



JAZZ PHARMACEUTICALS ANNOUNCES FIRST QUARTER 2019 FINANCIAL RESULTS

Total Revenues Increased 14% to \$508 Million

GAAP Diluted EPS of \$1.47; Adjusted Diluted EPS of \$3.67

Received FDA Approval of Sunosi for Excessive Daytime Sleepiness (EDS) Associated with Narcolepsy or Obstructive Sleep Apnea (OSA)

Announced Positive Top-line Results from Phase 3 Study of JZP-258 in Adult Narcolepsy Patients with Cataplexy and EDS

Launched Xyrem for Pediatric Narcolepsy

DUBLIN, May 7, 2019 -- Jazz Pharmaceuticals plc (Nasdaq: JAZZ) today announced financial results for the first quarter of 2019 and reaffirmed 2019 financial guidance.

"In the first quarter of 2019, we delivered strong top- and bottom-line growth and continued our efforts to bring innovative and life-changing medicines to patients, with FDA approval of Sunosi for EDS associated with narcolepsy or OSA, launch of Xyrem in pediatric narcolepsy and announcement of positive top-line results from our Phase 3 study of JZP-258," said Bruce Cozadd, chairman and chief executive officer of Jazz Pharmaceuticals. "As the year progresses, we are continuing to invest in our business to support the successful launch of Sunosi in the U.S. and pre-launch activities in the EU, to generate data for our existing products and to fuel further advancement and diversification of our pipeline."

Financial Highlights

	Three Months Ended March 31,		Change
	2019	2018	
(In thousands, except per share amounts and percentages)			
Total revenues	\$ 508,186	\$ 444,613	14%
GAAP net income	\$ 85,201	\$ 45,991	85%
Adjusted net income	\$ 213,173	\$ 182,371	17%
GAAP EPS	\$ 1.47	\$ 0.75	96%
Adjusted EPS	\$ 3.67	\$ 2.98	23%

GAAP net income for the first quarter of 2019 was \$85.2 million, or \$1.47 per diluted share, compared to \$46.0 million, or \$0.75 per diluted share, for the first quarter of 2018.

Adjusted net income for the first quarter of 2019 was \$213.2 million, or \$3.67 per diluted share, compared to \$182.4 million, or \$2.98 per diluted share, for the first quarter of 2018. Reconciliations of applicable GAAP reported to non-GAAP adjusted information are included at the end of this press release.

Key Regulatory/R&D Updates

In March 2019, the company announced that the U.S. Food and Drug Administration (FDA) approved Sunosi™ (solriamfetol) to improve wakefulness in adult patients with EDS associated with narcolepsy or

OSA. Sunosi is the first and only dual-acting dopamine and norepinephrine reuptake inhibitor approved by the FDA for this indication and was approved with strengths of 75 mg and 150 mg for patients with narcolepsy and 37.5 mg, 75 mg, and 150 mg for patients with OSA.

In March 2019, the company announced positive top-line results from the global, double-blind, placebo-controlled, randomized-withdrawal, multi-center Phase 3 study evaluating the efficacy and safety of JZP-258 for the treatment of cataplexy and EDS in adult patients with narcolepsy. JZP-258 is a novel oxybate product candidate with a 92% reduction in sodium content compared to Xyrem.

In March 2019, positive results from DEFIFrance, an observational, multi-center, post-marketing study in adult and pediatric patients treated with defibrotide at hematopoietic stem cell transplant centers in France, were presented at the European Society for Blood and Marrow Transplant (EBMT) meeting.

