of this clause (ii), the following shall be deemed to be cash: (A) any Indebtedness (as shown on the Borrower's or the applicable Restricted Subsidiary's most recent balance sheet provided pursuant to Section 6.01(a) or (b)) of the Borrower or such Restricted Subsidiary (other than Indebtedness that is by its terms subordinated to the Obligations) that is assumed by the transferee with respect to the applicable Disposition and for which the Borrower and all of its Restricted Subsidiaries shall have been validly released by all applicable creditors in writing, (B) any securities received by the Borrower or the applicable Restricted Subsidiary from such transferee that are converted by the Borrower or such Restricted Subsidiary into cash or Cash Equivalents (to the extent of the cash or Cash Equivalents received) within 180 days following the closing of the applicable Disposition and (C) any Designated Non-Cash Consideration received by the Borrower or any of its Restricted Subsidiaries in such Disposition having an aggregate Fair Market Value, taken together with all other Designated Non-Cash Consideration received pursuant to this clause (C) that is at that time outstanding, not to exceed \$75,000,000, calculated at the time of the receipt of such Designated Non-Cash Consideration (with the Fair Market Value of each item of Designated Non-Cash Consideration being measured at the time received and without giving effect to subsequent changes in value);
  - (i) so long as no Default shall occur and be continuing, the grant of any option or other right to purchase any asset in a transaction that would be permitted under the provisions of Section 7.05(h);
  - (j) Dispositions of IP Rights in connection with IP Monetization Transactions in an aggregate amount not to exceed (x) \$400,000,000 *minus* (y) an amount equal to the aggregate outstanding principal amount of Indebtedness incurred under Section 7.02(l) *minus* (z) an amount equal to the aggregate amount of Investments made under Section 7.03(j);
  - (k) the Dispositions specified on Schedule 7.05;
  - (l) Dispositions of products or other assets that on an individual basis have generated less than \$100,000,000 of revenue for the most recent (as of the time of each such Disposition) four fiscal quarter period for which financial statements were required to have been delivered pursuant to Section 6.01(a) or (b);
  - (m) Dispositions of intellectual property owned by a Loan Party to a Specified Foreign Subsidiary;
  - (n) sublicenses, leases and subleases of real or personal property in the ordinary course of business;
  - (o) Permitted Exchanges;



(p) Dispositions of investments in joint ventures, to the extent required by, or made pursuant to buy/sell arrangements between the joint venture parties set forth in joint venture arrangements and similar binding arrangements; and

(q) the Disposition or termination of any Swap Contract or any Permitted Equity Derivative or the entry into any Permitted Equity Derivatives;

(r) the write-off, discount, sale or other disposition of doubtful, defaulted or past-due receivables and similar obligations in the ordinary course of business and not undertaken as part of an accounts receivable financing transaction;

(s) the incurrence of any Lien permitted pursuant to Section 7.01;

(t) the surrender, waiver or settlement of contractual rights in the ordinary course of business, or the surrender, waiver or settlement of claims and litigation claims (whether or not in the ordinary course of business); and

(u) other Dispositions of property in an aggregate amount not to exceed \$50,000,000.

provided, however, that any Disposition pursuant to Sections 7.05(f), 7.05(h), 7.05(j), 7.05(k), 7.05(l), 7.05(m), 7.05(q) and 7.05(u) shall be for not less than Fair Market Value.

7.06 Restricted Payments. Declare or make, directly or indirectly, any Restricted Payment, except that:

(a) each Restricted Subsidiary may make Restricted Payments to the Borrower, any Restricted Subsidiaries of the Borrower that are Guarantors and any other Person that owns a direct Equity Interest in such Restricted Subsidiary, ratably according to their respective holdings of the type of Equity Interest in respect of which such Restricted Payment is being made;

(b) the Borrower and each Restricted Subsidiary may declare and make dividend payments or other distributions payable solely in the common stock or other Equity Interests of such Person that are not Disqualified Stock;

(c) the Borrower and each Restricted Subsidiary may make Restricted Payments with the proceeds received from the substantially concurrent issue of Equity Interests that are not Disqualified Stock;

(d) the Borrower and each Restricted Subsidiary may make Restricted Payments with the portion, if any, of the Available Amount that the Borrower elects to apply to this Section 7.06(d); provided that immediately before and immediately after giving pro forma effect to any such Restricted Payment, no Default or Event of Default shall have occurred and be continuing or would result therefrom;

(e) the Borrower and each Restricted Subsidiary may make Restricted Payments not otherwise permitted under this Section 7.06, so long as (i) no Default shall exist or be continuing and (ii) after giving effect thereto, Global Liquidity shall be greater than or equal to \$275,000,000;

(f) the Borrower and each Restricted Subsidiary may make other Restricted Payments in an aggregate amount not to exceed \$25,000,000;

(g) the Borrower and each Restricted Subsidiary may repurchase the Borrower's Equity Interests in connection with the issuance of any convertible notes permitted under Section 7.02 (including through payments under or pursuant to accelerated or forward stock repurchase arrangements or settlement of call spreads entered into at the time of and in connection with such issuance), but in each case under this clause (g) solely to the extent necessary to repurchase the "delta hedge" amount related to such issuance, determined in accordance with customary practices;

(h) the Borrower and each Restricted Subsidiary may repurchase Equity Interests of the Borrower (including any outstanding warrants) in connection with the settlement of call options outstanding on the Closing Date originally entered into in connection with the issuance of the Subordinated Notes;

(i) the Borrower and each Restricted Subsidiary may purchase, redeem, retire or otherwise acquire for value of Equity Interests (and any related stock appreciation rights, plans, equity incentive or achievement plans or any similar plans) in a Person being acquired in any Permitted Acquisition or other Investment permitted by Section 7.03 in connection with such Permitted Acquisition or other Investment;

(j) the Borrower and each Restricted Subsidiary may make the payment of any dividend or distribution, or the consummation of any irrevocable redemption, within 60 days after the date of declaration of the dividend or distribution or giving of the redemption notice, as the case may be, if at such date of declaration or redemption notice such dividend, distribution or redemption, as the case may be, would have complied with this Section 7.06; and

(k) the Borrower and each Restricted Subsidiary may make cash payments, in lieu of issuance of fractional shares in connection with the exercise of warrants, options or other securities convertible into or exchangeable for the Equity Interests of the Borrower or such Restricted Subsidiary.

7.07 Change in Nature of Business. Engage in any material line of business substantially different from those lines of business conducted by the Borrower and its Restricted Subsidiaries on the date hereof or any business substantially related or incidental thereto, not including lines of business which are a reasonable extension of Borrower's existing business.

7.08 Transactions with Affiliates. Enter into any transaction of any kind with any Affiliate of the Borrower, whether or not in the ordinary course of business, on terms and conditions materially less favorable to the Borrower or such Restricted Subsidiary as would be obtainable by the Borrower or such Restricted Subsidiary at the time in a comparable arm's length transaction with a Person other than an Affiliate; provided that the foregoing restriction shall not apply to (a) any Restricted Payment permitted by Section 7.06, (b) customary fees paid and indemnifications provided to directors of the Borrower and its Restricted Subsidiaries, (c) compensation and indemnification of, and other employment agreements and arrangements, employee benefit plans, and stock incentive plans with, directors, officers and employees of the Borrower or any Restricted Subsidiary entered in the ordinary course of business, (d) Investments permitted by Section 7.03, (e) transactions between or among the Borrower and/or any Restricted Subsidiary (including any entity that becomes a Restricted Subsidiary as a result of such transaction); and (f) the granting of registration and other customary rights in connection with the issuance of Equity Interests by the Borrower not otherwise prohibited by the Loan Documents.

7.09 Burdensome Agreements. Enter into or permit to exist any Contractual Obligation (other than this Agreement or any other Loan Document) that limits the ability (i) of any Restricted Subsidiary to make Restricted Payments to the Borrower or any Guarantor or to otherwise transfer property to or invest in the Borrower or any Guarantor, (ii) of any Restricted Subsidiary to Guarantee the Indebtedness

of the Borrower or (iii) of the Borrower or any Restricted Subsidiary to create, incur, assume or suffer to exist Liens on property of such Person; provided, however, that the foregoing shall not apply to:

- (a) restrictions and conditions imposed by Law or by any Loan Document;
- (b) restrictions and conditions existing on the Closing Date identified on Schedule 7.09 and any amendments or modifications thereof that do not materially expand the scope of any such restriction or condition taken as a whole;
- (c) restrictions and conditions imposed by agreements of any Restricted Subsidiary in existence at the time such Restricted Subsidiary became a Restricted Subsidiary (and not entered into in contemplation thereof) and any amendments or modifications thereof that do not materially expand the scope of any such restriction or condition taken as a whole, provided that such restrictions and conditions apply only to such Restricted Subsidiary;
- (d) customary restrictions and conditions contained in agreements relating to the sale of a Subsidiary pending such sale, provided such restrictions and conditions apply only to the Subsidiary (or the Equity Interests thereof) that is to be sold and such sale is permitted hereunder;
- (e) restrictions imposed by any amendment or refinancings that are otherwise permitted by the Loan Documents; provided that such amendments or refinancings do not materially expand the scope of any such restriction or condition;
- (f) any restriction arising under or in connection with any agreement or instrument governing Equity Interests of any joint venture or Person that is not a Subsidiary;
- (g) customary restrictions and conditions contained in any agreement (including leases, subleases, licenses, sublicenses) relating to the Disposition of any property permitted by Section 7.05;
- (h) customary provisions restricting the transfer or encumbrance of the specific property subject to a Lien permitted by Section 7.01;
- (i) restrictions or conditions set forth in any agreement governing Indebtedness permitted by Section 7.02 (including any Permitted Refinancing Indebtedness); provided that such restrictions and conditions are customary for such Indebtedness and are no more restrictive, taken as a whole, than the comparable restrictions and conditions set forth in this Agreement as determined in the good faith judgment of the board of directors of the Borrower;
- (j) customary provisions restricting assignment of any agreement entered into in the ordinary course of business;
- (k) restrictions on cash or other deposits (including escrowed funds) or net worth imposed under contracts entered into in the ordinary course of business (other than with respect to amounts in the Custody Account); and
- (l) restrictions or conditions imposed by any agreement relating to secured Indebtedness permitted by this Agreement secured by specific assets if such restrictions or conditions apply only to the specific assets securing such Indebtedness.

7.10 Use of Proceeds. (a) Use the proceeds of any Credit Extension, whether directly or indirectly, and whether immediately, incidentally or ultimately, to purchase or carry margin stock (within

the meaning of Regulation U of the FRB) or to extend credit to others for the purpose of purchasing or carrying margin stock or to refund Indebtedness originally incurred for such purpose.

(b) Directly or indirectly, use the proceeds of any Credit Extension, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other individual or entity, to fund any activities of or business with any individual or entity, or in any Designated Jurisdiction, that, at the time of such funding, is the subject of Sanctions, or in any other manner that will result in a violation by an individual or entity (including any individual or entity participating in the transaction, whether as Lender, Administrative Agent, L/C Issuer, Swing Line Lender, or otherwise) of Sanctions.

(c) Directly or indirectly use the proceeds of any Credit Extension for any purpose which would breach the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010, and other similar anti-corruption legislation in other jurisdictions.

(d) Use the proceeds of the Credit Extensions other than to finance ongoing working capital needs (including timing differences resulting from the strategic reduction of short-term Investments) and for other general corporate purposes not in contravention of any Law or of any Loan Document.

7.11 Amendments of Organization Documents. Amend any of its Organization Documents in a manner materially adverse to the interests of the Lenders.

7.12 Amendment, Etc. of Indebtedness. Amend, modify or change in any manner any term or condition of any Subordinated Indebtedness in any respect which would materially and adversely affect the rights or remedies of the Administrative Agent and Lenders hereunder or violate the subordination terms thereof.

#### ARTICLE VIII EVENTS OF DEFAULT AND REMEDIES

8.01 Events of Default. Any of the following shall constitute an Event of Default:

(a) Non-Payment. The Borrower or any other Loan Party fails to (i) pay when and as required to be paid herein, any amount of principal of any Loan or any L/C Obligation or deposit any funds as Cash Collateral in respect of L/C Obligations, or (ii) pay within five Business Days after the same becomes due, any interest on any Loan or on any L/C Obligation, any fee due hereunder, or any other amount payable hereunder or under any other Loan Document; or

(b) Specific Covenants. (i) The Borrower fails to perform or observe any term, covenant or agreement contained in any of Section 6.01, 6.02, 6.03, 6.05, 6.10, 6.11, 6.12, 6.15, 6.17 or Article VII, (ii) any of the Guarantors fails to perform or observe any term, covenant or agreement contained in Section 1 of the Guaranty or (iii) after a Collateral Trigger Event has occurred, any of the Loan Parties fails to perform or observe any term, covenant or agreement contained in Section 5.1 of the Security Agreement; or

(c) Other Defaults. Any Loan Party fails to perform or observe any other covenant or agreement (not specified in Section 8.01(a) or (b) above) contained in any Loan Document on its part to be performed or observed and such failure continues for 30 days after notice thereof from the Administrative Agent; or

(d) Representations and Warranties. Any representation, warranty, certification or statement of fact made or deemed made by or on behalf of the Borrower or any other Loan Party herein, in any other Loan Document, or in any document delivered in connection herewith or therewith that is subject to materiality or Material Adverse Effect qualifications, shall be incorrect or misleading in any respect when made or deemed made or any representation, warranty, certification or statement of fact made or deemed made by or on behalf of any Loan Party in this Agreement, any other Loan Document, or in any document delivered in connection herewith or therewith that is not subject to materiality or Material Adverse Effect qualifications, shall be incorrect or misleading in any material respect when made or deemed made; or

(e) Cross-Default. (i) Any Loan Party or any Restricted Subsidiary thereof (A) fails to make any payment when due (whether by scheduled maturity, required prepayment, acceleration, demand, or otherwise) in respect of any Indebtedness or Guarantee (other than Indebtedness hereunder and Indebtedness under Swap Contracts) having an aggregate principal amount (including undrawn committed or available amounts and including amounts owing to all creditors under any combined or syndicated credit arrangement) of more than the Threshold Amount, or (B) fails to observe or perform any other agreement or condition relating to any such Indebtedness or Guarantee or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event occurs, the effect of which default or other event is to cause, or to permit the holder or holders of such Indebtedness or the beneficiary or beneficiaries of such Guarantee (or a trustee or agent on behalf of such holder or holders or beneficiary or beneficiaries) to cause, with or without the giving of notice but without further passage of time, such Indebtedness to be demanded or to become due or to be repurchased, prepaid, defeased or redeemed (automatically or otherwise), or an offer to repurchase, prepay, defease or redeem such Indebtedness to be made, prior to its stated maturity, or such Guarantee to become payable or cash collateral in respect thereof to be demanded; or (ii) there occurs under any Swap Contract an Early Termination Date (as defined in such Swap Contract) resulting from (A) any event of default under such Swap Contract as to which a Loan Party or any Restricted Subsidiary thereof is the Defaulting Party (as defined in such Swap Contract) or (B) any Termination Event (as so defined) under such Swap Contract (other than, in the case of a Permitted Equity Derivative, to the extent not as a result of any default thereunder by any Loan Party or any Restricted Subsidiary thereof) as to which a Loan Party or any Restricted Subsidiary thereof is an Affected Party (as so defined) and, in either event, the Swap Termination Value owed by such Loan Party or such Restricted Subsidiary as a result thereof is greater than the Threshold Amount; provided that this clause (e) shall not apply to (i) secured Indebtedness that becomes due as a result of the voluntary sale or transfer of the property or assets securing such Indebtedness, and (ii) any conversion or exchange of any convertible or exchangeable debt securities (including the Subordinated Notes) and any conversion or exchange trigger that results in such debt securities becoming convertible or exchangeable, as applicable; or

(f) Insolvency Proceedings, Etc. Any Loan Party or any Restricted Subsidiary thereof institutes or consents to the institution of any proceeding under any Debtor Relief Law, or makes an assignment for the benefit of creditors; or applies for or consents to the appointment of any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer for it or for all or any material part of its property; or any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer is appointed without the application or consent of such Person and the appointment continues undischarged or unstayed for 60 calendar days; or any proceeding under any Debtor Relief Law relating to any such Person or to all or any material part of its property is instituted without the consent of such Person and continues undismissed or unstayed for 60 calendar days, or an order for relief is entered in any such proceeding; or

(g) Inability to Pay Debts; Attachment. (i) Any Loan Party or any Restricted Subsidiary thereof becomes unable or admits in writing its inability or fails generally to pay its debts as they become

due, or (ii) any writ or warrant of attachment or execution or similar process is issued or levied against all or any material part of the property of any such Person and is not released, vacated or fully bonded within 30 days after its issue or levy; or

(h) Judgments. There is entered against any Loan Party or any Restricted Subsidiary thereof one or more final judgments or orders for the payment of money in an aggregate amount (as to all such judgments and orders) exceeding the Threshold Amount (to the extent not covered by independent third-party insurance as to which the insurer is rated at least “A” by A.M. Best Company, has been notified of the potential claim and does not dispute coverage) and (A) enforcement proceedings are commenced by any creditor upon such judgment or order, or (B) there is a period of 30 consecutive days during which a stay of enforcement of such judgment, by reason of a pending appeal or otherwise, is not in effect; or

(i) ERISA. (i) An ERISA Event occurs with respect to a Pension Plan or Multiemployer Plan which has resulted or could reasonably be expected to result in liability of the Borrower to the Pension Plan, Multiemployer Plan or the PBGC in an aggregate amount in excess of the Threshold Amount, or (ii) the Borrower or any ERISA Affiliate fails to pay when due, after the expiration of any applicable grace period, any installment payment with respect to its withdrawal liability under Section 4201 of ERISA under a Multiemployer Plan in an aggregate amount in excess of the Threshold Amount; or

(j) Invalidity of Loan Documents. Any material provision of any Loan Document, at any time after its execution and delivery and for any reason other than as expressly permitted hereunder or thereunder or satisfaction in full of all the Obligations, ceases to be in full force and effect other than in accordance with its terms; or any Loan Party or any other Person contests in writing in any manner the validity or enforceability of any provision of any Loan Document (other than as a result of the satisfaction in full of the Obligations and exclusive of questions of interpretation of any provision thereof); or any Loan Party denies in writing that it has any or further liability or obligation under any provision of any Loan Document, or purports in writing to revoke, terminate or rescind any provision of any Loan Document (other than as a result the satisfaction in full of the Obligations); or

(k) Change of Control. There occurs any Change of Control; or

(l) Collateral Documents. After a Collateral Trigger Event, any Collateral Document after delivery thereof pursuant to Section 6.12 or 6.14 shall for any reason (other than pursuant to the terms thereof) cease to create a valid and perfected first priority Lien on the Collateral purported to be covered thereby.

8.02 Remedies upon Event of Default. If any Event of Default occurs and is continuing, the Administrative Agent shall, at the request of, or may, with the consent of, the Required Lenders, take any or all of the following actions:

(a) declare the commitment of each Lender to make Loans and any obligation of the L/C Issuer to make L/C Credit Extensions to be terminated, whereupon such commitments and obligation shall be terminated;

(b) declare the unpaid principal amount of all outstanding Loans, all interest accrued and unpaid thereon, and all other amounts owing or payable hereunder or under any other Loan Document to be immediately due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by the Borrower;

(c) require that the Borrower Cash Collateralize the L/C Obligations (in an amount equal to the Minimum Collateral Amount with respect thereto); and

(d) exercise on behalf of itself, the Lenders and the L/C Issuer all rights and remedies available to it, the Lenders and the L/C Issuer under the Loan Documents;

provided, however, that upon the occurrence of an actual or deemed entry of an order for relief with respect to the Borrower under the Bankruptcy Code of the United States, the obligation of each Lender to make Loans and any obligation of the L/C Issuer to make L/C Credit Extensions shall automatically terminate, the unpaid principal amount of all outstanding Loans and all interest and other amounts as aforesaid shall automatically become due and payable, and the obligation of the Borrower to Cash Collateralize the L/C Obligations as aforesaid shall automatically become effective, in each case without further act of the Administrative Agent or any Lender.

