

Advancing Life-Changing Discoveries in Neuroscience

Q1 2020 Corporate Presentation May 6, 2020

Nasdaq: NBIX

neurocrine.com

Safe Harbor Statement and Non-GAAP Financial Measures

In addition to historical facts, this presentation contains forward-looking statements that involve a number of risks and uncertainties. These statements include, but are not limited to, statements related to: the benefits to be derived from our products and product candidates, including INGREZZA, ONGENTYS, and our partnered product, ORILISSA; the value INGREZZA, ONGENTYS, ORILISSA, and/or our product candidates may bring to patients; the continued success of INGREZZA; the timing of our launch of ONGENTYS; our financial and operating performance, including our future expenses; our collaborative partnerships; expectations regarding the impact of COVID-19 on our business; expectations regarding our ability to adapt our business to the evolving COVID-19 pandemic, mitigate its impact on our business and maintain business continuity, including our ability to protect the safety and well-being of our employees, to continue to support uninterrupted supply of INGREZZA, including patient and healthcare provider access to INGREZZA, to continue our ongoing clinical trials and other development activities, and to otherwise advance our business objectives; and the timing of completion of our clinical, regulatory, and other development activities and those of our collaboration partners. Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are: our future financial and operating performance; risks associated with the commercialization of INGREZZA, ONGENTYS, and ORILISSA; risks that the launch of ONGENTYS may be delayed; the impact of the COVID-19 pandemic and efforts to mitigate its spread on our business; risks and uncertainties associated with the scale and duration of the COVID-19 pandemic and resulting global, national, and local economic and financial disruptions; risk and uncertainties related to any COVID-19 guarantines, shelter-in-place and similar government orders that are currently in place or that may be put in place in the future, including the impact of such orders on our business operations and the business operations of the third parties on which we rely; risks related to the development of our product candidates; risks associated with our dependence on third parties for development and manufacturing activities related to INGREZZA and our product candidates, and our ability to manage these third parties; risks that the FDA or other regulatory authorities may make adverse decisions regarding our products or product candidates; risks associated with our dependence on AbbVie for the commercialization of ORILISSA and the continued development of elagolix; risks associated with our dependence on BIAL for manufacturing activities for ONGENTYS, and our ability to manage BIAL: risks that clinical development activities may not be completed on time or at all, or may be delayed for regulatory. manufacturing, COVID-19 or other reasons, may not be successful or replicate previous clinical trial results, may fail to demonstrate that our product candidates are safe and effective, or may not be predictive of real-world results or of results in subsequent clinical trials; risks that the potential benefits of the agreements with our collaboration partners may never be realized; risks that our products, and/or our product candidates may be precluded from commercialization by the proprietary or regulatory rights of third parties, or have unintended side effects, adverse reactions or incidents of misuse; and other risks described in our periodic reports filed with the SEC, including without limitation our quarterly report on Form 10-Q for the guarter ended March 31, 2020. Neurocrine disclaims any obligation to update the statements contained in this presentation after the date hereof.

This presentation refers to certain non-GAAP financial measures. These non-GAAP financial measures should not be considered replacements for, and should be read together with, the most comparable GAAP financial measures. Reconciliations of non-GAAP financial results to the most directly comparable GAAP financial results are included at the end of this presentation and in our earnings release, which has been filed with the SEC in a Current Report on Form-8-K dated as of even date herewith. In addition, Neurocrine provides guidance regarding combined research and development and sales, general and administrative expenses on both a GAAP and non-GAAP basis.