Select 2019 Milestones

Programs	2019 Milestones*
Xyrem® (sodium oxybate) oral solution	✓ Launched in March for the treatment of cataplexy or EDS in pediatric narcolepsy
JZP-258	<ul style="list-style-type: none"> ✓ • Announced positive top-line results in March from the Phase 3 narcolepsy study • Expect to submit top-line results from the Phase 3 narcolepsy study to a fall medical meeting • Pre-New Drug Application (NDA) meeting with FDA • Goal to submit NDA as early as year-end
Sunosi™ (solriamfetol)	<ul style="list-style-type: none"> ✓ FDA approval on March 20 for EDS in narcolepsy or OSA • Drug Enforcement Administration (DEA) scheduling decision by late second quarter • Initiate Sunosi launch following DEA scheduling decision • Announce new Phase 3 development program mid-year • Obtain EU approval for EDS in narcolepsy or OSA as early as year-end
Vyxeos® (daunorubicin and cytarabine) liposome for injection	<ul style="list-style-type: none"> • Presentation by Children's Oncology Group at the American Society of Clinical Oncology (relapsed/refractory pediatric acute myeloid leukemia (AML) study data) • Potential interim combination data results from MD Anderson collaboration • Finalized protocol for Phase 1/2 study (low-dose Vyxeos in combination with venetoclax); patient enrollment is expected to begin in the second half of the year
Defitelio® (defibrotide sodium) / defibrotide	<ul style="list-style-type: none"> ✓ Presentation of positive results from DEFIFrance study at EBMT in March • Conduct interim analysis of the Phase 3 study for prevention of hepatic veno-occlusive disease (VOD) • Complete enrollment in prevention of acute graft-vs-host disease Phase 2 study • Initiate exploratory Phase 2 study in chimeric antigen receptor t-cell therapy associated neurotoxicity • Initiate Phase 2 study in transplant-associated thrombotic microangiopathy
Asparaginase	<ul style="list-style-type: none"> • Provide informational update on early-stage recombinant crisantaspase program later this year
CombiPlex®	<ul style="list-style-type: none"> • Continue Investigational New Drug enabling activities for one solid tumor combination and progress exploratory activities for other hematology/oncology candidates

* Milestones denoted as ✓ have been completed; all other milestones are planned or expected in 2019.

Other Developments

In March 2019, the company launched Xyrem to treat cataplexy and EDS in pediatric narcolepsy patients following receipt of FDA approval in October 2018 after completing implementation of the Risk Evaluation and Mitigation Strategy to include pediatric patients and their caregivers.

In April 2019, the company announced the finalization of the settlement agreement with the U.S. Department of Justice (DOJ) related to the company's support of charitable organizations that provide financial assistance to Medicare patients. In 2018, the company had announced an agreement in principle and recorded a total expense of \$58.2 million related to this matter, including related interest. Under the settlement agreement, in April 2019, the company paid \$57.0 million plus interest and entered into a five-year corporate integrity agreement with the Office of Inspector General of the Department of Health and Human Services.

Total Revenues

(In thousands)	Three Months Ended March 31,	
	2019	2018
Xyrem® (sodium oxybate) oral solution	\$ 368,317	\$ 316,777
Erwinaze® / Erwinase® (asparaginase <i>Erwinia chrysanthemi</i>)	60,899	50,627
Defitelio® (defibrotide sodium) / defibrotide	41,500	35,061
Vyxeos® (daunorubicin and cytarabine) liposome for injection	28,943	26,228
Other	3,672	12,154
Product sales, net	503,331	440,847
Royalties and contract revenues	4,855	3,766
Total revenues	\$ 508,186	\$ 444,613

Total revenues increased 14% in the first quarter of 2019 compared to the same period in 2018.

Xyrem net product sales increased 16% in the first quarter of 2019 compared to the same period in 2018.

Erwinaze/Erwinase net product sales increased 20% in the first quarter of 2019 due to an increase in product availability compared to the same period in 2018. The company continues to expect supply disruptions throughout 2019 which will cause inter-quarter variability in Erwinaze net sales.

Defitelio/defibrotide net product sales increased 18% in the first quarter of 2019 compared to the same period in 2018 due to increased use by transplant centers that treat adult and pediatric patients. VOD is an ultra-rare disease and, as a result, the company continues to expect inter-quarter variability in Defitelio net sales.

Vyxeos net product sales increased 10% in the first quarter of 2019 compared to the same period in 2018 primarily due to the rolling launch in the EU initiated in September 2018. The company continues its education and outreach initiatives and its efforts to generate data to support Vyxeos' potential use across broader patient populations in AML and other hematological malignancies.

