IRONWOOD PHARMACEUTICALS INC
Form 10-Q
August 03, 2017
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2017

OR

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

For the transition period from to

Commission file number: 001-34620

IRONWOOD PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	04-3404176 (I.R.S. Employer Identification Number)

301 Binney Street Cambridge, Massachusetts (Address of Principal Executive Offices)	02142 (Zip Code)

(617) 621-7722

(Registrant's telephone number, including area code)

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 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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

As of August 1, 2017, there were 135,067,618 shares of Class A common stock outstanding and 14,524,306 shares of Class B common stock outstanding.

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NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, including the sections titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Risk Factors”, contains forward-looking statements. All statements contained in this Quarterly Report on Form 10-Q other than statements of historical fact are forward-looking statements. Forward-looking statements include statements regarding our future financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words “may,” “continue,” “estimate,” “intend,” “plan,” “will,” “believe,” “project,” “expect,” “seek,” “anticipate” and similar expressions may identify forward-looking statem but the absence of these words does not necessarily mean that a statement is not forward-looking. These forward-looking statements include, among other things, statements about:

- the demand and market potential for our products in the countries where they are approved for marketing, as well as the revenues therefrom;

- the timing, investment and associated activities involved in commercializing LINZESS® by us and Allergan plc in the U.S. and ZURAMPIC® by us in the U.S.;

- the timing and execution of the launches and commercialization of CONSTELLA® in Europe and LINZESS in Japan;

- the timing, investment and associated activities involved in developing, obtaining regulatory approval for, launching, and commercializing our products and product candidates by us and our partners worldwide;

- our ability and the ability of our partners to secure and maintain adequate reimbursement for our products;

- the ability of our partners and third-party manufacturers to manufacture and distribute sufficient amounts of linaclotide and lesinurad active pharmaceutical ingredient, drug product and finished goods, as applicable, on a commercial scale;

- our expectations regarding U.S. and foreign regulatory requirements for our products and our product candidates, including our post-approval development and regulatory requirements;

- the ability of our product candidates to meet existing or future regulatory standards;

- the safety profile and related adverse events of our products and our product candidates;

- the therapeutic benefits and effectiveness of our products and our product candidates and the potential indications and market opportunities therefor;

- our and our partners' ability to obtain and maintain intellectual property protection for our products and our product candidates and the strength thereof, as well as Abbreviated New Drug Applications filed by generic drug manufacturers and potential U.S. Food and Drug Administration approval thereof, and associated patent infringement suits that we have filed or may file, or other action that we may take against such companies, and the timing and resolution thereof;

- our and our partners' ability to perform our respective obligations under our collaboration, license and other agreements, and our ability to achieve milestone and other payments under such agreements;

- our plans with respect to the development, manufacture or sale of our product candidates and the associated timing thereof, including the design and results of pre-clinical and clinical studies;

- the in-licensing or acquisition of externally discovered businesses, products or technologies, including expectations relating to the completion of, or the realization of the expected benefits from, such transactions;

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- our expectations as to future financial performance, revenues, expense levels, payments, cash flows, profitability, tax obligations, capital raising and liquidity sources, and real estate needs, as well as the timing and drivers thereof;

- our ability to repay our outstanding indebtedness when due, or redeem or repurchase all or a portion of such debt, as well as the potential benefits of the note hedge transactions described herein;

- inventory levels and write downs, or asset impairments, and the drivers thereof, and inventory purchase commitments;

- our expectations regarding amortization of intangible assets;

- our ability to compete with other companies that are or may be developing or selling products that are competitive with our products and product candidates;

- the status of government regulation in the life sciences industry, particularly with respect to healthcare reform;

- trends and challenges in our potential markets;

- our ability to attract and motivate key personnel; and

- other factors discussed elsewhere in this Quarterly Report on Form 10-Q.

Any or all of our forward-looking statements in this Quarterly Report on Form 10-Q may turn out to be inaccurate. These forward-looking statements may be affected by inaccurate assumptions or by known or unknown risks and uncertainties, including the risks, uncertainties and assumptions identified under the heading “Risk Factors” in this Quarterly Report on Form 10-Q. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Quarterly Report on Form 10-Q may not occur as contemplated, and actual results could differ materially from those anticipated or implied by the forward-looking statements.

You should not unduly rely on these forward-looking statements, which speak only as of the date of this Quarterly Report on Form 10-Q. Unless required by law, we undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise. You should, however, review the factors and risks we describe in the reports we will file from time to time with the U.S. Securities and Exchange Commission, or the SEC, after the date of this Quarterly Report on Form 10-Q.

NOTE REGARDING TRADEMARKS

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IRONWOOD PHARMACEUTICALS, INC.

QUARTERLY REPORT ON FORM 10-Q

FOR THE QUARTER ENDED JUNE 30, 2017

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June 30,

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

Ironwood Pharmaceuticals, Inc.

Condensed Consolidated Balance Sheets

(In thousands, except share and per share amounts)

(unaudited)

	June 30, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 182,132	$ 54,004
Available-for-sale securities	90,763	251,212
Accounts receivable	3,975	933
Related party accounts receivable, net	56,382	63,921
Inventory	—	1,081
Prepaid expenses and other current assets	8,235	9,030
Total current assets	341,487	380,181
Restricted cash	7,057	8,247
Property and equipment, net	17,854	20,512
Convertible note hedges	171,880	132,521
Intangible assets, net	165,278	166,119
Goodwill	785	785
Other assets	738	1,456
Total assets	$ 705,079	$ 709,821
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and related party accounts payable, net	$ 21,190	$ 17,703
Accrued research and development costs	7,454	6,937
Accrued expenses and other current liabilities	30,817	38,301
Current portion of capital lease obligations	5,097	6,227
Current portion of deferred rent	205	7,719
Deferred revenue	225	—
Current portion of contingent consideration	14,985	14,244
Total current liabilities	79,973	91,131
Capital lease obligations, net of current portion	—	82
Deferred rent, net of current portion	3,515	557
Contingent consideration, net of current portion	71,213	63,416
Note hedge warrants	149,458	113,237
Convertible senior notes	241,544	234,243
PhaRMA notes payable	—	132,249
2026 Notes	146,316	—
Other liabilities	8,190	8,190

Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value, 75,000,000 shares authorized, no shares issued and outstanding	—	—
Class A common stock, $0.001 par value, 500,000,000 shares authorized and 135,030,974 and 132,631,387 shares issued and outstanding at June 30, 2017 and December 31, 2016, respectively	135	133
Class B common stock, $0.001 par value, 100,000,000 shares authorized and 14,524,306 shares issued and outstanding at June 30, 2017 and 14,784,077 shares issued and 14,484,077 shares outstanding at December 31, 2016	15	15
Additional paid-in capital	1,293,292	1,258,398
Accumulated deficit	(1,288,548)	(1,191,823)
Accumulated other comprehensive loss	(24)	(7)
Total stockholders' equity	4,870	66,716
Total liabilities and stockholders' equity	$ 705,079	$ 709,821

The accompanying notes are an integral part of these condensed consolidated financial statements.

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Ironwood Pharmaceuticals, Inc.

Condensed Consolidated Statements of Operations

(In thousands, except per share amounts)

(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Revenues:				
Collaborative arrangements revenue	$ 64,612	$ 54,350	$ 116,489	$ 120,392
Product revenue, net	465	—	754	—
Total revenues	65,077	54,350	117,243	120,392
Cost and expenses:				
Cost of revenues, excluding amortization of acquired intangible asset	3,502	—	4,033	—
Write-down of lesinurad commercial supply to net realizable value and loss on non-cancellable purchase commitments	96	—	96	—
Research and development	37,344	31,682	71,046	63,524
Selling, general and administrative	57,792	36,918	113,396	73,086
Amortization of acquired intangible asset	421	1,065	841	1,065
Loss on fair value remeasurement of contingent consideration	6,933	—	8,547	—
Total cost and expenses	106,088	69,665	197,959	137,675
Loss from operations	(41,011)	(15,315)	(80,716)	(17,283)
Other (expense) income:				
Interest expense	(9,046)	(9,827)	(18,029)	(19,734)
Interest and investment income	496	295	891	516
Gain on derivatives	5,337	3,145	3,138	1,502
Loss on extinguishment of debt	—	—	(2,009)	—
Other expense, net	(3,213)	(6,387)	(16,009)	(17,716)
Net loss	$ (44,224)	$ (21,702)	$ (96,725)	$ (34,999)
Net loss per share—basic and diluted	$ (0.30)	$ (0.15)	$ (0.65)	$ (0.24)
Weighted average number of common shares used in net loss per share—basic and diluted:	148,778	144,642	148,285	144,118

The accompanying notes are an integral part of these condensed consolidated financial statements.

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Ironwood Pharmaceuticals, Inc.

Condensed Consolidated Statements of Comprehensive Loss

(In thousands)

(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Net loss	$ (44,224)	$ (21,702)	$ (96,725)	$ (34,999)
Other comprehensive income (loss):				
Unrealized gains (losses) on available-for-sale securities	17	10	(17)	125
Total other comprehensive income (loss)	17	10	(17)	125
Comprehensive loss	$ (44,207)	$ (21,692)	$ (96,742)	$ (34,874)

The accompanying notes are an integral part of these condensed consolidated financial statements.

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Ironwood Pharmaceuticals, Inc.

Condensed Consolidated Statements of Cash Flows

(In thousands)

(unaudited)

	Six Months Ended June 30,	
	2017	2016
Cash flows from operating activities:		
Net loss	$ (96,725)	$ (34,999)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	4,838	5,320
Amortization of acquired intangible asset	841	1,065
Loss on disposal of property and equipment	135	—
Share-based compensation expense	16,419	14,903
Change in fair value of note hedge warrants	36,221	11,510
Change in fair value of convertible note hedges	(39,359)	(13,012)
Write-down of excess non-cancelable ZURAMPIC sample purchase commitments	1,353	—
Write-down of lesinurad commercial supply to net realizable value and loss on non-cancellable purchase commitments	96	—
(Gain) loss on facility subleases	(1,579)	3,480
Accretion of discount/premium on investment securities	111	457
Non-cash interest expense	7,849	7,221
Non-cash change in fair value of contingent consideration	8,547	—
Loss on extinguishment of debt	2,009	—
Changes in assets and liabilities:		
Accounts receivable and related party accounts receivable	4,497	1,371
Restricted cash	1,190	500
Prepaid expenses and other current assets	703	(1,265)
Inventory	1,081	—
Other assets	246	810
Accounts payable, related party accounts payable and accrued expenses	(5,345)	(2,314)
Accrued research and development costs	517	2,408
Deferred revenue	225	(470)
Deferred rent	(2,977)	(3,087)
Net cash used in operating activities	(59,107)	(6,102)
Cash flows from investing activities:		
Purchases of available-for-sale securities	(90,706)	(52,629)
Sales and maturities of available-for-sale securities	251,027	182,363
Purchases of property and equipment	(1,746)	(1,623)
Payment for acquisition of lesinurad license	—	(100,000)
Proceeds from sale of property and equipment	79	—
Net cash provided by investing activities	158,654	28,111

Cash flows from financing activities:		
Proceeds from issuance of 2026 Notes, net of discount to lender	146,250	—
Costs associated with issuance of 2026 Notes	(235)	—
Proceeds from exercise of stock options and employee stock purchase plan	18,473	6,163
Payments on capital leases	(1,593)	(828)
Principal payments on PhaRMA notes	(134,258)	(11,299)
Payments on contingent purchase price consideration	(56)	—
Net cash provided by (used in) financing activities	28,581	(5,964)
Net increase in cash and cash equivalents	128,128	16,045
Cash and cash equivalents, beginning of period	54,004	261,287
Cash and cash equivalents, end of period	$ 182,132	$ 277,332
Supplemental cash flow disclosure:		
Non-cash investing activities		
Contingent consideration	$ —	$ 87,649

The accompanying notes are an integral part of these condensed consolidated financial statements.

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Ironwood Pharmaceuticals, Inc.

Notes to Condensed Consolidated Financial Statements

(unaudited)

1. Nature of Business

Overview

Ironwood Pharmaceuticals, Inc. (the "Company") is a commercial biotechnology company leveraging its proven development and commercial capabilities as it seeks to bring multiple medicines to patients. The Company is advancing innovative product opportunities in areas of large unmet need, including irritable bowel syndrome with constipation ("IBS-C") and chronic idiopathic constipation ("CIC"), abdominal pain associated with lower gastrointestinal ("GI") disorders, hyperuricemia associated with uncontrolled gout, uncontrolled gastroesophageal reflux disease ("uncontrolled GERD"), and vascular and fibrotic diseases.

The Company's first commercial product, linaclotide, is available to adult men and women suffering from IBS-C or CIC in certain countries around the world. Linaclotide is available under the trademarked name LINZESS® to adult men and women suffering from IBS-C or CIC in the United States (the "U.S.") and Mexico, and to adult men and women suffering from IBS-C in Japan. Linaclotide is available under the trademarked name CONSTELLA® to adult men and women suffering from IBS-C or CIC in Canada, and to adult men and women suffering from IBS-C in certain European countries.

The Company and its partner Allergan plc (together with its affiliates, "Allergan") began commercializing LINZESS in the U.S. in December 2012. Under the Company's collaboration with Allergan for North America, total net sales of LINZESS in the U.S., as recorded by Allergan, are reduced by commercial costs incurred by each party, and the resulting amount is shared equally between the Company and Allergan. Allergan also has an exclusive license from the Company to develop and commercialize linaclotide in all countries other than China, Hong Kong, Macau, Japan and the countries and territories of North America (the "Allergan License Territory"). On a country-by-country and product-by-product basis in the Allergan License Territory, Allergan will pay the Company a royalty as a percentage of net sales of products containing linaclotide as an active ingredient. In addition, Allergan has exclusive rights to commercialize linaclotide in Canada as CONSTELLA and in Mexico as LINZESS. Astellas Pharma Inc. ("Astellas"), the Company's partner in Japan, has an exclusive license to develop and commercialize linaclotide in Japan. In March 2017, Astellas began commercializing LINZESS for the treatment of adults with IBS-C and is developing linaclotide for the treatment of patients with chronic constipation in Japan. The Company has a collaboration agreement with AstraZeneca AB (together with its affiliates, "AstraZeneca"), to co-develop and co-commercialize linaclotide in China, Hong Kong and Macau, with AstraZeneca having primary responsibility for the local operational execution. In December 2015, the Company and AstraZeneca filed for approval with the China Food and Drug Administration

("CFDA") to market linaclotide in China.

The Company and Allergan are also advancing two linaclotide delayed release formulations. Linaclotide delayed release-1 ("DR1") is a second-generation product candidate with the potential to improve abdominal pain relief and treat constipation in adult IBS-C patients. Linaclotide delayed release-2 ("DR2") is a product candidate with the potential to treat patients with disorders where lower abdominal pain is a predominant symptom, such as non-constipation subtypes of IBS. Further, the Company and Allergan are exploring ways to enhance the clinical profile of LINZESS by studying linaclotide in additional indications, populations and formulations to assess its potential to treat various GI conditions.

The Company is advancing another GI development program, IW-3718, a gastric retentive formulation of a bile acid sequestrant with the potential to provide symptomatic relief in patients with uncontrolled GERD. In July 2017, the Company reported positive top-line data from a Phase IIb clinical trial evaluating IW-3718 in adult patients with uncontrolled GERD.

In June 2016, the Company closed a transaction with AstraZeneca (the "Lesinurad Transaction") pursuant to which the Company received an exclusive license to develop, manufacture, and commercialize in the U.S. products containing lesinurad as an active ingredient (the "Lesinurad License"), including ZURAMPIC® and DUZALLO®. Lesinurad 200mg tablets were approved as ZURAMPIC by the U.S. Food and Drug Administration ("FDA") in December 2015 for use in combination with a xanthine oxidase inhibitor ("XOI") for the treatment of hyperuricemia

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associated with uncontrolled gout. In October 2016, the Company began commercializing ZURAMPIC in the U.S. The Company is developing DUZALLO, a fixed-dose combination product of lesinurad and allopurinol, an XOI, which is included under the Lesinurad License. In January 2017, the FDA accepted for review a new drug application ("NDA") for DUZALLO for the treatment of hyperuricemia in patients with uncontrolled gout.

The Company is leveraging its pharmacological expertise in guanylate cyclase ("GC") pathways gained through the discovery and development of linaclotide to advance development programs, including IW-1973 and IW-1701, targeting soluble guanylate cyclase ("sGC"). sGC is a validated drug target with the potential for broad therapeutic utility and multiple opportunities for product development in vascular and fibrotic diseases, as well as other therapeutic areas.

The Company has periodically entered into co-promotion agreements to maximize its salesforce productivity. As part of this strategy, in August 2015, the Company and Allergan entered into an agreement for the co-promotion of VIBERZI™ (eluxadoline) in the U.S., Allergan's treatment for adults suffering from IBS with diarrhea ("IBS-D"). In January 2017, the Company and Allergan entered into a commercial agreement under which the adjustments to the Company's or Allergan's share of the net profits under the share adjustment provision of the collaboration agreement for linaclotide in North America are eliminated, in full, in 2018 and all subsequent years. As part of this agreement, Allergan appointed the Company, on a non-exclusive basis, to promote CANASA® (mesalamine), approved for the treatment of ulcerative proctitis, and DELZICOL® (mesalamine), approved for the treatment of ulcerative colitis, in the U.S. for approximately two years.

These agreements are more fully described in Note 3, Business Combination, and Note 4, Collaboration, License, Co-Promotion and Other Commercial Agreements, to these condensed consolidated financial statements.

In June 2015, the Company issued approximately $335.7 million in aggregate principal amount of 2.25% Convertible Senior Notes due 2022 (the "2022 Notes"). In September 2016, the Company closed a direct private placement, pursuant to which the Company issued $150.0 million in aggregate principal amount of 8.375% notes due 2026 (the "2026 Notes") on January 5, 2017 (the "Funding Date"). The proceeds from the issuance of the 2026 Notes were used to redeem the outstanding principal balance of the 11% PhaRMA Notes due 2024 (the "PhaRMA Notes") on the Funding Date. The Company received net proceeds of approximately $11.2 million from the 2026 Notes, after redemption of the PhaRMA Notes outstanding balance and accrued interest of approximately $135.1 million and deducting fees and expenses of approximately $3.7 million. These transactions are more fully described in Note 10, Notes Payable, to these condensed consolidated financial statements.

Basis of Presentation

The accompanying condensed consolidated financial statements and the related disclosures are unaudited and have been prepared in accordance with accounting principles generally accepted in the U.S. Additionally, certain information and footnote disclosures normally included in the Company's annual financial statements have been condensed or omitted. Accordingly, these interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, which was filed with the Securities and Exchange Commission on February 22, 2017 (the "2016 Annual Report on Form 10-K").

The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, reflect all normal recurring adjustments considered necessary for a fair presentation of the Company's financial position as of June 30, 2017, and the results of its operations for the three and six months ended June 30, 2017 and 2016, and its cash flows for the six months ended June 30, 2017 and 2016. The results of operations for the three and six months ended June 30, 2017 and 2016 are not necessarily indicative of the results that may be expected for the full year or any other subsequent interim period.

Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of Ironwood Pharmaceuticals, Inc. and its wholly owned subsidiaries, Ironwood Pharmaceuticals Securities Corporation and Ironwood Pharmaceuticals GmbH. All intercompany transactions and balances are eliminated in consolidation.

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Use of Estimates

The preparation of condensed consolidated financial statements in accordance with U.S. generally accepted accounting principles requires the Company's management to make estimates and judgments that may affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, and the amounts of revenues and expenses during the reported periods. On an ongoing basis, the Company's management evaluates its estimates, judgments and methodologies. Significant estimates and assumptions in the condensed consolidated financial statements include those related to revenue recognition, including returns, rebates, and other pricing adjustments; available-for-sale securities; inventory valuation, and related reserves; impairment of long-lived and intangible assets; initial valuation procedures for the issuance of convertible notes; fair value of derivatives; balance sheet classification of notes payable and convertible notes; income taxes, including the valuation allowance for deferred tax assets; research and development expenses; goodwill; contingent consideration; acquired intangible assets; contingencies and share-based compensation. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ materially from these estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

Summary of Significant Accounting Policies

The Company's significant accounting policies are described in Note 2, Summary of Significant Accounting Policies, in the 2016 Annual Report on Form 10-K.

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (the "FASB") or other standard setting bodies that are adopted by the Company as of the specified effective date. Except as set forth below, the Company did not adopt any new accounting pronouncements during the three and six months ended June 30, 2017 and 2016 that had a material effect on its condensed consolidated financial statements.

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers ("ASU 2014-09"), which supersedes the revenue recognition requirements in Accounting Standards Codification ("ASC") 605, and most industry-specific guidance. The new standard requires that an entity recognize 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. The update also requires

additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. ASU 2014-09 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017 and should be applied retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying this update recognized at the date of initial application. Early adoption is permitted beginning after December 15, 2016, including interim reporting periods within those years. In April 2016, the FASB issued ASU No. 2016-10, Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing ("ASU 2016-10"), which clarifies certain aspects of identifying performance obligations and licensing implementation guidance. In May 2016, the FASB issued ASU No. 2016-12, Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients ("ASU 2016-12"), related to disclosures of remaining performance obligations, as well as other amendments to guidance on collectability, non-cash consideration and the presentation of sales and other similar taxes collected from customers. These standards have the same effective date and transition date as ASU 2014-09. These standards allow for either a full retrospective or a modified retrospective transition approach. The Company is currently assessing which transition approach to implement upon the adoption of these standards. The Company is analyzing the potential impact that ASU 2014-09, ASU 2016-10 and ASU 2016-12 may have on its financial position and results of operations. The Company is currently assessing the effect these standards may have on the financial statements; however, the Company anticipates significant changes to the financial statement disclosures. This analysis of the Company's collaborative arrangements and license agreements includes, but is not limited to, reviewing variable consideration as it relates to its agreements, assessing potential disclosures and evaluating the impact of each potential method of adoption on the Company's condensed consolidated financial statements. As of June 30, 2017, the Company has advanced its assessment of the impact of these ASUs on its revenue-

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generating license and collaboration agreements for linaclotide. The Company is in an earlier stage of assessing the impact of these ASUs to the Lesinurad License and its co-promotion agreements. In addition, the Company continues to monitor additional changes, modifications, clarifications or interpretations undertaken by the FASB, which may impact its conclusions.

In February 2016, the FASB issued ASU No. 2016-02, Leases (“ASU 2016-02”), which supersedes the lease accounting requirements in ASC Topic 840, “Leases”, and most industry-specific guidance. ASU 2016-02 requires the identification of arrangements that should be accounted for as leases by lessees. In general, for lease arrangements exceeding a 12-month term, these arrangements must now be recognized as assets and liabilities on the balance sheet of the lessee. Under ASU 2016-02, a right-of-use asset and lease obligation will be recorded for all leases, whether operating or financing, while the income statement will reflect lease expense for operating leases and amortization and interest expense for financing leases. The balance sheet amount recorded for existing leases at the date of adoption of ASU 2016-02 must be calculated using the applicable incremental borrowing rate at the date of adoption. In addition, ASU 2016-02 requires the use of modified retrospective method, which will require adjustment to all comparative periods presented in the condensed consolidated financial statements. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The Company is evaluating the potential impact that the adoption of ASU 2016-02 may have on the Company’s financial position and results of operations. The Company’s analysis includes, but is not limited to, reviewing existing leases, reviewing other service agreements for embedded leases, evaluating potential system implementations, assessing potential disclosures and evaluating the impact of adoption on the Company’s condensed consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory (“ASU 2016-16”). ASU 2016-16 eliminates the ability to defer the tax expense related to intra-entity asset transfers other than Inventory. Under the new standard, entities should recognize the income tax consequences on an intra-entity transfer of an asset other than inventory when the transfer occurs. ASU 2016-16 is effective for fiscal periods beginning after December 15, 2018. Early adoption is permitted. The Company is evaluating the potential impact that the adoption of ASU 2016-16 may have on the Company’s financial position or results of operations.

In October 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230) Restricted Cash (“ASU 2016-18”), which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and restricted cash or restricted cash equivalents. Therefore, amounts described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. ASU 2016-18 is effective for fiscal years beginning after December 15, 2017, and interim periods within those years. Early adoption is permitted. The Company is evaluating the potential impact that the adoption of ASU 2016-18 may have on the Company’s financial position and results of operations.

In January 2017, the FASB issued ASU No. 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business (“ASU 2017-01”), to clarify the definition of a business by adding guidance to assist entities with

evaluating whether transactions should be accounted for as acquisitions or disposals of assets versus businesses. ASU 2017-01 is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted. The Company will evaluate the potential impact that the adoption of ASU 2017-01 will have on the Company's financial position or results of operations for all future transactions that are within the scope of Topic 805.

In January 2017, the FASB issued ASU No. 2017-04, Intangibles—Goodwill and Other (Topic 350) ("ASU 2017-04") to simplify the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test. ASU 2017-04 is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company is evaluating the potential impact that the adoption of ASU 2017-04 may have on the Company's financial position and results of operations.

In May 2017, the FASB issued ASU No. 2017-09, Compensation—Stock Compensation (Topic 708) Scope of Modification Accounting ("ASU 2017-09") which provides guidance that clarifies when changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. Adoption of ASU 2017-09 is required for fiscal years beginning after December 15, 2017, including interim periods within those

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fiscal years. Early adoption is permitted. The Company does not expect the adoption of ASU 2017-09 to have a material impact on the Company's financial position and results of operations.

2. Net Loss Per Share

Basic and diluted net loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period.

In June 2015, in connection with the issuance of approximately $335.7 million in aggregate principal amount of the 2022 Notes, the Company entered into convertible note hedge transactions (the "Convertible Note Hedges"). The Convertible Note Hedges are generally expected to reduce the potential dilution to the Company's Class A common stockholders upon a conversion of the 2022 Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of converted 2022 Notes in the event that the market price per share of the Company's Class A common stock, as measured under the terms of the Convertible Note Hedges, is greater than the conversion price of the 2022 Notes (Note 10). The Convertible Note Hedges are not considered for purposes of calculating the number of diluted weighted average shares outstanding, as their effect would be antidilutive.

Concurrently with entering into the Convertible Note Hedges, the Company also entered into certain warrant transactions in which it sold note hedge warrants (the "Note Hedge Warrants") to the Convertible Note Hedge counterparties to acquire 20,249,665 shares of the Company's Class A common stock, subject to customary anti-dilution adjustments. The Note Hedge Warrants could have a dilutive effect on the Company's Class A common stock to the extent that the market price per share of the Class A common stock exceeds the applicable strike price of such warrants (Note 10). The Note Hedge Warrants are not considered for purposes of calculating the number of diluted weighted averages shares outstanding, as their effect would be antidilutive.

The following potentially dilutive securities have been excluded from the computation of diluted weighted average shares outstanding as their effect would be anti-dilutive (in thousands):

	Six Months Ended June 30,	
	2017	2016
Options to purchase common stock	21,621	22,066
Shares subject to repurchase	125	192
Restricted stock units	2,270	1,256
Note hedge warrants	20,250	20,250
2022 Notes	20,250	20,250

64,516	64,014

An insignificant number of shares issuable under the Company's employee stock purchase plan were excluded from the calculation of diluted weighted average shares outstanding because their effects would be anti-dilutive.

3. Business Combination

The Company closed the Lesinurad Transaction on June 2, 2016 (the "Acquisition Date") with AstraZeneca pursuant to which the Company received an exclusive license to develop, manufacture and commercialize in the U.S. products containing lesinurad as an active ingredient, including ZURAMPIC (the "Products"). Subject to the terms of the Lesinurad License, AstraZeneca is obligated to conduct certain development activities on the Company's behalf for ZURAMPIC and DUZALLO, for which the Company is obligated to reimburse AstraZeneca. Pursuant to the Lesinurad License, during the three months ended June 30, 2017, the Company and AstraZeneca agreed to transition the obligation for post-marketing activities required by the FDA from AstraZeneca to the Company in accordance with an agreed upon timeline. The post-marketing requirements for lesinurad are estimated to be less than $100.0 million over up to ten years from the Acquisition Date. In connection with the Lesinurad License, the Company and AstraZeneca entered into a commercial supply agreement (the "Lesinurad CSA"), pursuant to which the Company relies exclusively on AstraZeneca for the commercial manufacture and supply of ZURAMPIC and, if approved, DUZALLO, and the lesinurad transitional services agreement (the "Lesinurad TSA"), pursuant to which AstraZeneca is providing certain support services, including development, regulatory and commercial services, to the Company for ZURAMPIC until such activities under the Lesinurad TSA are transferred to the Company. The Company may obtain production techniques from AstraZeneca via a manufacturing technology transfer available under the Lesinurad CSA upon provision of six-months' notice. The Company

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is responsible for commercialization of the Products in the U.S., and any additional development of the Products for commercialization in the U.S. In addition, under the terms of the Lesinurad License, the Company has the right of first negotiation and right of last refusal with AstraZeneca for the right to commercialize, develop and manufacture for commercialization in the U.S., products for the prevention or treatment of gout that include verinurad as at least one of its active ingredients.

The Company concluded that the Lesinurad Transaction included inputs and processes that have the ability to create outputs and accordingly accounted for the transaction as a business combination in accordance with ASC 805. As such, the assets acquired and liabilities assumed have been recorded at fair value, with the remaining purchase price recorded as goodwill.

The purchase price consisted of the up-front payment to AstraZeneca of $100.0 million, which was made in June 2016, and the fair value of contingent consideration of approximately $67.9 million. In addition to the up-front payment, the Company will also pay a tiered royalty to AstraZeneca in the single-digits as a percentage of net sales of the Products in the U.S., as well as commercial and other milestones of up to $165.0 million over the duration of the Lesinurad License. As of the Acquisition Date, the contingent consideration fair value of approximately $67.9 million was calculated using a discounted cash flow estimate of expected future milestone and royalty payments to AstraZeneca based on the Company's internally forecasted net product revenue of ZURAMPIC and, if approved, DUZALLO. The fair value of contingent consideration in the purchase price includes initial measurement period adjustments as of the Acquisition Date. The Company also paid approximately $1.6 million in transaction-related costs, including external consulting fees, which were expensed as incurred as selling, general and administrative expenses during the year ended December 31, 2016.