8.03 Application of Funds. After the exercise of remedies provided for in Section 8.02 (or after the Loans have automatically become immediately due and payable and the L/C Obligations have automatically been required to be Cash Collateralized as set forth in the proviso to Section 8.02), any amounts received on account of the Obligations shall, subject to the provisions of Sections 2.14 and 2.15, be applied by the Administrative Agent in the following order:

First, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (including fees, charges and disbursements of counsel to the Administrative Agent and amounts payable under Article III) payable to the Administrative Agent in its capacity as such;

Second, to payment of that portion of the Obligations constituting fees, indemnities and other amounts (other than principal, interest and Letter of Credit Fees) payable to the Lenders and the L/C Issuer (including fees, charges and disbursements of counsel to the respective Lenders and the L/C Issuer arising under the Loan Documents and amounts payable under Article III, ratably among them in proportion to the respective amounts described in this clause Second payable to them;

Third, to payment of that portion of the Obligations constituting accrued and unpaid Letter of Credit Fees and interest on the Loans, L/C Borrowings and other Obligations arising under the Loan Documents, ratably among the Lenders and the L/C Issuer in proportion to the respective amounts described in this clause Third payable to them;

Fourth, to payment of that portion of the Obligations constituting unpaid principal of the Loans and L/C Borrowings, ratably among the Lenders and the L/C Issuer in proportion to the respective amounts described in this clause Fourth held by them;

Fifth, to the Administrative Agent for the account of the L/C Issuer, to Cash Collateralize that portion of L/C Obligations comprised of the aggregate undrawn amount of Letters of Credit to the extent not otherwise Cash Collateralized by the Borrower pursuant to Sections 2.03 and 2.14; and

Last, the balance, if any, after all of the Obligations have been paid in full, to the Borrower or as otherwise required by Law.

Subject to Sections 2.03(c) and 2.14, amounts used to Cash Collateralize the aggregate undrawn amount of Letters of Credit pursuant to clause Fifth above shall be applied to satisfy drawings under such Letters of Credit as they occur. If any amount remains on deposit as Cash Collateral after all Letters of Credit have either been fully drawn or expired, such remaining amount shall be applied to the other Obligations, if any, in the order set forth above.

ARTICLE IX  
ADMINISTRATIVE AGENT

9.01 Appointment and Authority. (a) Each of the Lenders and the L/C Issuer hereby irrevocably appoints Bank of America to act on its behalf as the Administrative Agent hereunder and under the other Loan Documents and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this Article are solely for the benefit of the Administrative Agent, the Lenders and the L/C Issuer, and the Borrower shall not have rights as a third party beneficiary of any of such provisions. It is understood and agreed that the use of the term “agent” herein or in any other Loan Documents (or any other similar term) with reference to the Administrative Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable Law. Instead such term is used as a matter of market custom, and is intended to create or reflect only an administrative relationship between contracting parties.

(b) The Administrative Agent shall also act as the “collateral agent” under the Loan Documents, and each of the Lenders and the L/C Issuer hereby irrevocably appoints and authorizes the Administrative Agent to act as the agent of such Lender and the L/C Issuer for purposes of acquiring, holding and enforcing any and all Liens on Collateral granted by any of the Loan Parties to secure any of the Obligations, together with such powers and discretion as are reasonably incidental thereto. In this connection, the Administrative Agent, as “collateral agent” and any co-agents, sub-agents and attorneys-in-fact appointed by the Administrative Agent pursuant to Section 9.05 for purposes of holding or enforcing any Lien on the Collateral (or any portion thereof) granted under the Collateral Documents after the occurrence of a Collateral Trigger Event, or for exercising any rights and remedies thereunder at the direction of the Administrative Agent), shall be entitled to the benefits of all provisions of this Article IX and Article X (including Section 10.04(c)), as though such co-agents, sub-agents and attorneys-in-fact were the “collateral agent” under the Loan Documents) as if set forth in full herein with respect thereto.

9.02 Rights as a Lender. The Person serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent and the term “Lender” or “Lenders” shall, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as the Administrative Agent hereunder in its individual capacity. Such Person and its Affiliates may accept deposits from, lend money to, own securities of, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Borrower or any Subsidiary or other Affiliate thereof as if such Person were not the Administrative Agent hereunder and without any duty to account therefor to the Lenders.

9.03 Exculpatory Provisions. The Administrative Agent shall not have any duties or obligations except those expressly set forth herein and in the other Loan Documents, and its duties hereunder shall be administrative in nature. Without limiting the generality of the foregoing, the Administrative Agent:

(a) shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;

(b) shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that the Administrative Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be expressly provided for herein or in



the other Loan Documents), provided that the Administrative Agent shall not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Administrative Agent to liability or that is contrary to any Loan Document or applicable law, including for the avoidance of doubt any action that may be in violation of the automatic stay under any Debtor Relief Law or that may effect a forfeiture, modification or termination of property of a Defaulting Lender in violation of any Debtor Relief Law; and

(c) shall not, except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to the Borrower or any of its Affiliates that is communicated to or obtained by the Person serving as the Administrative Agent or any of its Affiliates in any capacity.

(d) The Administrative Agent shall not be liable for any action taken or not taken by it (i) with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Sections 10.01 and 8.02) or (ii) in the absence of its own gross negligence or willful misconduct, as determined by a court of competent jurisdiction by a final and nonappealable judgment. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until notice describing such Default is given to the Administrative Agent by the Borrower, a Lender or the L/C Issuer.

(e) The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document, or the creation, perfection or priority of any Lien purported to be created by the Collateral Documents, (v) the value or the sufficiency of any Collateral, or (vi) the satisfaction of any condition set forth in Article IV or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent.

9.04 Reliance by Administrative Agent. The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Loan, or the issuance, extension, renewal or increase of a Letter of Credit, that by its terms must be fulfilled to the satisfaction of a Lender or the L/C Issuer, the Administrative Agent may presume that such condition is satisfactory to such Lender or the L/C Issuer unless the Administrative Agent shall have received notice to the contrary from such Lender or the L/C Issuer prior to the making of such Loan or the issuance of such Letter of Credit. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrower), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

9.05 Delegation of Duties. The Administrative Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such

subagent may perform any and all of its duties and exercise its rights and powers by or through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as Administrative Agent. The Administrative Agent shall not be responsible for the negligence or misconduct of any sub-agents except to the extent that a court of competent jurisdiction determines in a final and nonappealable judgment that the Administrative Agent acted with gross negligence or willful misconduct in the selection of such sub-agents.

9.06 Resignation of Administrative Agent. The Administrative Agent may at any time give notice of its resignation to the Lenders, the L/C Issuer and the Borrower. Upon receipt of any such notice of resignation, the Required Lenders shall have the right, in consultation with the Borrower, to appoint a successor, which shall be a bank with an office in the United States, or an Affiliate of any such bank with an office in the United States. If no such successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation, (or such earlier day as shall be agreed by the Required Lenders) (the “Resignation Effective Date”), then the retiring Administrative Agent may (but shall not be obligated to) on behalf of the Lenders and the L/C Issuer, appoint a successor Administrative Agent meeting the qualifications set forth above, provided that in no event shall an such successor Administrative Agent be a Defaulting Lender. Whether or not a successor has been appointed, such resignation shall become effective in accordance with such notice on the Resignation Effective Date.

(b) If the Person serving as Administrative Agent is a Defaulting Lender pursuant to clause (d) of the definition thereof, the Required Lenders may, to the extent permitted by applicable law, by notice in writing to the Borrower and such Person remove such Person as Administrative Agent and, in consultation with the Borrower, appoint a successor. If no such successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days (or such earlier day as shall be agreed by the Required Lenders) (the “Removal Effective Date”), then such removal shall nonetheless become effective in accordance with such notice on the Removal Effective Date.

(c) With effect from the Resignation Effective Date or the Removal Effective Date (as applicable) (1) the retiring or removed Administrative Agent shall be discharged from its duties and obligations hereunder and under the other Loan Documents (except that in the case of any collateral security held by the Administrative Agent on behalf of the Lenders or the L/C Issuer under any of the Loan Documents, the retiring Administrative Agent shall continue to hold such collateral security until such time as a successor Administrative Agent is appointed) and (2) except for any indemnity payments or other amounts then owed to the retiring or removed Administrative Agent, all payments, communications and determinations provided to be made by, to or through the Administrative Agent shall instead be made by or to each Lender and the L/C Issuer directly, until such time, if any, as the Required Lenders appoint a successor Administrative Agent as provided for above. Upon the acceptance of a successor’s appointment as Administrative Agent hereunder, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring (or removed) Administrative Agent (other than as provided in Section 3.01(g) and other than any rights to indemnity payments or other amounts owed to the retiring or removed Administrative Agent as of the Resignation Effective Date or the Removal Effective Date, as applicable), and the retiring or removed Administrative Agent shall be discharged from all of its duties and obligations hereunder or under the other Loan Documents (if not already discharged therefrom as provided above in this Section). The fees payable by the Borrower to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Borrower and such successor. After the retiring or removed Administrative Agent’s resignation or removal hereunder and under the other Loan Documents, the provisions of this Article and Section 10.04 shall continue in effect for the benefit of such retiring or removed Administrative Agent, its

sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them (i) while the retiring or removed Administrative Agent was acting as Administrative Agent and (ii) after such resignation or removal for as long as any of them continues to act in any capacity hereunder or under the other Loan Documents, including (a) acting as collateral agent or otherwise holding any collateral security on behalf of any of the Lenders and (b) in respect of any actions taken in connection with transferring the agency to any successor Administrative Agent.

(d) Any resignation or removal by Bank of America as Administrative Agent pursuant to this Section shall also constitute its resignation as L/C Issuer and Swing Line Lender. If Bank of America resigns as an L/C Issuer, it shall retain all the rights, powers, privileges and duties of the L/C Issuer hereunder with respect to all Letters of Credit outstanding as of the effective date of its resignation as L/C Issuer and all L/C Obligations with respect thereto, including the right to require the Lenders to make Base Rate Loans or fund risk participations in Unreimbursed Amounts pursuant to Section 2.03(c). If Bank of America resigns as Swing Line Lender, it shall retain all the rights of the Swing Line Lender provided for hereunder with respect to Swing Line Loans made by it and outstanding as of the effective date of such resignation, including the right to require the Lenders to make Base Rate Loans or fund risk participations in outstanding Swing Line Loans pursuant to Section 2.04(c). Upon the appointment by the Borrower of a successor L/C Issuer or Swing Line Lender hereunder (which successor shall in all cases be a Lender other than a Defaulting Lender), (a) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring L/C Issuer or Swing Line Lender, as applicable, (b) the retiring L/C Issuer and Swing Line Lender shall be discharged from all of their respective duties and obligations hereunder or under the other Loan Documents, and (c) the successor L/C Issuer shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make other arrangements satisfactory to Bank of America to effectively assume the obligations of Bank of America with respect to such Letters of Credit.

9.07 Non-Reliance on Administrative Agent and Other Lenders. Each Lender and the L/C Issuer acknowledges that it has, independently and without reliance upon the Administrative Agent or any other Lender or any of their Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Lender and the L/C Issuer also acknowledges that it will, independently and without reliance upon the Administrative Agent or any other Lender or any of their Related Parties and based on such documents and information as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any other Loan Document or any related agreement or any document furnished hereunder or thereunder.

9.08 Administrative Agent May File Proofs of Claim; Credit Bidding. In case of the pendency of any proceeding under any Debtor Relief Law or any other judicial proceeding relative to any Loan Party, the Administrative Agent (irrespective of whether the principal of any Loan or L/C Obligation shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Borrower) shall be entitled and empowered, by intervention in such proceeding or otherwise (a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans, L/C Obligations and all other Obligations that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders, the L/C Issuer and the Administrative Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders, the L/C Issuer and the Administrative Agent and their respective agents and counsel and all other amounts due the Lenders, the L/C Issuer and the Administrative Agent under Sections 2.03(i) and (j), 2.09 and 10.04) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender and the L/C Issuer to make such payments to the Administrative Agent and, if the Administrative Agent shall consent to the making of such payments directly to the Lenders and the L/C Issuer, to pay to the Administrative Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Administrative Agent and its agents and counsel, and any other amounts due the Administrative Agent under Sections 2.09 and 10.04.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Lender or the L/C Issuer any plan of reorganization, arrangement, adjustment or composition affecting the Obligations or the rights of any Lender or the L/C Issuer to authorize the Administrative Agent to vote in respect of the claim of any Lender or the L/C Issuer or in any such proceeding.

The Secured Parties hereby irrevocably authorize the Administrative Agent, at the direction of the Required Lenders, to credit bid all or any portion of the Obligations (including accepting some or all of the Collateral in satisfaction of some or all of the Secured Obligations pursuant to a deed in lieu of foreclosure or otherwise) and in such manner purchase (either directly or through one or more acquisition vehicles) all or any portion of the Collateral (a) at any sale thereof conducted under the provisions of the Bankruptcy Code of the United States, including under Sections 363, 1123 or 1129 of the Bankruptcy Code of the United States, or any similar Laws in any other jurisdictions to which a Loan Party is subject, (b) at any other sale or foreclosure or acceptance of collateral in lieu of debt conducted by (or with the consent or at the direction of) the Administrative Agent (whether by judicial action or otherwise) in accordance with any applicable Law. In connection with any such credit bid and purchase, the Obligations owed to the Secured Parties shall be entitled to be, and shall be, credit bid on a ratable basis (with Obligations with respect to contingent or unliquidated claims receiving contingent interests in the acquired assets on a ratable basis that would vest upon the liquidation of such claims in an amount proportional to the liquidated portion of the contingent claim amount used in allocating the contingent interests) in the asset or assets so purchased (or in the Equity Interests or debt instruments of the acquisition vehicle or vehicles that are used to consummate such purchase). In connection with any such bid (i) the Administrative Agent shall be authorized to form one or more acquisition vehicles to make a bid, (ii) to adopt documents providing for the governance of the acquisition vehicle or vehicles (provided that any actions by the Administrative Agent with respect to such acquisition vehicle or vehicles, including any disposition of the assets or Equity Interests thereof shall be governed, directly or indirectly, by the vote of the Required Lenders, irrespective of the termination of this Agreement and without giving effect to the limitations on actions by the Required Lenders contained in clauses (a) through (h) of Section 10.01 of this Agreement), (iii) the Administrative Agent shall be authorized to assign the relevant Obligations to any such acquisition vehicle pro rata by the Lenders, as a result of which each of the Lenders shall be deemed to have received a pro rata portion of any Equity Interests and/or debt instruments issued by such an acquisition vehicle on account of the assignment of the Obligations to be credit bid, all without the need for any Secured Party or acquisition vehicle to take any further action, and (iv) to the extent that Obligations that are assigned to an acquisition vehicle are not used to acquire Collateral for any reason (as a result of another bid being higher or better, because the amount of Obligations assigned to the acquisition vehicle exceeds the amount of debt credit bid by the acquisition vehicle or otherwise), such Obligations shall automatically be reassigned to the Lenders pro rata and the Equity Interests and/or debt instruments issued by any acquisition vehicle on account of the Obligations that had been assigned to the acquisition vehicle shall automatically be cancelled, without the need for any Secured Party or any acquisition vehicle to take any further action.

9.09 Collateral and Guaranty Matters. Without limiting the provision of Section 9.08, the Lenders and the L/C Issuer irrevocably authorize the Administrative Agent, at its option and in its discretion,

(a) to release any Lien on any property granted to or held by the Administrative Agent under any Loan Document (i) upon termination of the Aggregate Commitments and payment in full of all Obligations (other than contingent indemnification obligations) and the expiration or termination of all Letters of Credit (other than Letters of Credit as to which other arrangements satisfactory to the Administrative Agent and the L/C Issuer shall have been made), (ii) upon permitted withdrawal from the Custody Account or (iii) if approved, authorized or ratified in writing in accordance with Section 10.01; and

(b) to release any Guarantor from its obligations under the Guaranty if such Person ceases to be a Restricted Subsidiary as a result of a transaction permitted under the Loan Documents.

Upon request by the Administrative Agent at any time, the Required Lenders will confirm in writing the Administrative Agent's authority to release any Guarantor from its obligations under the Guaranty pursuant to this Section 9.09. In each case as specified in this Section 9.09, the Administrative Agent will, at the Borrower's expense, execute and deliver to the applicable Loan Party such documents as such Loan Party may reasonably request to evidence the release of the Collateral from the assignment and security interest granted under the Collateral Documents or to release such Guarantor from its obligations under the Guaranty, in each case in accordance with the terms of the Loan Documents and this Section 9.09. Each Loan Party agrees that its obligations hereunder shall continue to be effective or be reinstated, as applicable, if at any time payment, or any part thereof, of all or any part of the Obligations is rescinded or must otherwise be restored by the Secured Party upon the bankruptcy or reorganization of the Loan Party or otherwise.

The Administrative Agent shall not be responsible for or have a duty to ascertain or inquire into any representation or warranty regarding the existence, value or collectability of the Collateral, the existence, priority or perfection of the Administrative Agent's Lien thereon, or any certificate prepared by any Loan Party in connection therewith, nor shall the Administrative Agent be responsible or liable to the Lenders for any failure to monitor or maintain any portion of the Collateral.

9.10 Withholding Tax. To the extent required by any applicable Laws (as determined in good faith by the Administrative Agent), the Administrative Agent may withhold from any payment to any Lender under any Loan Document an amount equal to any applicable withholding Tax. If the IRS or any other Governmental Authority asserts a claim that the Administrative Agent did not properly withhold Tax from any amount paid to or for the account of any Lender for any reason (including because the appropriate form was not delivered or was not properly executed, or because such Lender failed to notify the Administrative Agent of a change in circumstances that rendered the exemption from, or reduction of, withholding Tax ineffective), such Lender shall indemnify and hold harmless the Administrative Agent for all amounts paid, directly or indirectly, by the Administrative Agent as Tax or otherwise, including any penalties, additions to tax or interest thereto, together with all expenses incurred, including legal expenses and any out-of-pocket expenses, whether or not such Tax was correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error.

Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under this Agreement or any other Loan Document against any amount due to the Administrative Agent under this Section 9.10. The agreements in this Section 9.10 shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the

replacement of, a Lender, the termination of the Commitments and the repayment, satisfaction or discharge of all Obligations.

For the avoidance of doubt, the term “Lender,” for purposes of this Section 9.10, shall include any L/C Issuer and any Swing Line Lender.

ARTICLE X  
MISCELLANEOUS

10.01 Amendments, Etc. No amendment or waiver of any provision of this Agreement or any other Loan Document, and no consent to any departure by the Borrower or any other Loan Party therefrom, shall be effective unless in writing signed by the Required Lenders and the Borrower or the applicable Loan Party, as the case may be, and acknowledged by the Administrative Agent, and each such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given; provided, however, that no such amendment, waiver or consent shall:

(a) waive any condition set forth in Section 4.01 (other than Section 4.01(b)(i) or (c)), or, in the case of the initial Credit Extension, Section 4.02, without the written consent of each Lender;

(b) without limiting the generality of clause (a) above, waive any condition set forth in Section 4.02 as to any Credit Extension without the written consent of the Required Lenders;

(c) extend or increase the Commitment of any Lender (or reinstate any Commitment terminated pursuant to Section 8.02) without the written consent of such Lender;

(d) postpone any date fixed by this Agreement or any other Loan Document for any payment of principal, interest, fees or other amounts due to the Lenders (or any of them) hereunder or under such other Loan Document without the written consent of each Lender entitled to such payment;

(e) reduce the principal of, or the rate of interest specified herein on, any Loan or L/C Borrowing, or (subject to clause (iv) of the second proviso to this Section 10.01) any fees or other amounts payable hereunder or under any other Loan Document without the written consent of each Lender entitled to such amount; provided, however, that only the consent of the Required Lenders shall be necessary to amend the definition of “Default Rate” or to waive any obligation of the Borrower to pay interest or Letter of Credit Fees at the Default Rate;

(f) change any provision of this Section 10.01 or the definition of “Required Lenders” or any other provision hereof specifying the number or percentage of Lenders required to amend, waive or otherwise modify any rights hereunder or make any determination or grant any consent hereunder without the written consent of each Lender;

(g) release all or substantially all of the Collateral in any transaction or series of related transactions, without the written consent of each Lender; or

(h) release all or substantially all of the value of the Guaranty, without the written consent of each Lender, except to the extent the release of any Restricted Subsidiary from the Guaranty is permitted pursuant to Section 9.09 (in which case such release may be made by the Administrative Agent acting alone);

and provided, further, that (i) no amendment, waiver or consent shall, unless in writing and signed by the L/C Issuer in addition to the Lenders required above, affect the rights or duties of the L/C Issuer under

this Agreement or any Issuer Document relating to any Letter of Credit issued or to be issued by it; (ii) no amendment, waiver or consent shall, unless in writing and signed by the Swing Line Lender in addition to the Lenders required above, affect the rights or duties of the Swing Line Lender under this Agreement; and (iii) no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent in addition to the Lenders required above, affect the rights or duties of the Administrative Agent under this Agreement or any other Loan Document. Notwithstanding anything to the contrary herein, no Defaulting Lender shall have any right to approve or disapprove any amendment, waiver or consent hereunder (and any amendment, waiver or consent which by its terms requires the consent of all Lenders or each affected Lender may be effected with the consent of the applicable Lenders other than Defaulting Lenders), except that (x) the Commitment of any Defaulting Lender may not be increased or extended without the consent of such Lender and (y) any waiver, amendment or modification requiring the consent of all Lenders or each affected Lender that by its terms affects any Defaulting Lender disproportionately adversely relative to other affected Lenders shall require the consent of such Defaulting Lender.