Operating Expenses

(In thousands, except percentages)	Three Months Ended March 31,	
	2019	2018
GAAP:		
Cost of product sales	\$ 33,506	\$ 33,919
<i>Gross margin</i>	93.3%	92.3%
Selling, general and administrative	\$ 167,947	\$ 207,213
<i>% of total revenues</i>	33.0%	46.6%
Research and development	\$ 60,105	\$ 62,667
<i>% of total revenues</i>	11.8%	14.1%
Acquired in-process research and development	\$ 56,000	\$ —
Income tax provision	\$ 29,116	\$ 19,146
<i>Effective tax rate</i>	25.3%	29.2%

(In thousands, except percentages)	Three Months Ended March 31,	
	2019	2018
Non-GAAP adjusted:		
Cost of product sales	\$ 31,847	\$ 32,225
<i>Gross margin</i>	93.7%	92.7%
Selling, general and administrative	\$ 147,577	\$ 131,979
<i>% of total revenues</i>	29.0%	29.7%
Research and development	\$ 54,582	\$ 47,292
<i>% of total revenues</i>	10.7%	10.6%
Income tax provision	\$ 52,714	\$ 38,693
<i>Effective tax rate</i>	19.8%	17.5%

Operating expenses changed over the prior year period primarily due to the following:

- Selling, general and administrative (SG&A) expenses on a GAAP basis decreased in the first quarter of 2019 compared to the same period in 2018 primarily due to a \$57.0 million loss contingency recorded in 2018 related to the DOJ matter described above. SG&A expenses on a GAAP basis, excluding the impact of the loss contingency, and on a non-GAAP adjusted basis increased in the first quarter of 2019 compared to the same period in 2018 primarily due to higher expenses related to the planned launch of Sunosi in the U.S. and an increase in headcount and compensation-related expenses to support expansion of the business.
- Research and development (R&D) expenses on a GAAP basis decreased in the first quarter of 2019 compared to the same period in 2018 primarily due to milestone payments of \$11.0 million related to FDA acceptance for filing of the company's solriamfetol NDA recorded in 2018. R&D expenses on a GAAP basis, excluding the impact of milestone payments, and on a non-GAAP adjusted basis increased in the first quarter of 2019 compared to the same period in 2018 primarily due to expenses related to the company's pre-clinical and clinical development programs, including partner programs, regulatory activities and related headcount increases to support these efforts.

Cash Flow and Balance Sheet

As of March 31, 2019, cash, cash equivalents and investments were \$832.5 million and the outstanding principal balance of the company's long-term debt was \$1.8 billion. During the first quarter of 2019, the company generated \$202.3 million of cash from operations, made an upfront payment of \$56.0 million to Codiak BioSciences, Inc. under a collaboration agreement and used \$111.2 million to repurchase shares.

In the first quarter of 2019, the company repurchased approximately 858,000 ordinary shares under the company's share repurchase program at an average cost of \$129.66 per ordinary share. As of March 31, 2019, the remaining amount authorized for share repurchases was \$267.9 million.

2019 Financial Guidance

Jazz Pharmaceuticals is reaffirming its full year 2019 financial guidance as follows (in millions, except per share amounts and percentages):

Revenues ¹	\$2,050 - \$2,130
Total net product sales ¹	\$2,035 - \$2,110
-Xyrem net sales	\$1,530 - \$1,570
-Erwinaze/Erwinase net sales	\$160 - \$195
-Defitelio/defibrotide net sales	\$155 - \$180
-Vyxeos net sales	\$120 - \$150
GAAP gross margin %	94%
Non-GAAP adjusted gross margin % ^{2,6}	94%
GAAP SG&A expenses	\$702 - \$740
Non-GAAP adjusted SG&A expenses ^{3,6}	\$620 - \$650
GAAP R&D expenses	\$257 - \$326
GAAP Acquired in-process research and development expenses	\$56
Non-GAAP adjusted R&D expenses ^{4,6}	\$235 - \$265
GAAP effective tax rate	17% - 21%
Non-GAAP adjusted effective tax rate ^{5,6}	17% - 19%
GAAP net income per diluted share	\$6.80 - \$8.50
Non-GAAP adjusted net income per diluted share ⁶	\$14.30 - \$15.00