Neurocrine Q1 2020 Highlights & 2020 Key Activities

Q1 2020 Highlights

- Q1 2020 INGREZZA[®] (valbenazine) Net Product Sales of \$231MM with ~41,500 TRx
- Announced Option Agreement with Idorsia to License ACT-709478 for Rare Pediatric Epilepsy
- Appointed Shalini Sharp to Board of Directors
- Advanced Crinecerfont Development Programs
- Continued Preparations to Initiate Clinical Studies in 2H 2020
- Provided COVID-19 Business Update
- FDA Approved* ONGENTYS[®] (opicapone) as Once-Daily Adjunctive Therapy in Patients with Parkinson's Disease

2020 Key Activities / Highlights

- Continued Focus on INGREZZA Commercial Execution and "Talk About TD" Disease State Awareness Campaign
- Q2 PDUFA Date for Elagolix** in Uterine Fibroids
- Initiate Global Registrational Study for Crinecerfont in Adult CAH Patients in the second half of 2020
- NBIb-1817: RESTORE-1 Registration Study Amendments to Protocol by Mid-Year; Initiate RESTORE-2 Registration Study in 2H 2020
- Initiate Phase II Studies for NBI-921352 and ACT-709478 in Rare Pediatric Epilepsies in 2H 2020
- Launch ONGENTYS Later This Year

* Approval occurred on April 24, 2020 ; ** AbbVie has global commercial rights

TRx = Total Prescriptions; FDA = U.S. Food and Drug Administration; TD = Tardive Dyskinesia; CAH = Congenital Adrenal Hyperplasia; PDUFA = Prescriptions Drug User Fee Act

Business Operations Update During COVID-19 Pandemic

Workplace and Community

- All Employees Working Remotely Except For Key Essential Members Involved in Business-Critical Activities
- Utilizing Remote Technologies to Ensure Continued Support for Patients and Healthcare Professionals
- Donated Supplies to San Diego Area Hospitals and Funds to Aid Local Food Banks and Healthcare Costs

ONGENTYS Supply and Launch Timing

- Launching ONGENTYS Later This Year
- Will Provide Updates As We Monitor Evolving COVID-19 Pandemic and ONGENTYS Supply Chain Situations

Supporting Needs of INGREZZA Patients

- Network of Specialty and Mental Health Pharmacies Remains Engaged with Patients
- We Do Not Expect Any Disruptions in Our Ability to Supply Patients with INGREZZA

Minimizing Potential Impact on Studies

- New Patient Enrollment Temporarily Paused in On-Going Studies
- Working with Clinical Site Investigators to Ensure Safety for All Currently Enrolled Study Participants and On Timing of Enrollment Re-Initiation
- Continuing Preparations to Ensure We Are Well Positioned

Note: All information on this slide originally provided in Company press release dated April 3, 2020 with the exception of funding provided to aid local food banks and healthcare costs which occurred after April 3. to Launch Clinical Studies Planned for second half of 2020

Diversified Portfolio with Multi-Stage Programs

PROGRAM	THERAPEUTIC AREA	PHASE 1	PHASE 2	PHASE 3	NDA	COMMERCIAL
INGREZZA [®] (valbenazine) [*]	Tardive Dyskinesia					
ORILISSA [®] (elagolix) [†]	Endometriosis					
ONGENTYS [®] (opicapone) [‡]	Parkinson's Disease					
elagolix [†]	Uterine Fibroids					
valbenazine*	Chorea in Huntington Disease	(//////////////////////////////////////				
crinecerfont (NBI-74788)	Congenital Adrenal Hyperplasia (Adult)					
crinecerfont (NBI-74788)	Congenital Adrenal Hyperplasia (Pediatric)					
NBIb-1817 [¶] (VY-AADC)	Parkinson's Disease	9//////////////////////////////////////				
elagolix [†]	Polycystic Ovary Syndrome					
NBI-921352 (XEN901)	Epilepsy					
ACT-709478 [§]	Epilepsy					
New VMAT2 Inhibitor	Neurology/Psychiatry					

Neurocrine Biosciences has global rights unless otherwise noted.