If any Lender does not consent to a proposed amendment, waiver, consent or release with respect to any Loan Document that requires the consent of each Lender and that has been approved by the Required Lenders, the Borrower may replace such non-consenting Lender in accordance with Section 10.13; provided that such amendment, waiver, consent or release can be effected as a result of the assignment contemplated by such Section (together with all other such assignments required by the Borrower to be made pursuant to this paragraph).

10.02                    Notices; Effectiveness; Electronic Communications. (a) Notices Generally. Except in the case of notices and other communications expressly permitted to be given by telephone (and except as provided in subsection (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by facsimile or electronic mail as follows, and all notices and other communications expressly permitted hereunder to be given by telephone shall be made to the applicable telephone number, as follows:

(i)                                if to the Borrower, the Administrative Agent, the L/C Issuer or the Swing Line Lender, to the address, facsimile number, electronic mail address or telephone number specified for such Person on Schedule 10.02; and

(ii)                                if to any other Lender, to the address, facsimile number, electronic mail address or telephone number specified in its Administrative Questionnaire (including, as appropriate, notices delivered solely to the Person designated by a Lender on its Administrative Questionnaire then in effect for the delivery of notices that may contain material non-public information relating to the Borrower).

Notices and other communications sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices and other communications sent by facsimile shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next Business Day for the recipient). Notices and other communications delivered through electronic communications to the extent provided in subsection (b) below shall be effective as provided in such subsection (b).

(b)                    Electronic Communications. Notices and other communications to the Lenders and the L/C Issuer hereunder may be delivered or furnished by electronic communication (including e-mail, FpML messaging, and Internet or intranet websites) pursuant to procedures approved by the Administrative Agent, provided that the foregoing shall not apply to notices to any Lender or the L/C

Issuer pursuant to Article II if such Lender or the L/C Issuer, as applicable, has notified the Administrative Agent that it is incapable of receiving notices under such Article by electronic communication. The Administrative Agent, the Swing Line Lender, the L/C Issuer or the Borrower may each, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it, provided that approval of such procedures may be limited to particular notices or communications.

Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor; provided that, for both clauses (i) and (ii), if such notice, email or other communication is not sent during the normal business hours of the recipient, such notice, email or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient.

(c) The Platform. THE PLATFORM IS PROVIDED "AS IS" AND "AS AVAILABLE." THE AGENT PARTIES (AS DEFINED BELOW) DO NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE BORROWER MATERIALS OR THE ADEQUACY OF THE PLATFORM, AND EXPRESSLY DISCLAIM LIABILITY FOR ERRORS IN OR OMISSIONS FROM THE BORROWER MATERIALS. NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY RIGHTS OR FREEDOM FROM VIRUSES OR OTHER CODE DEFECTS, IS MADE BY ANY AGENT PARTY IN CONNECTION WITH THE BORROWER MATERIALS OR THE PLATFORM. In no event shall the Administrative Agent or any of its Related Parties (collectively, the "Agent Parties") have any liability to the Borrower, any Lender, the L/C Issuer or any other Person for losses, claims, damages, liabilities or expenses of any kind (whether in tort, contract or otherwise) arising out of the Borrower's, any Loan Party's or the Administrative Agent's transmission of Borrower Materials or notices through the Platform, any other electronic messaging service, or through the Internet.

(d) Change of Address, Etc. Each of the Borrower, the Administrative Agent, the L/C Issuer and the Swing Line Lender may change its address, facsimile or telephone number for notices and other communications hereunder by notice to the other parties hereto. Each other Lender may change its address, facsimile or telephone number for notices and other communications hereunder by notice to the Borrower, the Administrative Agent, the L/C Issuer and the Swing Line Lender. In addition, each Lender agrees to notify the Administrative Agent from time to time to ensure that the Administrative Agent has on record (i) an effective address, contact name, telephone number, facsimile number and electronic mail address to which notices and other communications may be sent and (ii) accurate wire instructions for such Lender. Furthermore, each Public Lender agrees to cause at least one individual at or on behalf of such Public Lender to at all times have selected the "Private Side Information" or similar designation on the content declaration screen of the Platform in order to enable such Public Lender or its delegate, in accordance with such Public Lender's compliance procedures and applicable Law, including United States Federal and state securities Laws, to make reference to Borrower Materials that are not made available through the "Public Side Information" portion of the Platform and that may contain material non-public information with respect to the Borrower or its securities for purposes of United States Federal or state securities laws.



(e) Reliance by Administrative Agent, L/C Issuer and Lenders. The Administrative Agent, the L/C Issuer and the Lenders shall be entitled to rely and act upon any notices (including telephonic notices, Committed Loan Notices, Letter of Credit Applications and Swing Line Loan Notices) purportedly given by or on behalf of the Borrower even if (i) such notices were not made in a manner specified herein, were incomplete or were not preceded or followed by any other form of notice specified herein, or (ii) the terms thereof, as understood by the recipient, varied from any confirmation thereof. The Loan Parties shall indemnify the Administrative Agent, the L/C Issuer, each Lender and the Related Parties of each of them from all losses, costs, expenses and liabilities resulting from the reliance by such Person on each notice purportedly given by or on behalf of the Borrower. All telephonic notices to and other telephonic communications with the Administrative Agent may be recorded by the Administrative Agent, and each of the parties hereto hereby consents to such recording.

10.03 No Waiver; Cumulative Remedies; Enforcement. No failure by any Lender, the L/C Issuer or the Administrative Agent to exercise, and no delay by any such Person in exercising, any right, remedy, power or privilege hereunder or under any other Loan Document shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges herein provided, and provided under each other Loan Document, are cumulative and not exclusive of any rights, remedies, powers and privileges provided by law.

Notwithstanding anything to the contrary contained herein or in any other Loan Document, the authority to enforce rights and remedies hereunder and under the other Loan Documents against the Loan Parties or any of them shall be vested exclusively in, and all actions and proceedings at law in connection with such enforcement shall be instituted and maintained exclusively by, the Administrative Agent in accordance with Section 8.02 for the benefit of all the Lenders and the L/C Issuer; provided, however, that the foregoing shall not prohibit (a) the Administrative Agent from exercising on its own behalf the rights and remedies that inure to its benefit (solely in its capacity as Administrative Agent) hereunder and under the other Loan Documents, (b) the L/C Issuer or the Swing Line Lender from exercising the rights and remedies that inure to its benefit (solely in its capacity as L/C Issuer or Swing Line Lender, as the case may be) hereunder and under the other Loan Documents, (c) any Lender from exercising setoff rights in accordance with Section 10.08 (subject to the terms of Section 2.13), or (d) any Lender from filing proofs of claim or appearing and filing pleadings on its own behalf during the pendency of a proceeding relative to any Loan Party under any Debtor Relief Law; and provided, further, that if at any time there is no Person acting as Administrative Agent hereunder and under the other Loan Documents, then (i) the Required Lenders shall have the rights otherwise ascribed to the Administrative Agent pursuant to Section 8.02 and (ii) in addition to the matters set forth in clauses (b), (c) and (d) of the preceding proviso and subject to Section 2.13, any Lender may, with the consent of the Required Lenders, enforce any rights and remedies available to it and as authorized by the Required Lenders.

10.04 Expenses; Indemnity; Damage Waiver. (a) Costs and Expenses. The Borrower shall pay (i) all reasonable out-of-pocket expenses incurred by the Administrative Agent and its Affiliates (including the reasonable and documented legal fees, charges, disbursements of and other charges of one primary counsel to the Administrative Agent and the Lenders and of a single local counsel to the Administrative Agent and the Lenders in each appropriate jurisdiction (which may include a single local counsel to the Administrative Agent and the Lenders acting in multiple jurisdictions) or otherwise retained with the Borrower's consent (such consent not to be unreasonably withheld or delayed)), in connection with the syndication of the credit facilities provided for herein, the preparation, negotiation, execution, delivery and administration of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), (ii) all reasonable out-of-pocket expenses

incurred by the L/C Issuer in connection with the issuance, amendment, renewal or extension of any Letter of Credit or any demand for payment thereunder and (iii) all out-of-pocket expenses incurred by the Administrative Agent, any Lender or the L/C Issuer (including the fees, charges and disbursements of any counsel for the Administrative Agent, any Lender or the L/C Issuer), in connection with the enforcement or protection of its rights (A) in connection with this Agreement and the other Loan Documents, including its rights under this Section, or (B) in connection with Loans made or Letters of Credit issued hereunder, including all such out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of such Loans or Letters of Credit.

(b) Indemnification by the Borrower. The Borrower shall indemnify the Administrative Agent (and any sub-agent thereof), each Lender and the L/C Issuer, and each Related Party of any of the foregoing Persons (each such Person being called an “Indemnitee”) against, and hold each Indemnitee harmless from, any and all losses, claims, damages, liabilities and related expenses (including the fees, charges and disbursements of any counsel for any Indemnitee), incurred by any Indemnitee or asserted against any Indemnitee by any Person (including the Borrower or any other Loan Party) other than such Indemnitee and its Related Parties arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the performance by the parties hereto of their respective obligations hereunder or thereunder or the consummation of the transactions contemplated hereby or thereby, or, in the case of the Administrative Agent (and any sub-agent thereof) and its Related Parties only, the administration of this Agreement and the other Loan Documents (including in respect of any matters addressed in Section 3.01), (ii) any Loan or Letter of Credit or the use or proposed use of the proceeds therefrom (including any refusal by the L/C Issuer to honor a demand for payment under a Letter of Credit if the documents presented in connection with such demand do not strictly comply with the terms of such Letter of Credit), (iii) any actual or alleged presence or Release of Hazardous Materials at, on, under or emanating from any property owned, leased or operated by the Borrower or any of its Subsidiaries, or any Environmental Liability related in any way to the Borrower or any of its Subsidiaries, or (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by the Borrower or any other Loan Party or any of the Borrower’s or such Loan Party’s directors, shareholders or creditors, and regardless of whether any Indemnitee is a party thereto; provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee. Without limiting the provisions of Section 3.01(c), this Section 10.04(b) shall not apply with respect to Taxes other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim.

(c) Reimbursement by Lenders. To the extent that the Borrower for any reason fails to pay any amount required under subsection (a) or (b) of this Section to be paid by it to the Administrative Agent (or any sub-agent thereof), the L/C Issuer, the Swing Line Lender or any Related Party of any of the foregoing, each Lender severally agrees to pay to the Administrative Agent (or any such sub-agent), the L/C Issuer, the Swing Line Lender or such Related Party, as the case may be, such Lender’s pro rata share (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought based on each Lender’s share of the Total Credit Exposure at such time) of such unpaid amount (including any such unpaid amount in respect of a claim asserted by such Lender), such payment to be made severally among them based on such Lenders’ Applicable Percentage (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought), provided, further that, the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Administrative Agent (or any such sub-agent), the L/C Issuer or the Swing Line Lender in its capacity as such, or against any Related Party of any of the foregoing acting for the Administrative Agent (or any such sub-agent), the L/C Issuer or the Swing Line Lender in

connection with such capacity. The obligations of the Lenders under this subsection (c) are subject to the provisions of Section 2.12(d).

(d) Waiver of Consequential Damages, Etc. To the fullest extent permitted by applicable law, the Borrower shall not assert, and hereby waives, and acknowledges that no other Person shall have, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, any Loan or Letter of Credit or the use of the proceeds thereof. No Indemnitee referred to in subsection (b) above shall be liable for any damages arising from the use by others of any information or other materials distributed to such party by such Indemnitee through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

(e) Payments. All amounts due under this Section shall be payable not later than ten Business Days after demand therefor.

(f) Survival. The agreements in this Section and the indemnity provision of Section 10.02(e) shall survive the resignation of the Administrative Agent, the L/C Issuer and the Swing Line Lender, the replacement of any Lender, the termination of the Aggregate Commitments and the repayment, satisfaction or discharge of all the other Obligations.

10.05 Payments Set Aside. To the extent that any payment by or on behalf of the Borrower is made to the Administrative Agent, the L/C Issuer or any Lender, or the Administrative Agent, the L/C Issuer or any Lender exercises its right of setoff, and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by the Administrative Agent, the L/C Issuer or such Lender in its discretion) to be repaid to a trustee, receiver or any other party, in connection with any proceeding under any Debtor Relief Law or otherwise, then (a) to the extent of such recovery, the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such setoff had not occurred, and (b) each Lender and the L/C Issuer severally agrees to pay to the Administrative Agent upon demand its applicable share (without duplication) of any amount so recovered from or repaid by the Administrative Agent, plus interest thereon from the date of such demand to the date such payment is made at a rate per annum equal to the Federal Funds Rate from time to time in effect. The obligations of the Lenders and the L/C Issuer under clause (b) of the preceding sentence shall survive the payment in full of the Obligations and the termination of this Agreement.

10.06 Successors and Assigns. (a) Successors and Assigns Generally. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that the Borrower may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender and no Lender may assign or otherwise transfer any of its rights or obligations hereunder except (i) to an assignee in accordance with the provisions of Section 10.06(b), (ii) by way of participation in accordance with the provisions of Section 10.06(d), or (iii) by way of pledge or assignment of a security interest subject to the restrictions of Section 10.06(f) (and any other attempted assignment or transfer by any party hereto shall be null and void). Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in subsection (d) of this Section and, to the extent expressly contemplated hereby, the Related Parties of each of the

Administrative Agent, the L/C Issuer and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Assignments by Lenders. Any Lender may at any time assign to one or more assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitment(s) and the Loans (including for purposes of this Section 10.06(b), participations in L/C Obligations and in Swing Line Loans) at the time owing to it); provided that any such assignment shall be subject to the following conditions:

(i) Minimum Amounts.

(A) in the case of an assignment of the entire remaining amount of the assigning Lender's Commitment and/or the Loans at the time owing to it or contemporaneous assignments to related Approved Funds (determined after giving effect to such assignments) that equal at least the amount specified in clause (b)(i)(B) of this Section in the aggregate or in the case of an assignment to a Lender, an Affiliate of a Lender or an Approved Fund, no minimum amount need be assigned; and

(B) in any case not described in clause (b)(i)(A) of this Section, the aggregate amount of the Commitment (which for this purpose includes Loans outstanding thereunder) or, if the Commitment is not then in effect, the principal outstanding balance of the Loans of the assigning Lender subject to each such assignment, determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date, shall not be less than \$5,000,000 unless each of the Administrative Agent and, so long as no Event of Default has occurred and is continuing, the Borrower otherwise consents (each such consent not to be unreasonably withheld or delayed).

(ii) Proportionate Amounts. Each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Loans or the Commitment assigned, except that this clause (ii) shall not apply to the Swing Line Lender's rights and obligations in respect of Swing Line Loans;

(iii) Required Consents. No consent shall be required for any assignment except to the extent required by subsection (b)(i)(B) of this Section and, in addition:

(A) the consent of the Borrower (such consent not to be unreasonably withheld or delayed) shall be required unless (1) an Event of Default has occurred and is continuing at the time of such assignment or (2) such assignment is to a Lender, an Affiliate of a Lender or an Approved Fund; provided that the Borrower shall be deemed to have consented to any such assignment unless it shall object thereto by written notice to the Administrative Agent within five (5) Business Days after having received notice thereof;

(B) the consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for assignments in respect of any Commitment if such assignment is to a Person that is not a Lender, an Affiliate of such Lender or an Approved Fund with respect to such Lender; and

(C) the consent of the L/C Issuer and the Swing Line Lender shall be required for any assignment.

(iv) Assignment and Assumption. The parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption, together with a processing and recordation fee in the amount of \$3,500; provided, however, that the Administrative Agent may, in its sole discretion, elect to waive such processing and recordation fee in the case of any assignment. The assignee, if it is not a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire.

(v) No Assignment to Certain Persons. No such assignment shall be made (A) to the Borrower or any of the Borrower's Affiliates or Subsidiaries, (B) to any Defaulting Lender or any of its Subsidiaries, or any Person who, upon becoming a Lender hereunder, would constitute any of the foregoing Persons described in this clause (B), or (C) to a natural Person (or a holding company, investment vehicle or trust for, or owned and operated for the primary benefit of a natural Person).

(vi) Certain Additional Payments. In connection with any assignment of rights and obligations of any Defaulting Lender hereunder, no such assignment shall be effective unless and until, in addition to the other conditions thereto set forth herein, the parties to the assignment shall make such additional payments to the Administrative Agent in an aggregate amount sufficient, upon distribution thereof as appropriate (which may be outright payment, purchases by the assignee of participations or subparticipations, or other compensating actions, including funding, with the consent of the Borrower and the Administrative Agent, the applicable pro rata share of Loans previously requested but not funded by the Defaulting Lender, to each of which the applicable assignee and assignor hereby irrevocably consent), to (x) pay and satisfy in full all payment liabilities then owed by such Defaulting Lender to the Administrative Agent, the L/C Issuer or any Lender hereunder (and interest accrued thereon) and (y) acquire (and fund as appropriate) its full pro rata share of all Loans and participations in Letters of Credit and Swing Line Loans in accordance with its Applicable Percentage. Notwithstanding the foregoing, in the event that any assignment of rights and obligations of any Defaulting Lender hereunder shall become effective under applicable Law without compliance with the provisions of this paragraph, then the assignee of such interest shall be deemed to be a Defaulting Lender for all purposes of this Agreement until such compliance occurs.

(vii) Subject to acceptance and recording thereof by the Administrative Agent pursuant to subsection (c) of this Section, from and after the effective date specified in each Assignment and Assumption, the assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto) but shall continue to be entitled to the benefits of Sections 3.01, 3.04, 3.05 and 10.04 with respect to facts and circumstances occurring prior to the effective date of such assignment; provided, that except to the extent otherwise expressly agreed by the affected parties, no assignment by a Defaulting Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender's having been a Defaulting Lender. Upon request, the Borrower (at its expense) shall execute and deliver a Note to the assignee Lender. Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this subsection shall be treated for purposes of this Agreement as a sale by such

Lender of a participation in such rights and obligations in accordance with subsection (d) of this Section.

(c) Register. The Administrative Agent, acting solely for this purpose as a non-fiduciary agent of the Borrower (and such agency being solely for tax purposes), shall maintain at the Administrative Agent's Office a copy of each Assignment and Assumption delivered to it (or the equivalent thereof in electronic form) and a register for the recordation of the names and addresses of the Lenders, and the Commitments of, and principal amounts (and stated interest) of the Loans and L/C Obligations owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive absent manifest error, and the Borrower, the Administrative Agent and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by the Borrower and any Lender (with respect to its own interests), at any reasonable time and from time to time upon reasonable prior notice.

(d) Participations. Any Lender may at any time, without the consent of, or notice to, the Borrower or the Administrative Agent, sell participations to any Person (other than a natural Person, or a holding company, investment vehicle or trust for, or owned and operated for the primary benefit of a natural Person, a Defaulting Lender or the Borrower or any of the Borrower's Affiliates or Subsidiaries) (each, a "Participant") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Commitment and/or the Loans (including such Lender's participations in L/C Obligations and/or Swing Line Loans) owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Borrower, the Administrative Agent, the other Lenders and the L/C Issuer shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement. For the avoidance of doubt, each Lender shall be responsible for the indemnity under Section 10.04(c) without regard to the existence of any participation.

Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, waiver or other modification described in the first proviso to Section 10.01 that affects such Participant. The Borrower agrees that each Participant shall be entitled to the benefits of Sections 3.01, 3.04 and 3.05 to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to subsection (b) of this Section (subject to the requirements and limitations therein, including the requirements of Section 3.01(e) (it being understood that the documentation required under Section 3.01(e) shall be delivered solely to the Lender who sells the participation)); provided that such Participant (A) shall be subject to the provisions of Sections 3.06 and 10.13 as if it were an assignee under paragraph (b) of this Section and (B) shall not be entitled to receive any greater payment under Section 3.01 or 3.04, with respect to any participation, than the Lender from whom it acquired the applicable participation would have been entitled to receive, except to the extent such entitlement to receive a greater payment results from a Change in Law that occurs after the Participant acquired the applicable participation. Each Lender that sells a participation agrees, at the Borrower's request and expense, to use reasonable efforts to cooperate with the Borrower to effectuate the provisions of Section 3.06 with respect to any Participant. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 10.08 as though it were a Lender; provided that such Participant agrees to be subject to Section 2.13 as though it were a Lender. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Borrower, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Loans or

other obligations under the Loan Documents (the “Participant Register”); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant’s interest in any commitments, loans, letters of credit or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such commitment, loan, letter of credit or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary. For the avoidance of doubt, the Administrative Agent (in its capacity as Administrative Agent) shall have no responsibility for maintaining a Participant Register.