1. Includes minimal net sales contribution from Sunosi in the U.S., assuming launch in mid-2019.
2. Excludes \$6-\$8 million of share-based compensation expense from estimated GAAP gross margin.
3. Excludes \$82-\$90 million of share-based compensation expense from estimated GAAP SG&A expenses.
4. Excludes \$0-\$34 million of milestone payments and \$22-\$27 million of share-based compensation expense from estimated GAAP R&D expenses.
5. Excludes the income tax effect of adjustments between GAAP reported and non-GAAP adjusted net income.
6. See "Non-GAAP Financial Measures" below. Reconciliations of non-GAAP adjusted guidance measures are included above and in the table titled "Reconciliation of GAAP to Non-GAAP Adjusted 2019 Net Income Guidance" at the end of this press release.

Conference Call Details

Jazz Pharmaceuticals will host an investor conference call and live audio webcast today at 4:30 p.m. EDT (9:30 p.m. IST) to provide a business and financial update and discuss its 2019 first quarter results. The live webcast may be accessed from the Investors section of the company's website at www.jazzpharmaceuticals.com. Please connect to the website prior to the start of the conference call to ensure adequate time for any software downloads that may be necessary. Investors may participate in

the conference call by dialing +1 855 353 7924 in the U.S., or +1 503 343 6056 outside the U.S., and entering passcode 6667859.

A replay of the conference call will be available through May 14, 2019 by dialing +1 855 859 2056 in the U.S., or +1 404 537 3406 outside the U.S., and entering passcode 6667859. An archived version of the webcast will be available for at least one week in the Investors section of the company's website at www.jazzpharmaceuticals.com.

About Jazz Pharmaceuticals plc

Jazz Pharmaceuticals plc (Nasdaq: JAZZ), a global biopharmaceutical company, is dedicated to developing life-changing medicines for people with limited or no options. As a leader in sleep medicine and with a growing hematology/oncology portfolio, Jazz has a diverse portfolio of products and product candidates in development, and is focused on transforming biopharmaceutical discoveries into novel medicines. Jazz Pharmaceuticals markets Xyrem® (sodium oxybate) oral solution, Erwinaze® (asparaginase *Erwinia chrysanthemi*), Defitelio® (defibrotide sodium) and Vyxeos® (daunorubicin and cytarabine) liposome for injection in the U.S. and markets Erwinaze®, Defitelio® (defibrotide) and Vyxeos® 44 mg/100 mg powder for concentrate for solution for infusion in countries outside the U.S. For country-specific product information, please visit <https://www.jazzpharma.com/medicines>. For more information, please visit www.jazzpharmaceuticals.com and follow us on Twitter at [@JazzPharma](https://twitter.com/JazzPharma).

Non-GAAP Financial Measures

To supplement Jazz Pharmaceuticals' financial results and guidance presented in accordance with U.S. generally accepted accounting principles (GAAP), the company uses certain non-GAAP (also referred to as adjusted or non-GAAP adjusted) financial measures in this press release and the accompanying tables. In particular, the company presents non-GAAP adjusted net income (and the related per share measure) and its line item components, as well as certain non-GAAP adjusted financial measures derived therefrom, including non-GAAP adjusted gross margin percentage and non-GAAP adjusted effective tax rate. Non-GAAP adjusted net income (and the related per share measure) and its line item components exclude from reported GAAP net income (and the related per share measure) and its line item components certain items, as detailed in the reconciliation tables that follow, and in the case of non-GAAP adjusted net income (and the related per share measure), adjust for the income tax effect of non-GAAP adjustments. In this regard, the components of non-GAAP adjusted net income, including non-GAAP cost of product sales, non-GAAP SG&A expenses and non-GAAP R&D expenses, are income statement line items prepared on the same basis as, and therefore components of, the overall non-GAAP adjusted net income measure.