The Company preliminarily valued the acquired assets and liabilities based on their estimated fair value as of the Acquisition Date upon closing the Lesinurad Transaction. Certain of these estimates were adjusted during the year ended December 31, 2016 as additional information became available related to conditions that existed as of the Acquisition Date. No additional adjustments were made through June 1, 2017. As of June 1, 2017, the goodwill balance included insignificant measurement period adjustments made in prior quarters.

During the three months ended June 30, 2017, the Company finalized its allocation of the purchase price for the Lesinurad Transaction as of the Acquisition Date, including the contingent consideration. This information is summarized in the following tables (in thousands):

As of the Acquisition Date:	
Cash portion of consideration	$ 100,000
Contingent consideration	67,885
Total purchase consideration	$ 167,885

As of the Acquisition Date:	
Developed technology — ZURAMPIC	$ 22,000
IPR&D - DUZALLO	145,100
Goodwill	785
Net assets acquired	$ 167,885

The fair value of the IPR&D - DUZALLO was determined using a probability adjusted discounted cash flow approach, including assumptions of projected revenues, operating expenses and a discount rate of 14.0% applied to the projected cash flows. The remaining cost of development for this asset was approximately $13.9 million as of the Acquisition Date, with an expected completion date of no later than December 31, 2017. Through June 30, 2017, the Company continued to incur costs related to DUZALLO.

The fair value of the developed technology - ZURAMPIC intangible asset was determined using a probability adjusted discounted cash flow approach, including assumptions of projected revenues, operating expenses and a discount rate of 12.5% applied to the projected cash flows. The Company considers the developed technology - ZURAMPIC intangible asset acquired to be developed technology, as it was approved by the FDA for commercialization as of the Acquisition Date. The Company believes the assumptions are representative of those a market participant would use in estimating fair value. The developed technology - ZURAMPIC intangible asset is finite lived. The amount allocated to

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the developed technology - ZURAMPIC intangible asset is being amortized on a straight-line basis to amortization of acquired intangible assets within the Company's condensed consolidated statements of operations over its estimated useful life of approximately 13 years, the period of estimated future cash flows from the Acquisition Date. The Company believes that the straight-line method of amortization represents the pattern in which the economic benefits of the intangible asset are consumed. As of June 30, 2017, the Company recognized accumulated amortization of approximately $1.8 million with respect to the developed technology - ZURAMPIC intangible asset. The estimated future amortization of developed technology - ZURAMPIC intangible asset is expected to be as follows (in thousands):

	As of June 30, 2017
2017 (1)	$ 841
2018	1,682
2019	1,682
2020	1,682
2021 and thereafter	14,291
Total	$ 20,178

(1) For the six months ending December 31, 2017.

The Company tests its goodwill and indefinite-lived intangible assets for impairment annually as of October 1st, or more frequently if events or changes in circumstances indicate an impairment may have occurred. Additionally, the Company evaluates its finite-lived intangible assets for impairment whenever events or changes in circumstances indicate the reduction in the fair value below their respective carrying amounts. In connection with each annual impairment assessment and any interim impairment assessment in which indicators of impairment have been identified, the Company compares the fair value of the asset as of the date of the assessment with the carrying value of the asset on the Company's condensed consolidated balance sheet.

The amount allocated to the IPR&D - DUZALLO is considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts. As of June 30, 2017, there was no impairment related to the IPR&D – DUZALLO or the developed technology - ZURAMPIC intangible asset.

The Company allocated the excess of the purchase price over the identifiable intangible assets to goodwill. Such goodwill is not deductible for tax purposes and represents the value placed on entering new markets, expanding market share and operating synergies. As of June 30, 2017, there was no impairment of goodwill. All goodwill has been assigned to the Company's single reporting unit, which is the single operating segment human therapeutics.

As of June 30, 2017, the estimated fair value of the Company's contingent consideration liability was approximately $86.2 million. This fair value measurement was based on significant inputs not observable in the market and thus

represent Level 3 fair value measurements (Note 6).

4. Collaboration, License, Co-Promotion and Other Commercial Agreements

For the three and six months ended June 30, 2017, the Company had linaclotide collaboration agreements with Allergan for North America and AstraZeneca for China, Hong Kong and Macau, as well as linaclotide license agreements with Astellas for Japan and with Allergan for the Allergan License Territory. The Company also had agreements with Allergan to co-promote VIBERZI in the U.S. and promote CANASA and DELZICOL in the U.S. The

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following table provides amounts included in the Company's condensed consolidated statements of operations as collaborative arrangements revenue attributable to transactions from these arrangements (in thousands):

	Collaborative Arrangements Revenue			
	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Linaclotide Agreements:				
Allergan (North America)	$ 56,742	$ 50,036	$ 106,693	$ 100,009
Allergan (Europe and other)(1)	109	110	218	193
AstraZeneca (China, Hong Kong and Macau)	—	164	208	294
Astellas (Japan)	5,972	2,334	5,985	17,014
Co-Promotion and Other Agreements:				
Exact Sciences (Cologuard) (2)	1,297	1,159	2,436	1,878
Allergan (VIBERZI)	489	547	946	1,004
Other	3	—	3	—
Total collaborative arrangements revenue	$ 64,612	$ 54,350	$ 116,489	$ 120,392

(1) In October 2015, Almirall, S.A. ("Almirall") transferred its exclusive license to develop and commercialize linaclotide in Europe to Allergan. In January 2017, the Company and Allergan expanded the license to cover the Allergan License Territory. For the six months ended June 30, 2016, collaborative arrangements revenue includes an insignificant amount of revenue from Almirall.

(2) In August 2016, the Company terminated the Cologuard Co-Promotion Agreement. Under the terms of the agreement, the Company will continue to receive royalty payments through July 2017.

Linaclotide Agreements

Collaboration Agreement for North America with Allergan

In September 2007, the Company entered into a collaboration agreement with Allergan to develop and commercialize linaclotide for the treatment of IBS C, CIC and other GI conditions in North America. Under the terms of this collaboration agreement, the Company shares equally with Allergan all development costs as well as net profits or losses from the development and sale of linaclotide in the U.S. The Company receives royalties in the mid teens percent based on net sales in Canada and Mexico. Allergan is solely responsible for the further development, regulatory approval and commercialization of linaclotide in those countries and funding any costs. The collaboration agreement for North America also includes contingent milestone payments, as well as a contingent equity investment, based on the achievement of specific development and commercial milestones. As of June 30, 2017, $205.0 million in license fees and all six development milestone payments had been received by the Company, as well as a $25.0 million equity investment in the Company's capital stock (Note 13). The Company can also achieve up to $100.0 million in a sales-related milestone if certain conditions are met, which will be recognized as collaborative arrangements revenue as earned.

As a result of the research and development cost-sharing provisions of the linaclotide collaboration for North America, the Company recognized an insignificant amount and approximately $0.5 million in incremental research and development costs during the three and six months ended June 30, 2017, respectively, and offset approximately $3.2 million and approximately $5.2 million in research and development costs during the three and six months ended June 30, 2016, respectively, to reflect the obligations of each party under the collaboration to bear half of the development costs incurred.

The Company and Allergan began commercializing LINZESS in the U.S. in December 2012. The Company receives 50% of the net profits and bears 50% of the net losses from the commercial sale of LINZESS in the U.S.; provided, however, that if either party provides fewer calls on physicians in a particular year than it is contractually required to provide, such party's share of the net profits will be adjusted as set forth in the collaboration agreement for North America. During the years ended December 31, 2016 and 2015, these adjustments to the share of the net profits were reduced or eliminated in connection with the co-promotion activities under the Company's agreement with Allergan to co-promote VIBERZI in the U.S., as described below in Co-Promotion Agreement with Allergan for VIBERZI. Additionally, these adjustments to the share of the net profits are eliminated, in full, in 2018 and all subsequent years under the terms of the Company's commercial agreement with Allergan entered into in January 2017

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under which the Company will promote Allergan's CANASA and DELZICOL products, as described below in Commercial Agreement with Allergan. Net profits or net losses consist of net sales of LINZESS to third-party customers and sublicense income in the U.S. less the cost of goods sold as well as selling, general and administrative expenses. LINZESS net sales are calculated and recorded by Allergan and may include gross sales net of discounts, rebates, allowances, sales taxes, freight and insurance charges, and other applicable deductions. The Company records its share of the net profits or net losses from the sale of LINZESS on a net basis and presents the settlement payments to and from Allergan as collaboration expense or collaborative arrangements revenue, as applicable.

The Company recognized collaborative arrangements revenue from the Allergan collaboration agreement for North America during the three and six months ended June 30, 2017 and 2016 as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Collaborative arrangements revenue related to sales of LINZESS in the U.S.	$ 56,307	$ 48,333	$ 105,759	$ 94,980
Sale of active pharmaceutical ingredient ("API")	—	1,465	—	4,482
Royalty revenue	435	238	934	547
Total collaborative arrangements revenue	$ 56,742	$ 50,036	$ 106,693	$ 100,009

The collaborative arrangements revenue recognized in the three and six months ended June 30, 2017 and 2016 primarily represents the Company's share of the net profits and net losses on the sale of LINZESS in the U.S.

The following table presents the amounts recorded by the Company for commercial efforts related to LINZESS in the U.S. in the three and six months ended June 30, 2017 and 2016 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Collaborative arrangements revenue related to sales of LINZESS in the U.S.(1)(2)	$ 56,307	$ 48,333	$ 105,759	$ 94,980
Selling, general and administrative costs incurred by the Company(1)	(12,496)	(8,879)	(23,605)	(18,032)
The Company's share of net profit	$ 43,811	$ 39,454	$ 82,154	$ 76,948

(1) Includes only collaborative arrangement revenue or selling, general and administrative costs attributable to the cost-sharing arrangement with Allergan.

(2)

Certain of the unfavorable adjustments to the Company's share of the LINZESS net profits were reduced or eliminated in connection with the co-promotion activities under the Company's agreement with Allergan to co-promote VIBERZI in the U.S., as described below in Co-Promotion Agreement with Allergan for VIBERZI.

In May 2014, CONSTELLA became commercially available in Canada and in June 2014, LINZESS became commercially available in Mexico. In October 2015, Almirall and Allergan terminated the sublicense arrangement with respect to Mexico, returning the exclusive rights to commercialize CONSTELLA in Mexico to Allergan. CONSTELLA continues to be available to adult IBS-C patients in Mexico. The Company records royalties on sales of CONSTELLA in Canada and LINZESS in Mexico one quarter in arrears as it does not have access to the royalty reports from its partner or the ability to estimate the royalty revenue in the period earned. The Company recognized approximately $0.4 million and approximately $0.9 million of combined royalty revenues from Canada and Mexico during the three and six months ended June 30, 2017, respectively, and approximately $0.2 million and approximately $0.5 million during the three and six months ended June 30, 2016, respectively.

License Agreement with Allergan (All countries other than the countries and territories of North America, China, Hong Kong, Macau, and Japan)

In April 2009, the Company entered into a license agreement with Almirall (the "European License Agreement") to develop and commercialize linaclotide in Europe (including the Commonwealth of Independent States and Turkey) for the treatment of IBS-C, CIC and other GI conditions.

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In October 2015, Almirall transferred its exclusive license to develop and commercialize linaclotide in Europe to Allergan. In accordance with the European License Agreement, the Company was required to participate on a joint development committee during linaclotide's development period and a joint commercialization committee while linaclotide is commercially available. Additionally, in October 2015, the Company and Allergan separately entered into an amendment to the European License Agreement relating to the development and commercialization of linaclotide in Europe. Pursuant to the terms of the amendment, (i) certain sales based milestones payable to the Company under the European License Agreement were modified to increase the total milestone payments such that, when aggregated with certain commercial launch milestones, they could total up to $42.5 million, (ii) the royalties payable to the Company during the term of the European License Agreement were modified such that the royalties based on sales volume in Europe begin in the mid single digit percent and escalate to the upper teens percent by calendar year 2019, and (iii) Allergan assumed responsibility for the manufacturing of linaclotide API for Europe from the Company, as well as the associated costs. The Company concluded that the 2015 amendment to the European License Agreement was not a modification to the linaclotide collaboration agreement with Allergan for North America.

The commercial launch and sales based milestones under the European License Agreement are recognized as revenue as earned. The Company records royalties on sales of CONSTELLA one quarter in arrears as it does not have access to the royalty reports from Allergan or the ability to estimate the royalty revenue in the period earned. The Company recognized an insignificant amount and approximately $0.2 million of royalty revenue during the three and six months ended June 30, 2017, respectively, and an insignificant amount and approximately $0.2 million during the three and six months ended June 30, 2016, respectively.

In January 2017, concurrently with entering into the commercial agreement as described below in Commercial Agreement with Allergan, the Company and Allergan entered into an amendment to the European License Agreement. The European License Agreement, as amended (the "Allergan License Agreement"), extended the license to develop and commercialize linaclotide in all countries other than China, Hong Kong, Macau, Japan, and the countries and territories of North America. On a country-by-country and product-by-product basis in such additional territory, Allergan is obligated to pay the Company a royalty as a percentage of net sales of products containing linaclotide as an active ingredient in the upper-single digits for five years following the first commercial sale of a linaclotide product in a country, and in the low-double digits thereafter. The royalty rate for products in the expanded territory will decrease, on a country-by-country basis, to the lower-single digits, or cease entirely, following the occurrence of certain events. Allergan is also obligated to assume certain purchase commitments for quantities of linaclotide API under the Company's agreements with third-party API suppliers. The amendment to the European License Agreement did not modify any of the milestones or royalty terms related to Europe.

The Company concluded that the 2017 amendment was a material modification to the European License Agreement; however, this modification did not have a material impact on the Company's condensed consolidated financial statements as there was no deferred revenue associated with the European License Agreement. The Company also concluded that the 2017 amendment to the European License Agreement was not a material modification to the linaclotide collaboration agreement with Allergan for North America. The Company's conclusions on deliverables under ASC Topic 605-25, Revenue Recognition—Multiple-Element Arrangements ("ASC 605-25") are described below in Commercial Agreement with Allergan.

License Agreement for Japan with Astellas

In November 2009, the Company entered into a license agreement with Astellas, as amended, to develop and commercialize linaclotide for the treatment of IBS-C, CIC and other GI conditions in Japan. Astellas is responsible for all activities relating to development, regulatory approval and commercialization in Japan, as well as funding the associated costs and the Company is required to participate on a joint development committee over linaclotide's development period. During the three months ended June 30, 2017, the Company and Astellas entered into a commercial API supply agreement (the "Astellas Commercial Supply Agreement"). Pursuant to the Astellas Commercial Supply Agreement, the Company sells linaclotide API supply to Astellas at a contractually defined rate and recognizes revenue related to these sales as collaborative arrangements revenue in accordance with ASC 605. Under the license agreement, the Company receives royalties which escalate based on sales volume, beginning in the low-twenties percent, less the transfer price paid for the API included in the product actually sold and other contractual deductions. These royalties on the sales of LINZESS are recorded one quarter in arrears as the Company does not have access to the royalty reports from Astellas or the ability to estimate the royalty revenue in the period earned.

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In 2009, Astellas paid the Company a non refundable, up front licensing fee of $30.0 million, which was recognized as collaborative arrangements revenue on a straight line basis over the Company's estimate of the period over which linaclotide was developed under the license agreement. The development period was completed in December 2016 upon approval of LINZESS by the Japanese Ministry of Health, Labor and Welfare at which point all previously deferred revenue under the agreement was recognized. During the three and six months ended June 30, 2016, the Company recognized approximately $1.3 million and approximately $2.6 million, respectively, of revenue related to the up front licensing fee.

The agreement also includes three development milestone payments that totaled up to $45.0 million, all of which were achieved and recognized as revenue through December 31, 2016. The first milestone payment, consisting of $15.0 million upon enrollment of the first study subject in a Phase III study for linaclotide in Japan, was achieved in November 2014. The second milestone payment, consisting of $15.0 million upon filing of an NDA for linaclotide with the Japanese Ministry of Health, Labor and Welfare, was achieved in February 2016. The third development milestone payment, consisting of $15.0 million upon approval of an NDA by the Japanese Ministry of Health, Labor and Welfare to market linaclotide in Japan, was achieved in December 2016.

During each of the three and six months ended June 30, 2017, the Company recognized approximately $6.0 million in collaborative arrangements revenue from sales of API under the license agreement and the Astellas Commercial Supply Agreement. The royalty on sales of LINZESS in Japan during the three months ended June 30, 2017 relating to the quarter in arrears did not exceed the transfer price of API sold and other contractual deductions during the period. During the three and six months ended June 30, 2016, the Company recognized approximately $2.3 million and approximately $17.0 million, respectively, in collaborative revenue from the upfront licensing fee and milestone payments.

Collaboration Agreement for China, Hong Kong and Macau with AstraZeneca

In October 2012, the Company entered into a collaboration agreement with AstraZeneca (the "AstraZeneca Collaboration Agreement") to co-develop and co-commercialize linaclotide in China, Hong Kong and Macau (the "License Territory"). The collaboration provides AstraZeneca with an exclusive nontransferable license to exploit the underlying technology in the License Territory. The parties share responsibility for continued development and commercialization of linaclotide under a joint development plan and a joint commercialization plan, respectively, with AstraZeneca having primary responsibility for the local operational execution.

The parties agreed to an Initial Development Plan ("IDP") which includes the planned development of linaclotide in China, including the lead responsibility for each activity and the related internal and external costs. The IDP indicates that AstraZeneca is responsible for a multinational Phase III clinical trial (the "Phase III Trial"), the Company is responsible for nonclinical development and supplying clinical trial material and both parties are responsible for the regulatory submission process. The IDP indicates that the party specifically designated as being responsible for a particular development activity under the IDP shall implement and conduct such activities. The activities are governed

by a Joint Development Committee ("JDC"), with equal representation from each party. The JDC is responsible for approving, by unanimous consent, the joint development plan and development budget, as well as approving protocols for clinical studies, reviewing and commenting on regulatory submissions, and providing an exchange of data and information.

The AstraZeneca Collaboration Agreement will continue until there is no longer a development plan or commercialization plan in place, however, it can be terminated by AstraZeneca at any time upon 180 days' prior written notice. Under certain circumstances, either party may terminate the AstraZeneca Collaboration Agreement in the event of bankruptcy or an uncured material breach of the other party. Upon certain change in control scenarios of AstraZeneca, the Company may elect to terminate the AstraZeneca Collaboration Agreement and may re-acquire its product rights in a lump sum payment equal to the fair market value of such product rights.

In connection with the AstraZeneca Collaboration Agreement, the Company and AstraZeneca also executed a co-promotion agreement (the "Co-Promotion Agreement"), pursuant to which the Company utilized its existing sales force to co-promote NEXIUM® (esomeprazole magnesium), one of AstraZeneca's products, in the U.S. The Co-Promotion Agreement expired in May 2014.

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There are no refund provisions in the AstraZeneca Collaboration Agreement and the Co-Promotion Agreement (together, the "AstraZeneca Agreements").

Under the terms of the AstraZeneca Collaboration Agreement, the Company received a $25.0 million non-refundable up-front payment upon execution. The Company is also eligible for $125.0 million in additional commercial milestone payments contingent on the achievement of certain sales targets. The parties will also share in the net profits and losses associated with the development and commercialization of linaclotide in the License Territory, with AstraZeneca receiving 55% of the net profits or incurring 55% of the net losses until a certain specified commercial milestone is achieved, at which time profits and losses will be shared equally thereafter.

Activities under the AstraZeneca Agreements were evaluated in accordance with ASC 605-25, to determine if they represented a multiple element revenue arrangement. The Company identified the following deliverables in the AstraZeneca Agreements:

- an exclusive license to develop and commercialize linaclotide in the License Territory (the "License Deliverable"),
- research, development and regulatory services pursuant to the IDP, as modified from time to time (the "R&D Services"),
- JDC services,
- obligation to supply clinical trial material, and
- co-promotion services for AstraZeneca's product (the "Co-Promotion Deliverable").

The License Deliverable is nontransferable and has certain sublicense restrictions. The Company determined that the License Deliverable had standalone value as a result of AstraZeneca's internal product development and commercialization capabilities, which would enable it to use the License Deliverable for its intended purposes without the involvement of the Company. The remaining deliverables were deemed to have standalone value based on their nature and all deliverables met the criteria to be accounted for as separate units of accounting under ASC 605-25. Factors considered in this determination included, among other things, whether any other vendors sell the items separately and if the customer could use the delivered item for its intended purpose without the receipt of the remaining deliverables.

At the inception of the arrangement, the Company identified the supply of linaclotide drug product for commercial requirements and commercialization services as contingent deliverables because these services are contingent upon

the receipt of regulatory approval to commercialize linaclotide in the License Territory, and there were no binding commitments or firm purchase orders pending for commercial supply at the inception of the AstraZeneca Collaboration Agreement.

In August 2014, the Company and AstraZeneca, through the JDC, modified the IDP and development budget to include approximately $14.0 million in additional activities over the remaining development period, to be shared by the Company and AstraZeneca under the terms of the AstraZeneca Collaboration Agreement. These additional activities serve to support the continued development of linaclotide in the License Territory, including the Phase III Trial. Pursuant to the terms of the modified IDP and development budget, certain of the Company's deliverables were modified, specifically the R&D Services and the obligation to supply clinical trial material. The modification did not, however, have a material impact on the Company's condensed consolidated financial statements.

The total amount of the non-contingent consideration allocable to the AstraZeneca Agreements was approximately $34.0 million ("Arrangement Consideration"), which includes the $25.0 million non-refundable up-front payment and approximately $9.0 million representing 55% of the costs for clinical trial material supply services and research, development and regulatory activities allocated to the Company in the IDP or as approved by the JDC in subsequent periods. The Company allocated the Arrangement Consideration to the non-contingent deliverables based on management's best estimated selling price ("BESP") of each deliverable using the relative selling price method, as the Company did not have vendor-specific objective evidence or third-party evidence of selling price for such deliverables. Of the total Arrangement Consideration, approximately $29.7 million was allocated to the License Deliverable,

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approximately $1.8 million to the R&D Services, approximately $0.1 million to the JDC services, approximately $0.3 million to the clinical trial material supply services, and approximately $2.1 million to the Co-Promotion Deliverable in the relative selling price model, at the time of the material modification.

Because the Company shares development costs with AstraZeneca, payments from AstraZeneca with respect to both research and development and selling, general and administrative costs incurred by the Company prior to the commercialization of linaclotide in the License Territory are recorded as a reduction in expense, in accordance with the Company's policy, which is consistent with the nature of the cost reimbursement. Development costs incurred by the Company that pertain to the joint development plan and subsequent amendments to the joint development plan, as approved by the JDC, are recorded as research and development expense as incurred. Payments to AstraZeneca are recorded as incremental research and development expense.

The Company completed its obligations related to the License Deliverable upon execution of the AstraZeneca Agreements; however, the revenue recognized in the statement of operations was limited to the non-contingent portion of the License Deliverable consideration in accordance with ASC 605-25. During the three and six months ended June 30, 2016, the Company recognized approximately $0.2 million and approximately $0.3 million, respectively, in collaborative arrangements revenue related to the License Deliverable in connection with the modification to the IDP and development budget in August 2014, as these portions of the Arrangement Consideration were no longer contingent. All amounts allocated to the License Deliverable have been recognized as revenue.

The Company also performs R&D Services and JDC services, and supplies clinical trial materials during the estimated development period. All Arrangement Consideration allocated to such services is being recognized as a reduction of research and development costs, using the proportional performance method, by which the amounts are recognized in proportion to the costs incurred. As a result of the cost-sharing arrangements under the collaboration, the Company offset an insignificant amount and approximately $0.2 million in research and development costs during the three and six months ended June 30, 2017 respectively, and recognized an insignificant amount in each of the three and six months ended June 30, 2016.

The amount allocated to the Co-Promotion Deliverable was recognized as collaborative arrangements revenue using the proportional performance method, which approximates recognition on a straight-line basis beginning on the date that the Company began to co-promote AstraZeneca's product through December 31, 2013 (the earliest cancellation date). As of December 31, 2013, the Company completed its obligation related to the Co-Promotion Deliverable.

The Company reassesses the periods of performance for each deliverable at the end of each reporting period.

In March 2017, the Company began providing supply of linaclotide drug product and certain commercialization-related services pursuant to the AstraZeneca Collaboration Agreement. During the six months

ended June 30, 2017, the Company recognized approximately $0.2 million, as collaborative arrangements revenue related to linaclotide drug product, as this deliverable was no longer contingent.

Milestone payments received from AstraZeneca upon the achievement of sales targets will be recognized as earned.

Co-Promotion and Other Agreements

Co-Promotion Agreement with Exact Sciences Corp. for Cologuard

In March 2015, the Company and Exact Sciences entered into an agreement to co-promote Exact Sciences' Cologuard, the first and only FDA-approved noninvasive stool DNA screening test for colorectal cancer (the "Exact Sciences Co-Promotion Agreement"). The Exact Sciences Co-Promotion Agreement was terminated by the parties in August 2016. Under the terms of the non-exclusive Exact Sciences Co-Promotion Agreement, the Company's sales team promoted and educated health care practitioners regarding Cologuard through July 2016. Exact Sciences maintained responsibility for all other aspects of the commercialization of Cologuard outside of the co-promotion. Under the terms of the Exact Sciences Co-Promotion Agreement, the Company is compensated primarily via royalties earned on the net sales of Cologuard generated from the healthcare practitioners on whom the Company called with such royalties being payable through July 2017. There are no refund provisions in the Exact Sciences Co-Promotion Agreement.

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Activities under the Exact Sciences Co-Promotion Agreement were evaluated in accordance with ASC 605-25, to determine if they represented a multiple element revenue arrangement. The Company identified the following deliverables in the Exact Sciences Co-Promotion Agreement through July 31, 2016: (i) second position sales detailing, (ii) promotional support services, and (iii) medical education services. Each of the deliverables was deemed to have standalone value based on their nature and all deliverables met the criteria to be accounted for as separate units of accounting under ASC 605-25. The Company determined that the BESP for each of the three deliverables approximated the value allocated to the deliverables under the agreement. The revenue related to each deliverable is recognized as collaborative arrangements revenue in the Company's condensed consolidated statement of operations, in accordance with ASC 605-25, during the period earned. During the three and six months ended June 30, 2017, the Company recognized approximately $1.3 million and approximately $2.4 million, respectively, and approximately $1.2 million and approximately $1.9 million during the three and six months ended June 30, 2016, respectively, as collaborative arrangements revenue related to this arrangement.

Co-Promotion Agreement with Allergan for VIBERZI

In August 2015, the Company and Allergan entered into an agreement for the co promotion of VIBERZI in the U.S., Allergan's treatment for adults suffering from IBS D (the "VIBERZI Co Promotion Agreement"). Under the terms of the VIBERZI Co Promotion Agreement, the Company's clinical sales specialists are detailing VIBERZI to the same health care practitioners to whom they detail LINZESS. Allergan is responsible for all costs and activities relating to the commercialization of VIBERZI outside of the co promotion.

Under the terms of the VIBERZI Co Promotion Agreement, the Company's promotional efforts are compensated based on the volume of calls delivered by the Company's sales force, with the terms of the agreement reducing or eliminating certain of the unfavorable adjustments to the Company's share of net profits stipulated by the linaclotide collaboration agreement with Allergan for North America, provided that the Company provides a minimum number of VIBERZI calls on physicians. The Company has the potential to achieve milestone payments of up to $10.0 million based on the net sales of VIBERZI in each of 2017 and 2018, and is also compensated via reimbursements for medical education initiatives.

The Company's promotional efforts under the non exclusive co promotion began when VIBERZI became commercially available in December 2015, and will continue until December 31, 2017, unless earlier terminated by either party pursuant to the provisions of the VIBERZI Co Promotion Agreement. Either party may also terminate the VIBERZI Co Promotion Agreement in the event of an uncured material breach by the other party, withdrawal of necessary approvals by the FDA, for convenience, or bankruptcy or insolvency of the other party. Allergan may terminate the VIBERZI Co Promotion Agreement if the Company does not provide the minimum number of calls on physicians for VIBERZI.

Activities under the VIBERZI Co Promotion Agreement were evaluated in accordance with ASC 605 25 to determine if they represented a multiple element revenue arrangement. The Company concluded that the VIBERZI Co Promotion

Agreement does not represent a material modification to the linaclotide collaboration agreement with Allergan for North America, as it is not material to the total arrangement consideration under the collaboration agreement, does not significantly modify the existing deliverables, and does not significantly change the term of the agreement. The Company identified the following deliverables in the VIBERZI Co Promotion Agreement: (i) second position sales detailing of VIBERZI, and (ii) medical education services. Each of the deliverables was deemed to have standalone value based on their nature and both deliverables met the criteria to be accounted for as separate units of accounting under ASC 605 25. The Company determined the BESP for each of the deliverables approximated the value allocated to the deliverables under the agreement. As consideration is earned over the term of the agreement, the revenue will be allocated to each deliverable based on the relative selling price, using management's BESP, and recognized as collaborative arrangements revenue in the Company's condensed consolidated statement of operations, in accordance with ASC 605 25, during the quarter earned.