(e) Certain Pledges. Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement (including under its Note, if any) to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank; provided that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(f) Resignation as L/C Issuer or Swing Line Lender after Assignment. Notwithstanding anything to the contrary contained herein, if at any time Bank of America assigns all of its Commitment and Revolving Credit Loans pursuant to Section 10.06(b), Bank of America may, (i) upon 30 days’ notice to the Borrower and the Lenders, resign as L/C Issuer and/or (ii) upon 30 days’ notice to the Borrower, resign as Swing Line Lender. In the event of any such resignation as L/C Issuer or Swing Line Lender, the Borrower shall be entitled to appoint from among the Lenders a successor L/C Issuer or Swing Line Lender hereunder; provided, however, that no failure by the Borrower to appoint any such successor shall affect the resignation of Bank of America as L/C Issuer or Swing Line Lender, as the case may be. If Bank of America resigns as L/C Issuer, it shall retain all the rights, powers, privileges and duties of the L/C Issuer hereunder with respect to all Letters of Credit outstanding as of the effective date of its resignation as L/C Issuer and all L/C Obligations with respect thereto (including the right to require the Lenders to make Base Rate Loans or fund risk participations in Unreimbursed Amounts pursuant to Section 2.03(c)). If Bank of America resigns as Swing Line Lender, it shall retain all the rights of the Swing Line Lender provided for hereunder with respect to Swing Line Loans made by it and outstanding as of the effective date of such resignation, including the right to require the Lenders to make Base Rate Loans or fund risk participations in outstanding Swing Line Loans pursuant to Section 2.04(c). Upon the appointment of a successor L/C Issuer and/or Swing Line Lender, (a) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring L/C Issuer or Swing Line Lender, as the case may be, and (b) the successor L/C Issuer shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make other arrangements satisfactory to Bank of America to effectively assume the obligations of Bank of America with respect to such Letters of Credit.

10.07 Treatment of Certain Information; Confidentiality. Each of the Administrative Agent, the Lenders and the L/C Issuer agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates, its auditors and its Related Parties (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent required or requested by any regulatory authority purporting to have jurisdiction over such Person or its Related Parties (including any self-regulatory authority, such as the National Association of Insurance Commissioners), (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process, (d) to any other party hereto, (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any action or proceeding relating to this Agreement or

any other Loan Document or the enforcement of rights hereunder or thereunder, (f) subject to an agreement containing provisions substantially the same as those of this Section, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights and obligations under this Agreement or (ii) any actual or prospective party (or its Related Parties) to any swap, derivative or other transaction under which payments are to be made by reference to the Borrower and its obligations, this Agreement or payments hereunder, in reliance on this clause (f), (g) on a confidential basis to (i) any rating agency in connection with rating the Borrower or its Subsidiaries or the credit facilities provided hereunder or (ii) the CUSIP Service Bureau or any similar agency in connection with the issuance and monitoring of CUSIP numbers of other market identifiers with respect to the credit facilities provided hereunder, (h) with the consent of the Borrower or (i) to the extent such Information (i) becomes publicly available other than as a result of a breach of this Section or (ii) becomes available to the Administrative Agent, any Lender, the L/C Issuer or any of their respective Affiliates on a nonconfidential basis from a source other than the Borrower. In addition, the Administrative Agent and the Lenders may disclose the existence of this Agreement and information about this Agreement to market data collectors, similar service providers to the lending industry and service providers to the Administrative Agent and the Lenders in connection with the administration of this Agreement, the other Loan Documents, and the Commitments.

For purposes of this Section, “Information” means all information received from the Borrower or any Subsidiary relating to the Borrower or any Subsidiary or any of their respective businesses, other than any such information that is available to the Administrative Agent, any Lender or the L/C Issuer on a nonconfidential basis prior to disclosure by the Borrower or any Subsidiary, provided that, in the case of information received from the Borrower or any Subsidiary after the date hereof, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Each of the Administrative Agent, the Lenders and the L/C Issuer acknowledges that (a) the Information may include material non-public information concerning the Borrower or a Subsidiary, as the case may be, (b) it has developed compliance procedures regarding the use of material non-public information and (c) it will handle such material non-public information in accordance with applicable Law, including United States Federal and state securities Laws.

10.08 Right of Setoff. If an Event of Default shall have occurred and be continuing, each Lender, the L/C Issuer and each of their respective Affiliates is hereby authorized at any time and from time to time, to the fullest extent permitted by applicable law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in whatever currency) at any time held and other obligations (in whatever currency) at any time owing by such Lender, the L/C Issuer or any such Affiliate to or for the credit or the account of the Borrower against any and all of the obligations of the Borrower now or hereafter existing under this Agreement or any other Loan Document to such Lender or the L/C Issuer, irrespective of whether or not such Lender or the L/C Issuer shall have made any demand under this Agreement or any other Loan Document and although such obligations of the Borrower may be contingent or unmatured or are owed to a branch or office or Affiliate of such Lender or the L/C Issuer different from the branch, office or Affiliate holding such deposit or obligated on such indebtedness; provided, that in the event that any Defaulting Lender shall exercise any such right of setoff, (x) all amounts so set off shall be paid over immediately to the Administrative Agent for further application in accordance with the provisions of Section 2.15 and, pending such payment, shall be segregated by such Defaulting Lender from its other funds and deemed held in trust for the benefit of the Administrative Agent and the Lenders, and (y) the Defaulting Lender shall provide promptly to the Administrative Agent a statement describing in reasonable detail the Obligations owing to such Defaulting Lender as to which it



exercised such right of setoff. The rights of each Lender, the L/C Issuer and their respective Affiliates under this Section are in addition to other rights and remedies (including other rights of setoff) that such Lender, the L/C Issuer or their respective Affiliates may have. Each Lender and the L/C Issuer agrees to notify the Borrower and the Administrative Agent promptly after any such setoff and application, provided that the failure to give such notice shall not affect the validity of such setoff and application.

10.09 Interest Rate Limitation. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (the “Maximum Rate”). If the Administrative Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Borrower. In determining whether the interest contracted for, charged, or received by the Administrative Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof, and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations hereunder.

10.10 Counterparts; Integration; Effectiveness. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement and the other Loan Documents and any separate letter agreements with respect to fees payable to the Administrative Agent or the L/C Issuer, constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Except as provided in Section 4.01, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or other electronic imaging means (e.g. “pdf” or “tif”) shall be effective as delivery of a manually executed counterpart of this Agreement.

10.11 Survival of Representations and Warranties. All representations and warranties made hereunder and in any other Loan Document or other document delivered pursuant hereto or thereto or in connection herewith or therewith shall survive the execution and delivery hereof and thereof. Such representations and warranties have been or will be relied upon by the Administrative Agent and each Lender, regardless of any investigation made by the Administrative Agent or any Lender or on their behalf and notwithstanding that the Administrative Agent or any Lender may have had notice or knowledge of any Default at the time of any Credit Extension, and shall continue in full force and effect as long as any Loan or any other Obligation hereunder shall remain unpaid or unsatisfied or any Letter of Credit shall remain outstanding.

10.12 Severability. If any provision of this Agreement or the other Loan Documents is held to be illegal, invalid or unenforceable, (a) the legality, validity and enforceability of the remaining provisions of this Agreement and the other Loan Documents shall not be affected or impaired thereby and (b) the parties shall endeavor in good faith negotiations to replace the illegal, invalid or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the illegal, invalid or unenforceable provisions. The invalidity of a provision in a particular jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. Without limiting the foregoing provisions of this Section 10.12, if and to the extent that the enforceability of any provisions in this Agreement relating to Defaulting Lenders shall be limited by Debtor Relief Laws, as determined in

good faith by the Administrative Agent, the L/C Issuer or the Swing Line Lender, as applicable, then such provisions shall be deemed to be in effect only to the extent not so limited.

10.13 Replacement of Lenders. If the Borrower is entitled to replace a Lender pursuant to the provisions of Section 3.06, or if any Lender is a Defaulting Lender or a Non-Consenting Lender, then the Borrower may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in, and consents required by, Section 10.06), all of its interests, rights (other than its existing rights to payments pursuant to Sections 3.01 and 3.04) and obligations under this Agreement and the related Loan Documents to an Eligible Assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment), provided that:

- (a) the Borrower shall have paid to the Administrative Agent the assignment fee (if any) specified in Section 10.06(b);
- (b) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and L/C Advances, accrued interest thereon, accrued fees and all other amounts payable to it hereunder and under the other Loan Documents (including any amounts under Section 3.05) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower (in the case of all other amounts);
- (c) in the case of any such assignment resulting from a claim for compensation under Section 3.04 or payments required to be made pursuant to Section 3.01, such assignment will result in a reduction in such compensation or payments thereafter;
- (d) such assignment does not conflict with applicable Laws; and
- (e) in the case of an assignment resulting from a Lender becoming a Non-Consenting Lender, the applicable assignee shall have consented to the applicable amendment, waiver or consent.

A Lender shall not be required to make any such assignment or delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Borrower to require such assignment and delegation cease to apply.

10.14 Governing Law; Jurisdiction; Etc. THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS AND ANY CLAIMS, CONTROVERSY, DISPUTE OR CAUSE OF ACTION (WHETHER IN CONTRACT OR TORT OR OTHERWISE) BASED UPON, ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT (EXCEPT, AS TO ANY OTHER LOAN DOCUMENT, AS EXPRESSLY SET FORTH THEREIN) AND THE TRANSACTIONS CONTEMPLATED HEREBY AND THEREBY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

(a) SUBMISSION TO JURISDICTION. THE BORROWER IRREVOCABLY AND UNCONDITIONALLY AGREES THAT IT WILL NOT COMMENCE ANY ACTION, LITIGATION OR PROCEEDING OF ANY KIND OR DESCRIPTION, WHETHER IN LAW OR EQUITY, WHETHER IN CONTRACT OR IN TORT OR OTHERWISE, AGAINST THE ADMINISTRATIVE AGENT, ANY LENDER, THE L/C ISSUER, OR ANY RELATED PARTY OF THE FOREGOING IN ANY WAY RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS RELATING HERETO OR THERETO, IN ANY FORUM OTHER THAN THE COURTS OF THE STATE OF NEW YORK SITTING IN NEW YORK COUNTY AND OF THE UNITED STATES DISTRICT COURT OF THE SOUTHERN DISTRICT OF NEW YORK, AND ANY

APPELLATE COURT FROM ANY THEREOF, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY SUBMITS TO THE JURISDICTION OF SUCH COURTS AND AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION, LITIGATION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE COURT OR, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION, LITIGATION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR IN ANY OTHER LOAN DOCUMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT, ANY LENDER OR THE L/C ISSUER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AGAINST THE BORROWER OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(b) WAIVER OF VENUE. THE BORROWER IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT IN ANY COURT REFERRED TO IN PARAGRAPH (B) OF THIS SECTION. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

(c) SERVICE OF PROCESS. EACH PARTY HERETO IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 10.02. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY HERETO TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY APPLICABLE LAW

10.15 WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

10.16 No Advisory or Fiduciary Responsibility. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Loan Document), the Borrower acknowledges and agrees, and acknowledges its Affiliates' understanding, that: (i) (A) the arranging and other services regarding this Agreement provided by the Administrative Agent and the Lenders are arm's-length commercial transactions between the Borrower and its Affiliates, on the one hand, and the Administrative Agent and the Lenders, on the other hand, (B) the Borrower has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (C) the Borrower is capable of evaluating, and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby and by

the other Loan Documents; (ii) (A) the Administrative Agent and the Lenders each is and has been acting solely as a principal and, except as expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for the Borrower or any of its Affiliates, or any other Person and (B) neither the Administrative Agent nor any Lender has any obligation to the Borrower or any of its Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Loan Documents; and (iii) the Administrative Agent, the Lenders, and their respective Affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Borrower and its Affiliates, and neither the Administrative Agent nor any Lender has any obligation to disclose any of such interests to the Borrower or its Affiliates. To the fullest extent permitted by law, the Borrower hereby waives and releases any claims that it may have against the Administrative Agent and the Lenders with respect to any breach or alleged breach of agency or fiduciary duty in connection with any aspect of any transaction contemplated hereby.

10.17 Electronic Execution of Assignments and Certain Other Documents. The words “execution,” “execute,” “signed,” “signature,” and words of like import in or related to any document to be signed in connection with this Agreement and the transactions contemplated hereby (including without limitation Assignment and Assumptions, amendments or other Committed Loan Notices, Swing Line Loan Notices, waivers and consents) shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by the Administrative Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; provided that notwithstanding anything contained herein to the contrary the Administrative Agent is under no obligation to agree to accept electronic signatures in any form or in any format unless expressly agreed to by the Administrative Agent pursuant to procedures approved by it.

10.18 USA PATRIOT Act. Each Lender that is subject to the Act (as hereinafter defined) and the Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Borrower that pursuant to the requirements of the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (the “Act”), it is required to obtain, verify and record information that identifies each Loan Party, which information includes the name and address of each Loan Party and other information that will allow such Lender or the Administrative Agent, as applicable, to identify each Loan Party in accordance with the Act. The Borrower shall, promptly following a request by the Administrative Agent or any Lender, provide all documentation and other information that the Administrative Agent or such Lender requests in order to comply with its ongoing obligations under applicable “know your customer” anti-money laundering rules and regulations, including the Act.

10.19 Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Solely to the extent any Lender or L/C Issuer that is an EEA Financial Institution is a party to this Agreement and notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Lender or L/C Issuer that is an EEA Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Lender or L/C Issuer that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

[signature pages follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the date first above written.

BIOMARIN PHARMACEUTICAL INC.

By:  
Jacques Bienaime  
Name:  
Jacques Bienaime  
Title: Chief Executive Officer

/s/ Jean-

Jean-

Signature Page to BioMarin Credit Agreement

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BANK OF AMERICA, N.A., as  
Administrative Agent

By:  
LaPorte  
Name:  
LaPorte  
Title:  
President

/s/ Robert  
  
Robert  
  
Senior Vice

Signature Page to BioMarin Credit Agreement

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BANK OF AMERICA, N.A., as Lender, L/C Issuer  
and Swing Line Lender

By:  
LaPorte  
Name:  
LaPorte  
Title:  
President

/s/ Robert  
Robert  
Senior Vice

Signature Page to BioMarin Credit Agreement

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## [FORM OF] COMMITTED LOAN NOTICE

Date: \_\_\_\_\_, \_\_\_\_\_

To: Bank of America, N.A., as Administrative Agent

Ladies and Gentlemen:

Reference is made to that certain Credit Agreement, dated as of November 29, 2016 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the "Agreement," the terms defined therein being used herein as therein defined), among BioMarin Pharmaceutical Inc., a Delaware corporation (the "Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent, L/C Issuer and Swing Line Lender.

The undersigned hereby requests (select one):

- A Borrowing of Revolving Credit Loans
- A conversion or continuation of Revolving Credit Loans
1. On \_\_\_\_\_ (a Business Day).
2. In the amount of \$ \_\_\_\_\_<sup>1</sup>
3. Comprised of \_\_\_\_\_  
[Type of Loan requested]<sup>2</sup>
4. For Eurodollar Rate Loans: with an Interest Period of \_\_\_\_ months<sup>3</sup>.

The Borrowing requested herein complies with the proviso to the first sentence of Section 2.01 of the Agreement.

<sup>1</sup> Each Borrowing of, conversion to or continuation of Eurodollar Rate Loans shall be in a principal amount of \$1,000,000 or a whole multiple of \$500,000 in excess thereof. Except as provided in Sections 2.03(c) and 2.04(c) of the Agreement, each Borrowing of or conversion to Base Rate Loans shall be in a principal amount of \$500,000 or a whole multiple of \$100,000 in excess thereof.

<sup>2</sup> Type of Loan requested can be a Base Rate Loan or a Eurodollar Rate Loan.

<sup>3</sup> The Interest Period may be one, two, three or six months (or twelve months if requested by the Borrower and consented to by all the Appropriate Lenders).

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Form of Committed Loan Notice

140812225 v1

The Borrower hereby represents and warrants that the conditions specified in Sections 4.02(a), (b) and (d) shall be satisfied on and as of the date of the applicable Credit Extension.

BIOMARIN PHARMACEUTICAL INC.

By:

Name:

Title:

A-2  
Form of Committed Loan Notice

140812225 v1

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[FORM OF] SWING LINE LOAN NOTICE

Date: \_\_\_\_\_, \_\_\_\_\_

To: Bank of America, N.A., as Swing Line Lender  
Bank of America, N.A., as Administrative Agent

Ladies and Gentlemen:

Reference is made to that certain Credit Agreement, dated as of November 29, 2016 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the "Agreement;" the terms defined therein being used herein as therein defined), among BioMarin Pharmaceutical Inc., a Delaware corporation (the "Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent, L/C Issuer and Swing Line Lender.

The undersigned hereby requests a Swing Line Loan:

1. On \_\_\_\_\_ (a Business Day).
2. In the amount of \$ \_\_\_\_\_<sup>4</sup>

The Swing Line Borrowing requested herein complies with the requirements of the provisos to the first sentence of Section 2.04(a) of the Agreement.

The Borrower hereby represents and warrants that the conditions specified in Sections 4.02(a), (b) and (d) shall be satisfied on and as of the date of the applicable Credit Extension.

BIOMARIN PHARMACEUTICAL INC.

By:

Name:

Title:

<sup>4</sup> Shall be a minimum of \$100,000.

## [FORM OF] NOTE

\_\_\_\_\_ , \_\_\_\_\_

FOR VALUE RECEIVED, the undersigned (the "Borrower"), hereby promises to pay to \_\_\_\_\_ or registered assigns (the "Lender"), in accordance with the provisions of the Agreement (as hereinafter defined), the principal amount of each Revolving Credit Loan from time to time made by the Lender to the Borrower under that certain Credit Agreement, dated as of November 29, 2016 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the "Agreement;" the terms defined therein being used herein as therein defined), among the Borrower, the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent, L/C Issuer and Swing Line Lender.

The Borrower promises to pay interest on the unpaid principal amount of each Revolving Credit Loan from the date of such Loan until such principal amount is paid in full, at such interest rates and at such times as provided in the Agreement. Except as otherwise provided in Section 2.04(f) of the Agreement with respect to Swing Line Loans, all payments of principal and interest shall be made to the Administrative Agent for the account of the Lender in Dollars in immediately available funds at the Administrative Agent's Office. If any amount is not paid in full when due hereunder, such unpaid amount shall bear interest, to be paid upon demand, from the due date thereof until the date of actual payment (and before as well as after judgment) computed at the per annum rate set forth in the Agreement.

This Note is one of the Notes referred to in the Agreement, is entitled to the benefits thereof and may be prepaid in whole or in part subject to the terms and conditions provided therein. This Note is also entitled to the benefits of the Guaranty and, upon the occurrence of a Collateral Trigger Event and prior to the Collateral Security Deadline, shall be secured by the Collateral. Upon the occurrence and continuation of one or more of the Events of Default specified in the Agreement, all amounts then remaining unpaid on this Note shall become, or may be declared to be, immediately due and payable all as provided in the Agreement. Revolving Credit Loans made by the Lender shall be evidenced by one or more loan accounts or records maintained by the Lender in the ordinary course of business. The Lender may also attach schedules to this Note and endorse thereon the date, amount and maturity of its Revolving Credit Loans and payments with respect thereto.

The Borrower, for itself, its successors and assigns, hereby waives diligence, presentment, protest and demand and notice of protest, demand, dishonor and non-payment of this Note.

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Form of Note

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THIS NOTE SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

BIOMARIN PHARMACEUTICAL INC.

By:

Name:

Title:

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Form of Note

140812225 v1

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LOANS AND PAYMENTS WITH RESPECT THERETO

Date	Type of Loan Made	Amount of Loan Made	End of Interest Period	Amount of Principal or Interest Paid This Date	Outstanding Principal Balance This Date	Notation Made By
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

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Form of Note

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## [FORM OF] COMPLIANCE CERTIFICATE

Financial Statement Date: \_\_\_\_\_, \_\_\_\_\_

To: Bank of America, N.A., as Administrative Agent

Ladies and Gentlemen:

Reference is made to that certain Credit Agreement, dated as of November 29, 2016 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the “Agreement,” the terms defined therein being used herein as therein defined), among BioMarin Pharmaceutical Inc., a Delaware corporation (the “Borrower”), the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent, L/C Issuer and Swing Line Lender.

The undersigned Responsible Officer<sup>5</sup> hereby certifies as of the date hereof that he/she is the \_\_\_\_\_ of the Borrower, and that, as such, he/she is authorized to execute and deliver this Compliance Certificate to the Administrative Agent on behalf of the Borrower, and that:

*[Use following paragraph 1 for fiscal year-end financial statements]*

1. The Borrower has delivered the year-end audited financial statements required by Section 6.01(a) of the Agreement for the fiscal year of the Borrower ended as of the above date, together with (x) a customary management discussion and analysis of results of operations and (y) the report and opinion of KPMG LLP or any other independent certified public accountant of nationally recognized standing, in each case, required by such section. Such consolidated financial statements fairly present in all material respects the financial condition, results of operations, shareholders’ equity and cash flows of the Borrower and its Subsidiaries in accordance with GAAP as at such date and for such period.