[‡] BIAL retains commercialization rights outside U.S. and Canada

* Mitsubishi Tanabe Pharma has commercialization rights in East Asia

following the ongoing Phase II RESTORE-1 study

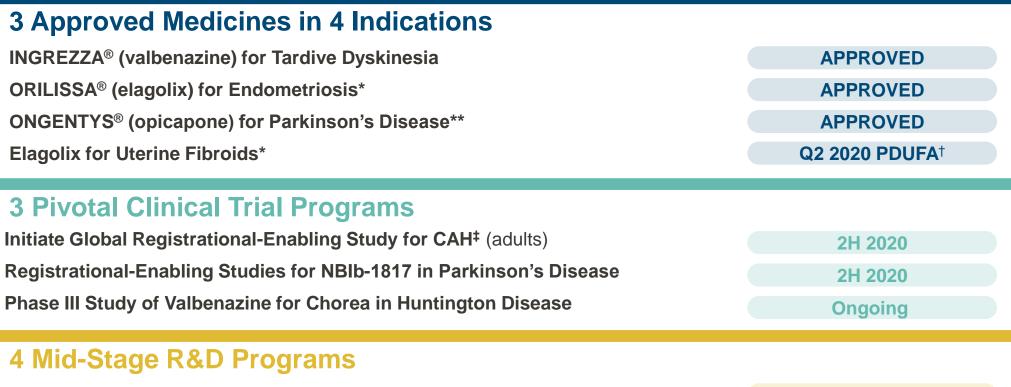
§ Neurocrine Biosciences has the exclusive option to license from Idorsia

[¶] Voyager Therapeutics has co-commercialization option for U.S. market

[†] AbbVie has global commercialization rights



2020: Expand Potential Indications and Advance Clinical Programs

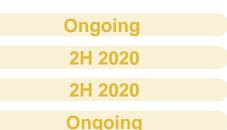




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Phase IIa Study of Crinecerfont in CAH (pediatric) Initiate Phase II Study of NBI-921352 in SCN8A-DEE[¶] Initiate Phase II Study of ACT-709478 in Epilepsy[§] Phase II Study of Elagolix in PCOS*^{||}



* AbbVie has global commercial rights

** BIAL retains commercialization rights outside U.S. and Canada

[†] PDUFA (Prescription Drug User Fee Act) Target Action Date

[‡] CAH (Congenital Adrenal Hyperplasia)

¹SCN8A – DEE (SCN8A Developmental and Epileptic Encephalopathy)

a § Neurocrine Biosciences has the exclusive option to license from Idorsia

AbbVie has global commercial rights and is conducting the study in PCOS (Polycystic Ovary Syndrome)



Financial Summary

\$ Millions, Except Non-GAAP EPS

ltem	Q1 '19	Q1 '20	Financial Highlights		
Revenue INGREZZA Product Sales, Net Collaboration Revenue 	\$138.4 136.4 2.0	\$237.1 231.1 6.0	INGREZZA Grew 69% YoY		
Non-GAAP R&D Expense	32.3	50.6	Increase Driven by Higher Spend in Gene Therapy Programs and Expanded Clinical Portfolio		
Non-GAAP SG&A Expense	77.1	102.7	Increase Driven by Higher Headcount Costs and Continued Investment in Disease-State Awareness Campaign ("Talk About TD")		
Non-GAAP Net Income	27.7	79.1	8 th Straight Quarter of Positive Non-GAAP Net Income		
Non-GAAP Earnings per Share, Diluted	\$0.29	\$0.82	YoY Growth of 182%		
Cash and Investments (Period End)	\$700.8	\$1,007.6	Cash Balance Increase Driven by Operating Income		
All income statement items, except revenue, are non-GAAP financial measures—see reconciliations accompanying the presentation					



Revised 2020 GAAP and Non-GAAP Expense Guidance

\$ Millions		Revised 2020 Guidance Range			
ltem	2019 Actuals	Low	High		
Combined GAAP R&D and SG&A Expenses	\$554	\$675	\$725		
Combined Non-GAAP R&D and SG&A Expenses	\$469	\$550	\$600		

 Guidance Range Reflects Increased Investment in R&D Programs Including Three Registrational Programs, Meaningful Investments Across Early Stage Programs Including Voyager and Xenon Collaborations, Continued Investments in INGREZZA and Marketing Costs Associated with the Anticipated Launch of ONGENTYS.