The company believes that each of these non-GAAP financial measures provides useful supplementary information to, and facilitates additional analysis by, investors and analysts. In particular, the company believes that each of these non-GAAP financial measures, when considered together with the company's financial information prepared in accordance with GAAP, can enhance investors' and analysts' ability to meaningfully compare the company's results from period to period and to its forward-looking guidance, and to identify operating trends in the company's business. In addition, these non-GAAP financial measures are regularly used by investors and analysts to model and track the company's financial performance. Jazz Pharmaceuticals' management also regularly uses these non-GAAP financial measures internally to understand, manage and evaluate the company's business and to make operating decisions, and compensation of executives is based in part on certain of these non-GAAP financial measures. Because these non-GAAP financial measures are important internal measurements for Jazz Pharmaceuticals' management, the company also believes that these non-GAAP financial measures are useful to investors and analysts since these measures allow for greater transparency with respect to key financial metrics the company uses in assessing its own operating performance and making operating decisions.

These non-GAAP financial measures are not meant to be considered in isolation or as a substitute for comparable GAAP measures; should be read in conjunction with the company's consolidated financial

statements prepared in accordance with GAAP; have no standardized meaning prescribed by GAAP; and are not prepared under any comprehensive set of accounting rules or principles. In addition, from time to time in the future there may be other items that the company may exclude for purposes of its non-GAAP financial measures; and the company has ceased, and may in the future cease, to exclude items that it has historically excluded for purposes of its non-GAAP financial measures. Likewise, the company may determine to modify the nature of its adjustments to arrive at its non-GAAP financial measures. Because of the non-standardized definitions of non-GAAP financial measures, the non-GAAP financial measures as used by Jazz Pharmaceuticals in this press release and the accompanying tables have limits in their usefulness to investors and may be calculated differently from, and therefore may not be directly comparable to, similarly titled measures used by other companies.

“Safe Harbor” Statement under the Private Securities Litigation Reform Act of 1995

This press release contains forward-looking statements, including, but not limited to, statements related to Jazz Pharmaceuticals' future financial and operating results, including its 2019 financial guidance, the company's planned or expected 2019 milestones and the timing thereof, the company's continuing investments to support a successful launch of Sunosi in the U.S. and EU pre-launch activities, to generate data for its existing products and to fuel further advancement and diversification of its pipeline, the company's expectations of further Erwinaze supply disruptions and inter-quarter variability in Erwinaze and Defitelio net sales, the company's plans to generate data to support existing products, including Vyxeos' potential use across broader patient populations in AML and other hematological malignancies, and other statements that are not historical facts. These forward-looking statements are based on the company's current plans, objectives, estimates, expectations and intentions and inherently involve significant risks and uncertainties. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, risks and uncertainties associated with: maintaining or increasing sales of and revenue from Xyrem; effectively commercializing the company's other products and product candidates, including the risk of a potential delay in the commercial launch of Sunosi in the U.S. due to the DEA scheduling review or otherwise; the time-consuming and uncertain regulatory approval process, including the risk that the company's regulatory submissions, including the Sunosi marketing authorization application in the EU, may not be approved by applicable regulatory authorities in a timely manner or at all; costly and time-consuming pharmaceutical product development and the uncertainty of clinical success, including risks related to failure or delays in initiating or completing clinical trials; protecting and enhancing the company's intellectual property rights; delays or problems in the supply or manufacture of the company's products and product candidates; complying with applicable U.S. and non-U.S. regulatory requirements; government investigations and other actions; obtaining and maintaining adequate coverage and reimbursement for the company's products; identifying and acquiring, in-licensing or developing additional products or product candidates, financing these transactions and successfully integrating acquired businesses; the ability to achieve expected future financial performance and results and the uncertainty of future tax and other provisions and estimates; and other risks and uncertainties affecting the company, including those described from time to time under the caption "Risk Factors" and elsewhere in Jazz Pharmaceuticals plc's Securities and Exchange Commission filings and reports (Commission File No. 001-33500), including the company's Annual Report on Form 10-K for the year ended December 31, 2018 and future filings and reports by the company, including the company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019. Other risks and uncertainties of which the company is not currently aware may also affect the company's forward-looking statements and may cause actual results and the timing of events to differ materially from those anticipated.