*[Use following paragraph 1 for fiscal quarter-end financial statements]*

1. The Borrower has delivered the unaudited financial statements required by Section 6.01(b) of the Agreement for the fiscal quarter of the Borrower ended as of the above date, together with a customary management discussion and analysis of results of operations required by such section. Such consolidated financial statements fairly present in all material respects the financial condition, results of operations, shareholders’ equity and cash flows of the Borrower and its Subsidiaries in accordance with GAAP as at such date and for such period, subject only to normal year-end audit adjustments.

2. The undersigned has reviewed and is familiar with the terms of the Agreement and has made, or has caused to be made under his/her supervision, a detailed review of the transactions and condition (financial or otherwise) of the Borrower during the accounting period covered by such financial statements.

3. A review of the activities of the Borrower during such fiscal period has been made under the supervision of the undersigned with a view to determining whether during such fiscal period the Borrower performed and observed all its Obligations under the Loan Documents, and to the best knowledge of the undersigned, during such fiscal period the Borrower performed and observed each

<sup>5</sup> This certificates should be from the chief executive officer, chief financial officer, treasurer or controller of the Borrower.

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Form of Compliance Certificate

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covenant and condition of the Loan Documents applicable to it, and no Default has occurred and is continuing.

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Form of Compliance Certificate

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IN WITNESS WHEREOF, the undersigned has executed this Compliance Certificate as of

\_\_\_\_\_.

BIOMARIN PHARMACEUTICAL INC.

By:

Name:

Title:

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Form of Compliance Certificate

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Form of Compliance Certificate

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## ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (this “Assignment and Assumption”) is dated as of the Effective Date set forth below and is entered into by and between [the][each]<sup>6</sup> Assignor identified in item 1 below ([the][each, an] “Assignor”) and [the][each]<sup>7</sup> Assignee identified in item 2 below ([the][each, an] “Assignee”). [It is understood and agreed that the rights and obligations of [the Assignors] [the Assignees]<sup>8</sup> hereunder are several and not joint.]<sup>9</sup> Capitalized terms used but not defined herein shall have the meanings given to them in the Credit Agreement identified below (as amended, the “Credit Agreement”), receipt of a copy of which is hereby acknowledged by [the] [each] Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, [the][each] Assignor hereby irrevocably sells and assigns to [the Assignee][the respective Assignees], and [the][each] Assignee hereby irrevocably purchases and assumes from [the Assignor][the respective Assignors], subject to and in accordance with the Standard Terms and Conditions and the Credit Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below (i) all of [the Assignor’s][the respective Assignors’] rights and obligations in [its capacity as a Lender][their respective capacities as Lenders] under the Credit Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of such outstanding rights and obligations of [the Assignor] [the respective Assignors] under the revolving credit facility identified below (including, without limitation, the Letters of Credit and the Swing Line Loans included in such facility) and (ii) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of [the Assignor (in its capacity as a Lender)][the respective Assignors (in their respective capacities as Lenders)] against any Person, whether known or unknown, arising under or in connection with the Credit Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including, but not limited to, contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (i) above (the rights and obligations sold and assigned by [the][any] Assignor to [the][any] Assignee pursuant to clauses (i) and (ii) above being referred to herein collectively as [the][an] “Assigned Interest”). Each such sale and assignment is without recourse to [the][any] Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by [the][any] Assignor.

1. Assignor[s]:
2. Assignee[s]:

[for each Assignee, indicate [Affiliate][Approved Fund] of [identify Lender]]

<sup>6</sup> For bracketed language here and elsewhere in this form relating to the Assignor(s), if the assignment is from a single Assignor, choose the first bracketed language. If the assignment is from multiple Assignors, choose the second bracketed language.

<sup>7</sup> For bracketed language here and elsewhere in this form relating to the Assignee(s), if the assignment is to a single Assignee, choose the first bracketed language. If the assignment is to multiple Assignees, choose the second bracketed language.

<sup>8</sup> Select as appropriate.

<sup>9</sup> Include bracketed language if there are either multiple Assignors or multiple Assignees.

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Form of Assignment and Assumption

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3. Borrower(s): BioMarin Pharmaceutical Inc.
4. Administrative Agent: Bank of America, N.A., as the administrative agent under the Credit Agreement
5. Credit Agreement: Credit Agreement, dated as of November 29, 2016, among BioMarin Pharmaceutical Inc., the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent, L/C Issuer, and Swing Line Lender

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Form of Assignment and Assumption

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6. Assigned Interest:

Assignor[s] <sup>10</sup>	Assignee[s] <sup>11</sup>	Aggregate Amount of Commitment/Loans for all Lenders <sup>12</sup>	Amount of Commitment/Loans Assigned	Percentage Assigned of Commitment/Loans <sup>13</sup>	CUSIP Number
		\$ _____	\$ _____	_____ %	
		\$ _____	\$ _____	_____ %	
		\$ _____	\$ _____	_____ %	

[7. Trade Date: \_\_\_\_\_]<sup>14</sup>

Effective Date: \_\_\_\_\_, 20\_\_ [TO BE INSERTED BY ADMINISTRATIVE AGENT AND WHICH SHALL BE THE EFFECTIVE DATE OF RECORDATION OF TRANSFER IN THE REGISTER THEREFOR.]

The terms set forth in this Assignment and Assumption are hereby agreed to:

ASSIGNOR

[NAME OF ASSIGNOR[S]]

By:

Title:

<sup>10</sup> List each Assignor, as appropriate.

<sup>11</sup> List each Assignee, as appropriate.

<sup>12</sup> Amounts in this column and in the column immediately to the right to be adjusted by the counterparties to take into account any payments or prepayments made between the Trade Date and the Effective Date.

<sup>13</sup> Set forth, to at least 9 decimals, as a percentage of the Commitment/Loans of all Lenders thereunder.

<sup>14</sup> To be completed if the Assignor(s) and the Assignee(s) intend that the minimum assignment amount is to be determined as of the Trade Date.

ASSIGNEE[S]]

[NAME OF ASSIGNEE]

By:

Title:

[Consented to and]<sup>15</sup> Accepted:

BANK OF AMERICA, N.A., as  
Administrative Agent

By:

Title

Consented to:

[BIOMARIN PHARMACEUTICAL INC., as Borrower]<sup>16</sup>

By:

Title

BANK OF AMERICA, N.A., as L/C Issuer and Swing Line Lender

By:

Title

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<sup>15</sup> To be added only if the consent of the Administrative Agent is required by the terms of the Credit Agreement.

<sup>16</sup> To be added only if the consent of the Borrower is required by the terms of the Credit Agreement.

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Form of Assignment and Assumption

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STANDARD TERMS AND CONDITIONS FOR  
ASSIGNMENT AND ASSUMPTION

1. Representations and Warranties.

1.1. Assignor. [The][Each] Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of [the][the relevant] Assigned Interest, (ii) [the][such] Assigned Interest is free and clear of any lien, encumbrance or other adverse claim, (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and (iv) it is not a Defaulting Lender; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Credit Agreement or any other Loan Document, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Loan Documents or any collateral thereunder, (iii) the financial condition of the Borrower, any of its Subsidiaries or Affiliates or any other Person obligated in respect of any Loan Document or (iv) the performance or observance by the Borrower, any of its Subsidiaries or Affiliates or any other Person of any of their respective obligations under any Loan Document.

1.2. Assignee. [The][Each] Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and to become a Lender under the Credit Agreement, (ii) it meets all the requirements to be an assignee under Section 10.06(b)(iii), (v) and (vi) of the Credit Agreement (subject to such consents, if any, as may be required under Section 10.06(b)(iii) of the Credit Agreement), (iii) from and after the Effective Date, it shall be bound by the provisions of the Credit Agreement as a Lender thereunder and, to the extent of [the][the relevant] Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it is sophisticated with respect to decisions to acquire assets of the type represented by [the] [such] Assigned Interest and either it, or the Person exercising discretion in making its decision to acquire [the] [such] Assigned Interest, is experienced in acquiring assets of such type, (v) it has received a copy of the Credit Agreement, and has received or has been accorded the opportunity to receive copies of the most recent financial statements delivered pursuant to Section 6.01 thereof, as applicable, and such other documents and information as it deems appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase [the][such] Assigned Interest, (vi) it has, independently and without reliance upon the Administrative Agent or any other Lender and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Assignment and Assumption and to purchase [the][such] Assigned Interest, and (vii) if it is a Foreign Lender, attached hereto is any documentation required to be delivered by it pursuant to the terms of the Credit Agreement, duly completed and executed by [the][such] Assignee; and (b) agrees that (i) it will, independently and without reliance upon the Administrative Agent, [the] [any] Assignor or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Loan Documents, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Loan Documents are required to be performed by it as a Lender.

2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of [the] [each] Assigned Interest (including payments of principal, interest, fees and other amounts) to [the][the relevant] Assignor for amounts which have accrued to but excluding the Effective Date and to [the][the relevant] Assignee for amounts which have accrued from and after the Effective Date.

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Form of Assignment and Assumption

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3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts, which together shall constitute one instrument. Delivery of an executed counterpart of a signature page of this Assignment and Assumption by telecopy shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, and construed in accordance with, the law of the State of New York.

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Form of Assignment and Assumption

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[FORM OF] ADMINISTRATIVE QUESTIONNAIRE

[Provided under separate cover.]

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Form of Administrative Questionnaire

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[FORM OF] GUARANTY

[See attached.]

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Form of Guaranty

140812225 v1

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**GUARANTY**

NOVEMBER 29, 2016

FOR VALUE RECEIVED, the sufficiency of which is hereby acknowledged, and in consideration of credit and/or financial accommodation heretofore or hereafter from time to time made or granted to BioMarin Pharmaceutical Inc. (the "Borrower") by the Secured Parties, each Subsidiary of the Borrower listed on the signature pages hereof and each other subsidiary of the Borrower that becomes party hereto after the date hereof (each, a "Guarantor", jointly and severally) hereby furnishes their guaranty (the "Guaranty") and Bank of America, N.A., as administrative agent (the "Administrative Agent"), on behalf of the Secured Parties, acknowledges and agrees to the Guaranty as set forth below.

Reference is made to that certain Credit Agreement, dated as of the date hereof (as amended, restated, supplemented, or otherwise modified from time to time, the "Credit Agreement"), among the Borrower, Bank of America, N.A., as the Administrative Agent, L/C Issuer and Swing Line Lender, and the other Secured Parties from time to time party thereto. Capitalized terms used and not defined herein are used with the meanings assigned to such terms in the Credit Agreement.

**1. Guaranty.** Each of the Guarantors hereby unconditionally and irrevocably guarantees to the Secured Parties the full and prompt payment when due, whether at stated maturity, by required prepayment, upon acceleration, demand or otherwise, and at all times thereafter, of the Obligations and the punctual performance of all of the terms contained in the documents executed by the Borrower in favor of the Secured Parties in connection with the Obligations. This Guaranty is a guaranty of payment and performance and is not merely a guaranty of collection. Each Guarantor further agrees that the Obligations may be extended or renewed, in whole or in part, or amended or modified, without notice to or further assent from it, and that it will remain bound upon its guarantee hereunder notwithstanding any such extension or renewal, or amendment or modification, of any Obligation. Anything contained herein to the contrary notwithstanding, the obligations of the Guarantors hereunder at any time shall be limited to an aggregate amount equal to the largest amount that would not render its obligations hereunder subject to avoidance as a fraudulent transfer or conveyance under Section 548 of the Bankruptcy Code (Title 11, United States Code) or any comparable provisions of any similar federal or state law.

**2. No Setoff or Deductions; Taxes; Payments.** Each Guarantor shall make all payments hereunder without setoff or counterclaim and free and clear of and without deduction for any taxes, levies, imposts, duties, charges, fees, deductions, withholdings, compulsory loans, restrictions or conditions of any nature now or hereafter imposed or levied by any jurisdiction or any political subdivision thereof or taxing or other authority therein unless any such Guarantor is compelled by law to make such deduction or withholding. If any such obligation (other than one arising with respect to taxes based on or measured by the income or profits of the Secured Parties) is imposed upon the Guarantors with respect to any amount payable by it hereunder, the Guarantors will pay to the Secured Parties, on the date on which such amount is due and payable hereunder, such additional amount in U.S. dollars as shall be necessary to enable the Secured Parties to receive the same net amount which the Secured Parties would have received on such due date had no such obligation been imposed upon the Guarantors. The Guarantors will deliver promptly to the Secured Parties certificates or other valid vouchers for all taxes or other charges deducted from or paid with respect to payments made by the Guarantors hereunder. The obligations of the Guarantors under this paragraph shall survive the payment in full of the Obligations and termination of this Guaranty.

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Form of Guaranty

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**3. Rights of Secured Parties.** Each Guarantor consents and agrees that the Secured Parties may, at any time and from time to time, without notice or demand, and without affecting the enforceability or continuing effectiveness hereof: (a) amend, extend, renew, compromise, discharge, accelerate or otherwise change the time for payment or the terms of the Obligations or any part thereof; (b) take, hold, exchange, enforce, waive, release, fail to perfect, sell, or otherwise dispose of any security for the payment of this Guaranty or any Obligations; (c) apply such security and direct the order or manner of sale thereof as the Secured Parties in their sole discretion may determine, subject to any requirements set forth in the Loan Documents; and (d) release or substitute one or more of any endorses or other Guarantors of any of the Obligations. Without limiting the generality of the foregoing, the Guarantors consent to the taking of, or failure to take, any action which might in any manner or to any extent vary the risks of the Guarantors under this Guaranty or which, but for this provision, might operate as a discharge of the Guarantors.

**4. Certain Waivers.** Each Guarantor waives to the fullest extent permitted by law (a) any defense arising by reason of any disability or other defense of the Borrower or any other Guarantor, or the cessation from any cause whatsoever (including any act or omission of the Secured Parties) of the liability of the Borrower; (b) any defense based on any claim that such Guarantor's obligations exceed or are more burdensome than those of the Borrower; (c) the benefit of any statute of limitations affecting such Guarantor's liability hereunder; (d) any right to require the Secured Parties to proceed against the Borrower, proceed against or exhaust any security for the Obligations, or pursue any other remedy in the Secured Parties' power whatsoever and any defense based upon the doctrines of marshalling of assets or of election of remedies; (e) any benefit of and any right to participate in any security now or hereafter held by the Secured Parties; (f) any fact or circumstance related to the Obligations which might otherwise constitute a defense to the obligations of such Guarantor under this Guaranty and (g) any and all other defenses or benefits that may be derived from or afforded by applicable law limiting the liability of or exonerating guarantors or sureties, other than the defense that the Obligations have been fully performed and paid in full in cash.

Each of the Guarantors expressly waives all presentments, demands for payment or performance, notices of nonpayment or nonperformance, protests, notices of protest, notices of dishonor and all other notices or demands of any kind or nature whatsoever with respect to the Obligations, and all notices of acceptance of this Guaranty or of the existence, creation or incurrence of new or additional Obligations. This Guaranty shall not be affected by the genuineness, validity, regularity or enforceability of the Obligations or any instrument or agreement evidencing any Obligations, or by the existence, validity, enforceability, perfection, non-perfection or extent of any collateral therefor, or by any fact or circumstance relating to the Obligations which might otherwise constitute a defense to the obligations of the Guarantors under this Guaranty, and each Guarantor hereby irrevocably waives any defenses it may now have or hereafter acquire in any way relating to any or all of the foregoing.

**5. Obligations Independent.** The obligations of the Guarantors hereunder are those of primary obligor, and not merely as surety, and are independent of the Obligations and the obligations of any other Guarantor, and a separate action may be brought against the Guarantors to enforce this Guaranty whether or not the Borrower or any other person or entity is joined as a party.

**6. Subrogation.** No Guarantor shall exercise any right of subrogation, contribution, indemnity, reimbursement or similar rights with respect to any payments it makes under this Guaranty until all of the Obligations and any amounts payable under this Guaranty (excluding contingent obligations (other than any such obligations in respect of a Letter of Credit) as to which no claim has been made) have been paid in full in cash and performed in full and any commitments of the Secured Parties or facilities provided by the Secured Parties with respect to the Obligations are terminated. If any amounts are paid to the Guarantors in violation of the foregoing limitation, then such amounts shall be held in trust

for the benefit of the Secured Parties and shall forthwith be paid to the Secured Parties to reduce the amount of the Obligations, whether matured or unmatured.

**7. Termination; Reinstatement.** This Guaranty is a continuing and irrevocable guaranty of all Obligations now or hereafter existing and shall remain in full force and effect until all Obligations and any other amounts payable under this Guaranty (excluding contingent obligations (other than any such obligations in respect of a Letter of Credit) as to which no claim has been made) are paid in full in cash and any commitments of the Secured Parties or facilities provided by the Secured Parties with respect to the Obligations are terminated. Notwithstanding the foregoing, this Guaranty shall continue in full force and effect or be revived, as the case may be, if any payment by or on behalf of the Borrower or the Guarantor is made, or the Secured Parties exercise their right of setoff, in respect of the Obligations and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by the Secured Parties in their discretion) to be repaid to a trustee, receiver or any other party, in connection with any proceeding under any Debtor Relief Laws or otherwise, all as if such payment had not been made or such setoff had not occurred and whether or not the Secured Parties are in possession of or have released this Guaranty and regardless of any prior revocation, rescission, termination or reduction. The obligations of the Guarantors under this paragraph shall survive termination of this Guaranty.

**8. Subordination.** The Guarantors hereby subordinate the payment of all obligations and indebtedness of the Borrower owing to the Guarantors, whether now existing or hereafter arising, including but not limited to any obligation of the Borrower to the Guarantors as subrogee of the Secured Parties or resulting from the Guarantors' performance under this Guaranty, to the payment in full in cash of all Obligations (excluding contingent obligations (other than any such obligations in respect of a Letter of Credit) as to which no claim has been made). If the Secured Parties so request, any such obligation or indebtedness of the Borrower to the Guarantors shall be enforced and performance received by the Guarantors as trustee for the Secured Parties and the proceeds thereof shall be paid over to the Secured Parties on account of the Obligations, but without reducing or affecting in any manner the liability of the Guarantors under this Guaranty.

**9. Stay of Acceleration.** In the event that acceleration of the time for payment of any of the Obligations is stayed, in connection with any case commenced by or against any Guarantor or the Borrower under any Debtor Relief Laws, or otherwise, all such amounts shall nonetheless be payable by the Guarantors immediately upon demand by the Secured Parties.

**10. Expenses.** The Guarantors shall pay on demand all out-of-pocket expenses (including reasonable attorneys' fees and expenses) in any way relating to the enforcement or protection of the Secured Parties' rights under this Guaranty or in respect of the Obligations, including any incurred during any "workout" or restructuring in respect of the Obligations and any incurred in the preservation, protection or enforcement of any rights of the Secured Parties in any proceeding under any Debtor Relief Laws. The obligations of the Guarantors under this paragraph shall survive the payment in full of the Obligations and termination of this Guaranty.

**11. Miscellaneous.** The Secured Parties' books and records showing the amount of the Obligations shall be admissible in evidence in any action or proceeding, and shall be binding upon the Guarantors and conclusive, absent manifest error, for the purpose of establishing the amount of the Obligations. No provision of this Guaranty may be waived, amended, supplemented or modified, except by a written instrument executed by the Secured Parties and the Guarantors. No failure by the Secured Parties to exercise, and no delay in exercising, any right, remedy or power hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy or power hereunder preclude any other or further exercise thereof or the exercise of any other right, power or remedy. The remedies

herein provided are cumulative and not exclusive of any remedies provided by law or in equity. The unenforceability or invalidity of any provision of this Guaranty shall not affect the enforceability or validity of any other provision herein. Unless otherwise agreed by the Secured Parties and the Guarantors in writing, this Guaranty is not intended to supersede or otherwise affect any other guaranty now or hereafter given by the Guarantors for the benefit of the Secured Parties or any term or provision thereof.

**12. Condition of Borrower.** Each Guarantor acknowledges and agrees that it has the sole responsibility for, and has adequate means of, obtaining from the Borrower and any other Guarantor such information concerning the financial condition, business and operations of the Borrower and any such other Guarantor as such Guarantor requires, and that the Secured Parties have no duty, and the Guarantor is not relying on the Secured Parties at any time, to disclose to the Guarantors any information relating to the business, operations or financial condition of the Borrower or any other Guarantor (the Guarantors waiving any duty on the part of the Secured Parties to disclose such information and any defense relating to the failure to provide the same).

**13. Setoff.** If and to the extent any payment is not made when due hereunder, the Secured Parties may setoff and charge from time to time any amount so due against any or all of the Guarantors' accounts or deposits with the Secured Parties.