- Guidance Change Driven by General Delays due to COVID-19.
- Previous Expense Guidance: Combined GAAP R&D and SG&A Expenses in the Range of \$740 to \$770 Million and Combined Non-GAAP R&D and SG&A Expenses in the Range of \$620 to \$650 Million.
- GAAP-Only Guidance:
 - Includes Approximately \$105 Million of Share-Based Compensation and a \$20 Million Milestone Payment to BIAL Connected with the Approval of ONGENTYS by the FDA.
 - Does Not Include Any Other Potential Milestones or In-Process Research and Development Costs Associated with Current Collaborations or Future Business Development Activities



Our Medicines Our Patients





1st FDA-approved Treatment for Adults with Tardive Dyskinesia (TD) – Launched in 2017

Most-Prescribed and Most-Preferred TD Therapy

- Rapid Improvement in Involuntary Movements
- Generally Well Tolerated
- Ease-of-Use: One Capsule, Once daily

Tardive Dyskinesia (TD): An Overview

TD is a movement disorder characterized by uncontrollable, abnormal and repetitive movements of the face, torso and/or other body parts, which may be disruptive & negatively impact patients.





J.S. adults live with a mental illness.

TD, one of the challenges associated with mental illness, is estimated to affect at least

500,000

people in the U.S.



TD can look different day-to-day. Symptoms can be **severe** and are often **persistent** and **irreversible**. TD is caused by prolonged use of **antipsychotics**, commonly prescribed to treat **schizophrenia**, **bipolar disorder** & **depression**, & certain **anti-nausea medications**.

According to a survey* of patients with TD, the condition affects their:

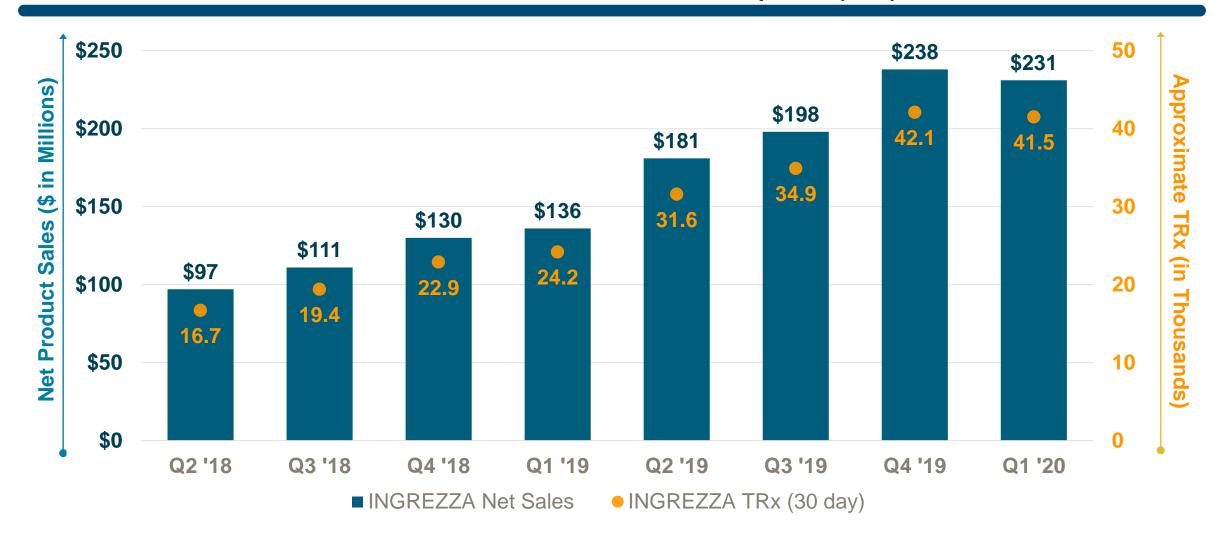


* Neurocrine Data on File



INGREZZA Continues to Exceed Expectations Growing 69% vs. Q1 2019

INGREZZA Net Sales and ~Total Prescriptions (TRx)





Valbenazine: Chorea in Huntington Disease

Phase III Study to Treat Chorea in Adult Patients with Huntington Disease*

Chorea in Huntington Disease (HD)