Under the linaclotide collaboration agreement for North America with Allergan, if either party provides fewer calls on physicians in a particular year than it is contractually required to provide, such party's share of the net profits will be adjusted as set forth in the agreement; however, certain of these adjustments to the share of the net profits may be reduced or eliminated in connection with the co-promotion activities under the VIBERZI Co-Promotion Agreement through December 31, 2017. In connection with these co-promotion activities, the net profit share adjustments payable to Allergan under the linaclotide collaboration agreement for North America were reduced by approximately $1.1 million

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and approximately $2.9 million during the three and six months ended June 30, 2017, respectively, and approximately $1.4 million and approximately $2.6 million during the three and six months ended June 30, 2016, respectively. During the three months ended September 30, 2016, the Company also met the requirement for the minimum number of VIBERZI calls on physicians for 2016, which resulted in the Company's reversal of an approximately $2.4 million unfavorable adjustment previously recorded to collaborative arrangements revenue related to the linaclotide collaboration agreement with Allergan for North America. This approximately $2.4 million adjustment was originally recorded as an unfavorable adjustment to collaborative arrangements revenue during the six months ended June 30, 2015. During the three and six months ended June 30, 2017, the Company recognized approximately $0.5 million and approximately $0.9 million, respectively, and approximately $0.5 million and approximately $1.0 million during the three and six months ended June 30, 2016, respectively, in collaborative arrangements revenue related to the VIBERZI Co Promotion Agreement for the performance of medical education services.

Commercial Agreement with Allergan

In January 2017, concurrently with entering into the amendment to the European License Agreement, the Company and Allergan entered into a commercial agreement under which the adjustments to the Company's or Allergan's share of the net profits under the share adjustment provision of the collaboration agreement for linaclotide in North America relating to the contractually required calls on physicians in each year are eliminated, in full, in 2018 and all subsequent years. Pursuant to the commercial agreement, Allergan also appointed the Company, on a non-exclusive basis, to promote CANASA, approved for the treatment of ulcerative proctitis, and DELZICOL, approved for the treatment of ulcerative colitis, in the U.S. for approximately two years. The Company will perform certain third position details and offer samples of such products to gastroenterology prescribers who are on the then-current call panel for LINZESS to which the Company provides first or second position details, and will purchase samples of CANASA and DELZICOL from Allergan at the actual manufacturing cost. On a product-by-product basis, Allergan will pay the Company a royalty in the mid-teens on incremental sales of CANASA and DELZICOL above a mutually agreed upon sales baseline. The Company will record royalties on sales of these products one quarter in arrears as it does not have access to the royalty reports from Allergan or the ability to estimate the royalty revenue in the period earned. The Company commenced these promotion activities for CANASA and DELZICOL on February 27, 2017 and, subject to the Company's or Allergan's rights of early termination, the commercial agreement will expire on February 26, 2019. The share adjustment relief will, in the case of Allergan's termination for convenience and certain other specified circumstances, survive termination of the commercial agreement. The Company concluded that the commercial agreement with Allergan was not a material modification to the linaclotide collaboration agreement with Allergan for North America.

Activities under the commercial agreement with Allergan and the Allergan License Agreement were evaluated in accordance with ASC 605-25, as the agreements were entered into concurrently, to determine if they represented a multiple element revenue arrangement. The Company identified the following deliverables:

- an exclusive license to develop and commercialize linaclotide in the Allergan License Territory, and
- sales detailing services for CANASA and DELZICOL.

The exclusive license for the Allergan License Territory is nontransferable and has certain sublicense restrictions. The Company determined that Allergan had the internal product development and commercialization capabilities that would enable Allergan to use the license for its intended purposes without the involvement of the Company and, therefore, the license had standalone value. The deliverable for the sales detailing services for CANASA and DELZICOL was deemed to have standalone value based on the nature of the services, and all deliverables met the criteria to be accounted for as separate units of accounting under ASC 605-25. There is no allocable arrangement consideration at the inception of the arrangement, as the consideration is in the form of royalties and the elimination of a contingent liability. During the three months ended June 30, 2017, the Company did not recognize royalty revenue related to the commercial agreement with Allergan to promote CANASA and DELZICOL.

Other Collaboration and License Agreements

The Company has other collaboration and license agreements that are not individually significant to its business. Pursuant to the terms of one agreement, the Company may be required to pay $7.5 million for development milestones, of which approximately $2.5 million had been paid as of June 30, 2017, and $18.0 million for regulatory milestones, none of which had been paid as of June 30, 2017. In addition, pursuant to the terms of another agreement,

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the contingent milestones could total up to $114.5 million per product to one of the Company's collaboration partners, including $21.5 million for development milestones, $58.0 million for regulatory milestones and $35.0 million for sales-based milestones. Further, under such agreements, the Company is also required to fund certain research activities and, if any product related to these collaborations is approved for marketing, to pay significant royalties on future sales. The Company did not record any research and development expenses associated with the Company's other collaboration and license agreements during each of the three and six months ended June 30, 2017 and 2016.

5. Product Revenue

In October 2016, the Company began commercializing ZURAMPIC in the U.S. Due to the early stage of the product launch, the Company determined that it was not able to reliably make certain estimates, including returns, necessary to recognize product revenue upon shipment to distributors. As a result, the Company records net product revenue for ZURAMPIC using a deferred revenue recognition model (sell-through). Under the deferred revenue model, the Company does not recognize revenue until ZURAMPIC is prescribed to an end-user. As of June 30, 2017, the Company had approximately $0.2 million of deferred revenue related to ZURAMPIC product in the distribution channel. The Company will continue to evaluate when, if ever, it has sufficient volume of historical activity and visibility into the distribution channel, in order to reasonably make all estimates required under ASC 605 to recognize revenue upon shipment to its distributors. During the three and six months ended June 30, 2017, the Company recognized approximately $0.5 million and approximately $0.8 million, respectively, of revenue related to product sales of ZURAMPIC in the U.S.

6. Fair Value of Financial Instruments

The tables below present information about the Company's assets that are measured at fair value on a recurring basis as of June 30, 2017 and December 31, 2016 and indicate the fair value hierarchy of the valuation techniques the Company utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize observable inputs such as quoted prices in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize data points that are either directly or indirectly observable, such as quoted prices for similar instruments in active markets, interest rates and yield curves. Fair values determined by Level 3 inputs utilize unobservable data points in which there is little or no market data, which require the Company to develop its own assumptions for the asset or liability.

The Company's investment portfolio includes mainly fixed income securities that do not always trade on a daily basis. As a result, the pricing services used by the Company apply other available information as applicable through processes such as benchmark yields, benchmarking of like securities, sector groupings and matrix pricing to prepare valuations. In addition, model processes are used to assess interest rate impact and develop prepayment scenarios. These models take into consideration relevant credit information, perceived market movements, sector news and economic events. The inputs into these models may include benchmark yields, reported trades, broker-dealer quotes, issuer spreads and other relevant data. The Company validates the prices provided by its third-party pricing services

by obtaining market values from other pricing sources and analyzing pricing data in certain instances.

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The following tables present the assets and liabilities the Company has measured at fair value on a recurring basis (in thousands):

		Fair Value Measurements at Reporting Date Using		
	June 30, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents:				
Money market funds	$ 90,745	$ 90,745	$ —	$ —
U.S. Treasury securities	16,743	16,743	—	—
U.S. government-sponsored securities	62,846	—	62,846	—
Available-for-sale securities:				
U.S. Treasury securities	20,490	20,490	—	—
U.S. government-sponsored securities	70,273	—	70,273	—
Convertible Note Hedges	171,880	—	—	171,880
Total assets measured at fair value	$ 432,977	$ 127,978	$ 133,119	$ 171,880
Liabilities:				
Note Hedge Warrants	$ 149,458	$ —	$ —	$ 149,458
Contingent Consideration	86,198	—	—	86,198
Total liabilities measured at fair value	$ 235,656	$ —	$ —	$ 235,656

		Fair Value Measurements at Reporting Date Using		
	December 31, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents:				
Money market funds	$ 32,486	$ 32,486	$ —	$ —
Available-for-sale securities:				
U.S. Treasury securities	115,021	115,021	—	—
U.S. government-sponsored securities	136,191	—	136,191	—
Convertible Note Hedges	132,521	—	—	132,521
Total assets measured at fair value	$ 416,219	$ 147,507	$ 136,191	$ 132,521
Liabilities:				
Note Hedge Warrants	$ 113,237	$ —	$ —	$ 113,237

Contingent Consideration	77,660	—	—	77,660
Total liabilities measured at fair value	$ 190,897	$ —	$ —	$ 190,897

There were no transfers between fair value measurement levels during the three and six months ended June 30, 2017 or 2016.

Cash equivalents, accounts receivable, related party accounts receivable, prepaid expenses and other current assets, accounts payable, related party accounts payable, accrued expenses and the current portion of capital lease obligations at June 30, 2017 and December 31, 2016 are carried at amounts that approximate fair value due to their short-term maturities.

The non-current portion of the capital lease obligations at December 31, 2016 approximates fair value as it bears interest at a rate approximating a market interest rate.

Convertible Note Hedges and Note Hedge Warrants

The Company’s Convertible Note Hedges and the Note Hedge Warrants are recorded as derivative assets and liabilities, and are classified as Level 3 under the fair value hierarchy. These derivatives are not actively traded and are valued using the Black-Scholes option-pricing model which requires the use of subjective assumptions. Significant inputs used to determine the fair value as of June 30, 2017 included the price per share of the Company’s Class A

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common stock, time to maturity of the derivative instruments, the strike prices of the derivative instruments, the risk-free interest rate, and the volatility of the Company's Class A common stock. The Company has not paid and does not anticipate paying cash dividends on its shares of common stock in the foreseeable future; therefore, the expected dividend yield is assumed to be zero. Changes to these inputs could materially affect the valuation of the Convertible Note Hedges and Note Hedge Warrants.

The following inputs were used in the fair market valuation of the Convertible Note Hedges and Note Hedge Warrants as of June 30, 2017 and December 31, 2016:

	Six Months Ended June 30, 2017		Year Ended December 31, 2016	
	Convertible Note Hedges	Note Hedge Warrants	Convertible Note Hedges	Note Hedge Warrants
Risk-free interest rate (1)	1.9 %	2.0 %	2.0 %	2.1 %
Time to maturity	5.0	5.5	5.5	6.0
Stock price (2)	$ 18.88	$ 18.88	$ 15.29	$ 15.29
Strike price (3)	$ 16.58	$ 21.50	$ 16.58	$ 21.50
Common stock volatility (4)	44.5 %	44.2 %	47.4 %	45.8 %
Dividend yield	— %	— %	— %	— %

(1) Based on U.S. Treasury yield curve, with terms commensurate with the terms of the Convertible Note Hedges and the Note Hedge Warrants.
(2) The closing price of the Company's Class A common stock on the last trading day of the quarter ended June 30, 2017 and December 31, 2016.
(3) As per the respective agreements for the Convertible Note Hedges and Note Hedge Warrants.
(4) Selected volatility based on historical volatility of the Company's Class A common stock.

The Convertible Note Hedges and the Note Hedge Warrants are recorded at fair value at each reporting period and changes in fair value are recorded in other expense, net within the Company's condensed consolidated statements of operations. Gains and losses for these derivative financial instruments are presented separately in the Company's condensed consolidated statements of cash flows.

The following table reflects the change in the Company's Level 3 convertible note derivatives from December 31, 2016 through June 30, 2017 (in thousands):

	Convertible Note Hedges	Note Hedge Warrants

Balance at December 31, 2016	$ 132,521	$ (113,237)
Change in fair value, recorded as a component of gain (loss) on derivatives	39,359	(36,221)
Balance at June 30, 2017	$ 171,880	$ (149,458)

Contingent Consideration

In connection with the Lesinurad Transaction, the Company recorded a liability of $67.9 million as of the Acquisition Date. This valuation was based on a Monte-Carlo simulation, which includes significant estimates related to probability weighted net cash outflow projections, discounted using a yield curve equivalent to the Company's credit risk, which was the estimated cost of debt financing for market participants. This estimate represents the probability weighted analysis of expected future milestone and royalty payments based on net sales to be made to AstraZeneca. Changes to these inputs are re-evaluated each reporting period and could materially affect the valuation of the contingent consideration. The estimated fair value of contingent consideration was approximately $86.2 million as of June 30, 2017.

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The following table reflects the change in the Company's Level 3 contingent consideration payable from December 31, 2016 through June 30, 2017 (in thousands):

	Contingent Consideration
Fair value at December 31, 2016	$ 77,660
Changes in fair value	8,547
Payments/transfers to accrued expenses and other current liabilities	(9)
Fair value at June 30, 2017	$ 86,198

11% PhaRMA Notes

In January 2013, the Company closed a private placement of $175.0 million in aggregate principal amount of the PhaRMA Notes. The outstanding principal balance of the PhaRMA Notes was redeemed in January 2017. The estimated fair value of the PhaRMA Notes was approximately $134.9 million as of December 31, 2016 and was determined using Level 3 inputs, including a quoted rate.

2.25% Convertible Senior Notes

In June 2015, the Company issued approximately $335.7 million of its 2022 Notes. The Company separately accounted for the liability and equity components of the 2022 Notes by allocating the proceeds between the liability component and equity component (Note 10). The fair value of the 2022 Notes, which differs from their carrying value, is influenced by interest rates, the price of the Company's Class A common stock and the volatility thereof, and the prices for the 2022 Notes observed in market trading, which are Level 2 inputs. The estimated fair value of the 2022 Notes was approximately $450.5 million and approximately $384.2 million as of June 30, 2017 and December 31, 2016, respectively.

8.375% Notes Due 2026

In September 2016, the Company closed a direct private placement pursuant to which the Company issued $150.0 million in aggregate principal amount of the 2026 Notes in January 2017. The estimated fair value of the 2026 Notes was approximately $155.8 million as of June 30, 2017. This valuation was calculated using a discounted cash flow estimate of expected interest and principal payments and was determined using Level 3 inputs, including significant estimates related to expected LINZESS sales and a discount rate equivalent to market participant interest rates.

7. Available-for-Sale Securities

The following tables summarize the available-for-sale securities held at June 30, 2017 and December 31, 2016 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
June 30, 2017				
U.S. Treasury securities	$ 20,495	$ —	$ (5)	$ 20,490
U.S. government-sponsored securities	70,292	—	(19)	70,273
Total	$ 90,787	$ —	$ (24)	$ 90,763

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
December 31, 2016				
U.S. Treasury securities	$ 115,026	$ 6	$ (11)	$ 115,021
U.S. government-sponsored securities	136,193	10	(12)	136,191
Total	$ 251,219	$ 16	$ (23)	$ 251,212

The contractual maturities of all securities held at June 30, 2017 are one year or less. There were 24 and 34 available-for-sale securities in an unrealized loss position at June 30, 2017 and December 31, 2016, respectively, none of

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which had been in an unrealized loss position for more than twelve months. The aggregate fair value of these securities at June 30, 2017 and December 31, 2016 was approximately $90.8 million and approximately $111.3 million, respectively. The Company reviews its investments for other-than-temporary impairment whenever the fair value of an investment is less than amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. To determine whether an impairment is other-than-temporary, the Company considers whether it has the ability and intent to hold the investment until a market price recovery and considers whether evidence indicating the cost of the investment is recoverable outweighs evidence to the contrary. The Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost bases, which may be maturity. The Company did not hold any securities with other-than-temporary impairment at June 30, 2017.

There were no sales of available-for-sale securities during each of the three and six months ended June 30, 2017 or 2016. Net unrealized holding gains or losses for the period that have been included in accumulated other comprehensive loss were not material to the Company's condensed consolidated results of operations.

8. Inventory

Inventory consisted of the following (in thousands):

	June 30, 2017	December 31, 2016
Raw Materials	$ —	$ 1,010
Work in Progress	—	71
	$ —	$ 1,081

The Company's inventory represents linaclotide API and drug product that is available for commercial sale. The Company evaluates inventory levels quarterly and any inventory that has a cost basis in excess of its expected net realizable value, inventory that becomes obsolete, inventory in excess of expected sales requirements, inventory that fails to meet commercial sale specifications or is otherwise impaired is written down with a corresponding charge to the statement of operations in the period that the impairment is first identified. No such impairments of linaclotide API inventory were recorded during the three and six months ended June 30, 2017 or 2016.

9. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	June 30, 2017	December 31, 2016
Salaries and benefits	$ 17,827	$ 25,884
Professional fees	1,407	1,213
Accrued interest	873	971
Repurchasable Stock	—	882
Other	10,710	9,351
	$ 30,817	$ 38,301

As of June 30, 2017, other accrued expenses of approximately $10.7 million included approximately $0.6 million related to expenses incurred under the Lesinurad TSA and approximately $1.3 million related to excess non-cancelable ZURAMPIC sample purchase commitments, pursuant to the Company's forecasts, as a result of a reduction in near-term forecasted demand. As of December 31, 2016, other accrued expenses of approximately $9.4 million included approximately $2.8 million related to expenses incurred under the Lesinurad TSA.

10. Notes Payable

8.375% Notes due 2026

On September 23, 2016, the Company closed a direct private placement, pursuant to which the Company issued $150.0 million in aggregate principal amount of 8.375% notes due 2026 on the Funding Date, January 5, 2017. The proceeds from the issuance of the 2026 Notes were used to redeem the outstanding principal balance of the PhaRMA

Notes on the Funding Date. The Company capitalized approximately $0.5 million of debt issuance costs, which were netted against the carrying value of the 2026 Notes.

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The 2026 Notes bear an annual interest rate of 8.375%, with interest payable March 15, June 15, September 15 and December 15 of each year (each an "8.375% Payment Date") which began on June 15, 2017. Principal of the 2026 Notes will be payable on the 8.375% Payment Dates beginning March 15, 2019. From March 15, 2019, the Company will make quarterly payments on the 2026 Notes equal to the greater of (i) 7.5% of net sales of linaclotide in the U.S. for the preceding quarter (the "8.375% Synthetic Royalty Amount") and (ii) accrued and unpaid interest on the 2026 Notes (the "8.375% Required Interest Amount"). Principal on the 2026 Notes will be repaid in an amount equal to the 8.375% Synthetic Royalty Amount minus the 8.375% Required Interest Amount, when this is a positive number, until the principal has been paid in full. Given the principal payments on the 2026 Notes are based on the 8.375% Synthetic Royalty Amount, which will vary from quarter to quarter, the 2026 Notes may be repaid prior to September 15, 2026, the final legal maturity date.

The 2026 Notes are secured by a security interest in a segregated bank account established to receive the required quarterly payments as well as certain limited accounts receivables, payment intangibles or other rights to payment or proceeds, in each case, up to the 8.375% Synthetic Royalty Amount or estimated equivalent thereto, as applicable. Up to the amount of the required quarterly payments under the 2026 Notes, Allergan will deposit its quarterly profit (loss) sharing payments due to the Company related to net sales of linaclotide in the U.S. pursuant to the collaboration agreement for North America, if any, into the segregated bank account. If the funds deposited by Allergan into the segregated bank account are insufficient to make a required payment of interest or principal on a particular 8.375% Payment Date, the Company is obligated to deposit such shortfall out of the Company's general funds into the segregated bank account.

The 2026 Notes may be redeemed at any time prior to maturity, in whole or in part, at the option of the Company. If the applicable redemption of the 2026 Notes occurs prior to March 15, 2018, the Company will pay a redemption price equal to the outstanding principal balance of the 2026 Notes being redeemed, plus (i) the difference between (A) the required interest amount that would have otherwise been payable from the date of redemption through March 15, 2018 on the outstanding principal balance of the 2026 Notes being redeemed, minus (B) the aggregate amount of interest the purchasers would earn if the outstanding principal balance of the 2026 Notes being redeemed were reinvested for the period from the date of redemption through March 15, 2018 at a rate per annum equal to the yield expressed as a rate listed in The Wall Street Journal for United States Treasury securities having a term of not greater than 12 months on the date three business days prior to the date of redemption, plus (ii) an amount equal to the redemption premium that would otherwise be payable as if such redemption had occurred at March 15, 2018. If the applicable redemption of the 2026 Notes occurs on or after March 15, 2018, the Company will pay a redemption price equal to the percentage of outstanding principal balance of the 2026 Notes being redeemed specified below for the period in which the redemption occurs (plus the accrued and unpaid interest to the redemption date on the 2026 Notes being redeemed):

Payment Dates	Redemption Percentage	
From and including March 15, 2018 to and including March 14, 2019	108.00	%
From and including March 15, 2019 to and including March 14, 2020	105.50	%

From and including March 15, 2020 to and including March 14, 2021	102.75	%
From and including March 15, 2021 and thereafter	100.00	%

The 2026 Notes contain certain covenants related to the Company's obligations with respect to the commercialization of linaclotide and the related collaboration agreement with Allergan for North America, as well as certain customary covenants, including covenants that limit or restrict the Company's ability to incur certain liens, merge or consolidate or make dispositions of assets. The 2026 Notes also specify a number of events of default (some of which are subject to applicable cure periods), including, among other things, covenant defaults, other non-payment defaults, and bankruptcy and insolvency defaults. Upon the occurrence of an event of default, subject to cure periods in certain circumstances, all amounts outstanding may become immediately due and payable.

The accounting for the 2026 Notes will require the Company to make certain estimates and assumptions about the future net sales of linaclotide in the U.S. Linaclotide has been marketed as LINZESS in the U.S. since December 2012 and the estimates of the magnitude and timing of linaclotide net sales are subject to significant variability and uncertainty. These estimates and assumptions are likely to change, which may result in future adjustments to the portion of the 2026 Notes that will be classified as a current liability, the amortization of debt issuance costs and discounts as well as the accretion of the interest expense. Any such adjustments could be material to the Company's condensed consolidated financial statements.

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2.25% Convertible Senior Notes due 2022

In June 2015, the Company issued approximately $335.7 million aggregate principal amount of the 2022 Notes. The Company received net proceeds of approximately $324.0 million from the sale of the 2022 Notes, after deducting fees and expenses of approximately $11.7 million. The Company used approximately $21.1 million of the net proceeds from the sale of the 2022 Notes to pay the net cost of the Convertible Note Hedges (after such cost was partially offset by the proceeds to the Company from the sale of the Note Hedge Warrants), as described below.

The 2022 Notes are governed by an indenture (the "Indenture") between the Company and U.S. Bank National Association, as the trustee. The 2022 Notes are senior unsecured obligations and bear cash interest at the annual rate of 2.25%, payable on June 15 and December 15 of each year, which began on December 15, 2015. The 2022 Notes will mature on June 15, 2022, unless earlier converted or repurchased. The Company may settle conversions of the 2022 Notes through payment or delivery, as the case may be, of cash, shares of Class A common stock of the Company or a combination of cash and shares of Class A common stock, at the Company's option (subject to, and in accordance with, the settlement provisions of the Indenture). The initial conversion rate for the 2022 Notes is 60.3209 shares of Class A common stock (subject to adjustment as provided for in the Indenture) per $1,000 principal amount of the 2022 Notes, which is equal to an initial conversion price of approximately $16.58 per share and 20,249,665 shares. Holders of the 2022 Notes may convert their 2022 Notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2021 in multiples of $1,000 principal amount, only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on September 30, 2015 (and only during such calendar quarter), if the last reported sale price of the Company's Class A 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 conversion price for the 2022 Notes on each applicable trading day;

- during the five business day period after any five consecutive trading day period (the "measurement period") in which the "trading price" (as defined in the Indenture) per $1,000 principal amount of the 2022 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 Class A common stock and the conversion rate for the 2022 Notes on each such trading day; or

- upon the occurrence of specified corporate events described in the Indenture.

On or after December 15, 2021, until the close of business on the second scheduled trading day immediately preceding June 15, 2022, holders may convert their 2022 Notes, in multiples of $1,000 principal amount, at the option of the holder regardless of the foregoing circumstances.

If a make-whole fundamental change, as described in the Indenture, occurs and a holder elects to convert its 2022 Notes in connection with such make-whole fundamental change, such holder may be entitled to an increase in the conversion rate as described in the Indenture. The Company may not redeem the 2022 Notes prior to the maturity date and no “sinking fund” is provided for by the 2022 Notes, which means that the Company is not required to periodically redeem or retire the 2022 Notes. Upon the occurrence of certain fundamental changes involving the Company, holders of the 2022 Notes may require the Company to repurchase for cash all or part of their 2022 Notes at a repurchase price equal to 100% of the principal amount of the 2022 Notes to be repurchased, plus accrued and unpaid interest.

The Indenture does not contain any financial covenants or restrict the Company’s ability to repurchase the Company’s securities, pay dividends or make restricted payments in the event of a transaction that substantially increases the Company’s level of indebtedness. The Indenture provides for customary events of default. In the case of an event of default with respect to the 2022 Notes arising from specified events of bankruptcy or insolvency, all outstanding 2022 Notes will become due and payable immediately without further action or notice. If any other event of default with respect to the 2022 Notes under the Indenture occurs or is continuing, the trustee or holders of at least 25% in aggregate principal amount of the then outstanding 2022 Notes may declare the principal amount of the 2022 Notes to be immediately due and payable. Notwithstanding the foregoing, the Indenture provides that, upon the Company’s election, and for up to 180 days, the sole remedy for an event of default relating to certain failures by the Company to comply

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with certain reporting covenants in the Indenture consists exclusively of the right to receive additional interest on the 2022 Notes.

In accordance with accounting guidance for debt with conversion and other options, the Company separately accounted for the liability and equity components of the 2022 Notes by allocating the proceeds between the liability component and the embedded conversion option, or equity component, due to the Company's ability to settle the 2022 Notes in cash, its Class A common stock, or a combination of cash and Class A common stock at the option of the Company. The carrying amount of the liability component was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The allocation was performed in a manner that reflected the Company's non-convertible debt borrowing rate for similar debt. The equity component of the 2022 Notes was recognized as a debt discount and represents the difference between the gross proceeds from the issuance of the 2022 Notes and the fair value of the liability of the 2022 Notes on their respective dates of issuance. The excess of the principal amount of the liability component over its carrying amount, or debt discount, is amortized to interest expense using the effective interest method over seven years, or the life of the 2022 Notes. The equity component is not remeasured as long as it continues to meet the conditions for equity classification.

The Company's outstanding Convertible Note balances as of June 30, 2017 and December 31, 2016 consisted of the following (in thousands):

	June 30, 2017	December 31, 2016
Liability component:		
Principal	$ 335,699	$ 335,699
Less: unamortized debt discount	(87,757)	(94,675)
Less: unamortized debt issuance costs	(6,398)	(6,781)
Net carrying amount	$ 241,544	$ 234,243
Equity component	$ 114,199	$ 114,199

In connection with the issuance of the 2022 Notes, the Company incurred approximately $11.7 million of debt issuance costs, which primarily consisted of initial purchasers' discounts and legal and other professional fees. The Company allocated these costs to the liability and equity components based on the allocation of the proceeds. The portion of these costs allocated to the equity components totaling approximately $4.0 million were recorded as a reduction to additional paid-in capital. The portion of these costs allocated to the liability components totaling approximately $7.7 million were recorded as a reduction in the carrying value of the debt on the balance sheet and are amortized to interest expense using the effective interest method over the expected life of the 2022 Notes.

The Company determined the expected life of the 2022 Notes was equal to their seven-year term. The effective interest rate on the liability components of the 2022 Notes for the period from the date of issuance through June 30, 2017 was 9.34%. The following table sets forth total interest expense recognized related to the 2022 Notes during the three and six months ended June 30, 2017 and 2016 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Contractual interest expense	$ 1,888	$ 1,888	$ 3,777	$ 3,777
Amortization of debt issuance costs	196	161	383	314
Amortization of debt discount	3,497	3,204	6,918	6,339
Total interest expense	$ 5,581	$ 5,253	$ 11,078	$ 10,430

Convertible Note Hedge and Warrant Transactions with Respect to 2022 Notes

To minimize the impact of potential dilution to the Company’s Class A common stockholders upon conversion of the 2022 Notes, the Company entered into the Convertible Note Hedges covering 20,249,665 shares of the Company’s Class A common stock in connection with the issuance of the 2022 Notes. The Convertible Note Hedges have an exercise price of approximately $16.58 per share and are exercisable when and if the 2022 Notes are converted. If upon conversion of the 2022 Notes, the price of the Company’s Class A common stock is above the exercise price of the Convertible Note Hedges, the counterparties are obligated to deliver shares of the Company’s Class A common stock and/or cash with an aggregate value approximately equal to the difference between the price of the Company’s Class A

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common stock at the conversion date and the exercise price, multiplied by the number of shares of the Company's Class A common stock related to the Convertible Note Hedge being exercised.

Concurrently with entering into the Convertible Note Hedges, the Company also sold Note Hedge Warrants to the Convertible Note Hedge counterparties to acquire 20,249,665 shares of the Company's Class A common stock, subject to customary anti-dilution adjustments. The strike price of the Note Hedge Warrants is initially $21.50 per share, subject to adjustment, and such warrants are exercisable over the 150 trading day period beginning on September 15, 2022. The Note Hedge Warrants could have a dilutive effect on the Class A common stock to the extent that the market price per share of the Company's Class A common stock exceeds the applicable strike price of such warrants.

The Convertible Note Hedges and the Note Hedge Warrants are separate transactions entered into by the Company and are not part of the terms of the 2022 Notes. Holders of the 2022 Notes and the Note Hedge Warrants do not have any rights with respect to the Convertible Note Hedges. The Company paid approximately $91.9 million for the Convertible Note Hedges and recorded this amount as a long-term asset on the condensed consolidated balance sheet. The Company received approximately $70.8 million for the Note Hedge Warrants and recorded this amount as a long-term liability, resulting in a net cost to the Company of approximately $21.1 million. The Convertible Note Hedges and Note Hedge Warrants are accounted for as derivative assets and liabilities, respectively, in accordance with ASC Topic 815, "Derivatives and Hedging" (Note 6).

11% PhaRMA Notes due 2024

In January 2013, the Company closed a private placement of $175.0 million in aggregate principal amount of notes due on or before June 15, 2024. The PhaRMA Notes were redeemed at par on the 2026 Notes' Funding Date, January 5, 2017, resulting in a loss on extinguishment of debt related to the write-off of the remaining PhaRMA Notes unamortized debt issuance costs of approximately $2.0 million.

11. Commitments and Contingencies

Lease Commitments

The Company rents office and laboratory space at its corporate headquarters at 301 Binney Street, Cambridge, Massachusetts (the "Facility") under a non cancelable operating lease, entered into in January 2007, as amended ("2007 Lease Agreement").