**14. Representations and Warranties.** Each Guarantor represents and warrants that (a) it is organized and resident in the United States of America; (b) it is duly organized and in good standing under the laws of the jurisdiction of its organization and has full capacity and right to make and perform this Guaranty, and all necessary authority has been obtained; (c) this Guaranty constitutes its legal, valid and binding obligation enforceable in accordance with its terms; (d) the making, existence, and performance of this Guaranty does not and will not violate the provisions of any Law, and does not and will not result in the breach of, or constitute a default or require any consent under, any Contractual Obligation to which it is a party or by which it or any of its property may be bound or affected; and (e) all consents, approvals, licenses and authorizations of, and filings and registrations with, any Governmental Authority required under applicable Law for the making and performance of this Guaranty have been obtained or made and are in full force and effect.

**15. GOVERNING LAW; Assignment; Jurisdiction; Notices. THIS GUARANTY AND ANY CLAIMS, CONTROVERSY, DISPUTE OR CAUSE OF ACTION (WHETHER IN CONTRACT OR TORT OR OTHERWISE) BASED UPON, ARISING OUT OF OR RELATING TO THIS GUARANTY AND THE TRANSACTIONS CONTEMPLATED HEREBY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.** This Guaranty shall (a) bind the Guarantors and their respective successors and assigns, provided that the Guarantors may not assign their rights or obligations under this Guaranty without the prior written consent of the Secured Parties (and any attempted assignment without such consent shall be void), and (b) inure to the benefit of the Secured Parties and their respective successors and assigns and the Secured Parties may, without notice to the Guarantors and without affecting the Guarantors' obligations hereunder, assign, sell or grant participations in the Obligations and this Guaranty, in whole or in part. The Guarantors hereby irrevocably and unconditionally (i) submit to the non-exclusive jurisdiction of the courts of the State of New York sitting in New York County and of the United States District Court of the Southern District of New York, and any appellate court from any thereof in any action or proceeding arising out of or relating to this Guaranty and (ii) waive to the fullest extent permitted by applicable law the defense of an inconvenient forum in connection therewith. Service of process by the Secured Parties in connection with such action or proceeding shall be binding on the Guarantors if sent to the Guarantors by registered or certified mail at the address of the Borrower specified in Section 10.02 of the Credit Agreement or such other address(es) as from time to time notified by the Guarantors. The Guarantors agree that the Secured Parties may disclose to any assignee of or

participant in, or any prospective assignee of or participant in, any of its rights or obligations of all or part of the Obligations any and all information in the Secured Parties' possession concerning the Guarantors, this Guaranty and any security for this Guaranty. All notices and other communications to the Guarantors under this Guaranty shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by facsimile or electronic mail to the Guarantors at the address of the Borrower specified in Section 10.02 of the Credit Agreement or at such other address(es) in the United States as may be specified by the Guarantors in a written notice delivered to the Secured Parties at such office as the Secured Parties may designate for such purpose from time to time in a written notice to the Guarantors.

**16. WAIVER OF JURY TRIAL; FINAL AGREEMENT.** EACH OF THE GUARANTORS AND THE SECURED PARTIES HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS GUARANTY OR THE OBLIGATIONS (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS GUARANTY AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION. THIS GUARANTY REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES HERETO AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR SUBSEQUENT ORAL AGREEMENTS BETWEEN THE PARTIES. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES HERETO.

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Executed as of the date first written above.

**CALIFORNIA CORPORATE CENTER ACQUISITION LLC**

By:

Name:

Title:

Address:

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Acknowledged and agreed:

BANK OF AMERICA, N.A.,  
as Administrative Agent

By:

Name:  
Title:

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[FORM OF] SECURITY AGREEMENT

[See attached.]

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SECURITY AGREEMENT

by

BIOMARIN PHARMACEUTICAL INC.,  
as Pledgor,

and

BANK OF AMERICA, N.A.,  
as Administrative Agent

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Dated as of [            ]

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## SECURITY AGREEMENT

This SECURITY AGREEMENT dated as of [ ] (as amended, amended and restated, supplemented or otherwise modified from time to time in accordance with the provisions hereof, this "Agreement") made by BIOMARIN PHARMACEUTICAL INC., a Delaware corporation (the "Pledgor"), in favor of BANK OF AMERICA, N.A., in its capacity as administrative agent pursuant to the Credit Agreement (as hereinafter defined), as pledgee, assignee and secured party (in such capacities and together with any successors in such capacities, the "Administrative Agent").

### RECITALS :

- A. The Pledgor, BANK OF AMERICA, N.A., in its capacity as Administrative Agent, Swing Line Lender and L/C Issuer, and the Lenders party thereto are party to that certain Credit Agreement, dated as of November 29, 2016 (as amended, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement").
- B. Upon the occurrence of a Collateral Trigger Event and prior to the Collateral Security Deadline, the Pledgor is required to satisfy the Collateral Security Deadline Requirements, including, among other things, to cause the Custody Account and the other Collateral to be subject to the valid and perfected Lien of the Administrative Agent (for the benefit of the Secured Parties) prior and superior in right to any other Person by executing and delivering this Agreement to the Administrative Agent.
- C. If a Collateral Trigger Event occurs, the Secured Obligations (as defined below) are to be secured pursuant to this Agreement.
- D. This Agreement is given by the Pledgor in favor of the Administrative Agent for the benefit of the Secured Parties to secure the payment and performance of all of the Secured Obligations.

### AGREEMENT :

NOW THEREFORE, in consideration of the foregoing premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Pledgor and the Administrative Agent hereby agree as follows:

## ARTICLE I

### DEFINITIONS AND INTERPRETATION SECTION

#### SECTION 1.1. Definitions.

(a) Unless otherwise defined herein or in the Credit Agreement, capitalized terms used herein that are defined in the UCC shall have the meanings assigned to them in the UCC; provided that in any event, the following terms shall have the meanings assigned to them in the UCC:

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“Certificated Security”, “Commodity Account”, “Commodity Contract”, “Deposit Account”, “Deposit Bank”, “Financial Assets”, “General Intangibles”, “Instrument”, “Proceeds”, “Securities Account”, “Securities Intermediary”, “Security”, “Security Certificate”, “Security Entitlement” and “Uncertificated Security”

(b) Terms used but not otherwise defined herein that are defined in the Credit Agreement shall have the meanings given to them in the Credit Agreement. Section 1.02 of the Credit Agreement shall apply herein *mutatis mutandis*.

(c) The following terms shall have the following meanings:

“Administrative Agent” shall have the meaning assigned to such term in the Preamble hereof.

“Agreement” shall have the meaning assigned to such term in the Preamble hereof.

“Bank” shall have the meaning assigned to such term in the definition of Custody Account.

“Collateral” shall have the meaning assigned to such term in Section 2.1 hereof.

“Control” shall mean (i) in the case of the Custody Account, “control,” as such term is defined in Section 9-104 of the UCC, and (ii) in the case of any Security Entitlement, “control,” as such term is defined in Section 8-106 of the UCC.

“Credit Agreement” shall have the meaning assigned to such term in the Recitals hereof.

“Custody Account” shall mean Account No. [ ] maintained by the Pledgor at BANK OF AMERICA, N.A., in its capacity as Securities Intermediary or Deposit Bank (the “Bank”).

“Distributions” shall mean, collectively, with respect to the Pledgor, all dividends, cash, options, warrants, rights, instruments, distributions, returns of capital or principal, income, interest, profits and other property, interests (debt or equity) or proceeds from time to time received, receivable or otherwise distributed to the Pledgor in respect of or in exchange for any or all of the assets held in the Custody Account or other Collateral.

“General Intangibles” shall mean, collectively, with respect to the Pledgor, all “general intangibles,” as such term is defined in the UCC, of the Pledgor and, in any event, shall include (i) all warranties relating to any of the Collateral, (ii) any and all other rights, claims, choses-in-action and causes of action of the Pledgor against any other person and the benefits of any and all collateral or other security given by any other person in connection therewith, (iii) all guarantees, endorsements and indemnifications on, or of, any of the Collateral, (iv) all lists, books, records, correspondence, ledgers, printouts, files (whether in printed form or stored electronically), tapes and other papers or materials containing information relating to any of the Collateral and (v) all rights to reserves, deferred payments, deposits, refunds, indemnification of claims and claims for tax or other refunds against any Governmental Authority.

“Instruments” shall mean, collectively, with respect to the Pledgor, all “instruments,” as such term is defined in Article 9, rather than Article 3, of the UCC, and shall include all promissory notes, drafts, bills of exchange or acceptances.

“Investment Property” shall mean all “investment property”, as such term is defined in Article 9 of the UCC and each Security, whether a Certificated Security or Uncertificated Security, Security Entitlement, Securities Account, Commodity Contract and Commodity Account.

“Pledgor” shall have the meaning assigned to such term in the Preamble hereof.

“Secured Obligations” means the “Obligations” as defined in the Credit Agreement.

“UCC” shall mean the Uniform Commercial Code as in effect from time to time in the State of New York; provided, however, that, at any time, if by reason of mandatory provisions of law, any or all of the perfection or priority of the Administrative Agent’s and the Secured Parties’ security interest in any item or portion of the Collateral is governed by the Uniform Commercial Code as in effect in a jurisdiction other than the State of New York, the term “UCC” shall mean the Uniform Commercial Code as in effect, at such time, in such other jurisdiction for purposes of the provisions hereof relating to such perfection or priority and for purposes of definitions relating to such provisions.

SECTION 1.2. Resolution of Drafting Ambiguities. The Pledgor acknowledges and agrees that it was represented by counsel in connection with the execution and delivery hereof, that it and its counsel reviewed and participated in the preparation and negotiation hereof and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party (i.e., the Administrative Agent) shall not be employed in the interpretation hereof.

## ARTICLE II

### GRANT OF SECURITY AND SECURED OBLIGATIONS

SECTION 2.1. Grant of Security Interest. As collateral security for the payment and performance in full of all the Secured Obligations, the Pledgor hereby pledges and grants to the Administrative Agent for the benefit of the Secured Parties, a lien on and security interest in all of the right, title and interest of the Pledgor in, to and under the following property, whether now existing or hereafter arising or acquired from time to time (collectively, the “Collateral”): (A) the Custody Account, (B) all Financial Assets, cash, cash equivalents, checks, notes and other funds or securities now or hereafter credited to or carried in the Custody Account, (including without limitation Investment Property, General Intangibles and Instruments credited to or carried in the Custody Account), (C) all Deposit Accounts or Securities Accounts that are sub-accounts of the Custody Account, (D) all products and Proceeds (including without limitation all interest, Distributions and payments received thereon or in exchange or substitution thereof) with respect to any of the foregoing other than products and Proceeds permitted to be withdrawn from the Custody Account pursuant to Section 5.1(h).

SECTION 2.2. Filings. (a) The Pledgor hereby irrevocably authorizes the Administrative Agent at any time and from time to time to file in any relevant jurisdiction any financing statements and amendments thereto that contain the information required by Article 9 of the Uniform Commercial Code of each applicable jurisdiction for the filing of any financing statement or amendment relating to the Collateral, including (i) whether the Pledgor is an organization, the type of organization and any organizational identification number issued to the Pledgor, (ii) any financing or continuation statements or other documents without the signature of the Pledgor where permitted by Law, including the filing of a financing statement describing the Collateral. The Pledgor agrees to provide all information described in the immediately preceding sentence to the Administrative Agent promptly upon request by the Administrative Agent.



(b) The Pledgor hereby ratifies its authorization for the Administrative Agent to file in any relevant jurisdiction any financing statements relating to the Collateral if filed prior to the date hereof.

### ARTICLE III

#### PERFECTION; SUPPLEMENTS; FURTHER ASSURANCES;

SECTION 3.1. Financing Statements and Other Filings; Maintenance of Perfected Security Interest. The Pledgor represents and warrants that all financing statements, agreements, instruments and other documents necessary to perfect the security interest granted by it to the Administrative Agent in respect of the Collateral have been delivered to the Administrative Agent in completed and, to the extent necessary or appropriate, duly executed form for filing in the Secretary of State of the State of Delaware. The Pledgor agrees that at the sole cost and expense of the Pledgor, the Pledgor will maintain the security interest created by this Agreement in the Collateral as a perfected first priority security interest and will file all UCC-3 continuation statements necessary to continue the perfection of the security interest created by this Agreement.

SECTION 3.2. Other Actions. In order to further ensure the attachment, perfection and priority of, and the ability of the Administrative Agent to enforce, the Administrative Agent's security interest in the Collateral, the Pledgor represents and warrants (as to itself) as follows and agrees, in each case at the Pledgor's own expense, to take the following actions with respect to the following Collateral:

(a) As between the Administrative Agent and the Pledgor, the Pledgor shall bear the investment risk with respect to the Investment Property and the risk of loss of, damage to, or the destruction of the Investment Property, whether in the possession of, or maintained as a Security Entitlement or deposit by, or subject to the Control of, the Administrative Agent, the Bank, the Pledgor or any other person.

(b) The Pledgor will keep its records concerning the Collateral in such a manner as provided by the Bank.

(c) The Pledgor will furnish the Administrative Agent such information concerning the Pledgor and the Collateral as the Administrative Agent may from time to time reasonably request.

(d) The Pledgor will reimburse the Administrative Agent for all reasonable expenses, including reasonable attorneys' fees and legal expenses, incurred by the Administrative Agent in seeking to collect or enforce any rights in respect of the Collateral or in protecting, preserving and maintaining any Collateral, in each case, in accordance with Section 10.04 of the Credit Agreement.

SECTION 3.3. Supplements; Further Assurances. The Pledgor shall take such further actions, and execute and/or deliver to the Administrative Agent such additional financing statements, amendments, assignments, agreements, supplements, powers and instruments, as the Administrative Agent may in its reasonable judgment deem necessary or appropriate in order to create, perfect, preserve and protect the security interest in the Collateral as provided herein and the rights and interests granted to the Administrative Agent hereunder, to carry into effect the purposes hereof or better to assure and

confirm the validity, enforceability and priority of the Administrative Agent's security interest in the Collateral or permit the Administrative Agent to exercise and enforce its rights, powers and remedies hereunder with respect to any Collateral, including the filing of financing statements, continuation statements and other documents (including this Agreement) under the Uniform Commercial Code (or other similar laws) in effect in any jurisdiction with respect to the security interest created hereby and the execution and delivery of Control Agreement, all in form reasonably satisfactory to the Administrative Agent and in such offices wherever required by Law to perfect, continue and maintain the validity, enforceability and priority of the security interest in the Collateral as provided herein and to preserve the other rights and interests granted to the Administrative Agent hereunder, as against third parties, with respect to the Collateral. Without limiting the generality of the foregoing, the Pledgor shall make, execute, endorse, acknowledge, file or refile and/or deliver to the Administrative Agent from time to time upon reasonable request by the Administrative Agent such financing statements, transfer endorsements, powers of attorney and other assurances or instruments as the Administrative Agent shall reasonably request. If an Event of Default has occurred and is continuing, the Administrative Agent may institute and maintain, in its own name or in the name of the Pledgor, such suits and proceedings as the Administrative Agent may be advised by counsel shall be necessary or expedient to prevent any impairment of the security interest in or the perfection thereof in the Collateral. All of the foregoing shall be at the sole cost and expense of the Pledgor.

## ARTICLE IV

### REPRESENTATIONS, WARRANTIES AND COVENANTS

The Pledgor represents, warrants and covenants as follows:

SECTION 4.1. Title. Except for the security interest granted to the Administrative Agent for the benefit of the Secured Parties pursuant to this Agreement, the Pledgor owns and has rights and, as to Collateral acquired by it from time to time after the date hereof, will own and have rights in each item of Collateral pledged by it hereunder, free and clear of any and all Liens or claims of others.

SECTION 4.2. Validity of Security Interest. The security interest in and Lien on the Collateral granted to the Administrative Agent for the benefit of the Secured Parties hereunder constitutes (a) a legal and valid security interest in all the Collateral securing the payment and performance of the Secured Obligations, and (b) subject to the filings of the applicable financing statements and the execution and delivery of the Control Agreement by the Pledgor, the Bank and the Administrative Agent, a perfected security interest in all the Collateral. The security interest and Lien granted to the Administrative Agent for the benefit of the Secured Parties pursuant to this Agreement in and on the Collateral will at all times constitute a perfected, continuing security interest therein, prior to all other Liens on the Collateral.

SECTION 4.3. Defense of Claims; Transferability of Collateral. The Pledgor shall, at its own cost and expense, defend title to the Collateral pledged by it hereunder and the security interest therein and Lien thereon granted to the Administrative Agent and the priority thereof against all claims and demands of all persons, at its own cost and expense, at any time claiming any interest therein adverse to the Administrative Agent or any other Secured Party. There is no agreement, order, judgment or decree, and no Pledgor shall enter into any agreement or take any other action, that would restrict the transferability of any of the Collateral or otherwise impair or conflict with the Pledgor's obligations or the rights of the Administrative Agent hereunder.

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SECTION 4.4. Other Financing Statements. It has not filed, nor authorized any third party to file (nor will there be), any valid or effective financing statement (or similar statement, instrument of registration or public notice under the law of any jurisdiction) covering or purporting to cover any interest of any kind in the Collateral, except such as have been filed in favor of the Administrative Agent pursuant to this Agreement. The Pledgor shall not execute, authorize or permit to be filed in any public office any financing statement (or similar statement, instrument of registration or public notice under the law of any jurisdiction) relating to any Collateral.

SECTION 4.5. Consents, etc. In the event that the Administrative Agent desires to exercise any remedies, voting or consensual rights or attorney-in-fact powers set forth in this Agreement and determines it necessary to obtain any approvals or consents of any Governmental Authority or any other person therefor, then, upon the reasonable request of the Administrative Agent, the Pledgor agrees to use its reasonable best efforts to assist and aid the Administrative Agent to obtain as soon as practicable any necessary approvals or consents for the exercise of any such remedies, rights and powers.

SECTION 4.6. Collateral. All information set forth herein and all information contained in any documents, schedules and lists heretofore delivered to any Secured Party, in connection with this Agreement, in each case, relating to the Collateral, is accurate and complete in all material respects as of the date furnished.

SECTION 4.7. Chief Executive Office. As of the Closing Date, the Pledgor's chief executive office and principal place of business and the office where the Pledgor keeps its records concerning the Collateral are located at 770 Lindero Street, San Rafael, CA 94901.

## ARTICLE V

### CUSTODY ACCOUNT

SECTION 5.1. Custody Account; Voting Rights, Distributions, Withdrawals and Investments.

(a) The Pledgor hereby agrees that only Borrowing Base Assets and Proceeds thereof shall be contained in the Custody Account. The Pledgor shall not have any right to withdraw, sell, convey, assign or otherwise dispose of any of the Collateral except as expressly permitted by this Agreement or the Credit Agreement.

(b) With respect to the Custody Account, the Pledgor shall cause the Bank to execute and deliver to the Administrative Agent on the date hereof a Control Agreement in a form that is reasonably satisfactory to the Administrative Agent. The Administrative Agent has a first priority security interest in the Custody Account, which security interest is perfected by Control. The Pledgor shall not grant Control over the Custody Account or any Collateral to any person other than the Administrative Agent. The Pledgor agrees that once the Administrative Agent sends an instruction or notice to the Bank exercising its Control over the Custody Account the Pledgor shall not give any instructions, entitlement orders or orders with respect to the Custody Account including, without limitation, instructions for investment, distribution or transfer of any Investment Property, financial asset, funds or assets maintained in such Custody Account.

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(c) So long as no Event of Default shall have occurred and be continuing:

(i) the Pledgor shall be entitled to exercise for any purpose any and all voting and other consensual rights, arising from or relating to the Pledgor's interest in respect of the Custody Account or pertaining to the Investment Property deposited in the Custody Account; and

(ii) the Pledgor shall be entitled to receive and retain, and to utilize free and clear of the Lien hereof, any and all Distributions arising from the Investment Property deposited in the Custody Account.

(d) So long as no Event of Default shall have occurred and be continuing, the Administrative Agent shall be deemed without further action or formality to have granted to the Pledgor all necessary consents relating to voting rights and shall, if necessary, upon written request of the Pledgor and at the sole cost and expense of the Pledgor, from time to time execute and deliver (or cause to be executed and delivered) to the Pledgor all such instruments as the Pledgor may reasonably request in order to permit the Pledgor to exercise the voting and other rights which it is entitled to exercise pursuant to Section 5.1(c)(i) hereof and to receive the Distributions which it is authorized to receive and retain pursuant to Section 5.1(c)(ii) hereof.

(e) Upon the occurrence and during the continuance of any Event of Default, to the extent the Administrative Agent has delivered to the Bank a notice of exercise of its right to exclusive control of the Custody Account in accordance with the terms of the Control Agreement:

(i) all rights of the Pledgor to exercise the voting and other consensual rights it would otherwise be entitled to exercise pursuant to Section 5.1(c)(i) hereof and any investment and withdrawal rights and powers described herein and otherwise with respect to the Custody Account shall immediately cease, and all such rights shall thereupon become vested in the Administrative Agent, which shall thereupon have the sole right to exercise such voting and other consensual rights, investment and withdrawal rights and powers described herein and otherwise with respect to the Custody Account; and.