An involuntary movement disorder estimated to affect approximately **90% of the 30,000** HD patients in the U.S. HD is a **rare neurodegenerative disorder** in which neurons within the brain break down. Patients with chorea in HD develop abnormal, abrupt or irregular movements



Common symptoms of chorea can affect various body parts and interfere with speech, swallowing, posture and gait



Need for chorea treatment options with better safety profile as current treatments are associated with increased risk of depression and suicidality

* As previously announced as part of a broader COVID-19 business update on April 3, 2020, this study is temporarily pausing enrollment of new patients

** Valbenazine in Huntington disease is investigational and not approved in the U.S.

Valbenazine**

- Targeted symptom control of chorea movements as measured by the Unified Huntington Disease Rating Scale (UHDRS) and Total Maximal Chorea (TMC)
- Promising safety profile without troublesome side effects
- Phase III study initiated in November 2019 with expected completion in 2021







elagolix tablets^{150 mg} Neurocrine Biosciences discovered and developed through Phase II; AbbVie received FDA approval and responsible for commercialization

1st FDA-Approved Oral Treatment for Women with Moderate-to-Severe Endometriosis Pain in **Over a Decade - Launched in 2018**

Less Estrogen = Less Painful Endometriosis Legions

Addresses three most common types of endometriosis pain: painful periods; pelvic pain between periods; pain with sex*

Oral Administration

2 dosage options based on severity of symptoms and treatment objectives

Safety & Tolerability Profile

Proven efficacy & safety in largest endometriosis clinical program

* There are two different dosage options of ORILISSA: 150 mg (taken once a day) or 200 mg (taken twice a day). Only the 200 mg dose was proven to work for pain with sex.

Elagolix*: Potential Expanded Indications in Women's Health



Uterine Fibroids NDA Submitted with PDUFA in Q2 2020

Polycystic Ovary Syndrome Phase II Study Ongoing

Most common pelvic growth affecting **70 - 80%** of women by the age of 50 7 million women with symptomatic uterine fibroids 2.8 million women currently diagnosed 400,000

new diagnoses annually

hormonal disorder in women of reproductive age

Most

common

3.5 million

women affected in the United States

1 drug approved by FDA in the past 20 years

* AbbVie has global commercial rights



Approximately 220,000 hysterectomies performed annually











1st and Only FDA-approved Once-Daily COMT Inhibitor for Parkinson's Disease *Anticipated Launch in 2H 2020*

 Provides Significant Reduction of Daily "Off" Time; Increase in Good "On" Time

Add-on treatment to levodopa/carbidopa prolongs clinical effects and helps patients achieve more consistent motor symptom control

One Capsule, Once-Daily

Convenient for patients and may lessen daily pill burden levels for PD patients

Demonstrated Safety and Tolerability Profile

Not associated with diarrhea or discoloration of body fluids

Note: BIAL retains commercialization rights to ONGENTYS outside U.S. and Canada

Parkinson's Disease (PD): An Overview



PD is caused by low dopamine levels produced in the brain. Dopamine helps transmit signals between the areas of the brain that control all purposeful movements PD affects **1 million**people in the U.S. **50,000**new diagnoses annually

2nd most common neurodegenerative disorder following Alzheimer's disease **Î**ÎÎ 2 out of 3

PD patients on carbidopa/ levodopa (standard-of-care)



Levodopa loses effectiveness as disease progresses requiring dose and frequency escalation to achieve motor symptom control

Crinecerfont*: Classic Congenital Adrenal Hyperplasia

Initiation of Global Registrational-Enabling Study in Adults Planned in the Second Half of 2020 Phase IIa Pediatric Study Ongoing**

Congenital Adrenal Hyperplasia



Rare genetic disorder caused by enzyme deficiency which leads to reduced adrenal steroids and excess androgen levels with up to **30,000** people impacted in the U.S. and a similar number in Europe