In March 2017, the Company and BMR-Rogers Street LLC (the "Landlord") entered into an additional amendment (the "2017 Amendment") to the 2007 Lease Agreement. The 2017 Amendment extends the term of the 2007 Lease Agreement through January 31, 2025 for the approximately 223,000 square feet of the Facility that the Company currently occupies. The 2017 Amendment also provides that the Landlord will resume possession of the approximately 93,000 square feet of additional space in the Facility that the Company previously subleased to a third party in 2014. The 2007 Lease Agreement, as amended by the 2017 Amendment, contains various provisions including an option to extend the term of the lease for an additional five years at a market base rental rate, a 3% annual rent escalation, and in certain cases, free rent periods. The rent expense, inclusive of the escalating rent payments and free rent periods, is recognized on a straight line basis over the lease term through January 2025. Additionally, the 2017 Amendment reduces the required letter of credit to secure the Company's obligations under the lease agreement to approximately $6.4 million, which is recorded as restricted cash.

During 2014, the Company entered into an agreement, with the Landlord's consent, to sublease a portion of its corporate headquarters that it did not intend to use for its operation. In connection with the sublease, as well as a rent escalation tied to the Consumer Price Index and fair market rent pursuant to the terms of the 2007 Lease Agreement, the Company had previously recorded losses related to its obligations to the Landlord associated with the sublet space, net of sublease income in accordance with ASC Topic 420, "Exit or Disposal Cost Obligations". Pursuant to the 2017 Amendment, the Landlord resumed possession of the space that the Company previously subleased to a third party, and the Company is no longer obligated for the sublease associated with this space. The provisions of the 2007 Lease Agreement governing the space which was previously subleased were terminated and as such, the Company revised its accounting estimates associated with its rent expense and sublease income. Upon the relief of these future liabilities, the Company recorded a gain on the extinguishment of sublease loss of approximately $1.6 million during the three months ended March 31, 2017. The change in accounting estimate associated with rent expense was recognized on a

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prospective, straight-line basis through May 2017. Rent expenses related to the 2007 Lease Agreement and the 2017 Amendment, net of sublease income, recorded during the three and six months ended June 30, 2017 were approximately $4.5 million and approximately $5.5 million, respectively, and approximately $2.0 million and approximately $7.5 million for the three and six months ended June 30, 2016, respectively.

At June 30, 2017, future minimum lease payments under all non cancelable operating lease arrangements were as follows (in thousands):

	Total Operating Lease Payments
2017 (1)	$ 7,143
2018	16,931
2019	17,609
2020	18,137
2021 and thereafter	79,857
Total future minimum lease payments	$ 139,677

(1) Amounts are for the six months ending December 31, 2017.

Commercial Supply Commitments

The Lesinurad CSA with AstraZeneca provides for commercial supply and samples of ZURAMPIC, and, if approved by the FDA, DUZALLO. The Lesinurad CSA includes certain purchase obligations based on the Company’s forecasted demand for commercial product and samples. During the Lesinurad TSA period, title for ZURAMPIC commercial supply and samples do not pass to the Company. Accordingly, the Company records purchases of ZURAMPIC commercial supply and samples from AstraZeneca as prepaid assets until they are sold or used. During the three months ended June 30, 2017, the Company wrote-down an insignificant amount of prepaid ZURAMPIC commercial supply as a result of revised demand forecasts. The write-down was recorded as write-down of lesinurad commercial supply to net realizable value and loss on non-cancelable purchase commitments in the Company’s condensed consolidated statement of operations. During the three months ended March 31, 2017, the Company recorded an expense of approximately $1.3 million for excess non-cancelable ZURAMPIC sample purchase commitments, pursuant to the Company’s forecasts, as a result of a reduction in near-term forecasted demand. This write-down was recorded in selling, general and administrative expenses in the Company's condensed consolidated statement of operations.

Commitments Related to the Collaboration and License Agreements

Pursuant to the Lesinurad License, during the three months ended June 30, 2017, the Company and AstraZeneca agreed to transition the obligation for post-marketing activities required by the FDA from AstraZeneca to the Company in accordance with an agreed upon timeline. The Company estimates that it will incur less than $100.0 million over up to ten years from the Acquisition Date related to these requirements. AstraZeneca is currently obligated to conduct certain of these post-marketing requirement activities on the Company's behalf, for which the Company is obligated to reimburse AstraZeneca up to $2.0 million during the year ended December 31, 2017.

12. Employee Stock Benefit Plans

The Company has several share-based compensation plans under which stock options, restricted stock awards, restricted stock units ("RSUs"), and other share-based awards are available for grant to employees, directors and consultants of the Company.

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The following table summarizes share-based compensation expense reflected in the condensed consolidated statements of operations for the three and six months ended June 30, 2017 and 2016 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Research and development	$ 3,568	$ 3,265	$ 6,192	$ 5,764
Selling, general and administrative	5,572	4,832	10,227	9,139
	$ 9,140	$ 8,097	$ 16,419	$ 14,903

A summary of stock option activity for the six months ended June 30, 2017 is as follows:

	Number of Shares (in thousands)	Weighted-Average Fair Value
Outstanding at December 31, 2016	20,455	$ 11.92
Granted	3,160	16.63
Exercised	(1,598)	9.57
Cancelled	(396)	13.27
Outstanding at June 30, 2017	21,621	$ 12.75

The weighted-average assumptions used to estimate the fair value of the stock options using the Black-Scholes option-pricing model were as follows for the three and six months ended June 30, 2017 and 2016:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Expected volatility	46.1 %	45.9 %	46.1 %	46.0 %
Expected term (in years)	6.0	6.0	6.0	6.0
Risk-free interest rate	2.0 %	1.5 %	2.0 %	1.5 %
Expected dividend yield	— %	— %	— %	— %

The Company utilizes RSUs in addition to stock options as part of the equity compensation it provides to its employees, each RSU representing the right to receive one share of the Company’s Class A Common Stock pursuant to

the terms of the applicable award agreement and granted pursuant to the terms of the Company's 2010 Equity Plan. The RSUs generally vest 25% per year on the approximate anniversary of the date of grant until fully vested, provided the employee remains continuously employed with the Company through each vesting date. Shares of the Company's Class A Common Stock are delivered to the employee upon vesting, subject to payment of applicable withholding taxes. The fair value of all RSUs is based on the market value of the Company's Class A Common Stock on the date of grant. Compensation expense, including the effect of estimated forfeitures, is recognized over the applicable service period.

A summary of RSU activity for the six months ended June 30, 2017 is as follows:

	Number of Shares (in thousands)	Weighted-Average Grant Date Fair Value
Unvested as of December 31, 2016	1,299	$ 12.53
Granted	1,267	$ 16.71
Vested	(224)	$ 12.86
Forfeited	(72)	$ 14.43
Unvested as of June 30, 2017	2,270	$ 14.77

13. Related Party Transactions

In September 2009, Allergan became a related party when the Company sold to Allergan 2,083,333 shares of the Company's convertible preferred stock. Amounts due to and due from Allergan are reflected as related party

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accounts payable and related party accounts receivable, respectively. These balances are reported net of any balances due to or from the related party. The Company had approximately $56.4 million and approximately $63.9 million in related party accounts receivable, net of related party accounts payable, associated with Allergan as of June 30, 2017 and December 31, 2016, respectively.

The Company has and currently obtains health insurance services for its employees from an insurance provider whose President and Chief Executive Officer became a member of the Company's Board of Directors in April 2016. The Company paid approximately $3.0 million and approximately $6.0 million in insurance premiums to this insurance provider during the three and six months ended June 30, 2017, respectively, and approximately $1.9 million and approximately $3.8 million during the three and six months ended June 30, 2016, respectively. At June 30, 2017 and December 31, 2016, the Company had no accounts payable due to this related party, respectively.

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Information

The following discussion of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and the notes to those financial statements appearing elsewhere in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth under "Risk Factors" in Item 1A of this Quarterly Report on Form 10-Q, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a commercial biotechnology company leveraging our proven development and commercial capabilities as we seek to bring multiple medicines to patients. We are advancing innovative product opportunities in areas of large unmet need, including irritable bowel syndrome with constipation, or IBS-C, and chronic idiopathic constipation, or CIC, abdominal pain associated with lower gastrointestinal, or GI, disorders, hyperuricemia associated with uncontrolled gout, uncontrolled gastroesophageal reflux disease, or uncontrolled GERD, and vascular and fibrotic diseases.

Our first commercial product, linaclotide, is available to adult men and women suffering from IBS-C or CIC in certain countries around the world. Linaclotide is available under the trademarked name LINZESS® to adult men and women suffering from IBS-C or CIC in the United States, or the U.S. and Mexico, and to adult men and women suffering from IBS-C in Japan. Linaclotide is available under the trademarked name CONSTELLA® to adult men and women suffering from IBS-C and CIC in Canada, and to adult men and women suffering from IBS-C in certain European countries.

We and our partner Allergan plc (together with its affiliates), or Allergan, began commercializing LINZESS in the U.S. in December 2012. Under our collaboration with Allergan for North America, total net sales of LINZESS in the U.S., as recorded by Allergan, are reduced by commercial costs incurred by each party, and the resulting amount is shared equally between us and Allergan. Allergan has an exclusive license from us to develop and commercialize linaclotide in the Allergan License Territory, which is comprised of all countries other than China, Hong Kong, Macau, Japan and the countries and territories of North America. On a country-by-country and product-by-product basis in the Allergan License Territory, Allergan will pay us a royalty as a percentage of net sales of products containing linaclotide as an active ingredient. In addition, Allergan has exclusive rights to commercialize linaclotide in Canada as CONSTELLA and in Mexico as LINZESS. Astellas Pharma Inc., or Astellas, our partner in Japan, has

an exclusive license to develop and commercialize linaclotide in Japan. In March 2017, Astellas began commercializing LINZESS for the treatment of adults with IBS-C and is developing linaclotide for the treatment of patients with chronic constipation in Japan. In October 2012, we entered into a collaboration agreement with AstraZeneca AB (together with its affiliates), or AstraZeneca, to co-develop and co-commercialize linaclotide in China, Hong Kong and Macau, with AstraZeneca having primary responsibility for the local operational execution. In December 2015, we and AstraZeneca filed for approval with the China Food and Drug Administration, or CFDA, to market linaclotide in China.

We and Allergan are also advancing two linaclotide delayed release formulations. Linaclotide delayed release-1, or DR1, is a second-generation product candidate with the potential to improve abdominal pain relief and treat constipation in adult IBS-C patients. Linaclotide delayed release-2, or DR2, is a product candidate with the potential to treat patients with disorders where lower abdominal pain is a predominant symptom, such as non-constipation subtypes of IBS. Further, we and Allergan are exploring ways to enhance the clinical profile of LINZESS by studying linaclotide in additional indications, populations and formulations to assess its potential to treat various GI conditions.

We are advancing another GI development program, IW-3718, a gastric retentive formulation of a bile acid sequestrant with the potential to provide symptomatic relief in patients with uncontrolled GERD. In July 2017, we reported positive top-line data from a Phase IIb clinical trial evaluating IW-3718 in adult patients with uncontrolled GERD.

In June 2016, we closed a transaction with AstraZeneca, or the Lesinurad Transaction, pursuant to which we received an exclusive license to develop, manufacture, and commercialize in the U.S. products containing lesinurad as an active ingredient, or the Lesinurad License, including ZURAMPIC® and DUZALLO®. Lesinurad 200mg tablets were

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approved as ZURAMPIC by the U.S. Food and Drug Administration, or FDA, in December 2015 for use in combination with a xanthine oxidase inhibitor, or XOI, for the treatment of hyperuricemia associated with uncontrolled gout. In October 2016, we began commercializing ZURAMPIC in the U.S. We are developing DUZALLO, a fixed-dose combination product of lesinurad and allopurinol, an XOI, which is included under the Lesinurad License. In January 2017, the FDA accepted for review a new drug application, or NDA, for DUZALLO for the treatment of hyperuricemia in patients with uncontrolled gout. We have accounted for the Lesinurad Transaction in accordance with Accounting Standards Codification, or ASC, Topic 805, “Business Combinations”, or ASC 805, as the Lesinurad Transaction meets the requirements of a business combination. The transaction is more fully described in Note 3, Business Combination, to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

We are leveraging our pharmacological expertise in guanylate cyclase, or GC, pathways gained through the discovery and development of linaclotide to advance development programs, including IW-1973 and IW-1701, targeting soluble guanylate cyclase, or sGC. sGC is a validated drug target with the potential for broad therapeutic utility and multiple opportunities for product development in vascular and fibrotic diseases, as well as other therapeutic areas.

As part of our strategy, we have also established development and commercial capabilities that we plan to leverage as we seek to bring multiple medicines to patients. We intend to play an active role in the development and commercialization of our products in the U.S., and to establish a strong global brand by out-licensing commercialization rights in other territories to high-performing partners.

We have periodically entered into co-promotion agreements to maximize our salesforce efficiency. As part of this strategy, in August 2015, we and Allergan entered into an agreement for the co-promotion of VIBERZI™ (eluxadoline) in the U.S., Allergan’s treatment for adults suffering from IBS with diarrhea, or IBS-D. In January 2017, we and Allergan entered into a commercial agreement under which the adjustments to our or Allergan’s share of the net profits under the share adjustment provision of the collaboration agreement for linaclotide in North America are eliminated, in full, in 2018 and all subsequent years. In addition, Allergan appointed us, on a non-exclusive basis, to promote CANASA® (mesalamine), approved for the treatment of ulcerative proctitis, and DELZICOL® (mesalamine), approved for the treatment of ulcerative colitis, in the U.S. for approximately two years. These agreements are more fully described in Note 4, Collaboration, License, Co-Promotion and Other Commercial Agreements, to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

In June 2015, we issued approximately $335.7 million in aggregate principal amount of 2.25% Convertible Senior Notes due 2022, or the 2022 Notes. In September 2016, we closed a direct private placement, pursuant to which we subsequently issued $150.0 million in aggregate principal amount of 8.375% notes due 2026, or the 2026 Notes, on January 5, 2017, or the Funding Date. The proceeds from the issuance of the 2026 Notes were used to redeem the outstanding principal balance of the 11% PhaRMA Notes due 2024, or the PhaRMA Notes on the Funding Date. The net proceeds from these financings are being used to support the commercialization of LINZESS and ZURAMPIC in the U.S. and to fund linaclotide, lesinurad and other development opportunities to advance our strategy to grow a leading commercial biotechnology company, in addition to other general corporate purposes. These transactions are more fully described in Note 10, Notes Payable, to our condensed consolidated financial statements appearing

elsewhere in this Quarterly Report on Form 10-Q.

We were incorporated in Delaware on January 5, 1998 as Microbia, Inc. On April 7, 2008, we changed our name to Ironwood Pharmaceuticals, Inc. We operate in one reportable business segment—human therapeutics.

To date, we have dedicated a majority of our activities to the research, development and commercialization of linaclotide, as well as to the research and development of our other product candidates. We have incurred significant operating losses since our inception in 1998. As of June 30, 2017, we had an accumulated deficit of approximately $1.3 billion. We are unable to predict the extent of any future losses or guarantee when, or if, our company will become cash flow positive.

Financial Overview

Revenues. Revenue to date has been generated primarily through our collaboration agreements for the development and commercialization of linaclotide with Allergan for North America and AstraZeneca for China, Hong Kong and Macau, our license agreements for the development and commercialization of linaclotide in Japan with Astellas and the development and commercialization of linaclotide with Allergan, and our co-promotion agreements with Allergan for VIBERZI and Exact Sciences for Cologuard in the U.S. The terms of these agreements contain

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multiple deliverables which may include (i) licenses, (ii) research and development activities, (iii) the manufacture of finished drug product, active pharmaceutical ingredient, or API, or development materials for a partner which are reimbursed at a contractually determined rate, and (iv) co-promotion activities by our clinical sales specialists. Payments to us may include (i) up-front license fees, (ii) payments for research and development activities, (iii) payments for the manufacture of finished drug product, API or development materials, (iv) payments based upon the achievement of certain milestones, (v) payments for sales detailing, promotional support services and medical education initiatives and (vi) royalties on product sales. Additionally, we receive our share of the net profits or bear our share of the net losses from the sale of linaclotide in the U.S. and China.

We record our share of the net profits and losses from the sales of LINZESS in the U.S. on a net basis and present the settlement payments to and from Allergan as collaboration expense or collaborative arrangements revenue, as applicable. Net profits or losses consist of net sales to third-party customers and sublicense income in the U.S. less the cost of goods sold as well as selling, general and administrative expenses. Although we expect net sales to increase over time, the settlement payments between Allergan and us, resulting in collaborative arrangements revenue or collaboration expense, are subject to fluctuation based on the ratio of selling, general and administrative expenses incurred by each party. In addition, our collaborative arrangements revenue may fluctuate as a result of the timing and amount of license fees and clinical and commercial milestones received and recognized under our current and future strategic partnerships as well as timing and amount of royalties from the sales of linaclotide in the European, Canadian or Mexican markets or any other markets where linaclotide receives approval.

We record product revenue related to the sales of ZURAMPIC in the U.S. in accordance with ASC 605, Revenue Recognition, or ASC 605, when persuasive evidence of an arrangement exists, delivery has occurred and title of the product and associated risk of loss has passed to the customer, the price is fixed or determinable and collection from the customer has been reasonably assured. As a result, we record net product revenue for ZURAMPIC using a deferred revenue recognition model (sell-through). Under the deferred revenue model, we do not recognize revenue until ZURAMPIC is prescribed to an end-user.

Cost of Revenues. Cost of revenues includes cost of collaborative arrangements revenue related to the sales of linaclotide API, as well as the cost of product revenue related to sales of ZURAMPIC in the U.S. Cost of collaborative arrangements revenue related to the sales of linaclotide API is recognized upon shipment of linaclotide API to certain of our partners outside of the U.S. Our cost of collaborative arrangements revenue for linaclotide consists of the internal and external costs of producing such API. Cost of product revenue related to the sales of ZURAMPIC in the U.S. includes the cost of producing finished goods that correspond with product revenue for the reporting period, as well as certain period costs related to freight, packaging, stability and quality testing, and customer acquisition.

Write-down of lesinurad commercial supply to Net Realizable Value and Loss on Non-cancelable Purchase Commitments. During the three months ended June 30, 2017, we wrote-down an insignificant amount of prepaid ZURAMPIC commercial supply as a result of revised demand forecasts.

Research and Development Expense. Research and development expense consists of expenses incurred in connection with the discovery and development of our product candidates. These expenses consist primarily of compensation, benefits and other employee-related expenses, research and development related facility costs, third-party contract costs relating to nonclinical study and clinical trial activities, development of manufacturing processes, regulatory registration of third-party manufacturing facilities, as well as licensing fees for our product candidates. We charge all research and development expenses to operations as incurred. Under our linaclotide collaboration agreements with Allergan for the U.S. and AstraZeneca for China, Hong Kong and Macau, we are reimbursed for certain research and development expenses, and we net these reimbursements against our research and development expenses as incurred. Amounts owed to Allergan or AstraZeneca for such linaclotide territories are recorded as incremental research and development expense.

The core of our research and development strategy is to leverage our development capabilities, as well as our pharmacologic expertise, to bring multiple medicines to patients. We are advancing innovative product opportunities in areas of large unmet need, including IBS-C and CIC, abdominal pain associated with lower GI disorders, hyperuricemia associated with uncontrolled gout, uncontrolled GERD, and vascular and fibrotic diseases.

Linaclotide. Linaclotide is the first FDA-approved guanylate cyclase type-C, or GC-C, agonist. Linaclotide is approved and commercially available in the U.S., Japan and in a number of E.U. and other countries.

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We and Allergan are exploring development opportunities in the U.S. to enhance the clinical profile of LINZESS by studying linaclotide in additional indications, populations and formulations to assess its potential to treat various GI conditions. In January 2017, the FDA approved a 72 mcg dose of LINZESS for adults with CIC, which became available in the U.S. in March 2017. The 72 mcg dose provides a broader range of treatment options to physicians and adult CIC patients in the U.S.

Our linaclotide development opportunities also include linaclotide delayed release formulations. DR1 is a targeted oral delivery formulation of linaclotide designed to potentially improve abdominal pain relief and treat constipation in adult IBS-C patients. DR2 is a product candidate with the potential to treat patients with disorders where lower abdominal pain is a predominant symptom, such as non-constipated subtypes of IBS. Additionally, we and Allergan are evaluating linaclotide as a potential treatment of the GI dysfunction associated with opioid-induced constipation, or OIC, in adult patients and have established a plan with the FDA for clinical pediatric studies with linaclotide, as described below.

Lesinurad. Lesinurad 200mg tablets were approved as ZURAMPIC by the FDA in December 2015. In October 2016, we began commercializing ZURAMPIC in the U.S. In January 2017, the FDA accepted for review an NDA for DUZALLO, the fixed-dose combination product of lesinurad and allopurinol.

The FDA has required a post-marketing clinical study to further evaluate the renal and cardiovascular safety of lesinurad, and has required that enrollment include patients with moderate renal impairment. Subject to the terms of the Lesinurad License, AstraZeneca is obligated to conduct certain activities related to this post-marketing clinical study and we are obligated to reimburse AstraZeneca for such activities. Pursuant to the Lesinurad License, during the three months ended June 30, 2017, we and AstraZeneca agreed to transition the obligation for post-marketing activities required by the FDA from AstraZeneca to us in accordance with an agreed-upon timeline. The post-marketing requirements for lesinurad are estimated to be less than $100.0 million over up to ten years from June 2, 2016, or the Acquisition Date.

Development Candidates. We are advancing our uncontrolled GERD program through the development of IW-3718, a gastric retentive formulation of a bile acid sequestrant.

Within our vascular and fibrotic disease program, we are leveraging our pharmacological expertise in GC pathways gained through the discovery and development of linaclotide to advance development programs targeting sGC. We are currently progressing our first two sGC candidates in clinical development, IW-1973 and IW-1701, which have distinct pharmacologic profiles that we believe may be differentiating and enable opportunities in multiple indications.

We have additional assets in early development that we continue to advance, and we are exploring strategic options for further development of these assets.

Discovery Research. Our discovery efforts are primarily focused on identifying novel clinical candidates that draw on our proprietary and expanding expertise in GI disorders and GC pathways.

The following table sets forth our research and development expenses related to our product pipeline for the three and six months ended June 30, 2017 and 2016. These expenses relate primarily to internal compensation, benefits and other employee-related expenses and external costs associated with nonclinical studies and clinical trial costs for our product candidates. We allocate costs related to facilities, depreciation, share-based compensation, research and development support services, laboratory supplies and certain other costs directly to programs.

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	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
	(in thousands)		(in thousands)	
Linaclotide(1)	$ 8,665	$ 9,618	$ 16,916	$ 20,353
Lesinurad(2)	4,287	2,862	9,167	2,862
Development candidates:				
GI disorders (three compounds)(3)	4,887	6,188	10,609	14,770
Vascular and fibrotic disorders (two compounds)(3)	14,210	7,063	24,215	13,550
Central nervous system disorders (one compound)(3)	2	142	32	707
Total development candidates	19,099	13,393	34,856	29,027
Discovery research	5,293	5,809	10,107	11,282
	$ 37,344	$ 31,682	$ 71,046	$ 63,524

(1) Includes linaclotide in all indications, populations and formulations.
(2) Includes lesinurad in all indications, populations and formulations.
(3) Number of compounds includes clinical-stage development candidates for the three months ended June 30, 2017.

Since 2004, the date we began tracking costs by program, we have incurred approximately $412.7 million of research and development expenses related to linaclotide. The expenses for linaclotide include both our portion of the research and development costs incurred by Allergan for the U.S. and AstraZeneca for China, Hong Kong and Macau and invoiced to us under the cost-sharing provisions of our collaboration agreements, as well as the unreimbursed portion of research and development costs incurred by us under such cost-sharing provisions.

The lengthy process of securing regulatory approvals for new drugs requires the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals would materially adversely affect our product development efforts and our business overall.

In connection with the FDA approval of LINZESS, we are required to conduct certain nonclinical and clinical studies, including those aimed at understanding: (a) whether orally administered linaclotide can be detected in breast milk, (b) the potential for antibodies to be developed to linaclotide, and if so, (c) whether antibodies specific for linaclotide could have any therapeutic or safety implications. In addition, we and Allergan established a nonclinical and clinical post-marketing plan with the FDA to understand the efficacy and safety of LINZESS in pediatric patients. We and Allergan have initiated two Phase II clinical pediatric studies in IBS-C patients age seven to 17 and functional constipation patients age six to 17. We and Allergan are also exploring development opportunities to enhance the clinical profile of LINZESS by studying linaclotide in additional indications, populations and formulations to assess its potential to treat various GI conditions. In October 2012, we entered into a collaboration agreement with

AstraZeneca to co-develop and co-commercialize linaclotide in China, Hong Kong and Macau, with AstraZeneca having primary responsibility for the local operational execution. We cannot currently estimate with any degree of certainty the amount of time or money that we will be required to expend in the future on linaclotide for other geographic markets within IBS-C and CIC, or in additional indications, populations or formulations.

In December 2015, the FDA approved ZURAMPIC for use in conjunction with an XOI for the treatment of hyperuricemia associated with uncontrolled gout. In connection with the FDA approval, the FDA has required a post-marketing clinical study to further evaluate the renal and cardiovascular safety of ZURAMPIC, and has required that enrollment include patients with moderate renal impairment. Pursuant to the Lesinurad License, during the three months ended June 30, 2017, we and AstraZeneca agreed to transition the obligation for post-marketing activities required by the FDA from AstraZeneca to us in accordance with an agreed upon timeline. The post-marketing requirements for lesinurad are estimated to be less than $100.0 million over up to ten years from the Acquisition Date.

We are also advancing other development programs such as IW-3718, a development program targeting uncontrolled GERD, DUZALLO, the fixed-dose combination product containing lesinurad and allopurinol targeting uncontrolled gout, and IW-1973 and IW-1701 programs targeting vascular and fibrotic diseases.

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Given the inherent uncertainties that come with the development of pharmaceutical products, we cannot estimate with any degree of certainty how our programs will evolve, and therefore the amount of time or money that would be required to obtain regulatory approval to market them.

As a result of these uncertainties surrounding the timing and outcome of any approvals, we are currently unable to estimate precisely when, if ever, linaclotide or lesinurad's utility will be expanded within their currently approved indications; if or when linaclotide or lesinurad will be developed outside of their current markets, indications, populations or formulations; or when, if ever, any of our other product candidates will generate revenues and cash flows.

We invest carefully in our pipeline, and the commitment of funding for each subsequent stage of our development programs is dependent upon the receipt of clear, supportive data. In addition, we intend to access externally discovered drug candidates that fit within our core strategy. In evaluating these potential assets, we apply the same investment criteria as those used for investments in internally discovered assets.

The successful development of our product candidates is highly uncertain and subject to a number of risks including, but not limited to:

- The duration of clinical trials may vary substantially according to the type, complexity and novelty of the product candidate.

- The FDA and comparable agencies in foreign countries impose substantial and varying requirements on the introduction of therapeutic pharmaceutical products, typically requiring lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures.

- Data obtained from nonclinical and clinical activities at any step in the testing process may be adverse and lead to discontinuation or redirection of development activity. Data obtained from these activities also are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval.

- The duration and cost of discovery, nonclinical studies and clinical trials may vary significantly over the life of a product candidate and are difficult to predict.

- The costs, timing and outcome of regulatory review of a product candidate may not be favorable, and, even if approved, a product may face post-approval development and regulatory requirements.

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There may be substantial costs, delays and difficulties in successfully integrating externally developed product candidates into our business operations.

· The emergence of competing technologies and products and other adverse market developments may negatively impact us.

As a result of the factors discussed above, including the factors discussed under “Risk Factors” in Item 1A of this Quarterly Report on Form 10-Q, we are unable to determine the duration and costs to complete current or future nonclinical and clinical stages of our product candidates or when, or to what extent, we will generate revenues from the commercialization and sale of our product candidates. Development timelines, probability of success and development costs vary widely. We anticipate that we will make determinations as to which additional programs to pursue and how much funding to direct to each program on an ongoing basis in response to the data of each product candidate, the competitive landscape and ongoing assessments of such product candidate’s commercial potential.

We expect our research and development costs will be substantial for the foreseeable future. We will continue to invest in linaclotide and lesinurad, including the investigation of ways to enhance the clinical profile within their currently approved indications, and the exploration of their potential utility in other indications, populations and formulations. We will also invest in our other product candidates as we advance them through nonclinical studies and clinical trials, in addition to funding full-time equivalents for research and development activities under our external collaboration and license agreements.

Selling, General and Administrative Expense. Selling, general and administrative expense consists primarily of compensation, benefits and other employee-related expenses for personnel in our administrative, finance, legal, information technology, business development, commercial, sales, marketing, communications and human resource functions. Other costs include the legal costs of pursuing patent protection of our intellectual property, general and

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administrative related facility costs, insurance costs and professional fees for accounting and legal services. As we continue to invest in the commercialization of LINZESS and ZURAMPIC, we expect our selling, general and administrative expenses will be substantial for the foreseeable future. We record all selling, general and administrative expenses as incurred.

Under our AstraZeneca collaboration agreement for linaclotide, we are reimbursed for certain selling, general and administrative expenses and we net these reimbursements against our selling, general and administrative expenses as incurred. We include Allergan's selling, general and administrative cost-sharing payments in the calculation of the net profits and net losses from the sale of LINZESS in the U.S. and present the net payment to or from Allergan as collaboration expense or collaborative arrangements revenue, respectively.

Amortization of Acquired Intangible Asset. Amortization expense is based on the economic consumption of intangible assets. Our amortization is related to the ZURAMPIC intangible asset, which is amortized on a straight-line basis over the estimated useful life. We believe that the straight-line method of amortization represents the pattern in which the economic benefits of the ZURAMPIC intangible asset are consumed.