(ii) all rights of the Pledgor to receive Distributions in respect of the Collateral which it would otherwise be authorized to receive and retain pursuant to Section 5.1(c)(ii) hereof shall immediately cease and all such rights shall thereupon become vested in the Administrative Agent, which shall thereupon have the sole right to receive and hold as Collateral such Distributions.

(f) The Pledgor shall, at its sole cost and expense, from time to time execute and deliver to the Administrative Agent appropriate instruments as the Administrative Agent may request in order to permit the Administrative Agent to exercise the voting and other rights which it may be entitled to exercise pursuant to Section 5.1(e)(i) hereof and to receive all Distributions which it may be entitled to receive under Section 5.1(e)(ii) hereof.

(g) All Distributions which are received by the Pledgor contrary to the provisions of Section 5.1(e)(ii) hereof shall be received in trust for the benefit of the Administrative Agent, shall be segregated from other funds of the Pledgor and shall immediately be paid over to the Administrative Agent as Collateral in the same form as so received (with any necessary endorsement).

(h) So long as no Event of Default shall have occurred and be continuing, the Pledgor shall have the right to withdrawal Collateral from the Custody Account; *provided* that (x) the Pledgor shall have provided the Administrative Agent with prior written notice of such withdrawal pursuant to Section 6.03(d) of the Credit Agreement and (y) after giving pro forma effect to such withdrawal, there shall not exist a Borrowing Base Deficiency.

## ARTICLE VI

### REMEDIES

SECTION 6.1. Remedies. Upon the occurrence and during the continuance of any Event of Default, the Administrative Agent may from time to time exercise in respect of the Collateral, in addition to the other rights and remedies provided for herein or otherwise available to it, the following remedies:

(i) Personally, or by agents or attorneys, immediately take possession of the Collateral or any part thereof, from the Pledgor or any other person who then has possession of any part thereof with or without notice or process of Law, and for that purpose may enter upon the Pledgor's premises to receive copies of all communications and remittances relating to the Collateral;

(ii) Demand, sue for, collect or receive any money or property at any time payable or receivable in respect of the Collateral including instructing the obligor or obligors on any agreement, instrument or other obligation constituting part of the Collateral to make any payment required by the terms of such agreement, instrument or other obligation directly to the Administrative Agent, and in connection with any of the foregoing, compromise, settle, extend the time for payment and make other modifications with respect thereto; provided, however, that in the event that any such payments are made directly to the Pledgor, prior to receipt by any such obligor of such instruction, the Pledgor shall segregate all amounts received pursuant thereto in trust for the benefit of the Administrative Agent and shall promptly (but in no event later than one (1) Business Day after receipt thereof) pay such amounts to the Administrative Agent;

(iii) Withdraw all moneys, instruments, securities and other property in the Custody Account of the Pledgor for application to the Secured Obligations as provided in Article VII hereof;

(iv) Retain and apply the Distributions to the Secured Obligations as provided in Article VII hereof;

(v) Exercise any and all rights as beneficial and legal owner of the Collateral, including perfecting assignment of and exercising any and all voting, consensual and other rights and powers with respect to any Collateral; and

(vi) Exercise all the rights and remedies of a secured party on default under the UCC.

SECTION 6.2. Notice of Sale. The Pledgor acknowledges and agrees that, to the extent notice of sale or other disposition of the Collateral or any part thereof shall be required by Law, ten (10) days' prior notice to the Pledgor of the time and place of any public sale or of the time after which any private sale or other intended disposition is to take place shall be commercially reasonable notification of such matters. No notification need be given to the Pledgor if it has signed, after the

occurrence of an Event of Default, a statement renouncing or modifying any right to notification of sale or other intended disposition.

SECTION 6.3. Waiver of Notice and Claims. The Pledgor hereby waives, to the fullest extent permitted by applicable Law, notice or judicial hearing in connection with the Administrative Agent's taking possession or the Administrative Agent's disposition of the Collateral or any part thereof, including any and all prior notice and hearing for any prejudgment remedy or remedies and any such right which the Pledgor would otherwise have under law, and the Pledgor hereby further waives, to the fullest extent permitted by applicable law: (i) all damages occasioned by such taking of possession, (ii) all other requirements as to the time, place and terms of sale or other requirements with respect to the enforcement of the Administrative Agent's rights hereunder and (iii) all rights of redemption, appraisal, valuation, stay, extension or moratorium now or hereafter in force under any applicable Law. The Administrative Agent shall not be liable for any incorrect or improper payment made pursuant to this Article VI in the absence of gross negligence or willful misconduct on the part of the Administrative Agent. Any sale of, or the grant of options to purchase, or any other realization upon, any Collateral shall operate to divest all right, title, interest, claim and demand, either at law or in equity, of the Pledgor therein and thereto, and shall be a perpetual bar both at law and in equity against the Pledgor and against any and all persons claiming or attempting to claim the Collateral so sold, optioned or realized upon, or any part thereof, from, through or under the Pledgor.

SECTION 6.4. Certain Sales of Collateral.

(a) The Pledgor recognizes that, by reason of certain prohibitions contained in Law or orders of any Governmental Authority, the Administrative Agent may be compelled, with respect to any sale of all or any part of the Collateral, to limit purchasers to those who meet the requirements of such Governmental Authority. The Pledgor acknowledges that any such sales may be at prices and on terms less favorable to the Administrative Agent than those obtainable through a public sale without such restrictions, and, notwithstanding such circumstances, agrees that any such restricted sale shall be deemed to have been made in a commercially reasonable manner and that, except as may be required by applicable Law, the Administrative Agent shall have no obligation to engage in public sales.

(b) The Pledgor recognizes that, by reason of certain prohibitions contained in the Securities Act, and applicable state securities laws, the Administrative Agent may be compelled, with respect to any sale of all or any part of the Investment Property, to limit purchasers to persons who will agree, among other things, to acquire such Investment Property for their own account, for investment and not with a view to the distribution or resale thereof. The Pledgor acknowledges that any such private sales may be at prices and on terms less favorable to the Administrative Agent than those obtainable through a public sale without such restrictions (including a public offering made pursuant to a registration statement under the Securities Act), and, notwithstanding such circumstances, agrees that any such private sale shall be deemed to have been made in a commercially reasonable manner and that the Administrative Agent shall have no obligation to engage in public sales and no obligation to delay the sale of any Investment Property for the period of time necessary to permit the issuer thereof to register it for a form of public sale requiring registration under the Securities Act or under applicable state securities laws, even if such issuer would agree to do so.

SECTION 6.5. No Waiver; Cumulative Remedies.

(a) No failure on the part of the Administrative Agent to exercise, no course of dealing with respect to, and no delay on the part of the Administrative Agent in exercising, any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any such right, power, privilege or remedy hereunder preclude any other or further exercise thereof or the

exercise of any other right, power, privilege or remedy; nor shall the Administrative Agent be required to look first to, enforce or exhaust any other security, collateral or guaranties. All rights and remedies herein provided are cumulative and are not exclusive of any rights or remedies provided by law or otherwise available.

(b) In the event that the Administrative Agent shall have instituted any proceeding to enforce any right, power, privilege or remedy under this Agreement or any other Loan Document by foreclosure, sale, entry or otherwise, and such proceeding shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Administrative Agent, then and in every such case, the Pledgor, the Administrative Agent and each other Secured Party shall be restored to their respective former positions and rights hereunder with respect to the Collateral, and all rights, remedies, privileges and powers of the Administrative Agent and the other Secured Parties shall continue as if no such proceeding had been instituted.

## ARTICLE VII

### APPLICATION OF PROCEEDS

SECTION 7.1. Application of Proceeds. The proceeds received by the Administrative Agent in respect of any sale of, collection from or other realization upon all or any part of the Collateral pursuant to the exercise by the Administrative Agent of its remedies shall be applied, together with any other sums then held by the Administrative Agent pursuant to this Agreement, in accordance with the Credit Agreement.

## ARTICLE VIII

### MISCELLANEOUS

SECTION 8.1. Concerning Administrative Agent.

(a) The Administrative Agent has been appointed as administrative agent pursuant to the Credit Agreement. The actions of the Administrative Agent hereunder are subject to the provisions of the Credit Agreement. The Administrative Agent shall have the right hereunder to make demands, to give notices, to exercise or refrain from exercising any rights, and to take or refrain from taking action (including the release or substitution of the Collateral), in accordance with this Agreement and the Credit Agreement. The Administrative Agent may employ agents and attorneys-in-fact in connection herewith and shall not be liable for the negligence or misconduct of any such agents or attorneys-in-fact selected by it in good faith. The Administrative Agent may resign and a successor Administrative Agent may be appointed in the manner provided in the Credit Agreement. Upon the acceptance of any appointment as the Administrative Agent by a successor Administrative Agent, that successor Administrative Agent shall thereupon succeed to and become vested with all the rights, powers, privileges and duties of the retiring Administrative Agent under this Agreement, and the retiring Administrative Agent shall thereupon be discharged from its duties and obligations under this Agreement. After any retiring Administrative Agent's resignation, the provisions hereof shall inure to its benefit as to any actions taken or omitted to be taken by it under this Agreement while it was the Administrative Agent.

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(b) The Administrative Agent shall be deemed to have exercised reasonable care in the custody and preservation of the Collateral in its possession if such Collateral is accorded treatment substantially equivalent to that which the Administrative Agent, in its individual capacity, accords its own property consisting of similar instruments or interests, it being understood that neither the Administrative Agent nor any of the Secured Parties shall have responsibility for (i) ascertaining or taking action with respect to calls, conversions, exchanges, maturities, tenders or other matters relating to any Investment Property, whether or not the Administrative Agent or any other Secured Party has or is deemed to have knowledge of such matters or (ii) taking any necessary steps to preserve rights against any person with respect to any Collateral.

(c) The Administrative Agent shall be entitled to rely upon any written notice, statement, certificate, order or other document or any telephone message believed by it to be genuine and correct and to have been signed, sent or made by the proper person, and, with respect to all matters pertaining to this Agreement and its duties hereunder, upon advice of counsel selected by it.

(d) The Administrative Agent may rely on advice of counsel as to whether any or all UCC financing statements of the Pledgor need to be amended as a result of any of the changes described in Section 6.12(b) of the Credit Agreement. If the Pledgor fails to provide information to the Administrative Agent about such changes on a timely basis, the Administrative Agent shall not be liable or responsible to any party for any failure to maintain a perfected security interest in the Pledgor's property constituting Collateral, for which the Administrative Agent needed to have information relating to such changes. The Administrative Agent shall have no duty to inquire about such changes if the Pledgor does not inform the Administrative Agent of such changes, the parties acknowledging and agreeing that it would not be feasible or practical for the Administrative Agent to search for information on such changes if such information is not provided by the Pledgor.

SECTION 8.2. Administrative Agent May Perform; Administrative Agent Appointed Attorney-in-Fact. If the Pledgor shall fail to perform any covenants contained in this Agreement or if any representation or warranty on the part of the Pledgor contained herein shall be breached, the Administrative Agent may (but shall not be obligated to) do the same or cause it to be done or remedy any such breach, and may expend funds for such purpose; provided, however, that the Administrative Agent shall in no event be bound to inquire into the validity of any tax, Lien, imposition or other obligation which the Pledgor fails to pay or perform as and when required hereby and which the Pledgor does not contest in accordance with the provisions of the Credit Agreement. Any and all amounts so expended by the Administrative Agent shall be paid by the Pledgor in accordance with the provisions of Section 10.04 of the Credit Agreement. Neither the provisions of this Section 8.2 nor any action taken by the Administrative Agent pursuant to the provisions of this Section 8.2 shall prevent any such failure to observe any covenant contained in this Agreement nor any breach of representation or warranty from constituting an Event of Default. The Pledgor hereby appoints the Administrative Agent its attorney-in-fact, with full power and authority in the place and stead of the Pledgor and in the name of the Pledgor, or otherwise, from time to time after the occurrence and during the continuance of an Event of Default in the Administrative Agent's discretion to take any action and to execute any instrument consistent with the terms of the Credit Agreement, this Agreement and the other Collateral Documents which the Administrative Agent may deem necessary or advisable to accomplish the purposes hereof (but the Administrative Agent shall not be obligated to and shall have no liability to the Pledgor or any third party for failure to so do or take action). The foregoing grant of authority is a power of attorney coupled with an interest and such appointment shall be irrevocable for the term hereof. The Pledgor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof.



SECTION 8.3. Continuing Security Interest; Assignment. This Agreement shall create a continuing security interest in the Collateral and shall (i) be binding upon the Pledgor, its successors and assigns and (ii) inure, together with the rights and remedies of the Administrative Agent hereunder, to the benefit of the Administrative Agent and the other Secured Parties and each of their respective successors, transferees and assigns permitted under Section 10.06 of the Credit Agreement. No other persons (including any other creditor of the Pledgor) shall have any interest herein or any right or benefit with respect hereto. Without limiting the generality of the foregoing clause (ii), any Secured Party may assign or otherwise transfer any indebtedness held by it secured by this Agreement to any other person, and such other person shall thereupon become vested with all the benefits in respect thereof granted to such Secured Party, herein or otherwise, subject however, to the provisions of the Credit Agreement. The Pledgor agrees that its obligations hereunder and the security interest created hereunder shall continue to be effective or be reinstated, as applicable, if at any time payment, or any part thereof, of all or any part of the Secured Obligations is rescinded or must otherwise be restored by the Secured Party upon the bankruptcy or reorganization of the Pledgor or otherwise.

SECTION 8.4. Termination; Release. Upon termination of the Aggregate Commitments and payment in full of all Secured Obligations (other than contingent indemnification obligations) and the expiration or termination of all Letters of Credit (other than Letters of Credit as to which other arrangements reasonably satisfactory to the Administrative Agent and the L/C Issuer shall have been made), this Agreement shall terminate. Upon termination of this Agreement the Collateral shall be released from the Lien of this Agreement. Upon such release or any release of Collateral or any part thereof in accordance with the provisions of the Credit Agreement, the Administrative Agent shall, upon the request and at the sole cost and expense of the Pledgor, assign, transfer and deliver to Pledgor, against receipt and without recourse to or warranty by the Administrative Agent except as to the fact that the Administrative Agent has not encumbered the released assets, such of the Collateral or any part thereof to be released (in the case of a release) as may be in possession of the Administrative Agent and as shall not have been sold or otherwise applied pursuant to the terms hereof, and, with respect to any other Collateral, proper documents and instruments (including UCC-3 termination financing statements or releases and termination of the Control Agreement) acknowledging the termination hereof or the release of such Collateral, as the case may be.

SECTION 8.5. Modification in Writing. No amendment, modification, supplement, termination or waiver of or to any provision hereof, nor consent to any departure by the Pledgor therefrom, shall be effective unless the same shall be made in accordance with the terms of the Credit Agreement and unless in writing and signed by the Administrative Agent and the Pledgor. Any amendment, modification or supplement of or to any provision hereof, any waiver of any provision hereof and any consent to any departure by the Pledgor from the terms of any provision hereof in each case shall be effective only in the specific instance and for the specific purpose for which made or given. Except where notice is specifically required by this Agreement or any other document evidencing the Secured Obligations, no notice to or demand on the Pledgor in any case shall entitle the Pledgor to any other or further notice or demand in similar or other circumstances.

SECTION 8.6. Notices. Unless otherwise provided herein or in the Credit Agreement, any notice or other communication herein required or permitted to be given shall be given in the manner and become effective as set forth in the Credit Agreement, as to the Pledgor, addressed to it at the address of the Pledgor set forth in the Credit Agreement and as to the Administrative Agent, addressed to it at the address set forth in the Credit Agreement, or in each case at such other address as shall be designated by such party in a written notice to the other party complying as to delivery with the terms of this Section 8.6.

SECTION 8.7. Governing Law, Consent to Jurisdiction and Service of Process; Waiver of Jury Trial. Sections 10.14 and 10.15 of the Credit Agreement are incorporated herein, *mutatis mutandis*, as if a part hereof.

SECTION 8.8. Severability of Provisions. Any provision hereof which is invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without invalidating the remaining provisions hereof or affecting the validity, legality or enforceability of such provision in any other jurisdiction.

SECTION 8.9. Execution in Counterparts. This Agreement and any amendments, waivers, consents or supplements hereto may be executed in any number of counterparts (and by different parties hereto in separate counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or other electronic imaging means (e.g. "pdf" or "tif") shall be effective as delivery of a manually executed counterpart of this Agreement.

SECTION 8.10. Business Days. In the event anytime period or any date provided in this Agreement ends or falls on a day other than a Business Day, then such time period shall be deemed to end and such date shall be deemed to fall on the next succeeding Business Day, and performance herein may be made on such Business Day, with the same force and effect as if made on such other day.

SECTION 8.11. No Credit for Payment of Taxes or Imposition. The Pledgor shall not be entitled to any credit against the principal, premium, if any, or interest payable under the Credit Agreement, and the Pledgor shall not be entitled to any credit against any other sums which may become payable under the terms thereof or hereof, by reason of the payment of any Tax on the Collateral or any part thereof.

SECTION 8.12. No Claims Against Administrative Agent. Nothing contained in this Agreement shall constitute any consent or request by the Administrative Agent, express or implied, for the performance of any labor or services or the furnishing of any materials or other property in respect of the Collateral or any part thereof, nor as giving the Pledgor any right, power or authority to contract for or permit the performance of any labor or services or the furnishing of any materials or other property in such fashion as would permit the making of any claim against the Administrative Agent in respect thereof or any claim that any Lien based on the performance of such labor or services or the furnishing of any such materials or other property is prior to the Lien hereof.

SECTION 8.13. No Release. Nothing set forth in this Agreement or any other Loan Document, nor the exercise by the Administrative Agent of any of the rights or remedies hereunder, shall relieve the Pledgor from the performance of any term, covenant, condition or agreement on the Pledgor's part to be performed or observed under or in respect of any of the Collateral or from any liability to any person under or in respect of any of the Collateral or shall impose any obligation on the Administrative Agent or any other Secured Party to perform or observe any such term, covenant, condition or agreement on the Pledgor's part to be so performed or observed or shall impose any liability on the Administrative Agent or any other Secured Party for any act or omission on the part of the Pledgor relating thereto or for any breach of any representation or warranty on the part of the Pledgor contained in this Agreement, the Credit Agreement or the other Loan Documents, or under or in respect of the Collateral or made in connection herewith or therewith. Anything herein to the contrary notwithstanding, neither the Administrative Agent nor any other Secured Party shall have any obligation or liability under any contracts, agreements and other documents included in the Collateral by reason of this Agreement, nor shall the Administrative Agent or any other Secured Party be obligated to perform any of the obligations or duties of the Pledgor thereunder or to take any action to collect or enforce any such contract, agreement

or other document included in the Collateral hereunder. The obligations of the Pledgor contained in this Section 8.13 shall survive the termination hereof and the discharge of the Pledgor's other obligations under this Agreement, the Credit Agreement and the other Loan Documents.

SECTION 8.14. Obligations Absolute. All obligations of the Pledgor hereunder shall be absolute and unconditional irrespective of:

- (i) any bankruptcy, insolvency, reorganization, arrangement, readjustment, composition, liquidation or the like of the Pledgor;
- (ii) any lack of validity or enforceability of the Credit Agreement or any other Loan Document, or any other agreement or instrument relating thereto;
- (iii) any change in the time, manner or place of payment of, or in any other term of, all or any of the Secured Obligations, or any other amendment or waiver of or any consent to any departure from the Credit Agreement or any other Loan Document or any other agreement or instrument relating thereto;
- (iv) any pledge, exchange, release or non-perfection of any other collateral, or any release or amendment or waiver of or consent to any departure from any guarantee, for all or any of the Secured Obligations;
- (v) any exercise, non-exercise or waiver of any right, remedy, power or privilege under or in respect hereof, the Credit Agreement or any other Loan Document except as specifically set forth in a waiver granted pursuant to the provisions of Section 8.5 hereof; or
- (vi) any other circumstances which might otherwise constitute a defense available to, or a discharge of, the Pledgor.

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IN WITNESS WHEREOF, the Pledgor and the Administrative Agent have caused this Agreement to be duly executed and delivered by their duly authorized officers as of the date first above written.

BIOMARIN PHARMACEUTICAL INC.,  
as Pledgor

By:

Name:  
Title:

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Form of Security Agreement

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BANK OF AMERICA, N.A.,  
as Administrative Agent

By:

Name:  
Title:

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Form of Security Agreement

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[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE  
(FOR FOREIGN LENDERS THAT ARE NOT TREATED AS PARTNERSHIPS FOR U.S. FEDERAL  
INCOME TAX PURPOSES)

Reference is made to that certain Credit Agreement (the "Agreement"), dated as of November 29, 2016, among BIOMARIN PHARMACEUTICAL INC., a Delaware corporation (the "Borrower"), each lender from time to time party thereto (collectively, the "Lenders" and individually, a "Lender"), and BANK OF AMERICA, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer. Capitalized terms used herein but not otherwise defined shall have the meaning given to such term in the Agreement.