Complex and highly variable symptoms

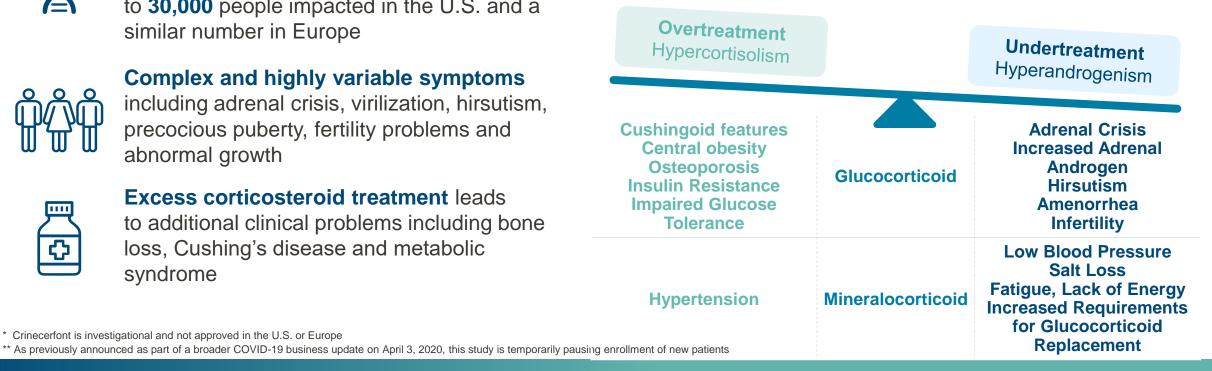
including adrenal crisis, virilization, hirsutism, precocious puberty, fertility problems and abnormal growth



Excess corticosteroid treatment leads to additional clinical problems including bone loss, Cushing's disease and metabolic syndrome

Crinecerfont

Potent, selective, orally-active, non-peptide corticotropin releasing factor type 1 (CRF1) receptor antagonist



* Crinecerfont is investigational and not approved in the U.S. or Europe



Expanding Reach: Innovative Partners with Novel Science to Address Unmet Medical Need

Gene Therapy

Precision Medicine

Opportunity to Expand Footprint into Key Areas of Neuroscience with Novel Modalities



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NBIb-1817* for Parkinson's disease	NBI-921352*ACT-709478*†for SCN8A-DEE (epilepsy)for rare pediatric epilepsy
Friedreich's ataxia	Research collaboration Research collaboration
Two undisclosed CNS programs	

* Investigational and not approved in the U.S.

[†] Neurocrine Biosciences has the exclusive option to license from Idorsia



NBIb-1817*: Gene Therapy for Parkinson's Disease

Planning to Start 2nd Registrational Study in 2020

Moderate to Advanced PD



One million patients with PD in the U.S., with moderate to advanced stages of PD typically occurring four years after diagnosis



Loss of neurons and critical AADC enzyme in the midbrain that produce dopamine leads to progressive loss of motor function and less responsiveness to levodopa



Severe, debilitating loss of motor function

including rigidity, postural instability, gait freezing and difficulty with speech and swallowing

* In-licensed from Voyager Therapeutics † NBIb-1817 is investigational and not approved in the U.S.

NBIb-1817[†]

- One-time treatment restores AADC enzyme activity and enhance the conversion of levodopa and restore motor function
- Improvement in ON time and reduction in OFF time at 1-year timepoint
- >7-year shift in disease progression seen at 1 year as measured by modified Hoehn and Yahr scale
- Durable expression of the AADC enzyme observed at 15-years post-administration in non-human primates
- RESTORE-1 Study: Implementing amended protocol with enrolment temporarily paused due to impact of COVID-19 pandemic
- RESTORE-2 Study: Continuing preparations to initiate study in second half of 2020

NBI-921352*: Selective Nav1.6 Inhibitor for Rare Pediatric Epilepsy

Initiation of Pediatric SCN8A-DEE[†] Clinical Program in 2H 2020

SCN8A-DEE



Rare form of early-onset epilepsy with occurrence of **seizures** beginning in the first 18 months of life and a **high incidence of sudden unexpected death in epilepsy**