(Gain)/Loss on Fair Value Remeasurement of Contingent Consideration. Our contingent consideration obligation related to the Lesinurad Transaction consists of the fair value of estimated future milestone and royalty payments. This liability is revalued at each reporting period. Changes in the fair value of our contingent consideration, other than changes due to payments, are recognized as a (gain)/loss on fair value remeasurement of contingent consideration in our condensed consolidated statement of operations. Adjustments are recorded when there are changes in significant assumptions, including net sales projections, probability weighted net cash outflow projections, the discount rate, passage of time, and the yield curve equivalent to our credit risk, which is based on the estimated cost of debt for market participants.

Other (Expense) Income. Interest expense consists primarily of cash and non-cash interest costs related to the 2022 Notes and the 2026 Notes. Non-cash interest expense consists of amortization of the debt discount and associated debt issuance costs associated with the 2022 Notes and 2026 Notes. We amortize these costs using the effective interest rate method over the life of the respective note agreements as interest expense in our condensed consolidated statements of operations.

Interest income consists of interest earned on our cash, cash equivalents and marketable securities.

In June 2015, in connection with the issuance of the 2022 Notes, we entered into convertible note hedge transactions, or the Convertible Note Hedges. Concurrently with entering into the Convertible Note Hedges, we also entered into certain warrant transactions in which we sold note hedge warrants, or the Note Hedge Warrants, to the Convertible Note Hedge counterparties to acquire 20,249,665 shares of our Class A common stock, subject to customary

anti-dilution adjustments. Gain (loss) on derivatives consists of the change in fair value of the Convertible Note Hedges and Note Hedge Warrants, which are recorded as derivative assets and liabilities. The Convertible Note Hedges and the Note Hedge Warrants are recorded at fair value at each reporting period and changes in fair value are recorded in our condensed consolidated statements of operations.

In September 2016, we closed a direct private placement, pursuant to which we issued $150.0 million in aggregate principal amount of 8.375% notes due 2026 on January 5, 2017, or the Funding Date. The proceeds from the issuance of the 2026 Notes were used to redeem the outstanding principal balance of the PhaRMA Notes on the Funding Date. This transaction is more fully described in Note 10, Notes Payable, to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our condensed consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make certain estimates and assumptions that may affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, and the amounts of revenues and expenses during the reported periods. Significant estimates and assumptions in our condensed consolidated financial statements include those related to revenue recognition including returns, rebates, and other pricing adjustments; available-for-sale securities; inventory valuation, and related reserves; impairment of long-lived assets; initial valuation procedures for the issuance of convertible notes; fair value of derivatives; balance sheet classification of notes payable and convertible notes; income taxes, including the

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valuation allowance for deferred tax assets; research and development expenses; goodwill; contingent consideration; acquired intangible assets; contingencies and share-based compensation. We base our estimates on our historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ materially from our estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

During the three and six months ended June 30, 2017, there were no material changes to our critical accounting policies as reported in our Annual Report on Form 10-K for the year ended December 31, 2016, which was filed with the Securities and Exchange Commission, or SEC, on February 22, 2017, or the 2016 Annual Report on Form 10-K.

Results of Operations

The following discussion summarizes the key factors our management believes are necessary for an understanding of our condensed consolidated financial statements.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
	(in thousands)		(in thousands)	
Revenues:				
Collaborative arrangements revenue	$ 64,612	$ 54,350	$ 116,489	$ 120,392
Product revenue	465	—	754	—
Total revenues	65,077	54,350	117,243	120,392
Cost and expenses:				
Cost of revenues, excluding amortization of acquired intangible asset	3,502	—	4,033	—
Write-down of lesinurad commercial supply to net realizable value and loss on non-cancellable purchase commitments	96	—	96	—
Research and development	37,344	31,682	71,046	63,524
Selling, general and administrative	57,792	36,918	113,396	73,086
Amortization of acquired intangible asset	421	1,065	841	1,065
Loss on fair value remeasurement of contingent consideration	6,933	—	8,547	—
Total cost and expenses	106,088	69,665	197,959	137,675
Loss from operations	(41,011)	(15,315)	(80,716)	(17,283)
Other (expense) income:				
Interest expense	(9,046)	(9,827)	(18,029)	(19,734)
Interest and investment income	496	295	891	516

Gain on derivatives	5,337	3,145	3,138	1,502
Loss on extinguishment of debt	—	—	(2,009)	—
Other expense, net	(3,213)	(6,387)	(16,009)	(17,716)
Net loss	$ (44,224)	$ (21,702)	$ (96,725)	$ (34,999)

Three and Six Months Ended June 30, 2017 Compared to Three and Six Months Ended June 30, 2016

Revenues

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2016	$	%	2017	2016	$	%
	(dollars in thousands)				(dollars in thousands)			
Revenues:								
Collaborative arrangements revenue	$ 64,612	$ 54,350	$ 10,262	19 %	$ 116,489	$ 120,392	$ (3,903)	(3) %
Product revenue, net	465	—	465	100 %	754	—	754	100 %
Total revenues	65,077	54,350	10,727	20 %	117,243	120,392	(3,149)	(3) %

Collaborative Arrangements Revenue. The increase in revenue from collaborative arrangements of approximately $10.3 million for the three months ended June 30, 2017 compared to the three months ended June 30,

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2016 was primarily related to an approximately $8.0 million increase in our share of the net profits from the sale of LINZESS in the U.S.; and an approximately $4.5 million increase in net revenue from shipments of linaclotide API to our linaclotide partners. The increases were partially offset by an approximately $2.3 million decrease due to revenue recognized related to the recognition of upfront payments and development milestones under our license agreement with Astellas in 2016.

The decrease in revenue from collaborative arrangements of approximately $3.9 million for the six months ended June 30, 2017 compared to the six months ended June 30, 2016 was primarily related to an approximately $17.0 million decrease attributable to the recognition of upfront payments and development milestones achieved under our license agreement with Astellas in 2016. The decreases were partially offset by an approximately $10.8 million increase in our share of the net profits from the sale of LINZESS in the U.S.; an approximately $1.7 million increase in net revenue from shipments of linaclotide API and drug product to our linaclotide partners; and an approximately $0.6 million increase in revenue under the Cologuard Co-Promotion Agreement with Exact Sciences.

Product Revenue, net. The increase in net product revenue of approximately $0.5 million and approximately $0.8 million for the three and six months ended June 30, 2017, compared to the three and six months ended June 30, 2016, respectively, is due to the recognition of net product sales of ZURAMPIC in the U.S. in 2017 based on prescription demand. We began commercializing ZURAMPIC in the U.S. in October 2016.

Cost and Expenses

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2016	$	%	2017	2016	$	%
	(dollars in thousands)				(dollars in thousands)			
Cost and expenses:								
Cost of revenues, excluding amortization of acquired intangible asset	$ 3,502	$ —	$ 3,502	100 %	$ 4,033	$ —	$ 4,033	100 %
Write-down of lesinurad commercial supply to net realizable value	96	—	96	100 %	96	—	96	100 %

and loss on non-cancellable purchase commitments										
Research and development	37,344	31,682	5,662	18	%	71,046	63,524	7,522	12	%
Selling, general and administrative	57,792	36,918	20,874	57	%	113,396	73,086	40,310	55	%
Amortization of acquired intangible asset	421	1,065	(644)	(60)	%	841	1,065	(224)	(21)	%
Loss on fair value remeasurement of contingent consideration	6,933	—	6,933	100	%	8,547	—	8,547	100	%
Total cost and expenses	$ 106,088	$ 69,665	$ 36,423	52	%	$ 197,959	$ 137,675	$ 60,284	44	%

Cost of Revenue, excluding amortization of acquired intangible asset. The increase of approximately $3.5 million for the three months ended June 30, 2017 compared to the three months ended June 30, 2016 was primarily related to an increase of approximately $2.9 million due to higher sales of linaclotide API to our partners, and approximately $0.6 million in costs associated with ZURAMPIC product sales. The increase of approximately $4.0 million for the six months ended June 30, 2017 compared to the six months ended June 30, 2016 was primarily related to an increase of approximately $3.0 million due to higher sales of linaclotide API to our partners, and approximately $1.0 million in costs associated with ZURAMPIC product sales. In October 2016, we began commercializing ZURAMPIC in the U.S.

Write-down of lesinurad commercial supply to net realizable value and loss on non-cancelable purchase commitments. The insignificant increase in write-down of lesinurad commercial supply and loss on non-cancelable purchase commitments for the three and six months ended June 30, 2017 compared to the three and six months ended June 30, 2016, was related to the write-down of prepaid ZURAMPIC commercial supply as a result of revised demand forecasts.

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Research and Development Expense. The increase in research and development expense of approximately $5.7 million for the three months ended June 30, 2017 compared to the three months ended June 30, 2016 was primarily related to an increase of approximately $3.1 million in research costs related to our early-stage pipeline candidates; an increase of approximately $0.9 million in compensation, benefits and other employee-related expenses primarily associated with increased headcount; an increase of approximately $0.6 million in professional services, including consulting and contractor expenses; an increase of approximately $0.6 million related to lesinurad development; and an increase of approximately $0.5 million in operating costs, including information technology-related costs allocated to research and development. These increases were partially offset by a decrease of approximately $0.3 million in external costs related to the development of linaclotide, net of reimbursements related to our linaclotide collaboration with Allergan for North America.

The increase in research and development expense of approximately $7.5 million for the six months ended June 30, 2017 compared to the six months ended June 30, 2016 was primarily related to an increase of approximately $3.8 million in research costs related to our early-stage pipeline candidates; an increase of approximately $3.4 million in costs related to lesinurad development; an increase of approximately $2.4 million in compensation, benefits and other employee-related expenses primarily associated with increased headcount; an increase of approximately $1.2 million in professional services, including consulting and contractor expenses; and an increase of approximately $0.6 million in operating costs, including information technology-related costs allocated to research and development. These increases were partially offset by a decrease of approximately $2.4 million in facility costs such as rent and amortization of leasehold improvements allocated to research and development; and a decrease of approximately $1.5 million in external costs related to the development of linaclotide, net of reimbursements related to our linaclotide collaboration with Allergan for North America.

Selling, General and Administrative Expense. Selling, general and administrative expenses increased approximately $20.9 million for the three months ended June 30, 2017 compared to the three months ended June 30, 2016 primarily as a result of increases in our workforce and infrastructure expenses due to the launch and commercialization of ZURAMPIC in the U.S. These increases include an approximately $9.6 million increase in compensation, benefits and other employee-related expenses associated with the increased headcount primarily in our field sales force; an approximately $4.5 million increase in costs associated with selling expenses and marketing programs; an approximately $2.9 million increase in costs related to facilities and information technology infrastructure, including rent; an approximately $2.1 million increase in external consulting costs and other service costs; and an approximately $1.8 million increase in costs associated with transitional support services related to the Lesinurad Transaction.

Selling, general and administrative expenses increased approximately $40.3 million for the six months ended June 30, 2017 compared to the six months ended June 30, 2016 primarily as a result of increases in our workforce and infrastructure expenses in support of the launch and commercialization of ZURAMPIC in the U.S. These increases include an approximately $18.1 million increase in compensation, benefits and other employee-related expenses associated with the increased headcount primarily in our field sales force; an approximately $9.8 million increase in costs associated with selling expenses and marketing programs; an approximately $5.1 million increase in external consulting costs and other service costs; an approximately $4.5 million increase in costs associated with transitional support services related to the Lesinurad Transaction; an approximately $1.5 million increase in costs related to

facilities and information technology infrastructure, including rent; and an approximately $1.3 million increase in sample expenses related to excess non-cancelable ZURAMPIC sample purchase commitments, pursuant to our forecasts, as a result of a reduction in near-term forecasted demand.

Amortization of Acquired Intangible Asset. The decrease in amortization of acquired intangible assets expense of approximately $0.7 million for the three months ended June 30, 2017 compared to the three months ended June 30, 2016 and approximately $0.2 million for the six months ended June 30, 2017 compared to the six months ended June 30, 2016, was due to the purchase price allocation adjustments recorded during the measurement period of the Lesinurad Transaction. The amount allocated to the ZURAMPIC intangible asset will be amortized on a straight-line basis over its estimated useful life of 13 years from the Acquisition Date, the period of estimated future cash flows.

Loss on Fair Value remeasurement of contingent consideration. The increase in the loss on fair value of the contingent consideration obligation of approximately $6.9 million for the three months ended June 30, 2017 compared to the three months ended June 30, 2016, as well as the increase of approximately $8.5 million for the six months ended June 30, 2017 compared to the six months ended June 30, 2016 was primarily due to the passage of time and changes in

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the yield curve equivalent to our credit risk, which was the estimated cost of debt financing for similar market participants used in the valuation.

Other (Expense) Income, Net

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2016	$	%	2017	2016	$	%
	(dollars in thousands)				(dollars in thousands)			
Other (expense) income:								
Interest expense	$ (9,046)	$ (9,827)	$ 781	(8) %	$ (18,029)	$ (19,734)	$ 1,705	(9) %
Interest and investment income	496	295	201	68 %	891	516	375	73 %
Gain on derivatives	5,337	3,145	2,192	70 %	3,138	1,502	1,636	109 %
Loss on extinguishment of debt	—	—	—	— %	(2,009)	—	(2,009)	(100) %
Total other expense, net	$ (3,213)	$ (6,387)	$ 3,174	(50) %	$ (16,009)	$ (17,716)	$ 1,707	(10) %

Interest expense decreased by approximately $0.8 million during the three months ended June 30, 2017 compared to the three months ended June 30, 2016, mainly due to a decrease of approximately $1.1 million in interest expense associated with the redemption of the PhaRMA Notes, as the 2026 Notes have a lower interest rate compared to the PhaRMA Notes, partially offset by an approximately $0.3 million increase in interest expense associated with the 2022 Notes. Interest expense decreased by approximately $1.7 million during the six months ended June 30, 2017 compared to the six months ended June 30, 2016, mainly due to a decrease of approximately $2.3 million in interest expense associated with the redemption of the PhaRMA Notes, as the 2026 Notes have a lower interest rate compared to the PhaRMA Notes, partially offset by an approximately $0.6 million increase in interest expense associated with the 2022 Notes.

Interest and investment income increased by approximately $0.2 million and approximately $0.4 million during the three and six months ended June 30, 2017, respectively, compared to the three and six months ended June 30, 2016, respectively, mainly due to an increase in the available-for-sale investments balance during 2017.

For the three months ended June 30, 2017, we recorded a gain on derivatives of approximately $5.3 million resulting from an approximately $21.4 million increase in the fair value of the Convertible Note Hedges and an approximately $16.1 million increase in the fair value of the Note Hedge Warrants. For the three months ended June 30, 2016, we recorded a gain on derivatives of approximately $3.1 million resulting from an approximately $21.8 million increase in the fair value of the Convertible Note Hedges and an approximately $18.7 million increase in the fair value of the Note Hedge Warrants.

For the six months ended June 30, 2017, we recorded a gain on derivatives of approximately $3.1 million resulting from an approximately $39.3 million increase in the fair value of the Convertible Note Hedges and an approximately $36.2 million increase in the fair value of the Note Hedge Warrants. For the six months ended June 30, 2016, we recorded a gain on derivatives of approximately $1.5 million resulting from an approximately $13.0 million increase in the fair value of the Convertible Note Hedges and an approximately $11.5 million decrease in the fair value of the Note Hedge Warrants.

Loss on extinguishment of debt was approximately $2.0 million during the six months ended June 30, 2017. This is due to the write-off of the remaining unamortized debt issuance costs on the PhaRMA Notes as part of the redemption in January 2017.

Liquidity and Capital Resources

At June 30, 2017, we had approximately $272.9 million of unrestricted cash, cash equivalents and available-for-sale securities. Our cash equivalents include amounts held in money market funds, U.S. Treasury Securities and U.S. government sponsored securities. Our available-for-sale securities include amounts held in U.S. Treasury securities and U.S. government-sponsored securities. We invest cash in excess of immediate requirements in accordance with our investment policy, which limits the amounts we may invest in any one type of investment and requires all investments

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held by us to be at least A+ rated, with a remaining maturity when purchased of less than twelve months, so as to primarily achieve liquidity and capital preservation.

During the six months ended June 30, 2017, our balances of cash, cash equivalents and available-for-sale securities decreased approximately $32.3 million. This decrease is primarily due to approximately $134.3 million paid to redeem our outstanding PhaRMA Notes, as well as the approximately $59.1 million of cash used to operate our business, including payments related to, among other things, research and development, and selling, general and administrative expenses as we continue to invest in our research pipeline and support the continued commercialization of our products. We also invested approximately $1.8 million in capital expenditures, and made payments of approximately $1.6 million on capital lease obligations. These cash outflows were partially offset by approximately $146.3 million in proceeds from the issuance of the 2026 Notes, and approximately $18.5 million in proceeds from the exercise of stock options.

In September 2016, we closed a direct private placement, pursuant to which we issued $150.0 million in aggregate principal amount of 8.375% notes due 2026 on January 5, 2017. The proceeds from the issuance of the 2026 Notes were used to redeem the outstanding principal balance of the PhaRMA Notes on the Funding Date. We began making interest payments on June 15, 2017. From March 15, 2019, we are obligated to make quarterly payments on the 2026 Notes. Given the principal payments on the 2026 Notes will vary from quarter to quarter, the 2026 Notes may be repaid prior to September 15, 2026, the final legal maturity date.

We may from time to time seek to retire, redeem or repurchase all or part of our outstanding debt through cash purchases and/or exchanges, in open market purchases, privately negotiated transactions, by tender offer or otherwise. Such repurchases, redemptions or exchanges, if any, will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors, and the amounts involved may be material.

Sources of Liquidity

We have incurred losses since our inception in 1998 and, as of June 30, 2017, we had an accumulated deficit of approximately $1.3 billion. We have financed our operations to date primarily through both the private sale of our preferred stock and the public sale of our common stock, including approximately $203.2 million of net proceeds from our initial public offering, or IPO, in February 2010, and approximately $413.4 million of net proceeds from our follow-on public offerings; payments received under our strategic collaborative arrangements, including upfront and milestone payments, royalties and our share of net profits, as well as reimbursement of certain expenses; and debt financings, including approximately $324.0 million of net proceeds from the private placement of our 2022 Notes in June 2015 and approximately $11.2 million of net proceeds, after fees and the redemption of the PhaRMA Notes, from the issuance of $150.0 million in aggregate principal amount of the 2026 Notes in January 2017.

Funding Requirements

We began commercializing LINZESS in the U.S. with our collaboration partner, Allergan, in the fourth quarter of 2012, and we currently derive substantially all of our revenue from this collaboration. Additionally, we began commercializing ZURAMPIC in the U.S. for the treatment of uncontrolled gout in the fourth quarter of 2016. We are also deploying significant resources to advance product opportunities in IBS-C/CIC, abdominal pain associated with lower GI disorders, hyperuricemia associated with uncontrolled gout, uncontrolled GERD, and vascular and fibrotic diseases. Our goal is to become cash flow positive, driven by increased revenue generated through sales of LINZESS, ZURAMPIC, DUZALLO (if approved), and financial discipline. However, we have not achieved positive cash flows from operations to date.

Under our collaboration with Allergan for North America, total net sales of LINZESS in the U.S., as recorded by Allergan, are reduced by commercial costs incurred by each party, and the resulting amount is shared equally between us and Allergan. Additionally, we receive royalties from Allergan based on sales of linaclotide in its licensed territories outside of the U.S. We believe revenues from our LINZESS partnership for the U.S. with Allergan will continue to constitute a significant portion of our total revenue for the foreseeable future and we cannot be certain that such revenues, as well as the revenues from our other commercial activities including sales of ZURAMPIC, DUZALLO (if approved) and any other product, will enable us to become cash flow positive, or to do so in the timeframes we expect. We also anticipate that we will continue to incur substantial expenses for the next several years as we further develop and commercialize linaclotide in the U.S., China and other markets, develop and commercialize lesinurad in the U.S., and continue to invest in our pipeline and potentially other external opportunities. We believe that our cash on hand

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as of June 30, 2017 will be sufficient to meet our projected operating needs at least through the next twelve months from the issuance of these financial statements.

Our forecast of the period of time through which our financial resources will be adequate to support our operations, including the underlying estimates regarding the costs to develop our product candidates and obtain regulatory approvals and the costs to commercialize linaclotide in the U.S., China and other markets, and develop and commercialize lesinurad in the U.S., as well as our goal to become cash flow positive, are forward-looking statements that involve risks and uncertainties. Our actual results could vary materially and negatively from these and other forward-looking statements as a result of a number of factors, including the factors discussed in the "Risk Factors" section of this Quarterly Report on Form 10-Q. We have based our estimates on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect.

Due to the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate precisely the amounts of capital outlays and operating expenditures necessary to develop, obtain regulatory approval for, and commercialize linaclotide, lesinurad and our other product candidates, in each case, for all of the markets, indications, populations and formulations for which we believe each is suited. Our funding requirements will depend on many factors, including, but not limited to, the following:

- the revenue generated by sales of LINZESS, CONSTELLA, ZURAMPIC, DUZALLO (if approved), and any other products we promote;

- the rate of progress and cost of our commercialization activities, including the expense we incur in marketing and selling LINZESS, ZURAMPIC and any other products;

- the success of our third-party manufacturing activities;

- the time and costs involved in developing, and obtaining regulatory approvals for, our product candidates, as well as the timing and cost of any post-approval development and regulatory requirements;

- the success of our research and development efforts;

- the emergence of competing or complementary products;

- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

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the terms and timing of any additional collaborative, licensing or other arrangements that we may establish, including royalties or other payments due or payable under such agreements; and

· the acquisition of businesses, products and technologies and the impact of other strategic transactions, as well as the cost and timing of integrating any such assets into our business operations.

Financing Strategy

We may, from time to time, consider additional funding through a combination of new collaborative arrangements, strategic alliances, and additional equity and debt financings or from other sources. We will continue to manage our capital structure and to consider all financing opportunities, whenever they may occur, that could strengthen our long-term liquidity profile. Any such capital transactions may or may not be similar to transactions in which we have engaged in the past. There can be no assurance that any such financing opportunities will also be available on acceptable terms, if at all.

Contractual Commitments and Obligations

The disclosure of our contractual obligations and commitments was reported in our 2016 Annual Report on Form 10-K. There have not been any material changes from the contractual commitments and obligations previously disclosed in our 2016 Annual Report on Form 10-K other than a change in estimated obligations due to our landlord under the terms of our operating lease, entered into in January 2007, as amended, for our Cambridge, Massachusetts corporate headquarters and a reduction in reimbursement obligations to AstraZeneca under the Lesinurad License. These

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changes are more fully described in Note 11, Commitments and Contingencies, to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Off-Balance Sheet Arrangements

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, that would have been established for the purpose of facilitating off-balance sheet arrangements (as that term is defined in Item 303(a)(4)(ii) of Regulation S-K) or other contractually narrow or limited purposes. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in those types of relationships. We enter into guarantees in the ordinary course of business related to the guarantee of our own performance and the performance of our subsidiaries.

New Accounting Pronouncements

For a discussion of recent accounting pronouncements please refer to Note 2, Summary of Significant Accounting Policies, in our 2016 Annual Report on Form 10-K and Note 1, Nature of Business, appearing elsewhere in this Quarterly Report on Form 10-Q. We did not otherwise adopt any new accounting pronouncements during the three and six months ended June 30, 2017 that had a material effect on our condensed consolidated financial statements included in this report.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

We are exposed to market risk related to changes in interest rates. We invest our cash in a variety of financial instruments, principally securities issued by the U.S. government and its agencies and money market instruments. The goals of our investment policy are preservation of capital, fulfillment of liquidity needs and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk.

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of interest rates, particularly because our investments are in short-term marketable securities. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 1% change in interest rates would not have a material effect on the fair market value of our portfolio. Accordingly, we would not expect our

operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

We do not believe our cash, cash equivalents and available-for-sale securities have significant risk of default or illiquidity. While we believe our cash, cash equivalents and available-for-sale securities do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash, cash equivalents and available-for-sale securities at one or more financial institutions that are in excess of federally insured limits. Given the potential instability of financial institutions, we cannot provide assurance that we will not experience losses on these deposits.

Our capital lease obligations, 2026 Notes and 2022 Notes bear interest at a fixed rate and therefore have minimal exposure to changes in interest rates; however, because these interest rates are fixed, we may be paying a higher interest rate, relative to market, in the future if our credit rating improves or other circumstances change.

Equity Price Risk

2022 Notes

Our 2022 Notes include conversion and settlement provisions that are based on the price of our Class A common stock at conversion or at maturity of the 2022 Notes. The amount of cash we may be required to pay is determined by the price of our Class A common stock. The fair value of our 2022 Notes is dependent on the price and volatility of our Class A common stock and will generally increase or decrease as the market price of our Class A common stock changes.

The 2022 Notes are convertible into Class A common stock at an initial conversion rate of 60.3209 shares of Class A common stock (subject to adjustment as provided for in the indenture that governs the 2022 Notes) per $1,000

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principal amount of the 2022 Notes, which is equal to an initial conversion price of approximately $16.58 per share. The 2022 Notes will mature on June 15, 2022 unless earlier converted or repurchased. The 2022 Notes bear cash interest at an annual rate of 2.25%, payable on June 15 and December 15 of each year, which began on December 15, 2015. As of June 30, 2017, the fair value of the 2022 Notes was estimated by us to be $450.5 million. The 2022 Notes are more fully described in Note 6, Fair Value of Financial Instruments, and Note 10, Notes Payable, in the accompanying notes to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Convertible Note Hedge and Warrant Transactions with Respect to 2022 Notes

To minimize the impact of potential dilution to our common stock upon conversion of the 2022 Notes, we entered into Convertible Note Hedges. Concurrently with entering into the Convertible Note Hedges, we entered into warrant transactions whereby we sold Note Hedge Warrants to acquire, subject to customary adjustments, 20,249,665 shares of our Class A common stock at an initial strike price of approximately $21.50 per share, subject to adjustment. The Convertible Note Hedges and Note Hedge Warrants are more fully described in Note 10, Notes Payable, in the accompanying notes to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Foreign Currency Risk

We have no significant operations outside the U.S. and we do not expect to be impacted significantly by foreign currency fluctuations.

Effects of Inflation

We do not believe that inflation and changing prices over the three and six months ended June 30, 2017 and 2016 had a significant impact on our results of operations.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) of the Securities Exchange Act of 1934, or the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation as of the end of the period covered by this Quarterly Report on Form 10-Q of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective at the reasonable assurance level in ensuring that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports we file under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control

As required by Rule 13a-15(d) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation of the internal control over financial reporting to determine whether any changes occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Based on that evaluation, our principal executive officer and principal financial officer concluded no such changes during the period covered by this Quarterly Report on Form 10-Q materially affected, or were reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

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Actions in which we are the Plaintiff

LINZESS

We and Allergan have received Paragraph IV certification notice letters, or Notice Letters, regarding Abbreviated New Drug Applications, or ANDAs, submitted to the FDA by generic drug manufacturers requesting approval to engage in commercial manufacture, use, sale and offer for sale of linaclotide capsules (145 mcg and 290 mcg), or the Potential Generic Products, proposed generic versions of our FDA-approved drug LINZESS. In October 2016, we received a Notice Letter relating to an ANDA that was submitted to the FDA by Teva Pharmaceuticals USA, Inc., or Teva. Teva's Notice Letter contends that the United States patents for LINZESS (U.S. Patent Nos. 7,371,727, 7,704,947, 7,745,409, 8,080,526, and 8,110,553 (expiring 2024); 7,304,036 (expiring 2026); and 8,748,573, 8,802,628, and 8,933,030 (expiring 2031), or the Challenged Patents) listed in the FDA's list of Approved Drug Products with Therapeutic Equivalence Evaluations, commonly referred to as the Orange Book, are invalid, unenforceable and/or would not be infringed by Teva's manufacture, use, sale or offer for sale of the Potential Generic Products. Also in October 2016, we received a Notice Letter relating to an ANDA that was submitted to the FDA by Aurobindo Pharma Ltd., or Aurobindo. Aurobindo's Notice Letter contends that certain of the Challenged Patents (U.S. Patent Nos. 8,748,573, 8,802,628, and 8,933,030 (expiring 2031)) are invalid and/or would not be infringed by Aurobindo's manufacture, use, sale or offer for sale of the Potential Generic Products. In July 2017, we received a second Notice Letter relating to the ANDA submitted to the FDA by Aurobindo. Aurobindo's second Notice Letter contends that the other Challenged Patents (U.S. Patent Nos. 7,371,727, 7,704,947, 7,745,409, 8,080,526, 8,110,553, and 7,304,036) are invalid and/or would not be infringed by Aurobindo's manufacture, use, sale or offer for sale of the Potential Generic Products. In November 2016, we received a Notice Letter relating to an ANDA that was submitted to the FDA by Sandoz Inc., or Sandoz. Sandoz's Notice Letter contends that all of the Challenged Patents are invalid, unenforceable and/or would not be infringed by Sandoz's manufacture, use, sale or offer for sale of the Potential Generic Products. Also in November 2016, we received a Notice Letter relating to an ANDA that was submitted to the FDA by Mylan Pharmaceuticals Inc., or Mylan. Mylan's Notice Letter contends that all of the Challenged Patents are invalid, unenforceable and/or would not be infringed by Mylan's manufacture, use, sale or offer for sale of the Potential Generic Products. In May 2017, we received a Notice Letter relating to an ANDA that was submitted to the FDA by Sun Pharma Global FZE, or Sun. Sun's Notice Letter contends that certain of the Challenged Patents (U.S. Patent Nos. 8,748,573, 8,802,628, and 8,933,030 (expiring 2031)) are invalid and/or would not be infringed by Sun's manufacture, use, sale or offer for sale of the Potential Generic Products.