JAZZ PHARMACEUTICALS PLC
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Revenues:		
Product sales, net	\$ 503,331	\$ 440,847
Royalties and contract revenues	4,855	3,766
Total revenues	508,186	444,613
Operating expenses:		
Cost of product sales (excluding amortization of intangible assets)	33,506	33,919
Selling, general and administrative	167,947	207,213
Research and development	60,105	62,667
Intangible asset amortization	56,885	53,007
Acquired in-process research and development	56,000	—
Total operating expenses	374,443	356,806
Income from operations	133,743	87,807
Interest expense, net	(17,922)	(20,605)
Foreign exchange loss	(611)	(1,728)
Income before income tax provision and equity in loss of investees	115,210	65,474
Income tax provision	29,116	19,146
Equity in loss of investees	893	337
Net income	\$ 85,201	\$ 45,991
Net income per ordinary share:		
Basic	\$ 1.49	\$ 0.77
Diluted	\$ 1.47	\$ 0.75
Weighted-average ordinary shares used in per share calculations - basic	57,206	59,928
Weighted-average ordinary shares used in per share calculations - diluted	58,081	61,178

JAZZ PHARMACEUTICALS PLC
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands)
(Unaudited)

	March 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 547,466	\$ 309,622
Investments	285,000	515,000
Accounts receivable, net of allowances	320,485	263,838
Inventories	60,707	52,956
Prepaid expenses	28,974	25,017
Other current assets	62,985	67,572
Total current assets	1,305,617	1,234,005
Property, plant and equipment, net	113,006	200,358
Operating lease assets	147,365	—
Intangible assets, net	2,679,393	2,731,334
Goodwill	919,972	927,630
Deferred tax assets, net	65,090	57,879
Deferred financing costs	9,056	9,589
Other non-current assets	40,736	42,696
Total assets	\$ 5,280,235	\$ 5,203,491
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 42,669	\$ 40,602
Accrued liabilities	292,390	264,887
Current portion of long-term debt	33,387	33,387
Income taxes payable	40,833	1,197
Deferred revenue	4,720	5,414
Total current liabilities	413,999	345,487
Deferred revenue, non-current	8,401	9,581
Long-term debt, less current portion	1,565,277	1,563,025
Operating lease liabilities, less current portion	154,066	—
Deferred tax liabilities, net	296,148	309,097
Other non-current liabilities	111,897	218,879
Total shareholders' equity	2,730,447	2,757,422
Total liabilities and shareholders' equity	\$ 5,280,235	\$ 5,203,491

JAZZ PHARMACEUTICALS PLC
SUMMARY OF CASH FLOWS
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Net cash provided by operating activities	\$ 202,253	\$ 167,359
Net cash provided by (used in) investing activities	166,052	(52,149)
Net cash used in financing activities	(130,349)	(47,575)
Effect of exchange rates on cash and cash equivalents	(112)	(501)
Net increase in cash and cash equivalents	<u>\$ 237,844</u>	<u>\$ 67,134</u>

JAZZ PHARMACEUTICALS PLC
RECONCILIATIONS OF GAAP REPORTED TO NON-GAAP ADJUSTED INFORMATION
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
GAAP reported net income	\$ 85,201	\$ 45,991
Intangible asset amortization	56,885	53,007
Share-based compensation expense	27,552	24,303
Loss contingency	—	57,000
Upfront and milestone payments	56,000	11,000
Non-cash interest expense	11,133	10,617
Income tax effect of above adjustments	(23,598)	(19,547)
Non-GAAP adjusted net income	<u>\$ 213,173</u>	<u>\$ 182,371</u>
GAAP reported net income per diluted share	\$ 1.47	\$ 0.75
Non-GAAP adjusted net income per diluted share	<u>\$ 3.67</u>	<u>\$ 2.98</u>
Weighted-average ordinary shares used in diluted per share calculations	<u>58,081</u>	<u>61,178</u>