Pursuant to the provisions of Section 3.01(e) of the Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loans(s)) in respect of which it is providing this certificate, (ii) it is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a "controlled foreign corporation" related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (v) the interest payments on the Loan(s) are not effectively connected with the undersigned's conduct of a U.S. trade or business.

The undersigned has furnished the Administrative Agent and the Borrower with correct and complete a certificate of its non-U.S. person status on IRS Form W-8BEN or W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, or if a lapse in time or change in circumstances renders the information on this certificate obsolete, expired or inaccurate in any material respect, the undersigned shall promptly so inform the Borrower and the Administrative Agent in writing and deliver promptly to the Borrower and the Administrative Agent an updated certificate or other appropriate documentation (including any new documentation reasonably requested by the Borrower or the Administrative Agent) or promptly notify the Borrower and the Administrative Agent in writing of its inability to do so, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned or in either of the two calendar years preceding such payments.

[NAME OF LENDER]

By:

Name:

Title:

Date: \_\_\_\_\_, 20[ ]

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Form of U.S. Tax Compliance Certificate

140812225 v1

[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE  
(FOR FOREIGN PARTICIPANTS THAT ARE NOT TREATED AS PARTNERSHIPS FOR U.S.  
FEDERAL INCOME TAX PURPOSES)

Reference is made to that certain Credit Agreement (the "Agreement"), dated as of November 29, 2016, among BIOMARIN PHARMACEUTICAL INC., a Delaware corporation (the "Borrower"), each lender from time to time party thereto (collectively, the "Lenders" and individually, a "Lender"), and BANK OF AMERICA, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer. Capitalized terms used herein but not otherwise defined shall have the meaning given to such term in the Agreement.

Pursuant to the provisions of Section 3.01(e) of the Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a "controlled foreign corporation" related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (v) the interest payments with respect to such participation are not effectively connected with the undersigned's conduct of a U.S. trade or business.

The undersigned has furnished its participating Lender with a correct and complete certificate of its non-U.S. person status on an IRS Form W-8BEN or W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, or if a lapse in time or change in circumstances renders the information on this certificate obsolete, expired or inaccurate in any material respect, the undersigned shall promptly so inform such Lender in writing and deliver promptly to such Lender an updated certificate or other appropriate documentation (including any new documentation reasonably requested by such Lender) or promptly notify such Lender in writing of its inability to do so, and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned or in either of the two calendar years preceding such payments.

[NAME OF PARTICIPANT]

By:

Name:

Title:

Date: \_\_\_\_\_, 20[ ]

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Form of U.S. Tax Compliance Certificate

140812225 v1

[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE  
(FOR FOREIGN PARTICIPANTS THAT ARE TREATED AS PARTNERSHIPS FOR U.S. FEDERAL  
INCOME TAX PURPOSES)

Reference is made to that certain Credit Agreement (the “Agreement”), dated as of November 29, 2016, among BIOMARIN PHARMACEUTICAL INC., a Delaware corporation (the “Borrower”), each lender from time to time party thereto (collectively, the “Lenders” and individually, a “Lender”), and BANK OF AMERICA, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer. Capitalized terms used herein but not otherwise defined shall have the meaning given to such term in the Agreement.

Pursuant to the provisions of Section 3.01(e) of the Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members that is claiming the portfolio interest exemption is a bank within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members that is claiming the portfolio interest exemption is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its direct or indirect partners/members that is claiming the portfolio interest exemption is a “controlled foreign corporation” related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments with respect to such participation are not effectively connected with the conduct of a U.S. trade or business by the undersigned or any direct or indirect partners/members that are claiming the portfolio interest exemption.

The undersigned has furnished its participating Lender with a correct and complete IRS Form W8IMY accompanied by one of the following forms from each of its direct or indirect partners/members claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or W-8BEN-E, as applicable or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or W-8BEN-E, as applicable, from each of such partner’s/member’s beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, or if a lapse in time or change in circumstances renders the information on this certificate obsolete, expired or inaccurate in any material respect, the undersigned shall promptly so inform such Lender in writing and deliver promptly to such Lender an updated certificate or other appropriate documentation (including any new documentation reasonably requested by such Lender) or promptly notify such Lender in writing of its inability to do so, and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned or in either of the two calendar years preceding such payments.

[NAME OF PARTICIPANT]

By:

Name:

Title:

Date: \_\_\_\_\_, 20[ ]

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Form of U.S. Tax Compliance Certificate

140812225 v1



[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE  
(FOR FOREIGN LENDERS THAT ARE TREATED AS PARTNERSHIPS FOR U.S. FEDERAL  
INCOME TAX PURPOSES)

Reference is made to that certain Credit Agreement (the "Agreement"), dated as of November 29, 2016, among BIOMARIN PHARMACEUTICAL INC., a Delaware corporation (the "Borrower"), each lender from time to time party thereto (collectively, the "Lenders" and individually, a "Lender"), and BANK OF AMERICA, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer. Capitalized terms used herein but not otherwise defined shall have the meaning given to such term in the Agreement.

Pursuant to the provisions of Section 3.01(e) of the Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s)) evidencing such Loan(s) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to the Agreement or any other Loan Document, neither the undersigned nor any of its direct or indirect partners/members that is claiming the portfolio interest exemption is a bank within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members that is claiming the portfolio interest exemption is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its direct or indirect partners/members that is claiming the portfolio interest exemption is a "controlled foreign corporation" related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments on the Loan(s) are not effectively connected with the conduct of a U.S. trade or business by the undersigned or its direct or indirect partners/members that are claiming the portfolio interest exemption.

The undersigned has furnished the Administrative Agent and the Borrower with a correct and complete IRS Form W-8IMY accompanied by one of the following forms for each of its direct or indirect partners/members that is claiming the portfolio interest exception: (i) an IRS Form W-8BEN or W8BEN-E, as applicable or (ii) and IRS Form W-8IMY accompanied by an IRS Form W-8BEN or W8BEN-E, as applicable, from each of its direct or indirect partners/members claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, or if a lapse in time or change in circumstances renders the information on this certificate obsolete, expired or inaccurate in any material respect, the undersigned shall promptly so inform the Borrower and the Administrative Agent in writing and deliver promptly to the Borrower and the Administrative Agent an updated certificate or other appropriate documentation (including any new documentation reasonably requested by the Borrower or the Administrative Agent) or promptly notify the Borrower and the Administrative Agent in writing of its inability to do so, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned or in either of the two calendar years preceding such payments.

[NAME OF LENDER]

By:

Name:

Title:

Date: \_\_\_\_\_, 20[ ]

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Form of U.S. Tax Compliance Certificate

140812225 v1

## [FORM OF] BORROWING BASE CERTIFICATE

To: Bank of America, N.A., as Administrative Agent

Date: \_\_\_\_\_, \_\_\_\_\_ 17

- (1) Borrowing Base (insert total Borrowing Base from the last row of the fourth column of the table under Schedule I attached hereto) \_\_\_\_\_
- (2) Custody Maintenance Value (insert total Custody Maintenance Value from the last row of the sixth column of the table under Schedule I attached hereto) \_\_\_\_\_
- (3) Aggregate amount of the Commitments \_\_\_\_\_
- (4) Aggregate Outstanding Amount of the Revolving Credit Loans \_\_\_\_\_
- (5) Aggregate Outstanding Amount of the L/C Obligations \_\_\_\_\_
- (6) Borrowing Availability \_\_\_\_\_
- (A) the Maximum Borrowing Amount (i.e. the lesser of Line (3) and Line (1)) minus \_\_\_\_\_
- (B) Total Outstandings (i.e. the sum of Lines (4) plus (5)) \_\_\_\_\_
- (7) Borrowing Base Deficiency<sup>18</sup> \_\_\_\_\_
- (A) Custody Maintenance Value (i.e. Line (2)) to \_\_\_\_\_
- (B) Total Outstandings (i.e. Line (6)(B)) \_\_\_\_\_

This report (this “Certificate”) is submitted pursuant to Section 6.02(j) of the Credit Agreement dated as of November 22, 2016 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the “Credit Agreement”) among BioMarin Pharmaceutical Inc., a Delaware corporation (the “Borrower”), the Lenders from time to time party thereto and Bank of America, N.A., as Administrative Agent, L/C Issuer and Swing Line Lender. [Upon the occurrence of a Collateral Trigger Event and the satisfaction of the Collateral Security Deadline Requirements,] [pursuant to the Collateral Documents,] the Administrative Agent [shall be] [has been] granted a security interest in all of the Collateral referred to in this Certificate and [shall have] [has] a valid perfected first priority security interest in the Collateral. Unless otherwise indicated, capitalized terms used but not defined herein shall have the meanings ascribed to them in the Credit Agreement.

<sup>17</sup> Pursuant to Section 6.02(j) of the Credit Agreement this Certificate should be delivered within five Business Days after the end of each calendar month.

<sup>18</sup> If Line 7(B) is greater than Line 7(A) there is a Borrowing Base Deficiency.

The undersigned Responsible Officer<sup>19</sup> hereby certifies as of the date hereof that he/she is the \_\_\_\_\_ of the Borrower, and, as such, he/she is authorized to execute and deliver this Certificate to the Administrative Agent on behalf of the Borrower, and that: (a) the amounts and calculations herein and in Schedule I accurately reflect (x) the Dollars and the Market Value of the marketable securities and other liquid assets (of the types set forth in the table under the definition of "Borrowing Base" in the Credit Agreement) of the Borrower held in the Custody Account, (y) the Borrowing Base and (z) the Custody Maintenance Value and (b) no Default or Event of Default has occurred or is continuing.

BIOMARIN PHARMACEUTICAL INC., as Borrower

By:

Name:

Title:

<sup>19</sup> This Certificate should be executed and delivered by the chief executive officer, chief financial officer, treasurer or controller of the Borrower.

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Form of Borrowing Base Certificate

140812225 v1

SCHEDULE I  
to Borrowing Base Certificate

Borrowing Base and Custody Maintenance Value

Marketable Securities / Other Liquid Collateral Type	Dollar/Market Value	Advance Rates	Borrowing Base (Dollar/Market Value times Advance Rate)	Maintenance Rates	Custody Maintenance Value (Dollar/Market Value times Maintenance Rate)
U.S. government-sovereign debt securities	\$ _____	92%	\$ _____	95%	\$ _____
U.S. government agency	\$ _____	85%	\$ _____	90%	\$ _____
State & local municipal debt	\$ _____	80%	\$ _____	85%	\$ _____
<b>U.S. Corporate Debt Securities</b>					
Commercial paper with agency ratings of:					
A1/P1	\$ _____	85%	\$ _____	90%	\$ _____
A2/P2	\$ _____	80%	\$ _____	85%	\$ _____
Non-convertible issues (investment grade)	\$ _____	80%	\$ _____	85%	\$ _____
Convertible issues	\$ _____	70%	\$ _____	75%	\$ _____
US corporate bonds (investment grade)	\$ _____	80%	\$ _____	85%	\$ _____
US corporate bonds (investment grade) convertible into margin stock	\$ _____	80%	\$ _____	85%	\$ _____
<b>Mutual Funds</b>					
Money market	\$ _____	90%	\$ _____	95%	\$ _____
US government agency	\$ _____	85%	\$ _____	90%	\$ _____
Corporate bonds (investment grade)	\$ _____	80%	\$ _____	85%	\$ _____
Municipal bonds (investment grade)	\$ _____	80%	\$ _____	85%	\$ _____
<b>Equity Securities</b>					
Common equities	\$ _____	70%	\$ _____	75%	\$ _____
Preferred non-convertible equities	\$ _____	70%	\$ _____	75%	\$ _____
Preferred convertible equities	\$ _____	70%	\$ _____	75%	\$ _____
American depository receipts	\$ _____	70%	\$ _____	75%	\$ _____
Global depository receipts	\$ _____	70%	\$ _____	75%	\$ _____

<b>Other Debt Securities</b>					
BAC sponsored issues (US Agency Backed)	\$ _____	75%	\$ _____	85%	\$ _____
Non-BAC sponsored issues (US Agency Backed)	\$ _____	70%	\$ _____	75%	\$ _____
<b>Cash Deposits held at BAC</b>					
Cash deposits in savings accounts including money market deposit accounts	\$ _____	100%	\$ _____	100%	\$ _____
BAC negotiable certificates of deposit	\$ _____	100%	\$ _____	100%	\$ _____
<b>Other Liquid Collateral</b>					
Bankers acceptances	\$ _____	90%	\$ _____	90%	\$ _____
Cash surrender value of life insurance	\$ _____	95%	\$ _____	95%	\$ _____
<b>Total</b>	\$ _____		\$ _____		\$ _____

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Form of Borrowing Base Certificate

140812225 v1

## [FORM OF] SOLVENCY CERTIFICATE

November 29, 2016

This certificate ("Certificate") is delivered pursuant to Section 4.01(a)(viii) of Credit Agreement, dated as of the date hereof (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among BioMarin Pharmaceutical Inc., a Delaware corporation (the "Borrower"), the lenders party thereto and Bank of America, N.A., as Administrative Agent. Pursuant to the Credit Agreement, the undersigned chief financial officer of the Borrower hereby certifies as of the date hereof, solely on behalf of the Borrower and not in [her]/[his] individual capacity and without assuming any personal liability whatsoever, that:

- I. I am familiar with the finances, properties, businesses and assets of the Borrower and its Subsidiaries. I have reviewed the Credit Agreement and such other documentation and information and have made such investigation and inquiries as I have deemed necessary and prudent therefor. I have also reviewed the consolidated financial statements of the Borrower and its Subsidiaries, including projected financial statements and forecasts relating to income statements and cash flow statements of the Borrower and its Subsidiaries.
- II. On the date hereof, after giving effect to the Transaction, (a) the fair value of the property of the Borrower and its Subsidiaries, on a consolidated basis, is greater than the total amount of liabilities, including contingent liabilities, of the Borrower and its Subsidiaries, on a consolidated basis, (b) the present fair salable value of the assets of the Borrower and its Subsidiaries, on a consolidated basis, is not less than the amount that will be required to pay the probable liability, on a consolidated basis, on their debts as they become absolute and matured, (c) the Borrower and its Subsidiaries, on a consolidated basis, do not intend to, and do not believe that they will, incur debts or liabilities beyond their ability, on a consolidated basis, to pay such debts and liabilities as they mature, (d) the Borrower and its Subsidiaries, on a consolidated basis, are not engaged in business or a transaction, and are not about to engage in business or a transaction, for which their property would constitute an unreasonably small capital, and (e) the Borrower and its Subsidiaries, on a consolidated basis, are able to pay their debts and liabilities, contingent obligations and other commitments as they mature in the ordinary course of business.

For purposes of this Certificate, the amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability. All capitalized terms used but not defined in this Certificate shall have the meanings set forth in the Credit Agreement. This Certificate is to be interpreted in accordance with the laws of the State of New York.

[SIGNATURE PAGE TO FOLLOW]

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Form of Solvency Certificate

140812225 v1

IN WITNESS WHEREOF, I have executed this Certificate as of the date first written above.

BIOMARIN PHARMACEUTICAL INC.

By:

Name:

Title:

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Form of Solvency Certificate

140812225 v1

## BIOMARIN PHARMACEUTICAL INC.

## Amended and Restated 2006 Share Incentive Plan

## Agreement Regarding Performance Compensation Award in the Form of Restricted Stock Units

Unless otherwise defined herein, all capitalized terms used in this Agreement Regarding Performance Compensation Award in the Form of Restricted Stock Units (this "*Award Agreement*") shall have the meanings attributed thereto in the Amended and Restated BioMarin Pharmaceutical Inc. 2006 Share Incentive Plan (as amended, the "*Plan*"). By executing this Award Agreement, you agree to be bound by all of the provisions of the Plan applicable to an award of restricted stock units and performance units made pursuant to the Plan (including without limitation, the terms and conditions set forth in Sections 10, 11, 12, 14, 17, 20, 21, 22, 23 and 24 of the Plan), the provisions of which are hereby made a part of this Award and incorporated herein by reference, and all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Award and those of the Plan, the provisions of the Plan shall control. You may request a copy of the Plan by contacting our General Counsel at (415) 506-6307 or BioMarin Pharmaceutical Inc., 105 Digital Drive, Novato, CA 94949, Attention: General Counsel.

This Award is conditioned on your execution of this Award Agreement.

**General Terms of Your Award**

You have been granted Restricted Share Units ("*RSUs*") related to the Common Stock of the Company pursuant to Section 7 of the Plan, subject to the terms and conditions of the Plan and this Award, as follows:

<b>Recipient:</b>	[	]
<b>Grant ID:</b>	[	]
<b>Grant Date:</b>	[	]
<b>Base Number of Units Granted:</b>	[	]
<b>Maximum Number of Units Granted:</b>	[	]

**Earned RSUs:**

The number of shares of Common Stock you will be entitled to receive under this Award (the "*Earned RSUs*") shall be determined as follows:

[ ]

**Vesting Schedule:**

The Earned RSUs (if any) shall vest as follows:

[ ]



**Modifications**

This Award Agreement may be modified or amended at any time, in accordance with the Plan and provided that you must consent in writing to any modification that adversely or materially affects your rights or obligations under this Award Agreement (with such an effect being presumed to arise from a modification that would trigger a violation of Section 409A of the Code).

**Not a Contract of Employment**

By executing this Award Agreement you acknowledge and agree that (i) any person who is terminated before full vesting of an Award, such as the one granted to you by this Award Agreement, could claim that he or she was terminated to preclude vesting; (ii) you promise never to make such a claim; (iii) nothing in this Award Agreement or the Plan confers on you any right to continue an employment, service or consulting relationship with the Company, nor shall it affect in any way your right or the Company's right to terminate your employment, service or consulting relationship at any time, with or without Cause; and (iv) the Company would not have granted this Award to you but for these acknowledgements and agreements.

**Tax Implications:**

Please consult your tax advisor regarding the tax implications of this Award and the vesting of the RSUs. You will be required to satisfy the withholding requirements applicable to the vesting of the RSUs, if any. If you are not able to sell the shares issued on vesting due to the restrictions of the Company's insider trading policy, you will be required to promptly pay the Company the required withholding.

\*\*\*

**By your electronic acceptance**, along with the electronic acceptance of the representative of the Company, you and the Company agree that the Award is granted under, and governed by the terms and conditions of, this Agreement and the Plan, and you hereby agree to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions relating to the Plan and this Agreement.

## Subsidiaries of BioMarin Pharmaceutical Inc. as of December 31, 2016

<u>Name</u>	<u>Direct Parent(s)</u>	<u>Ownership</u>	<u>Jurisdiction of Incorporation</u>
BioMarin UK Ltd.	BioMarin Pharmaceutical Inc.	100%	United Kingdom
BioMarin GALNS Ltd.	BioMarin Pharmaceutical Inc.	100%	Ireland
BioMarin International Holdings, Inc.	BioMarin Pharmaceutical Inc.	100%	Delaware
BioMarin International Ltd.	BioMarin GALNS Ltd.	100%	Ireland

### Consent of Independent Registered Public Accounting Firm

The Board of Directors  
BioMarin Pharmaceutical Inc.:

We consent to the incorporation by reference in the registration statements on Form S-8 (Nos. 333-206094, 333-197759, 333-201504, 333-188620, 333-168552, 333-136963, 333-84787, 333-85368 and 333-181697) and the registration statements on Form S-3 (No. 333-212974 and 333-191604) of BioMarin Pharmaceutical Inc. and subsidiaries of our reports dated February 27, 2017, with respect to the consolidated balance sheets of BioMarin Pharmaceutical Inc. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and the effectiveness of internal control over financial reporting as of December 31, 2016, which reports appear in the December 31, 2016 annual report on Form 10-K of BioMarin Pharmaceutical Inc. and subsidiaries. Our report refers to a change in accounting for share-based compensation.

/s/ KPMG LLP

San Francisco, California  
February 27, 2017

## CERTIFICATION

I, Jean-Jacques Bienaimé, certify that:

1. I have reviewed this Annual Report on Form 10-K of BioMarin Pharmaceutical Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2017

/S/ JEAN-JACQUES BIENAIMÉ

Jean-Jacques Bienaimé  
Chief Executive Officer

## CERTIFICATION

I, Daniel Spiegelman certify that:

1. I have reviewed this Annual Report on Form 10-K of BioMarin Pharmaceutical Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2017

/S/ DANIEL SPIEGELMAN

Daniel Spiegelman

Executive Vice President and Chief Financial Officer

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of BioMarin Pharmaceutical Inc. (the Company) for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the Report), we, Jean-Jacques Bienaimé, and Daniel Spiegelman, hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ JEAN-JACQUES BIENAIMÉ

Jean-Jacques Bienaimé  
Chief Executive Officer  
February 27, 2017

/S/ DANIEL SPIEGELMAN

Daniel Spiegelman  
Executive Vice President and Chief Financial Officer  
February 27, 2017

*This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of BioMarin Pharmaceutical Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.*