In response to the four ANDAs received in 2016, we and Allergan filed a lawsuit against these generic drug manufacturers in Delaware District Court in November 2016. We asserted that the Challenged Patents are valid and infringed by Teva, Sandoz and Mylan, and that U.S. Patent No. 8,933,030 is valid and infringed by Aurobindo and an affiliate of Aurobindo. In June 2017, we and Allergan filed a lawsuit against Sun and an affiliate of Sun in Delaware District Court. We asserted that U.S. Patent No. 8,933,030 is valid and infringed by Sun and its affiliate. In accordance with the Hatch-Waxman Act, the timely filing of the lawsuits against the ANDA filers triggered an automatic stay of the FDA's approval of the five ANDAs until February 29, 2020 (unless there is a final court decision adverse to us and Allergan sooner). Mylan responded in December 2016, asserting defenses of, among other things, lack of subject matter and personal jurisdiction and improper venue. In January 2017, each of Teva and Sandoz filed an answer and counterclaims seeking declaratory judgment of invalidity and non-infringement of the Challenged Patents. In April 2017, Aurobindo filed an answer and counterclaims seeking declaratory judgment of invalidity and

non-infringement of U.S. Patent No. 8,933,030. On July 13, 2017, Mylan filed a motion to dismiss for improper venue. Trial is scheduled in June 2019 for the action involving Teva, Sandoz, Mylan and Aurobindo.

Item 1A. Risk Factors

In addition to the other information in this Quarterly Report on Form 10-Q, any of the factors described below could significantly and negatively affect our business, financial condition, results of operations or prospects. The trading price of our Class A common stock may decline due to these risks.

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Risks Related to Our Business and Industry

We are highly dependent on the commercial success of LINZESS in the U.S. for the foreseeable future and we are also dependent on the commercial success of ZURAMPIC; we cannot guarantee when, or if, we will attain profitability or positive cash flows.

We and our partner, Allergan plc (together with its affiliates), or Allergan, began selling LINZESS in the U.S. during December 2012. In June 2016, we licensed exclusive rights to commercialize ZURAMPIC and other products containing lesinurad in the U.S. and we began selling ZURAMPIC in October 2016. While we believe that the revenues from our LINZESS collaboration will continue to constitute a significant portion of our total revenue for the foreseeable future, revenue from sales of ZURAMPIC is also important to our financial success. The commercial success of LINZESS and ZURAMPIC depend on a number of factors, including:

- the effectiveness of LINZESS as a treatment for adult patients with irritable bowel syndrome with constipation, or IBS-C, or chronic idiopathic constipation, or CIC, and the effectiveness of ZURAMPIC as a treatment for patients with hyperuricemia associated with uncontrolled gout;
- the size of the treatable patient populations;
- the effectiveness of the sales, managed markets and marketing efforts for LINZESS by us and Allergan and for ZURAMPIC by us;
- the adoption of LINZESS and ZURAMPIC by physicians, which depends on whether physicians view such products as safe and effective treatments for their approved patient populations and indications;
- our success in educating and activating potential patients to enable them to more effectively communicate their symptoms and treatment history to their physicians;
- our ability to both secure and maintain adequate reimbursement for, and optimize patient access to, LINZESS and ZURAMPIC by providing third party payers with a strong value proposition based on the existing burden of illness associated with IBS-C and CIC or hyperuricemia associated with uncontrolled gout, respectively, and the benefits of these products;
- the effectiveness of Allergan’s distribution networks for LINZESS and the effectiveness of the distribution strategy and networks for ZURAMPIC;

- the occurrence of any side effects, adverse reactions or misuse, or any unfavorable publicity in these areas, associated with LINZESS or ZURAMPIC; and

- the development or commercialization of competing products or therapies for the treatment of IBS-C or CIC, or their associated symptoms, for LINZESS or for the treatment of hyperuricemia associated with uncontrolled gout, or its associated symptoms, for ZURAMPIC.

Our revenues from the commercialization of LINZESS and ZURAMPIC are subject to these factors, and therefore may be unpredictable from quarter-to-quarter. Ultimately, we may never generate sufficient revenues from LINZESS and ZURAMPIC to reach or maintain profitability for our company or to sustain our anticipated levels of operations.

Linaclotide and lesinurad may cause undesirable side effects or have other properties that could limit their commercial potential.

The most commonly reported adverse reaction since linaclotide became commercially available, as well as in the clinical trials for linaclotide in IBS-C and CIC, has been diarrhea. In the linaclotide Phase III IBS-C and CIC trials, severe diarrhea was reported in 2% or less of the linaclotide-treated patients and its incidence was similar between the IBS-C and CIC populations. Linaclotide has been prescribed to more than one and a half million patients since its launch in the U.S. and other territories beginning in December 2012, and, as a result, it has been used in wider populations and in less rigorously controlled environments than in the clinical studies supporting its approval.

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The most commonly reported adverse reactions in the clinical trials for ZURAMPIC (in combination with a xanthine oxidase inhibitor, or XOI) for the treatment of hyperuricemia associated with uncontrolled gout were headache, influenza, increased blood creatinine and gastroesophageal reflux disease. ZURAMPIC was launched in October 2016, and, as a result, it is being used in wider populations and in less rigorously controlled environments than in the clinical studies supporting its approval. Additionally, because ZURAMPIC is approved for use in combination with an XOI for the treatment of hyperuricemia associated with uncontrolled gout, our patients may experience side effects and adverse reactions associated with the use of such XOIs. Notwithstanding its U.S. Food and Drug Administration, or FDA, -approved label, if ZURAMPIC is taken without an XOI, patients may experience new or increased risk of adverse reactions, including the heightened risk of acute renal failure.

Further, as we, our partners and, in the case of lesinurad, AstraZeneca's other licensees, conduct clinical trials, including in new or existing territories, indications, populations or formulations, as well as explore potential combination products, the number of patients treated with our products within and outside of such products' currently approved indications and patient populations has grown and continues to do so.

As patient experience expands, we and others may identify previously unknown side effects, known side effects may be found to be more frequent or severe than in the past, and we and others may detect unexpected safety signals for our products or any products perceived to be similar to our products. The foregoing, or the perception of the foregoing, may have the following effects:

- sales of our products may be impaired;
- regulatory approvals for our products may be denied, restricted or withdrawn;
- we or our partners may decide to, or be required to, change the products' label or send product warning letters or field alerts to physicians, pharmacists and hospitals;
- reformulation of the products, additional nonclinical or clinical studies, changes in labeling or changes to or reapprovals of manufacturing facilities may be required;
- we or our partners may be precluded from pursuing approval of linaclotide in new territories or from studying additional development opportunities to enhance our products' clinical profiles, including within new or existing indications, populations and formulations, as well as in potential combination products;
- our or our products' reputation in the marketplace may suffer; and

· government investigations or lawsuits, including class action suits, may be brought against us or our partners.

Any of the above occurrences would harm or prevent sales of our products, increase expenses and impair our and our partners' ability to successfully commercialize linaclotide or our ability to successfully commercialize lesinurad.

In addition, both LINZESS and ZURAMPIC contain a boxed warning about their use. The FDA-approved label for LINZESS contains a boxed warning about its use in pediatric patients. LINZESS is contraindicated in pediatric patients up to 6 years of age based on nonclinical data from studies in neonatal mice approximately equivalent to human pediatric patients less than 2 years of age. There is also a warning advising physicians to avoid the use of LINZESS in pediatric patients 6 to less than 18 years of age. This warning is based on data in young juvenile mice and the lack of clinical safety and efficacy data in pediatric patients of any age group. We and Allergan have established a nonclinical and clinical post-marketing plan with the FDA to understand the safety and efficacy of LINZESS in pediatric patients, which is discussed below.

The FDA-approved label for ZURAMPIC contains a boxed warning about the risk of acute renal failure with ZURAMPIC, which is more common when ZURAMPIC is used without an XOI. ZURAMPIC is contraindicated in patients with severe renal impairment or end-stage renal diseases, kidney transplant recipients, patients on dialysis or patients with tumor lysis syndrome or Lesch-Nyhan syndrome. The FDA has required that a post-marketing clinical study be conducted to further evaluate the renal and cardiovascular safety of ZURAMPIC, which AstraZeneca is currently conducting on our behalf, and which is discussed below.

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We rely entirely on contract manufacturers and our partners to manufacture and distribute linaclotide and lesinurad. If they are unable to comply with applicable regulatory requirements, unable to source sufficient raw materials, experience manufacturing or distribution difficulties, or are otherwise unable to manufacture and distribute sufficient quantities to meet demand, our commercialization efforts may be materially harmed.

We have no internal manufacturing or distribution capabilities. Instead, we rely on a combination of contract manufacturers and our partners to manufacture active pharmaceutical ingredient, or API, and final drug product, and to distribute that drug product to third party purchasers. With respect to linaclotide, we and certain of our partners have commercial supply agreements with independent third parties to manufacture the linaclotide API used to support all of our partnered territories. Each of Allergan and Astellas is responsible for linaclotide drug product and finished goods manufacturing (including bottling and packaging) for its respective territories, and distributing the finished goods to wholesalers. Among our linaclotide drug product manufacturers, only Allergan has significant experience in manufacturing linaclotide on a commercial scale. We have an agreement with an independent third party to serve as an additional source of drug product manufacturing of linaclotide for our partnered territories and we have worked with our partners to achieve sufficient redundancy in this component of the linaclotide supply chain. Under our collaboration with AstraZeneca for linaclotide, we are accountable for drug product and finished goods manufacturing for China and Macau, and for drug product manufacturing for Hong Kong, with AstraZeneca accountable for finished goods manufacturing for Hong Kong.

With respect to lesinurad, we have a commercial supply agreement with AstraZeneca to manufacture finished drug product and a transitional services agreement with AstraZeneca for certain services, such as distribution. We rely exclusively on AstraZeneca as our supplier of finished drug product for ZURAMPIC. If, for any reason, AstraZeneca is unable or unwilling to perform under our commercial supply agreement or if AstraZeneca performs poorly, our ability to timely deliver ZURAMPIC to our customers would be significantly impaired or we might not be able to supply ZURAMPIC to our customers at all. The sales of ZURAMPIC would be adversely affected and such failure to deliver finished drug product to our customers would negatively impact our reputation. If such event occurs, we would need to identify alternate manufacturers and we would expend time and effort to validate and obtain necessary regulatory approvals for such alternative manufacturers and there is no assurance that we would be able to identify alternative manufacturers that would be available to us on acceptable terms, if at all.

Each of our API and drug product manufacturers must comply with current good manufacturing practices, or GMP, and other stringent regulatory requirements enforced by the FDA and foreign regulatory authorities in other jurisdictions. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation, which occur in addition to our own quality assurance releases. Manufacturers of our products may be unable to comply with these GMP requirements and with other regulatory requirements. We have little control over our manufacturers' or partners' compliance with these regulations and standards.

Our manufacturers may experience problems with their respective manufacturing and distribution operations and processes, including for example, quality issues, such as product specification and stability failures, procedural

deviations, improper equipment installation or operation, utility failures, contamination and natural disasters. In addition, the raw materials necessary to make API for our products are acquired from a limited number of sources. Any delay or disruption in the availability of these raw materials or a change in raw material suppliers could result in production disruptions, delays or higher costs with consequent adverse effects on us.

The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in commercial production. These problems include difficulties with production costs and yields, quality control, including stability of the product and quality assurance testing, and shortages of qualified personnel, as well as compliance with federal, state and foreign regulations and the challenges associated with complex supply chain management. Even if our manufacturers or partners do not experience problems and commercial manufacturing is achieved, their maximum or available manufacturing capacities may be insufficient to meet commercial demand. Finding alternative manufacturers or adding additional manufacturers requires a significant amount of time and involves significant expense. New manufacturers would need to develop and implement the necessary production techniques and processes, which along with their facilities, would need to be inspected and approved by the regulatory authorities in each applicable territory.

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If our API or drug product manufacturers fail to adhere to applicable GMP or other regulatory requirements, experience delays or disruptions in the availability of raw materials or experience manufacturing or distribution problems, we will suffer significant consequences, including product seizures or recalls, loss of product approval, fines and sanctions, reputational damage, shipment delays, inventory shortages, inventory write-offs and other product-related charges and increased manufacturing costs. If we experience any of these results, or if our manufacturers' maximum or available capacities are insufficient to meet demand, we may not be able to successfully commercialize our products.

Expanding and maintaining our commercial infrastructure for ZURAMPIC and lesinurad is a significant undertaking that requires substantial financial and managerial resources, and we may encounter delays or may not be successful in our efforts.

While we are currently marketing and selling LINZESS in the U.S. with our partner Allergan, ZURAMPIC is our first solely marketed product in the U.S. and we have limited experience in acquiring and integrating additional products into our current commercial infrastructure. Unlike LINZESS, we are solely responsible for the commercialization of ZURAMPIC and we do not have significant experience with all components of a commercial launch of this size without a partner. Establishing, maintaining and/or expanding the necessary capabilities are competitive and time-consuming and the commercialization of ZURAMPIC requires a significant expenditure of operating, financial and management resources. Even with those investments, we may not be able to maximize our sales of ZURAMPIC or we may incur more expenditures than anticipated in order to maximize our sales. We cannot guarantee that we will be able to establish, maintain and/or expand our sales, marketing, distribution and market access capabilities, and enter into and maintain any agreements necessary for commercialization with payers and third-party providers on acceptable terms, if at all. If we are unable to establish, maintain and/or expand such capabilities, either on our own or by entering into agreements with others, or are unable to do so in an efficient manner or on a timely basis, we will not be able to maximize our sales of ZURAMPIC, which would adversely affect our business, operating results and financial condition.

We also have no prior experience as a company developing or commercializing products in the field of uncontrolled gout. While we have significant experience, and have been successful, in marketing LINZESS to primary care physicians and other prescribers, our competitors in the field of uncontrolled gout have more experience marketing products in this indication and may more successfully market their products. Our competitors may also develop, manufacture and market products to treat hyperuricemia associated with uncontrolled gout that are more effective or less expensive than ours, or that have a better safety profile.

We will incur additional expenses to successfully integrate ZURAMPIC and, if developed, other lesinurad products with our business operations and such integration has been, and will be, a complex and time-consuming process. We refer to ZURAMPIC and other potential lesinurad products as the Lesinurad Business. There may be substantial difficulties, costs and delays relating to establishing and maintaining certain capabilities necessary to commercialize ZURAMPIC and transitioning certain activities from AstraZeneca. Such integration may result in the distraction of management and key functional areas from day-to-day operations and the diversion of financial resources that would otherwise be available for the ongoing development or commercialization of our other programs.

Even if the commercialization of ZURAMPIC and the integration of the Lesinurad Business are successful, we may fail to further our business strategy as anticipated or to achieve anticipated benefits and success. We have made assumptions relating to the impact of the Lesinurad Business on our financial results relating to numerous matters, including the amount of goodwill and intangible assets related to the Lesinurad Business, the cost of development and commercialization of ZURAMPIC and other potential lesinurad products, the likelihood of approval of DUZALLO, the fixed dose combination product containing lesinurad and allopurinol, and the associated costs and impact and the other financial and strategic risks related to the acquisition of the Lesinurad Business. We may incur higher than expected operating, transaction and integration costs, and we may encounter general economic and business conditions that adversely affect the Lesinurad Business. If one or more of these assumptions are incorrect, it could have an adverse effect on our business and operating results, and the benefits from the acquisition of the Lesinurad Business may not be realized or be of the magnitude expected.

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We rely on AstraZeneca to provide critical support services in our efforts to market and sell ZURAMPIC in the U.S. and to conduct certain development, regulatory and safety activities for lesinurad.

As part of our acquisition of the Lesinurad Business, AstraZeneca has agreed to provide us with critical transition services, including services related to market access and reimbursement, sales and distribution and certain finance and financial reporting services. AstraZeneca is also obligated to undertake certain development, regulatory and safety activities relating to lesinurad, including certain activities related to the post-marketing clinical trial for ZURAMPIC required by the FDA (the conduct of which we and AstraZeneca have agreed to transition to us) and many activities for DUZALLO. We need to work collaboratively with AstraZeneca to ensure that such services are provided in an effective and timely manner. We have limited ability to control the amount or timing of resources that AstraZeneca devotes to such services. If AstraZeneca fails to devote sufficient time and resources to conducting such services, performs such services in a substandard manner, materially breaches its obligations to conduct such services or undergoes a change of control, it will delay or hinder our ability to successfully commercialize ZURAMPIC and will delay the potential approval of a regulatory application for DUZALLO. Additionally, if AstraZeneca (before transfer of such obligation to us) fails to conduct and complete activities related to the post-marketing clinical trial for ZURAMPIC in an effective, compliant and timely manner, the FDA may impose additional restrictions on the use of ZURAMPIC until the post-marketing clinical trial is completed and the further development of lesinurad may be delayed.

We also rely on AstraZeneca to provide us with information about ZURAMPIC and other potential lesinurad products that may be critical to the development and the commercial success of such products in the U.S. For example, as the holder of the global safety database for lesinurad, AstraZeneca is responsible for coordinating the safety surveillance and adverse event reporting efforts worldwide with respect to lesinurad. We, and AstraZeneca's other licensees of lesinurad throughout the world, are required to submit safety data and information about adverse events related to ZURAMPIC and other potential lesinurad products to AstraZeneca. If AstraZeneca fails to maintain such database or if AstraZeneca's other licensees do not report adverse events related to ZURAMPIC and, if developed, other lesinurad products, or fail to do so in a timely manner, we may not receive the information that we are required to report to the FDA regarding ZURAMPIC and lesinurad. The FDA may impose additional restrictions on the use of ZURAMPIC or other potential lesinurad products if a delay in reporting such adverse events occurs. In addition, AstraZeneca is responsible for notifying us of certain material intellectual property related to lesinurad that is developed by it or its other licensees of lesinurad. If AstraZeneca does not notify us of such intellectual property or AstraZeneca's licensees fail to report such intellectual property to AstraZeneca, or, in each case, fail to provide such information on a timely basis, we may not be able to commercialize ZURAMPIC and other potential lesinurad products as effectively or efficiently.

If any of our linaclotide partners undergoes a change in control or in management, this may adversely affect our collaborative relationship or the success of the commercialization of linaclotide in the U.S. or in the other countries where it is approved, or the ability to achieve regulatory approval, launch and commercialize linaclotide in our other partnered territories.

We work jointly and collaboratively with each of our partners on many aspects of the development, manufacturing and commercialization of linaclotide. In doing so, we have established relationships with several key members of the management teams of our linaclotide partners in functional areas such as development, quality, regulatory, drug safety and pharmacovigilance, operations, marketing, sales, field operations and medical science. Further, the success of our collaborations is highly dependent on the resources, efforts and skills of our partners and their key employees. As we and our partners commercialize linaclotide in the U.S. and the other countries where it is approved, and develop, launch and commercialize linaclotide in other parts of the world, the drug's success becomes more dependent on us maintaining highly collaborative and well aligned partnerships. If any of our linaclotide partners undergo a change of control or in management in the future, we would need to reestablish many relationships and confirm continued alignment on our development and commercialization strategy for linaclotide. Further, in connection with any change of control or in management, there is inherent uncertainty and disruption in operations, which could result in distraction, inefficiencies, and misalignment of priorities. As a result, in the event of a change of control or in management at one of our linaclotide partners, we cannot be sure that we will be able to successfully execute on our development and commercialization strategy for linaclotide in an effective and efficient manner and without disruption or reduced performance. Finally, any change of control or in management may result in a reprioritization of linaclotide within a partner's portfolio, or such partner may fail to maintain the financial or other resources necessary to continue supporting its portion of the development, manufacturing or commercialization of linaclotide.

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If any of our linaclotide partners undergoes a change of control and the acquirer either is unable to perform such partner's obligations under its collaboration or license agreement with us or has a product that competes with linaclotide that such acquirer does not divest, we have the right to terminate the collaboration or license agreement and reacquire that partner's rights with respect to linaclotide. If we elect to exercise these rights in such circumstances, we will need to either establish the capability to develop, manufacture and commercialize linaclotide in that partnered territory on our own or we will need to establish a relationship with a new partner. We have assembled a team of specialists in manufacturing, quality, sales, marketing, payer, pricing and field operations, and specialized medical scientists, who represent the functional areas necessary for a successful commercial launch of a high potential, gastrointestinal therapy and who support the commercialization of LINZESS in the U.S. If Allergan was subject to a change of control that allowed us to further commercialize LINZESS in the U.S. on our own, and we chose to do so, we would need to enhance each of these functional aspects to replace the capabilities that Allergan was previously providing to the collaboration. Any such transition might result in a period of reduced efficiency or performance by our operations and commercialization teams, which could adversely affect our ability to commercialize LINZESS.

Although many members of our global operations, commercial and medical affairs teams have strategic oversight of, and a certain level of involvement in, their functional areas globally, we do not have corresponding operational capabilities in these areas outside of the U.S. If Allergan, Astellas or AstraZeneca was subject to a change of control that allowed us to continue linaclotide's development or commercialization anywhere outside of the U.S. on our own, and we chose to do so rather than establishing a relationship with a new partner, we would need to build operational capabilities in the relevant territory. In any of these situations, the timeline and likelihood of achieving regulatory approval and, ultimately, the commercialization of linaclotide could be negatively impacted.

We must work effectively and collaboratively with Allergan to market and sell LINZESS in the U.S. in order for it to achieve its maximum commercial potential.

We are working closely with Allergan to execute our joint commercialization plan for LINZESS. The commercialization plan includes an agreed upon marketing campaign that targets the physicians who see patients who could benefit from LINZESS treatment. Our marketing campaign also targets the adult men and women who suffer from IBS-C or CIC. Our commercialization plan also includes an integrated call plan for our sales forces to optimize the education of specific gastroenterologists and primary care physicians on whom our and Allergan's sales representatives call, and the frequency with which the representatives meet with them.

In order to optimize the commercial potential of LINZESS, we and Allergan must execute upon this commercialization plan effectively and efficiently. In addition, we and Allergan must continually assess and modify our commercialization plan in a coordinated and integrated fashion in order to adapt to the promotional response. Further, we and Allergan must continue to focus and refine our marketing campaign to ensure a clear and understandable physician-patient dialogue around IBS-C, CIC and the potential for LINZESS as an appropriate therapy. In addition, we and Allergan must provide our sales forces with the highest quality support, guidance and oversight in order for them to continue to effectively promote LINZESS to gastroenterologists and primary care physicians. If we and Allergan fail to perform these commercial functions in the highest quality manner and in accordance with our joint commercialization plan and related agreements, LINZESS will not achieve its maximum

commercial potential and we may suffer financial harm. Our efforts to further target and engage adult patients with IBS-C or CIC may not effectively increase appropriate patient awareness or patient/physician dialogue, and may not increase the revenues that we generate from LINZESS.

We are subject to uncertainty relating to pricing and reimbursement policies in the U.S. which, if not favorable for our products, could hinder or prevent our products' commercial success.

Our and Allergan's ability to commercialize LINZESS and our ability to commercialize ZURAMPIC in the U.S. successfully depend in part on the coverage and reimbursement levels set by governmental authorities, private health insurers and other third-party payers. In determining whether to approve reimbursement for our products and at what level, we expect that third-party payers will consider factors that include the efficacy, cost effectiveness and safety of our products, as well as the availability of other treatments including generic prescription drugs and over-the-counter alternatives. Further, in order to maintain acceptable reimbursement levels and access for patients at copay levels that are reasonable and customary, we may face increasing pressure to offer discounts or rebates from list prices or discounts to a greater number of third-party payers or other unfavorable pricing modifications. Obtaining and maintaining favorable reimbursement can be a time consuming and expensive process, and there is no guarantee that we or Allergan (with respect to LINZESS) will be able to negotiate or continue to negotiate pricing terms with third-party payers at levels that

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are profitable to us, or at all. Certain third-party payers also require prior authorization for, or even refuse to provide, reimbursement for LINZESS and ZURAMPIC, and others may do so in the future. Our business would be materially adversely affected if we and Allergan are not able to receive approval for reimbursement of LINZESS and we are not able to receive approval for reimbursement of ZURAMPIC, in each case, from third-party payers on a broad, timely or satisfactory basis; if reimbursement is subject to overly broad or restrictive prior authorization requirements; or if reimbursement is not maintained at satisfactory levels or becomes subject to prior authorization. In addition, our business could be adversely affected if private health insurers, including managed care organizations, the Medicare or Medicaid programs or other reimbursing bodies or payers limit or reduce the indications for or conditions under which our products may be reimbursed.

We expect to experience pricing pressures in connection with the sale of LINZESS and ZURAMPIC, and our future products due to the healthcare reforms discussed below, as well as the trend toward programs aimed at reducing healthcare costs, the increasing influence of managed care, the ongoing debates on reducing government spending and additional legislative proposals. These healthcare reform efforts or any future legislation or regulatory actions aimed at controlling and reducing healthcare costs, including through measures designed to limit reimbursement, restrict access or impose unfavorable pricing modifications on pharmaceutical products, could impact our and our partners' ability to obtain or maintain reimbursement for our products at satisfactory levels, or at all, which could materially harm our business and financial results.

We and our linaclotide partners are subject to uncertainty relating to pricing and reimbursement policies outside the U.S., as well as risks relating to the improper importation of linaclotide and sale of counterfeit versions of linaclotide. If such policies are not favorable, or if linaclotide is improperly imported or is counterfeited, our business and financial results could be adversely affected.

In some foreign countries, particularly Canada, the countries of Europe and Japan, the pricing and payment of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take six to 12 months or longer after the receipt of regulatory approval and product launch. Reimbursement sources are different in each country, and each country may include a combination of distinct potential payers, including private insurance and governmental payers. Some countries may restrict the range of medicinal products for which their national health insurance systems provide reimbursement and control the prices of medicinal products for human use. To obtain favorable reimbursement for the indications sought or pricing approval in some countries, we and our partners may be required to conduct a clinical trial that compares the cost and clinical effectiveness of our products, including linaclotide, to other available therapies. In addition, in countries in which linaclotide is the only approved therapy for a particular indication, such as CONSTELLA as the only prescription product approved for the symptomatic treatment of moderate to severe IBS-C in adults in Europe and LINZESS as the only prescription treatment approved for the treatment of adults with IBS-C in Japan, there may be disagreement as to what the most comparable product is, or if there even is one. Further, several countries have implemented government measures to either freeze or reduce pricing of pharmaceutical products. Many third-party payers and governmental authorities also consider the price for which the same product is being sold in other countries to determine their own pricing and reimbursement strategy, so if linaclotide is priced low or gets limited reimbursement in a particular country, this could result in similarly low pricing and reimbursement in other countries. If reimbursement for linaclotide is unavailable in any country in which reimbursement is sought, limited in scope or amount, or if pricing is set at or reduced to unsatisfactory levels, our and our partners' ability to successfully commercialize linaclotide in such

country would be impacted negatively. Furthermore, if these measures prevent us or any of our partners from selling linaclotide on a profitable basis in a particular country, they could prevent the commercial launch or continued sale of linaclotide in that country.

CONSTELLA was first launched in certain European countries for the symptomatic treatment of moderate to severe IBS-C in adults in the second quarter of 2013 and our partner Allergan is currently commercializing CONSTELLA in a number of European countries, including the United Kingdom, Italy and Spain. LINZESS was first launched in Japan for the treatment of IBS-C in adults in the first quarter of 2017 and our partner Astellas is currently commercializing LINZESS in Japan. The pricing and reimbursement strategy is a key component of our partners' commercialization plans for CONSTELLA in Europe and LINZESS in Japan. Our revenues may suffer if our partners are unable to successfully and timely conclude reimbursement, price approval or funding processes and market CONSTELLA in key member states of the E.U. or LINZESS in Japan, or if coverage and reimbursement for either CONSTELLA or LINZESS is limited or reduced. If our partners are not able to obtain coverage, pricing or

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reimbursement on acceptable terms or at all, or if such terms change in any countries in its territory, our partners may not be able to, or may decide not to, sell either CONSTELLA or LINZESS in such countries.

We and our partners also face the risk that linaclotide is imported or reimported into markets with relatively higher prices from markets with relatively lower prices, which would result in a decrease of sales and any payments we receive from the affected market. Additionally, third parties may illegally produce, distribute and/or sell counterfeit or otherwise unfit or adulterated versions of linaclotide. In either case, we and our partners may not be able to detect or, if detected, prevent or prohibit the sale of such products, which could result in dangerous health consequences for patients, loss of confidence in us, our partners and our products, and adverse regulatory or legal consequences. Any of the foregoing could adversely impact our reputation, financial results and business.

Because we work with partners to develop, manufacture and commercialize linaclotide, we are dependent upon third parties, and our relationships with those third parties, in our efforts to commercialize LINZESS and to obtain regulatory approval for, and to commercialize, linaclotide in our other partnered territories.

Allergan played a significant role in the conduct of the clinical trials for linaclotide and in the subsequent collection and analysis of data, and Allergan holds the new drug application, or NDA, for LINZESS. In addition, we are commercializing LINZESS in the U.S. with Allergan. Allergan is also responsible for the development, regulatory approval and commercialization of linaclotide in countries worldwide other than Japan, China, Hong Kong and Macau. Allergan is commercializing LINZESS in Mexico and CONSTELLA in Canada, as well as commercializing CONSTELLA in certain countries in Europe. Astellas, our partner in Japan, is responsible for completing the clinical programs and obtaining regulatory approval of linaclotide in its territory. Further, we are jointly overseeing the development, and will jointly oversee the commercialization, of linaclotide in China, Hong Kong and Macau through our collaboration with AstraZeneca, with AstraZeneca having primary responsibility for the local operational execution. Each of Astellas, AstraZeneca and Allergan is responsible for commercializing linaclotide in its respective territory, if approved. Each of our partners is responsible for reporting adverse event information from its territory to us. Finally, each of our partners, other than AstraZeneca, is responsible for drug product manufacturing of linaclotide and making it into finished goods (including bottling and packaging) for its respective territory, and AstraZeneca is responsible for finished goods manufacturing for Hong Kong only. The integration of our efforts with our partners' efforts is subject to the uncertainty of the markets for pharmaceutical products in each partner's respective territories, and accordingly, these relationships must evolve to meet any new challenges that arise in those regions.