JAZZ PHARMACEUTICALS PLC
RECONCILIATIONS OF GAAP REPORTED TO NON-GAAP ADJUSTED INFORMATION
CERTAIN LINE ITEMS AND OTHER INFORMATION
(In thousands, except per share amounts and percentages)
(Unaudited)

	Three Months Ended					
	March 31, 2019			March 31, 2018		
	GAAP Reported	Adjustments	Non-GAAP Adjusted	GAAP Reported	Adjustments	Non-GAAP Adjusted
Total revenues	\$ 508,186	\$ —	\$ 508,186	\$ 444,613	\$ —	\$ 444,613
Cost of product sales (excluding amortization of intangible assets)	33,506	(1,659) ^(a)	31,847	33,919	(1,694) ^(a)	32,225
Research and development	60,105	(5,523) ^(c)	54,582	62,667	(15,375) ^(c)	47,292
Intangible asset amortization	56,885	(56,885)	—	53,007	(53,007)	—
Acquired in-process research and development	56,000	(56,000)	—	—	—	—
Interest expense, net	17,922	(11,133) ^(d)	6,789	20,605	(10,617) ^(d)	9,988
Foreign exchange loss	611	—	611	1,728	—	1,728
Income before income tax provision and equity in loss of investees	115,210	151,570 ^(e)	266,780	65,474	155,927 ^(e)	221,401
Income tax provision	29,116	23,598 ^(f)	52,714	19,146	19,547 ^(f)	38,693
<i>Effective tax rate ^(g)</i>	<i>25.3%</i>		<i>19.8%</i>	<i>29.2%</i>		<i>17.5%</i>
Equity in loss of investees	893	—	893	337	—	337
Net income per diluted share	\$ 1.47		\$ 3.67	\$ 0.75		\$ 2.98

Explanation of Adjustments and Certain Line Items (in thousands):

- (a) Share-based compensation expense of \$1,659 and \$1,694 for the three months ended March 31, 2019 and 2018, respectively.
- (b) Share-based compensation expense of \$20,370 and \$18,234 and loss contingency of \$0 and \$57,000 for the three months ended March 31, 2019 and 2018, respectively.
- (c) Share-based compensation expense of \$5,523 and \$4,375 and upfront and milestone payments of \$0 and \$11,000 for the three months ended March 31, 2019 and 2018, respectively.
- (d) Non-cash interest expense associated with debt discount and debt issuance costs for the respective three-month period.
- (e) Sum of adjustments (a) through (d) plus the adjustments for intangible asset amortization and acquired in-process research and development, as applicable, for the respective three-month period.
- (f) Income tax adjustments related to the income tax effect of adjustments between GAAP reported and non-GAAP adjusted net income for the respective three-month period.
- (g) Income tax provision divided by income before income tax provision and equity in loss of investees for the respective three-month period.
- (h) Net of adjustments (e) and (f) for the respective three-month period.

JAZZ PHARMACEUTICALS PLC
RECONCILIATION OF GAAP TO NON-GAAP ADJUSTED 2019 NET INCOME GUIDANCE
(In millions, except per share amounts)
(Unaudited)

GAAP net income	\$395 - \$495
Intangible asset amortization*	240 - 260
Share-based compensation expense	110 - 125
Upfront and milestone payments	56 - 90
Non-cash interest expense	40 - 50
Income tax effect of adjustments	(75) - (95)
Non-GAAP adjusted net income	\$835 - \$875
GAAP net income per diluted share	\$6.80 - \$8.50
Non-GAAP adjusted net income per diluted share	\$14.30 - \$15.00
Weighted-average ordinary shares used in per share calculations	58

* Updated May 7, 2019.

Contacts:

Investors:

Kathee Littrell
Vice President, Investor Relations
Jazz Pharmaceuticals plc
Ireland, +353 1 634 7887
U.S., +1 650 496 2717

Media:

Jacqueline Kirby
Vice President, Corporate Affairs & Government Relations
Jazz Pharmaceuticals plc
Ireland, +353 1 697 2141
U.S., +1 215 867 4910