These integrated functions may not be carried out effectively and efficiently if we fail to communicate and coordinate with our linaclotide partners, and vice versa. Our linaclotide partnering strategy imposes obligations, risks and operational requirements on us as the central node in our global network of partners. If we do not effectively communicate with each partner and ensure that the entire network is making integrated and cohesive decisions focused on the global brand for linaclotide, linaclotide will not achieve its maximum commercial potential. As the holder of the global safety database for linaclotide, we are responsible for coordinating the safety surveillance and adverse event reporting efforts worldwide. If we are unsuccessful in doing so due to poor process, execution, oversight, communication, adjudication or otherwise, then our and our partners' ability to obtain and maintain regulatory approval of linaclotide will be at risk.

We have limited ability to control the amount or timing of resources that our partners devote to linaclotide. If any of our partners fails to devote sufficient time and resources to linaclotide, or if its performance is substandard, it will delay the potential submission or approval of regulatory applications for linaclotide, as well as the manufacturing and commercialization of linaclotide in the particular territory. A material breach by any of our partners of our collaboration or license agreement with such partner, or a significant disagreement between us and a partner, could also delay the regulatory approval and commercialization of linaclotide, potentially lead to costly litigation, and could have a material adverse impact on our financial condition. Moreover, although we have non-compete restrictions in place with each of our linaclotide partners, they may have relationships with other commercial entities, some of which may compete with us. If any of our partners assists our competitors, it could harm our competitive position.

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Even though LINZESS is approved by the FDA for the treatment of adults with IBS-C or CIC and ZURAMPIC is approved by the FDA for the treatment of hyperuricemia associated with uncontrolled gout, LINZESS and ZURAMPIC face post-approval development and regulatory requirements, which present additional challenges.

In August 2012, the FDA approved LINZESS as a once-daily treatment for adult men and women suffering from IBS-C or CIC, and in December 2015, the FDA approved ZURAMPIC for use in combination with an XOI for the treatment of hyperuricemia associated with uncontrolled gout. Both LINZESS and ZURAMPIC are subject to ongoing FDA requirements, including those governing the testing, manufacturing, labeling, packaging, storage, advertising, promotion, sale, distribution, recordkeeping and submission of safety and other post-market information.

LINZESS is contraindicated in pediatric patients up to 6 years of age based on nonclinical data from studies in neonatal mice approximately equivalent to human pediatric patients less than 2 years of age. There is also a boxed warning advising physicians to avoid the use of LINZESS in pediatric patients 6 to less than 18 years of age. This warning is based on data in young juvenile mice and the lack of clinical safety and efficacy data in pediatric patients of any age group. We and Allergan have established a nonclinical and clinical post-marketing plan with the FDA to understand the safety and efficacy of LINZESS in pediatric patients, and have initiated two Phase II clinical pediatric studies in IBS-C patients age seven to 17 and functional constipation patients age six to 17. Our ability to conduct clinical studies in younger pediatric patients will depend, in part, on the safety and efficacy data from our clinical studies in older pediatric patients. Our ability to ever expand the indication for LINZESS to pediatrics will depend on, among other things, our successful completion of pediatric clinical studies. We and Allergan have also committed to certain nonclinical and clinical studies aimed at understanding: (a) whether orally administered linaclotide can be detected in breast milk, (b) the potential for antibodies to be developed to linaclotide, and if so, (c) whether antibodies specific for linaclotide could have any therapeutic or safety implications. We expect to complete these studies over the next two to four years.

ZURAMPIC is contraindicated in patients with severe renal impairment or end-stage renal diseases, kidney transplant recipients, patients on dialysis or patients with tumor lysis syndrome or Lesch-Nyhan syndrome. ZURAMPIC is approved for use in combination with an XOI for the treatment of hyperuricemia associated with uncontrolled gout, and there is a boxed warning about the risk of acute renal failure with ZURAMPIC, which is more common when ZURAMPIC is used without an XOI. The FDA has required a post-marketing clinical study to further evaluate the renal and cardiovascular safety of ZURAMPIC, and has required that enrollment include patients with moderate renal impairment. We rely exclusively on AstraZeneca as our supplier of drug product for such study and other development activities pursuant to our clinical supply agreement. If, for any reason, AstraZeneca is unable or unwilling to perform under our clinical supply agreement or if AstraZeneca performs poorly, our ability to, among other things, complete the post-marketing clinical study for ZURAMPIC could be delayed or we may not be able to complete it at all. Additionally, as the holder of the approved NDA for ZURAMPIC, we are obligated to monitor and report adverse events and any failure of ZURAMPIC to meet the specifications in the NDA, to submit new or supplemental applications and to obtain FDA approval for certain changes to ZURAMPIC, including changes to its product labeling and manufacturing process.

These post-approval requirements impose burdens and costs on us. Failure to effectively, appropriately and timely conduct and complete the required studies relating to LINZESS and ZURAMPIC, monitor and report adverse events and meet our other post-approval commitments would lead to negative regulatory action at the FDA, which could include withdrawal of regulatory approval of our products for their currently approved indications and patient populations.

Manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with GMP and other applicable regulations. If we or a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with a facility where the product is manufactured, a regulatory agency may impose restrictions on that product or the manufacturer, including withdrawal of the product from the market or suspension of manufacturing. If we, our partners or the manufacturing facilities for our products fail to comply with applicable regulatory requirements, a regulatory agency may take the following actions, among others:

· issue warning letters or untitled letters;

· impose civil or criminal penalties;

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- suspend or withdraw regulatory approval;

- suspend any ongoing clinical trials;

- refuse to approve pending applications or supplements to applications submitted by us;

- impose restrictions on operations, including costly new manufacturing requirements; or

- seize or detain products or require us to initiate a product recall.

If we fail to comply with our obligations under our license with AstraZeneca, we could lose rights to the Lesinurad Business.

We are a party to a license agreement with AstraZeneca for exclusive rights to ZURAMPIC and any other products containing lesinurad in the U.S. Our license agreement with AstraZeneca imposes various milestone payment, royalty, insurance and other obligations on us. If we fail to comply with our obligations, AstraZeneca may have the right to terminate the license agreement, in which event we would not be able to continue commercializing ZURAMPIC or developing any other lesinurad product that is covered by the license. Termination of the license agreement or reduction or elimination of our licensed rights may result in our having to negotiate new or reinstated licenses with less favorable terms, and, if we lose rights to the Lesinurad Business, ceasing development and commercial activities related to lesinurad, adversely affecting our business.

Even though linaclotide is approved for marketing in the U.S. and in a number of other countries, we or our partners may never receive approval to commercialize linaclotide in additional parts of the world.

In order to market any products outside of the countries where linaclotide is approved, we or our partners must comply with numerous and varying regulatory requirements of other jurisdictions regarding safety and efficacy. Approval procedures vary among jurisdictions and can involve product testing and administrative review periods different from, and greater than, those in the U.S. and the other countries where linaclotide is approved. Potential risks include that the regulatory authorities:

- may not deem linaclotide safe and effective;

- may not find the data from nonclinical studies and clinical trials sufficient to support approval;

- may not approve of manufacturing processes and facilities;

- may not approve linaclotide for any or all indications or patient populations for which approval is sought;

- may require significant warnings or restrictions on use to the product label for linaclotide; or

- may change their approval policies or adopt new regulations.

If any of the foregoing were to occur, our receipt of regulatory approval in the applicable jurisdiction could be delayed or we may never receive approval at all. Further, regulatory approval in one jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory processes in others. If linaclotide is not approved for all indications or patient populations or with the label requested, this would limit the uses of linaclotide and have an adverse effect on its commercial potential or require costly post-marketing studies.

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We face potential product liability exposure, and, if claims brought against us are successful, we could incur substantial liabilities.

The use of our product candidates in clinical trials and the sale of marketed products expose us to product liability claims. If we do not successfully defend ourselves against product liability claims, we could incur substantial liabilities. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- decreased demand for approved products;
- impairment of our business reputation;
- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- litigation costs;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- loss of revenues; and
- the inability to commercialize our product candidates.

We currently have product liability insurance coverage for the commercial sale of linaclotide and lesinurad and for the clinical trials of our product candidates which is subject to industry-standard terms, conditions and exclusions. Our insurance coverage may not be sufficient to reimburse us for expenses or losses associated with claims. Moreover, insurance coverage is becoming increasingly expensive, and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses. On occasion, large judgments have been awarded in lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims could cause our stock price to decline and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

We face competition and new products may emerge that provide different or better alternatives for treatment of the conditions that our products are approved to treat.

The pharmaceutical industry and the markets in which we operate are intensely competitive. We compete in the marketing and sale of our products, the development of new products and the acquisition of rights to new products with commercial potential. Certain of our competitors have substantially greater financial, technical and human resources than us. Mergers and acquisitions in the pharmaceutical industry may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances made in the commercial applicability of technologies and greater availability of capital for investment in these fields. Additionally, new developments, including the development of other drug technologies and methods of preventing the incidence of disease, occur in the pharmaceutical and medical technology industries at a rapid pace. These developments may render our products obsolete or noncompetitive.

Our products compete with certain prescription therapies and over-the-counter products for the treatment of the indications for which they are approved, or their associated symptoms, and in many cases with products that have attained significant levels of market acceptance. The availability of prescription competitors and over-the-counter products for such conditions could limit the demand, and the price we are able to charge, for our products unless we are able to achieve market acceptance among the medical community and patients and differentiate our products on the basis of their cost and/or actual or perceived benefits. For example, Takeda Pharmaceuticals Limited's AMITIZA (lubiprostone) is approved by the FDA for sale in the U.S. for the treatment of IBS-C, CIC and opioid-induced constipation and Synergy Pharmaceuticals, Inc.'s, or Synergy, TRULANCE (plecanatide) is approved by the FDA for sale in the U.S. for the treatment of adults with CIC. Synergy is also developing plecanatide for the treatment of IBS-C. Additionally, we believe other companies are developing products which could compete with our products, should they

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be approved by the FDA or foreign regulatory authorities. Currently, there are other compounds in late stage development and other potential competitors are in earlier stages of development for the treatment of the indications for which our products are approved. If our current or potential competitors are successful in completing drug development for their drug candidates and obtain approval from the FDA or foreign regulatory authorities, they could limit the demand for our products.

We will incur significant liability if it is determined that we are promoting any "off-label" uses of our products.

Physicians are permitted to prescribe drug products and medical devices for uses that are not described in the product's labeling and that differ from those approved by the FDA or other applicable regulatory agencies. Such "off-label" uses are common across medical specialties. Although the FDA and other regulatory agencies do not regulate a physician's choice of treatments, the FDA and other regulatory agencies do restrict communications on the subject of off-label use. Companies are not permitted to promote drugs or medical devices for off-label uses. Accordingly, we do not permit promotion of any approved product that we develop, license, commercialize, promote, co-promote or otherwise partner for any indication, population or use not described in such product's label. The FDA and other regulatory and enforcement authorities actively enforce laws and regulations prohibiting promotion of off-label uses and the promotion of products for which marketing approval has not been obtained. A company that is found to have promoted off-label uses will be subject to significant liability, including civil and administrative remedies as well as criminal sanctions.

Notwithstanding the regulatory restrictions on off-label promotion, the FDA and other regulatory authorities allow companies to engage in truthful, non-misleading, and non-promotional scientific exchange concerning their products. We intend to engage in medical education activities and communicate with healthcare providers in compliance with all applicable laws, regulatory guidance and industry best practices. Although we believe we have put in place a robust compliance program, which is designed to ensure that all such activities are performed in a legal and compliant manner, we cannot be certain that our program will address all areas of potential exposure and the risks in this area cannot be entirely eliminated.

If we fail to comply with healthcare and other regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.

The products that we promote are marketed in the U.S. and/or covered by federal healthcare programs, and, as a result, certain federal and state healthcare laws and regulations pertaining to product promotion and fraud and abuse are applicable to, and may affect, our business. These laws and regulations include:

- federal healthcare program anti-kickback laws, which prohibit, among other things, persons from soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal healthcare programs such as Medicare and Medicaid;

- federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, information or claims for payment from Medicare, Medicaid, or other third-party payers that are false or fraudulent, and which may apply to us for reasons including providing coding and billing advice to customers;

- the federal Health Insurance Portability and Accountability Act of 1996, which prohibits executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters and which also imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information;

- the Federal Food, Drug, and Cosmetic Act, which among other things, strictly regulates drug product and medical device marketing, prohibits manufacturers from marketing such products prior to approval or for off-label use and regulates the distribution of samples;

- federal laws that require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under government healthcare programs;

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- the so-called “federal sunshine” law, which requires pharmaceutical and medical device companies to monitor and report certain financial interactions with physicians and other healthcare professionals and healthcare organizations to the federal government for re-disclosure to the public; and

- state law equivalents of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payer, including commercial insurers, state transparency laws, state laws limiting interactions between pharmaceutical manufacturers and members of the healthcare industry, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by federal laws, thus complicating compliance efforts.

Our global activities are subject to the U.S. Foreign Corrupt Practices Act which prohibits corporations and individuals from paying, offering to pay, or authorizing 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. We are also subject to similar anti-bribery laws in the other countries in which we do business.

If our operations are found to be in violation of any of the laws described above or any other laws, rules or regulations that apply to us, we will be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. Although compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, rules or regulations, we cannot be certain that our program will address all areas of potential exposure and the risks in this area cannot be entirely eliminated, particularly because the requirements and government interpretations of the requirements in this space are constantly evolving. Any action against us for violation of these laws, rules or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management’s attention from the operation of our business, as well as damage our business or reputation. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security, fraud and reporting laws may prove costly.

Healthcare reform and other governmental and private payer initiatives may have an adverse effect upon, and could prevent, our products’ or product candidates’ commercial success.

The U.S. government and individual states have been aggressively pursuing healthcare reform, as evidenced by the passing of the Patient Protection and Affordable Care Act, as modified by the Health Care and Education Reconciliation Act of 2010, or the ACA. These healthcare reform laws contain several cost containment measures that could adversely affect our future revenue, including, for example, increased drug rebates under Medicaid for brand name prescription drugs, extension of Medicaid rebates to Medicaid managed care plans, and extension of so-called 340B discounted pricing on pharmaceuticals sold to certain healthcare providers. Additional provisions of the healthcare reform laws that may negatively affect our future revenue and prospects for profitability include the assessment of an annual fee based on our proportionate share of sales of brand name prescription drugs to certain

government programs, including Medicare and Medicaid, as well as mandatory discounts on pharmaceuticals sold to certain Medicare Part D beneficiaries. Other aspects of healthcare reform, such as expanded government enforcement authority and heightened standards that could increase compliance-related costs, could also affect our business. In addition, we face uncertainties because there have been and may be additional federal legislative and administrative efforts to repeal, substantially modify or invalidate some or all of the provisions of the ACA. However, we cannot predict the ultimate content, timing or effect of any healthcare reform legislation or action, or its impact on us.

In addition to governmental efforts in the U.S., foreign jurisdictions as well as private health insurers and managed care plans are likely to continue challenging manufacturers' ability to obtain reimbursement, as well as the level of reimbursement, for pharmaceuticals and other healthcare-related products and services. These cost-control initiatives could significantly decrease the available coverage and the price we might establish for our products, which would have an adverse effect on our financial results.

The Food and Drug Administration Amendments Act of 2007 also provides the FDA enhanced post-marketing authority, including the authority to require post-marketing studies and clinical trials, labeling changes based on new safety information, and compliance with risk evaluations and mitigation strategies approved by the FDA. We and Allergan have established a nonclinical and clinical post-marketing plan with the FDA to understand the safety and

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efficacy of LINZESS in pediatrics and we and AstraZeneca have established a clinical post-marketing plan with the FDA to further evaluate the renal and cardiovascular safety of ZURAMPIC, each of which is discussed above. The FDA's exercise of this authority has resulted (and is expected to continue to result) in increased development-related costs following the commercial launch of our products, and could result in potential restrictions on the sale and/or distribution of our products, even in such products' approved indications and patient populations.

In pursuing our growth strategy, we will incur a variety of costs and may devote resources to potential opportunities that are never completed or for which we never receive the benefit. Our failure to successfully discover, acquire, develop and market additional product candidates or approved products would impair our ability to grow and adversely affect our business.

As part of our growth strategy, we intend to explore further linaclotide and lesinurad development opportunities. We and Allergan are exploring development opportunities to enhance the clinical profile of LINZESS by studying linaclotide in additional indications, populations and formulations to assess its potential to treat various GI conditions. Additionally, we have rights to develop products containing lesinurad as an active ingredient in all indications, populations and formulations in the U.S. and we are currently evaluating such development opportunities, as well as opportunities within its approved indications, populations and formulations. These development efforts may fail or may not increase the revenues that we generate from our products. Furthermore, they may result in adverse events, or perceived adverse events, in certain patient populations that are then attributed to the currently approved patient population, which may result in adverse regulatory action at the FDA or, with respect to linaclotide, in other countries or harm our products' reputation in the marketplace, each of which could materially harm our revenues from our products.

We are also pursuing various other programs in our pipeline. We may spend several years and make significant investments in developing any current or future internal product candidate, and failure may occur at any point. Our product candidates are in various stages of development and must satisfy rigorous standards of safety and efficacy before they can be approved for sale by the FDA. To satisfy these standards, we must allocate resources among our various development programs and we must engage in costly and lengthy discovery and development efforts, which are subject to unanticipated delays and other significant uncertainties. Despite our efforts, our product candidates may not offer therapeutic or other improvement over existing competitive drugs, be proven safe and effective in clinical trials, or meet applicable regulatory standards. It is possible that none of the product candidates we are developing will be approved for commercial sale, which would impair our ability to grow.

We have ongoing or planned nonclinical and clinical trials for linaclotide, lesinurad and a number of our internal product candidates, and the strength of our company's pipeline will depend in large part on the outcomes of these studies. Many companies in the pharmaceutical industry have suffered significant setbacks in clinical trials even after achieving promising results in earlier nonclinical or clinical trials. The findings from our completed nonclinical studies may not be replicated in later clinical trials, and our clinical trials may not be predictive of the results we may obtain in later-stage clinical trials or of the likelihood of regulatory approval. Results from our clinical trials and findings from our nonclinical studies could lead to abrupt changes in our development activities, including the possible limitation or cessation of development activities associated with a particular product candidate or program.

Furthermore, our analysis of data obtained from nonclinical and clinical activities is subject to confirmation and interpretation by the FDA and other applicable regulatory authorities, which could delay, limit or prevent regulatory approval. Satisfaction of FDA or other applicable regulatory requirements is costly, time-consuming, uncertain and subject to unanticipated delays.

In addition, because our internal research capabilities are limited, we may be dependent upon pharmaceutical and biotechnology companies, academic scientists and other researchers to sell or license products or technology to us. The success of this strategy depends partly upon our ability to identify, select, discover and acquire promising pharmaceutical product candidates and products. The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates and approved products. We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses and technologies and integrate them into our current infrastructure. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. We may not be able to acquire the rights to additional products or product candidates on terms that we find acceptable, or at all.

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In addition, such acquisitions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- disruption of our business and diversion of our management's time and attention to develop acquired products, product candidates or technologies;
- incurrence of substantial debt, dilutive issuances of securities or depletion of cash to pay for acquisitions;
- higher than expected acquisition and integration costs;
- difficulty in combining the operations and personnel of any acquired businesses with our operations and personnel;
- increased amortization expenses;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership; and
- inability to motivate key employees of any acquired businesses.

Furthermore, we may have little or no insight or control over the development and commercialization of any product that we have in-licensed outside the licensed territory. If other licensees do not effectively develop or commercialize any such product outside the licensed territory, our reputation or the reputation of any such product may be impacted. Also, any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to risks of failure typical of pharmaceutical product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities.

Delays in the completion of clinical testing of any of our product candidates could result in increased costs and delay or limit our ability to generate revenues.

Delays in the completion of clinical testing could significantly affect our product development costs. We do not know whether planned clinical trials will be completed on schedule, if at all. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- obtaining regulatory approval to commence a clinical trial;

- reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

- manufacturing sufficient quantities of a product candidate for use in clinical trials;

- obtaining institutional review board approval to conduct a clinical trial at a prospective site;

- recruiting and enrolling patients to participate in clinical trials for a variety of reasons, including competition from other clinical trial programs for the treatment of similar conditions; and

- maintaining patients who have initiated a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up.

Clinical trials may also be delayed as a result of ambiguous or negative interim results. In addition, a clinical trial may be suspended or terminated by us, an institutional review board overseeing the clinical trial at a clinical trial site (with respect to that site), the FDA, or other regulatory authorities due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements or the study protocols;

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- inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;

- unforeseen safety issues; or

- lack of adequate enrollment or funding to continue the clinical trial.

Additionally, changes in regulatory requirements and guidance may occur, and we may need to amend clinical trial protocols to reflect these changes. Each protocol amendment would require institutional review board review and approval, which may adversely impact the costs, timing or successful completion of the associated clinical trials. If we or our partners terminate or experience delays in the completion of any clinical trials, the commercial prospects for our product candidates may be harmed, and our ability to generate product revenues will be delayed. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval.

We may not be able to manage our business effectively if we lose any of our current management team or if we are unable to attract and motivate key personnel.

We may not be able to attract or motivate qualified management and scientific, clinical, operations and commercial personnel in the future due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses, particularly in the greater-Boston area. If we are not able to attract and motivate necessary personnel to accomplish our business objectives, we will experience constraints that will significantly impede the achievement of our objectives.

We are highly dependent on the drug discovery, development, regulatory, commercial, financial and other expertise of our management, particularly Peter M. Hecht, Ph.D., our chief executive officer; Mark G. Currie, Ph.D., our senior vice president, chief scientific officer and president of research and development; Tom Graney, our chief financial officer and senior vice president, finance and corporate strategy; Thomas A. McCourt, our senior vice president, marketing and sales and chief commercial officer; and Halley E. Gilbert, our senior vice president, chief legal officer, and secretary. Transitions in our senior management team may result in operational disruptions, and our business may be harmed as a result. In addition to the competition for personnel, the Boston area in particular is characterized by a high cost of living. As such, we could have difficulty attracting experienced personnel to our company and may be required to expend significant financial resources in our employee recruitment efforts.

We also have scientific and clinical advisors who assist us in formulating our product development, clinical strategies and our global supply chain plans, as well as sales and marketing advisors who have assisted us in our commercialization strategy and brand plan for linaclotide and lesinurad. These advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to

us, or may have arrangements with other companies to assist in the development and commercialization of products that may compete with ours.

Security breaches and other disruptions could compromise our information and expose us to liability, which would cause our business and reputation to suffer.

In the ordinary course of our business, we collect and store sensitive data, including intellectual property, our proprietary business information and that of our suppliers and business partners, as well as personally identifiable information of our patients, clinical trial participants and employees. We also have outsourced elements of our information technology structure, and as a result, we are managing independent vendor relationships with third parties who may or could have access to our confidential information. Similarly, our business partners and other third party providers possess certain of our sensitive data. The secure maintenance of this information is critical to our operations and business strategy. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. We, our partners, vendors and other third party providers could be susceptible to third party attacks on our, and their, information security systems, which attacks are of ever-increasing levels of sophistication and are made by groups and individuals with a wide range of motives and expertise, including criminal groups. Any such breach could compromise our, and their, networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, disrupt our operations, and damage our reputation, any of which could adversely affect our business.

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Our business involves the use of hazardous materials, and we must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our activities involve the controlled storage, use and disposal of hazardous materials. We are subject to federal, state, city and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous materials. Although we believe that the safety procedures we use for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials. In the event of an accident, local, city, state or federal authorities may curtail the use of these materials and interrupt our business operations. We do not currently maintain hazardous materials insurance coverage.

Risks Related to Intellectual Property

Limitations on the patent rights relating to our products and our product candidates may limit our ability to prevent third parties from competing against us.

Our success depends on our ability to obtain and maintain patent protection for our products and product candidates, preserve our trade secrets, prevent third parties from infringing upon our proprietary rights and operate without infringing upon the proprietary rights of others.

The strength of patents in the pharmaceutical industry involves complex legal and scientific questions and can be uncertain. Patent applications in the U.S. and most other countries are confidential for a period of time until they are published, and publication of discoveries in scientific or patent literature typically lags actual discoveries by several months or more. As a result, we cannot be certain that we or our licensors were the first to conceive inventions covered by our patents and pending patent applications or that we or our licensors were the first to file patent applications for such inventions. In addition, we cannot be certain that our patent applications will be granted, that any issued patents will adequately protect our intellectual property, or that such patents will not be challenged, narrowed, invalidated or circumvented.

We have several issued patents and pending applications in the U.S. related to LINZESS, including a LINZESS composition of matter and methods of use patent (U.S. Patent 7,304,036) and two patents relating to our commercial, room temperature stable formulation of linaclotide and methods of using this formulation. We also have additional U.S. patents and applications covering processes for making LINZESS, formulations and dosing regimens thereof, and molecules related to LINZESS, including a patent expiring in 2033 covering a component of LINZESS as well as formulations comprising linaclotide and this component. Although none of these issued patents currently is subject to a patent reexamination or review, we cannot guarantee that they will not be subject to reexamination or review by the U.S. Patent and Trademark Office, or the USPTO, in the future. If any or all of our LINZESS-related patents were

invalidated, we would still have at least five years of marketing exclusivity under the Hatch-Waxman Act from FDA approval of LINZESS. We believe that each of the patents in our linaclotide patent portfolio was rightfully issued and the portfolio gives us sufficient freedom to operate; however, if any of our present or future patents is invalidated, this could have an adverse effect on our business and financial results, particularly for the period beyond five years following marketing approval. In March 2013, an opposition to one of our granted patents covering linaclotide was filed in Europe. In April 2015, the patent was upheld in its entirety by the European Patent Office, affirming the strength of our intellectual property and our belief that the opposition was without merit. We believe that this patent was appropriately granted but we cannot be certain of this until the opposition proceedings, including the associated appeals process, are complete. While the opposition is ongoing, we will incur additional expense and be required to focus additional efforts on the proceedings. Moreover, a successful outcome in the opposition does not preclude a later challenge to this or other of our patents in the courts. Even if this patent were ultimately found to be invalid, we have other composition of matter- and use-related linaclotide patents that are granted and in force, and we believe these patents provide strong and sufficient patent protection in Europe.

We received an exclusive license from AstraZeneca for several issued patents and pending applications in the U.S. related to ZURAMPIC, including a ZURAMPIC composition of matter patent (U.S. Patent 8,003,681), several patents directed to a ZURAMPIC pharmaceutical composition and methods of use, and patents and applications relating to polymorphic forms of lesinurad and methods of manufacturing lesinurad. Although none of these issued patents currently is subject to a patent reexamination or review, we cannot guarantee that they will not be subject to reexamination or review by the USPTO in the future. If any or all of the ZURAMPIC-related patents were invalidated,

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we would still have at least five years of marketing exclusivity under the Hatch-Waxman Act from FDA approval of ZURAMPIC. We believe that each of the patents in AstraZeneca's U.S. lesinurad patent portfolio was rightfully issued and the portfolio gives us sufficient freedom to operate; however, if any of AstraZeneca's present or future lesinurad patents is invalidated, this could have an adverse effect on our business and financial results, particularly for the period beyond five years following marketing approval.

Furthermore, the America Invents Act, which was signed into law in 2011, has made several major changes in the U.S. patent statutes. These changes permit third parties to challenge our patents more easily and create uncertainty with respect to the interpretation and practice of U.S. patent law. Moreover, the U.S. Supreme Court has ruled on several patent cases in recent years, narrowing the scope of patent protection available and weakening the rights of patent owners in certain circumstances. Depending on the impact of these decisions and other actions by the U.S. Congress, the federal courts, the USPTO, and their foreign counterparts, the laws and regulations governing patents may change, or their interpretation or implementation may change, in unpredictable ways that could impact, potentially adversely, our ability to obtain new patents or to enforce and defend patents that we have already obtained or that we might obtain in the future. For example, such changes may increase the costs and complexity associated with obtaining, enforcing or defending our patents, including in abbreviated new drug application, or ANDA, litigation.

We also rely upon unpatented trade secrets, unpatented know-how and continuing technological innovation to develop and maintain our competitive position, which we seek to protect, in part, by confidentiality agreements with our employees and our partners and consultants. We also have agreements with our employees and selected consultants that obligate them to assign their inventions to us. It is possible, however, that technology relevant to our business will be independently developed by a person that is not a party to such an agreement. Furthermore, if the employees and consultants that are parties to these agreements breach or violate the terms of these agreements, we may not have adequate remedies, and we could lose our trade secrets through such breaches or violations. Additionally, our trade secrets could otherwise become known or be independently discovered by our competitors.

In addition, the laws of certain foreign countries do not protect proprietary rights to the same extent or in the same manner as the U.S., and, therefore, we may encounter problems in protecting and defending our intellectual property in certain foreign jurisdictions.

If we are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in such litigation could have a material adverse effect on our business.

Our commercial success depends on our ability, and the ability of our partners, to develop, manufacture, market and sell our products and use our proprietary technologies without infringing the proprietary rights of third parties. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we and our partners are developing products. As the biotechnology and pharmaceutical industry expands and more patents are issued, the risk increases that our potential products may give rise to claims of

infringement of the patent rights of others. There may be issued patents of third parties of which we are currently unaware that may be infringed by linaclotide, lesinurad or our product candidates. Because patent applications can take many years to issue, there may be currently pending applications which may later result in issued patents that linaclotide, lesinurad or our product candidates may infringe.

We may be exposed to, or threatened with, litigation by third parties alleging that linaclotide, lesinurad or our product candidates infringe their intellectual property rights. If linaclotide, lesinurad or one of our product candidates is found to infringe the intellectual property rights of a third party, we or our partners could be enjoined by a court and required to pay damages and could be unable to develop or commercialize linaclotide, lesinurad or the applicable product candidate unless we obtain a license to the intellectual property rights. A license may not be available to us on acceptable terms, if at all. In addition, during litigation, the counter-party could obtain a preliminary injunction or other equitable relief which could prohibit us from making, using or selling our products, pending a trial on the merits, which may not occur for several years.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries generally. If a third party claims that we or our partners infringe its intellectual property rights, we may face a number of issues, including, but not limited to:

· infringement and other intellectual property claims which, regardless of merit, may be expensive and time-consuming to litigate and may divert our management’s attention from our core business;

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- substantial damages for infringement, which we may have to pay if a court decides that the product at issue infringes on or violates the third party's rights, and, if the court finds that the infringement was willful, we could be ordered to pay treble damages and the patent owner's attorneys' fees;

- a court prohibiting us from selling our product unless the third party licenses its rights to us, which it is not required to do;

- if a license is available from a third party, we may have to pay substantial royalties, fees or grant cross-licenses to our intellectual property rights; and

- redesigning our products so they do not infringe, which may not be possible or may require substantial monetary expenditures and time.

We have received notices of Paragraph IV certifications related to linaclotide in conjunction with ANDAs filed by generic drug manufacturers, and may receive additional notices from others in the future. We have, and may continue to, become involved in legal proceedings to protect or enforce the patents relating to our products and our product candidates, which could be expensive and time consuming, and unfavorable outcomes in such proceedings could have a material adverse effect on our business.

Competitors may infringe the patents relating to our products and our product candidates or may assert that such patents are invalid. To counter ongoing or potential infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. Litigation with generic manufacturers has become increasingly common in the biotechnology and pharmaceutical industries. In addition, in an infringement or invalidity proceeding, a court or patent administrative body may determine that a patent of ours is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. Generic drug manufacturers were first able to file ANDAs for generic versions of LINZESS in August 2016 and will first be able to file ANDAs in December 2019 for ZURAMPIC, but we may not become aware of these filings for several months after any such submission due to procedures specified under applicable FDA regulations. When filing an ANDA for one of our products, a generic drug manufacturer may choose to challenge one or more of the patents that cover such product. As such, we may need to protect our intellectual property rights by bringing legal proceedings against the generic drug manufacturer.

We and Allergan have received Paragraph IV certification notice letters, or Notice Letters, regarding ANDAs submitted to the FDA by generic drug manufacturers requesting approval to engage in commercial manufacture, use, sale and offer for sale of linaclotide capsules (145 mcg and 290 mcg), proposed generic versions of our FDA-approved drug LINZESS. For additional information relating to such ANDAs, see Item 1, Legal Proceedings, elsewhere in this Quarterly Report on Form 10-Q. Frequently, innovators receive multiple ANDA filings. Consequently, we expect to receive additional notice letters regarding ANDAs submitted to the FDA, and may receive amendments to the Notice Letters.

After evaluation, we may file patent infringement lawsuits or take other action against the companies making ANDA filings. If a patent infringement suit has been filed within 45 days of receipt of a notice letter, the FDA is not permitted to approve any ANDA that is the subject of such lawsuit for 30 months from the date of the NDA holder's and patent owner's receipt of the ANDA filer's notice letter, or until a court decides that the relevant patents are invalid, unenforceable and/or not infringed. In the case of suits filed before expiration of the new chemical entity, or NCE, exclusivity period for a particular drug, the 30-month stay would be calculated from the end of the applicable NCE exclusivity period. In addition to shortening the 30-month stay based on a decision that the relevant patents are invalid, unenforceable and/or not infringed, a court can also shorten or lengthen the 30-month stay under certain limited circumstances. The NCE exclusivity period for LINZESS expires on August 30, 2017, extending the 30-month stay for any ANDA that is the subject of the patent infringement lawsuits filed by us before such expiration date to February 29, 2020 (absent any of the foregoing adjustments). We have filed patent infringement lawsuits against the companies making such ANDA filings. For additional information relating to such lawsuits, see Item 1, Legal Proceedings, elsewhere in this Quarterly Report on Form 10-Q.

Additionally, the validity of the patents relating to our products and our product candidates may be challenged by third parties pursuant to administrative procedures introduced by the American Invents Act, specifically inter partes

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review, or IPR, and/or post grant review, or PGR, before the USPTO. Generic drug manufacturers may challenge our patents through IPRs or PGRs instead of or in addition to ANDA legal proceedings.

Patent litigation (including any lawsuits that we file against generic drug manufacturers in connection with the receipt of a notice letter), IPRs and PGRs involve complex legal and factual questions and we may need to devote significant resources to such legal proceedings. We can provide no assurance concerning the duration or the outcome of any such patent-related lawsuits or administrative proceedings, including any settlements or other resolutions thereof which could, in addition to other risks, result in a shortening of exclusivity periods. An adverse result in any litigation or defense proceedings could put one or more of the patents relating to our products and our product candidates at risk of being invalidated or interpreted narrowly, or could otherwise result in a loss of patent protection for the product or product candidate at issue, and could put our patent applications at risk of not issuing, which would materially harm our business. Upon any loss of patent protection for one of our products, or upon an “at-risk” launch (despite pending patent infringement litigation, before any court decision or while an appeal of a lower court decision is pending) by a manufacturer of a generic version of one of our patented products, our revenues for that product could be significantly reduced in a short period of time, which would materially and adversely affect our business.

Interference or derivation proceedings brought by the USPTO may be necessary to determine the priority of inventions with respect to the patents relating to our products and our product candidates and patent applications or those of our partners. An unfavorable outcome could require us to cease using the technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if a prevailing party does not offer us a license on terms that are acceptable to us. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distraction of our management and other employees. In addition, we may not be able to prevent, alone or with our partners, misappropriation of our proprietary rights, particularly in countries where the laws may not protect those rights as fully as in the U.S.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, as well as the potential for public announcements of the results of hearings, motions or other interim proceeding or developments, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Risks Related to Our Finances and Capital Requirements

We have incurred significant losses since our inception and cannot guarantee when, if ever, we will become profitable or attain positive cash flows.

In recent years, we have focused primarily on developing, manufacturing and commercializing linaclotide, as well as developing our other product candidates. We have financed our business to date primarily through the issuance of

equity, our collaboration and license arrangements, our January 2013 issuance of our 11% PhaRMA Notes due 2024, or the PhaRMA Notes, related to the sales of LINZESS in the U.S. (which were redeemed, in full, in connection with the funding and issuance in January 2017 of our 8.375% Notes due 2026, or the 2026 Notes) and our June 2015 issuance of our 2.25% Convertible Senior Notes due June 15, 2022, or the 2022 Notes, and we have incurred losses in each year since our inception in 1998. We currently derive substantially all of our revenue from our LINZESS collaboration with Allergan for the U.S. We believe that the revenues from the LINZESS collaboration will continue to constitute a significant portion of our total revenue for the foreseeable future. We incurred net losses of approximately $96.7 million and approximately $35.0 million in the six months ended June 30, 2017 and 2016, respectively. As of June 30, 2017, we had an accumulated deficit of approximately $1.3 billion. We cannot be certain that sales of LINZESS and ZURAMPIC, and the revenue from our other commercial activities will not fall short of our projections or be delayed. Further, we expect to continue to incur substantial expenses in connection with our efforts to commercialize linaclotide and lesinurad, and research and develop our product candidates. Because of the numerous risks and uncertainties associated with developing and commercializing pharmaceutical products, as well as those related to our expectations for LINZESS and ZURAMPIC and our other commercial activities, we are unable to predict the extent of any future losses or guarantee when, or if, our company will become profitable or cash flow positive. If we never achieve profitability or positive cash flows, or achieve either later than we anticipate, this will have an adverse effect on our stockholders' equity and working capital.

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We may need additional funding and may be unable to raise capital when needed, which could cause us to delay, reduce or eliminate our product development programs or commercialization efforts.

In January 2017, in connection with the redemption of our PhaRMA Notes, we issued $150.0 million aggregate principal amount of our 2026 Notes bearing an annual interest rate of 8.375%. In June 2015, we issued approximately $335.7 million aggregate principal amount of our 2022 Notes and we have previously raised additional funds through other capital raising activities, including the sale of shares of our Class A common stock in public offerings and the issuance of our PhaRMA Notes in January 2013 (which were redeemed, in full, in connection with the issuance of our 2026 Notes). However, marketing and selling primary care drugs, purchasing commercial quantities of pharmaceutical products, developing product candidates, conducting clinical trials and accessing externally developed products are expensive and uncertain. Circumstances, our strategic imperatives, or opportunities to create or acquire new programs, as well as maturities, redemptions or repurchases of our outstanding debt securities, could require us to, or we may choose to, seek to raise additional funds. The amount and timing of our future funding requirements will depend on many factors, including, but not limited to:

- the level of underlying demand for linaclotide by prescribers and patients in the U.S. and the other countries where it is approved and for ZURAMPIC by prescribers and patients in the U.S.;

- the costs associated with commercializing LINZESS and ZURAMPIC in the U.S.;

- the costs of establishing, maintaining and/or expanding sales, marketing, distribution, and market access capabilities for linaclotide and lesinurad;

- the regulatory approval of linaclotide outside of the U.S. and the other countries where it is approved and the timing of commercial launches in those countries, and the regulatory approval of linaclotide within new indications, populations and formulations, as well as the associated development and commercial milestones and royalties;

- the rate of progress, the cost of our clinical trials and the other costs associated with our linaclotide product development programs, including our post-approval nonclinical and clinical studies of linaclotide in pediatrics and our investment to enhance the clinical profile of LINZESS within IBS-C and CIC, as well as to study linaclotide in additional indications, populations and formulations to assess its potential to treat various GI conditions;

- the rate of progress and the costs associated with development of lesinurad, including costs for which we are required to reimburse AstraZeneca for conducting certain activities related to the post-marketing clinical trial for ZURAMPIC required by the FDA (the conduct of which we and AstraZeneca have agreed to transition to us) and many activities for DUZALLO, as well as for providing transition services;

- the costs and timing of in-licensing additional products or product candidates or acquiring other complementary companies;

- the achievement and timing of milestone payments and royalties due or payable under our collaboration and license agreements;

- the status, terms and timing of any collaboration, licensing, co-commercialization or other arrangements;

- the timing of any regulatory approvals of our product candidates;

- whether the holders of our 2022 Notes hold the notes to maturity without conversion into our Class A common stock and whether we are required to repurchase our 2022 Notes prior to maturity upon a fundamental change, as defined in the indenture governing the 2022 Notes; and

- whether we seek to redeem or repurchase all or part of our outstanding debt through cash purchases and/or exchanges, in open market purchases, privately negotiated transactions, by tender offer or otherwise.

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Additional funding may not be available on acceptable terms or at all. If adequate funds are not available, we may be required to delay or reduce the scope of our commercialization efforts, delay, reduce or eliminate one or more of our development programs or delay or abandon potential strategic opportunities.

Our ability to pay principal of and interest on our outstanding debt securities will depend in part on the receipt of payments from Allergan under our collaboration agreement for North America.

In January 2017, we issued, in connection with the redemption of our PhaRMA Notes, $150.0 million aggregate principal amount of our 2026 Notes bearing an annual interest rate of 8.375% and in June 2015, we issued approximately $335.7 million aggregate principal amount of our 2022 Notes bearing an annual interest rate of 2.25%. Semi-annual payments on our 2022 Notes commenced on December 15, 2015. Quarterly interest payments on our 2026 Notes commenced on June 15, 2017 and, pursuant to the associated indenture, beginning in March 2019 we are obligated to make quarterly payments on our 2026 Notes equal to the greater of (i) 7.5% of net sales of linaclotide in the U.S. for the preceding quarter and (ii) the accrued and unpaid interest on the 2026 Notes. Principal on the 2026 Notes is to be repaid in an amount equal to the difference between (i) and (ii) above, when this is a positive number, until the principal has been paid in full. We expect that for the next few years, at a minimum, the net quarterly payments from Allergan will be a significant source of cash flow from operations. If the cash flows derived from the net quarterly payments that we receive from Allergan under the collaboration agreement for North America are insufficient on any particular payment date to fund the interest payment on our outstanding indebtedness, at a minimum, we will be obligated to pay the amounts of such shortfall out of our general funds. The determination of whether Allergan will be obligated to make a net quarterly payment to us in respect of a particular quarterly period is a function of the revenue generated by LINZESS in the U.S. as well as the development, manufacturing and commercialization expenses incurred by each of us and Allergan under the collaboration agreement for North America. Accordingly, since we cannot guarantee when, or if, our company will become profitable or cash flow positive, we cannot provide assurances that (i) we will have the available funds to fund the interest payment on our outstanding indebtedness, at a minimum, in the event that there is a deficiency in the net quarterly payment received from Allergan, (ii) there will be a net quarterly payment from Allergan at all or (iii) we will not also be required to make a true-up payment to Allergan under the collaboration agreement for North America, in each case, in respect of a particular quarterly period.

Our indebtedness could adversely affect our financial condition or restrict our future operations.

As of June 30, 2017, we had total indebtedness of approximately $485.7 million and available cash, cash equivalents and available for sale securities of approximately $272.9 million. We chose to issue our 2026 Notes (in connection with the redemption, in full, of our PhaRMA Notes) and our 2022 Notes based on the additional strategic optionality that they create for us, and the limited restrictions that these debt securities place on our ability to run our business compared to other potential available financing transactions. However, our indebtedness, combined with our other financial obligations and contractual commitments, could have other important consequences on our business, including:

- limiting our ability to obtain additional financing to fund future working capital, capital expenditures or other general corporate purposes, including product development, commercialization efforts, research and development activities, strategic arrangements, acquisitions and refinancing of our outstanding debt;

- requiring a substantial portion of our cash flow to be dedicated to debt service payments instead of other purposes, thereby reducing the amount of cash flow available for working capital, capital expenditures, corporate transactions and other general corporate purposes;

- increasing our vulnerability to adverse changes in general economic, industry and competitive conditions;

- limiting our flexibility in planning for and reacting to changes in the industry in which we compete;

- placing us at a disadvantage compared to other, less leveraged competitors or competitors with comparable debt at more favorable interest rates; and

- increasing our cost of borrowing.

If we do not generate sufficient cash flow from operations or if future borrowings are not available to us in an amount sufficient to pay our indebtedness, including payments of principal when due on our outstanding indebtedness or, in the

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case of our 2022 Notes, in connection with a transaction involving us that constitutes a fundamental change under the indenture governing the 2022 Notes, or to fund our liquidity needs, we may be forced to refinance all or a portion of our indebtedness on or before the maturity dates thereof, sell assets, reduce or delay currently planned activities or curtail operations, seek to raise additional capital or take other actions. We may not be able to execute any of these actions on commercially reasonable terms or at all. This, together with any of the factors described above, could materially and adversely affect our business, financial condition and results of operations.

In addition, while our 2022 Notes do not include covenants restricting the operation of our business except in certain limited circumstances, in the event of a default under the 2022 Notes, the noteholders or the trustee under the indenture governing the 2022 Notes may accelerate our payment obligations under the 2022 Notes, which could have a material adverse effect on our business, financial condition and results of operations. We are also required to offer to repurchase the 2022 Notes upon the occurrence of a fundamental change, which could include, among other things, any acquisition of our company (other than an acquisition in which at least 90% of the consideration is common stock listed on The NASDAQ Global or Global Select Market or The New York Stock Exchange), subject to the terms of the 2022 Notes indenture. The repurchase price must be paid in cash, and this obligation may have the effect of discouraging, delaying or preventing an acquisition of our company that would otherwise be beneficial to our security holders.

Further, although we are not as restricted under our 2026 Notes as we might have been under a more traditional secured credit facility provided by a bank, the indenture governing our 2026 Notes contains a number of restrictive covenants that impose restrictions on us and may limit our ability to engage in certain acts, including restrictions on our ability to:

- amend our collaboration agreement with Allergan for North America in a way that would have a material adverse effect on the noteholders' rights, or terminate this collaboration agreement with respect to the U.S.;

- transfer our rights to commercialize the product under our collaboration agreement with Allergan for North America; and

- incur certain liens.

Upon a breach of the covenants under our 2026 Notes indenture, or if certain other defaults thereunder occur, the holders of our 2026 Notes could elect to declare all amounts outstanding under our 2026 Notes to be immediately due and payable and we cannot be certain that we will have sufficient assets to repay them. If we are unable to repay those amounts, the holders of our 2026 Notes could proceed against the collateral granted to them to secure the debt securities and we could be forced into bankruptcy or liquidation. If we breach our covenants under our 2026 Notes indenture and seek a waiver, we may not be able to obtain a waiver from the required noteholders. If this occurs, we would be in default under our 2026 Notes indenture and the holders of our 2026 Notes could exercise their rights, as described above.

Each of our 2026 Notes and 2022 Notes also include cross-default features providing that a default under the indenture governing either the 2026 Notes or the 2022 Notes would likely result in a default under the indenture governing the other indebtedness. In the event of such default, the trustee or noteholders could elect to declare all amounts outstanding to be immediately due and payable under the applicable indenture, which could have a material adverse effect on our business, financial condition and results of operations.

Convertible note hedge and warrant transactions entered into in connection with our 2022 Notes may affect the value of our Class A common stock.

In connection with our 2022 Notes, we entered into Convertible Note Hedges and separate Note Hedge Warrant transactions with certain financial institutions. These transactions are expected generally to reduce the potential dilution upon any conversion of our 2022 Notes or offset any cash payments we are required to make in excess of the principal amount of converted 2022 Notes, as the case may be.

In connection with these transactions, the financial institutions purchased our Class A common stock in secondary market transactions and entered into various over-the-counter derivative transactions with respect to our Class A common stock. These entities or their affiliates are likely to modify their hedge positions from time to time prior to conversion or maturity of the 2022 Notes by purchasing and selling shares of our Class A common stock or other instruments they may wish to use in connection with such hedging. Any of these activities could adversely affect the value of our Class A common stock and, as a result, the number of shares and the value of the Class A common stock

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noteholders will receive upon conversion of the 2022 Notes. In addition, under certain circumstances the counterparties have the right to terminate the Convertible Note Hedges and settle the Note Hedge Warrants at fair value (as defined in the applicable confirmations), which may result in us not receiving all or any portion of the anticipated benefit of the Convertible Note Hedges. If the price of our Class A common stock increases such that the hedge transactions settle in our favor, we could also be exposed to credit risk related to the counterparties to the Convertible Note Hedges, which would limit or eliminate the benefit of such transactions to us.

Our quarterly and annual operating results may fluctuate significantly.

We expect our operating results to be subject to frequent fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- the level of underlying demand for linaclotide in the U.S. and the other countries where it is approved and for ZURAMPIC in the U.S.;
- wholesalers' buying patterns with respect to LINZESS and ZURAMPIC;
- the costs associated with commercializing LINZESS and ZURAMPIC in the U.S.;
- the achievement and timing of milestone payments and royalties due or payable under our collaboration and license agreements;
- our execution of any collaboration, partnership, licensing or other strategic arrangements, and the timing of payments we may make or receive under these arrangements;
- any excess or obsolete inventory or impairments of assets, including in-process research and development and other intangible assets, and associated write-downs;
- any changes in the fair value of contingent consideration and the associated impact on our statement of operations;
- any variations in the level of expenses related to our development programs;
- addition or termination of clinical trials;

· regulatory developments affecting our products and product candidates; and

· any material lawsuit in which we may become involved.

If our operating results fall below the expectations of investors or securities analysts, the price of our Class A common stock could decline substantially. Furthermore, any quarterly or annual fluctuations in our operating results may, in turn, cause the price of our stock to fluctuate substantially.

Our ability to use net operating loss and tax credit carryforwards and certain built-in losses to reduce future tax payments is limited by provisions of the Internal Revenue Code, and it is possible that our net operating loss and tax credit carryforwards may expire before we generate sufficient taxable income to use such carryforwards, or that certain transactions or a combination of certain transactions may result in material additional limitations on our ability to use our net operating loss and tax credit carryforwards.

We have incurred significant net losses since our inception and cannot guarantee when, if ever, we will become profitable. To the extent that we continue to generate federal and state taxable losses, unused net operating loss and tax credit carryforwards will carry forward to offset future taxable income, if any, until such unused carryforwards expire. Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, contain rules that limit the ability of a company that undergoes an ownership change, which is generally any change in ownership of more than 50% of its stock over a three-year period, to utilize its net operating loss and tax credit carryforwards and certain built-in losses recognized in years after the ownership change. These rules generally operate by focusing on ownership changes involving stockholders owning directly or indirectly 5% or more of the stock of a company and any change in ownership arising from a new issuance of stock by the company. Generally, if an ownership change occurs, the yearly taxable income limitation on the use of net operating loss and tax credit carryforwards and certain built-in losses is equal to the

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product of the applicable long term tax exempt rate and the value of the company's stock immediately before the ownership change.

If we do not generate sufficient taxable income prior to the expiration of the applicable carryforwards or if the carryforwards are subject to the limitations described above, we may be unable to offset our taxable income with losses, or our tax liability with credits, before such losses and credits expire and therefore would incur larger federal or state income tax liability. We have completed several financings since our inception which may have resulted in a change in control as defined by Section 382, or could result in a change in control in the future.

Risks Relating to Securities Markets and Investment in Our Stock

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could negatively impact the market price of our Class A common stock.

Provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control. These provisions include the following:

- Our certificate of incorporation provides for a dual class common stock structure. As a result of this structure, holders of our Class B common stock have significant influence over certain matters requiring stockholder approval, including a merger involving Ironwood, a sale of substantially all Ironwood assets and a dissolution or liquidation of Ironwood. This concentrated control could discourage others from initiating a change of control transaction that other stockholders may view as beneficial.

- Our board of directors is divided into three classes serving staggered three-year terms, such that not all members of the board are elected at one time. This staggered board structure prevents stockholders from replacing the entire board at a single stockholders' meeting.

- Our board of directors has the right to elect directors to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors.

- Our board of directors may issue, without stockholder approval, shares of preferred stock. The ability to authorize preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us.

- Stockholders must provide advance notice to nominate individuals for election to the board of directors or to propose matters that can be acted upon at a stockholders' meeting. Furthermore, stockholders may only remove a member of our board of directors for cause. These provisions may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect such acquirer's own slate of directors or otherwise attempting to obtain control of our company.

- Our stockholders may not act by written consent. As a result, a holder, or holders, controlling a majority of our capital stock are not able to take certain actions outside of a stockholders' meeting.

- Special meetings of stockholders may be called only by the chairman of our board of directors, our chief executive officer or a majority of our board of directors. As a result, a holder, or holders, controlling a majority of our capital stock are not able to call a special meeting.

- A majority of the outstanding shares of Class B common stock are required to amend our certificate of incorporation and a super-majority (80%) of the outstanding shares of common stock are required to amend our bylaws, which make it more difficult to change the provisions described above.

In addition, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our certificate of incorporation and our bylaws and in the Delaware General Corporation Law could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors.

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The concentration of voting control on certain corporate matters with our pre-IPO stockholders will limit the ability of the holders of our Class A common stock to influence such matters.

Because of our dual class common stock structure, the holders of our Class B common stock, who consist of our pre-IPO investors (and their affiliates), founders, directors, executives and certain of our employees, are able to control certain corporate matters listed below if any such matter is submitted to our stockholders for approval even though such stockholders own less than 50% of the outstanding shares of our common stock. As of June 30, 2017, there were 135,030,974 and 14,524,306 shares of our Class A common stock and Class B common stock issued and outstanding, respectively, and an aggregate of 19,900,017 and 1,720,520 outstanding stock options (vested and unvested) and 2,270,139 and no unvested restricted stock units for shares of our Class A common stock and Class B common stock, respectively. As of June 30, 2017, the holders of our Class A common stock own approximately 90% and the holders of our Class B common stock own approximately 10% of the outstanding shares of Class A common stock and Class B common stock, combined. However, because of our dual class common stock structure these holders of our Class A common stock have approximately 48% and holders of our Class B common stock have approximately 52% of the total votes on each of the matters identified in the list below. This concentrated control of our Class B common stockholders limits the ability of the Class A common stockholders to influence those corporate matters and, as a result, we may take actions that many of our stockholders do not view as beneficial, which could adversely affect the market price of our Class A common stock.

Each share of Class A common stock and each share of Class B common stock has one vote per share on all matters except for the following matters, for which each share of our Class B common stock has ten votes per share and each share of our Class A common stock has one vote per share:

- adoption of a merger or consolidation agreement involving Ironwood;
- a sale of all or substantially all of Ironwood’s assets;
- a dissolution or liquidation of Ironwood; and
- every matter, if and when any individual, entity or “group” (as that term is used in Regulation 13D of the Exchange Act) has, or has publicly disclosed (through a press release or a filing with the SEC) an intent to have, beneficial ownership of 30% or more of the number of outstanding shares of Class A common stock and Class B common stock, combined.

If we identify a material weakness in our internal control over financial reporting, it could have an adverse effect on our business and financial results and our ability to meet our reporting obligations could be negatively affected, each of which could negatively affect the trading price of our Class A common stock.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. Accordingly, a material weakness increases the risk that the financial information we report contains material errors.

We regularly review and update our internal controls, disclosure controls and procedures, and corporate governance policies. In addition, we are required under the Sarbanes-Oxley Act of 2002 to report annually on our internal control over financial reporting. Our system of internal controls, however well-designed and operated, is based in part on certain assumptions and includes elements that rely on information from third parties, including our partners. Our system can provide only reasonable, not absolute, assurances that the objectives of the system are met. If we, or our independent registered public accounting firm, determine that our internal controls over financial reporting are not effective, or we discover areas that need improvement in the future, these shortcomings could have an adverse effect on our business and financial results, and the price of our Class A common stock could be negatively affected.

Further, we are dependent on our partners for information related to our results of operations. Our net profit or net loss generated from the sales of LINZESS in the U.S. is partially determined based on amounts provided by Allergan and involves the use of estimates and judgments, which could be modified in the future. We are highly dependent on our linaclotide partners for timely and accurate information regarding any revenues realized from sales of linaclotide in their respective territories, and in the case of Allergan for the U.S. and AstraZeneca for China, Hong Kong and Macau, the costs incurred in developing and commercializing it in order to accurately report our results of operations. We are also

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dependent on AstraZeneca for timely and accurate information regarding any lesinurad expenses for which we are required to reimburse AstraZeneca and for certain finance and financial reporting services, in each case, until we are able to establish such capabilities or such activities are completed. Our results of operations are also dependent on the timeliness and accuracy of information from any other licensing, collaboration or other partners we may have, as well as our and our partners' use of estimates and judgments. If we do not receive timely and accurate information or if estimated activity levels associated with the relevant collaboration at a given point in time are incorrect, whether the result of a material weakness or not, we could be required to record adjustments in future periods. Such adjustments, if significant, could have an adverse effect on our financial results, which could lead to a decline in our Class A common stock price.

If we cannot conclude that we have effective internal control over our financial reporting, or if our independent registered public accounting firm is unable to provide an unqualified opinion regarding the effectiveness of our internal control over financial reporting, investors could lose confidence in the reliability of our financial statements, which could lead to a decline in our stock price. Failure to comply with reporting requirements could also subject us to sanctions and/or investigations by the SEC, The NASDAQ Stock Market or other regulatory authorities.

We expect that the price of our Class A common stock will fluctuate substantially.

The market price of our Class A common stock may be highly volatile due to many factors, including:

- the commercial performance of linaclotide in the U.S. and the other countries where it is approved and the commercial performance of ZURAMPIC in the U.S., as well as the costs associated with such activities;
- any third-party coverage and reimbursement policies for our products;
- market conditions in the pharmaceutical and biotechnology sectors;
- developments, litigation or public concern about the safety of our products or our potential products;
- announcements of the introduction of new products by us or our competitors;
- announcements concerning product development results, including clinical trial results, or intellectual property rights of us or others;
- actual and anticipated fluctuations in our quarterly and annual operating results;

- deviations in our operating results from any guidance we may provide or the estimates of securities analysts;

- sales of additional shares of our common stock or sales of securities convertible into common stock or the perception that these sales might occur;

- additions or departures of key personnel;

- developments concerning current or future collaboration, partnership, licensing or other strategic arrangements; and

- discussion of us or our stock price in the financial or scientific press or in online investor communities.

The realization of any of the risks described in these “Risk Factors” could have a dramatic and material adverse impact on the market price of our Class A common stock. In addition, class action litigation has often been instituted against companies whose securities have experienced periods of volatility. Any such litigation brought against us could result in substantial costs and a diversion of management attention, which could hurt our business, operating results and financial condition.

Item 6. Exhibits

See the Exhibit Index following the signature page to this Quarterly Report on Form 10-Q.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Ironwood Pharmaceuticals, Inc.

Date: August 3, 2017 By: /s/ PETER M. HECHT
Peter M. Hecht
Chief Executive Officer and Director
(Principal Executive Officer)

Date: August 3, 2017 By: /s/ GINA CONSYLMAN
Gina Consylman
Vice President, Finance and Chief Accounting Officer
(Principal Accounting Officer)

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EXHIBIT INDEX

Exhibit No:	Description
3.1	Eleventh Amended and Restated Certificate of Incorporation. Incorporated by reference to Exhibit 3.1 of Ironwood Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009, filed with the SEC on March 30, 2010.
3.2	Fifth Amended and Restated Bylaws. Incorporated by reference to Exhibit 3.2 of Ironwood Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009, filed with the SEC on March 30, 2010.
31.1*	Certification of Chief Executive Officer pursuant to Rules 13a-14 or 15d-14 of the Exchange Act.
31.2*	Certification of Chief Financial Officer pursuant to Rules 13a-14 or 15d-14 of the Exchange Act.
32.1‡	Certification of Chief Executive Officer pursuant to Rules 13a-14(b) or 15d-14(b) of the Exchange Act and 18 U.S.C. Section 1350.
32.2‡	Certification of Chief Financial Officer pursuant to Rules 13a-14(b) or 15d-14(b) of the Exchange Act and 18 U.S.C. Section 1350.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB*	XBRL Taxonomy Extension Label Linkbase Database
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document

* Filed herewith.

‡ Furnished herewith.