Physical and psychological symptoms include recurrent seizures of all types, developmental delays, learning difficulties, muscle spasms, poor coordination, sleep problems, and autistic-like features



No approved treatments with off-label options associated with poor outcomes, safety and tolerability

NBI-921352[‡]

- First potent and selective inhibitor to precisely target the sodium channel affected by the genetic mutation of SCN8A - Na_v1.6
- Impact the lives of SCN8A-DEE patients and additional 1 million patients with focal seizures, 50% of whom are refractory to existing treatments
- Initiation of Phase II study in SCN8A-DEE in 2H 2020
- Potential fast track to approval in SCN8A-DEE given significant clinical need and lack of treatment options



⁺SCN8A-DEE (SCN8A developmental and epileptic encephalopathy)



[‡]NBI-921352 is investigational and not approved in the U.S.



Our Vision for the Future

Transformation into Fully Integrated Neuroscience-Focused Company: Well-Positioned for Sustained Growth







GAAP to Non-GAAP Reconciliations

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NEUROCRINE BIOSCIENCES, INC. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (unaudited)

(in millions, except per share data)	March 31, 2020		March 31, 2019	
Revenues:				
Product sales, net	\$	231.1 \$	6	136.4
Collaboration revenue		6.0		2.0
Total revenues		237.1		138.4
Operating expenses:				
Cost of sales		2.1		1.1
Research and development		58.3		37.7
Acquired in-process research and development		—		113.1
Selling, general and administrative		117.8		87.5
Total operating expenses		178.2		239.4
Operating income (loss)		58.9		(101.0)
Other (expense) income:				
Interest expense		(8.2)		(7.9)
Unrealized (losses) gains on equity securities		(16.5)		1.7
Investment income and other, net		4.7		4.6
Total other expense, net		(20.0)		(1.6)
Income (loss) before provision for (benefit from) income taxes		38.9		(102.6)
Provision for (benefit from) income taxes		1.5		(0.5)
Net income (loss)	\$	37.4 \$	5	(102.1)
			_	
Net income (loss) per share, basic	\$ \$	0.40 \$	-	(1.12)
Net income (loss) per share, diluted	\$	0.39 \$	5	(1.12)
Weighted average common shares outstanding, basic		92.6		91.1
Weighted average common shares outstanding, diluted		97.0		91.1



NEUROCRINE BIOSCIENCES, INC. CONDENSED CONSOLIDATED BALANCE SHEETS (unaudited)

(in millions)	М	March 31, 2020		December 31, 2019	
Cash and cash equivalents and debt securities available-for-sale	\$	771.7	\$	670.5	
Other current assets		196.5		160.5	
Total current assets		968.2		831.0	
Property and equipment, net		41.9		41.9	
Debt securities available-for-sale		235.9		299.7	
Equity securities		39.4		55.9	
Right-of-use assets		73.3		74.3	
Restricted cash		3.2		3.2	
Total assets	\$	1,361.9	\$	1,306.0	
Convertible senior notes	\$	_	\$	408.8	
Other current liabilities		140.3		156.5	
Total current liabilities		140.3		565.3	
Operating lease liabilities		85.6		86.7	
Convertible senior notes		414.1		—	
Other long-term liabilities		21.6		17.1	
Stockholders' equity		700.3		636.9	
Total liabilities and stockholders' equity	\$	1,361.9	\$	1,306.0	

NEUROCRINE BIOSCIENCES, INC. RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL RESULTS (unaudited)



	Three Months Ended March 31,			
(in millions, except per share data)	2020		2019	
GAAP net income (loss)	\$	37.4 \$	(102.1)	
Adjustments:				
Non-cash collaboration revenue ^A		(1.3)		
Acquired in-process research and development (IPR&D) $^{\rm B}$			113.1	
Share-based compensation expense - R&D		7.7	5.4	
Share-based compensation expense – SG&A		15.1	10.4	
Non-cash interest related to convertible debt		5.3	4.9	
Changes in fair value of equity security investments $^{\circ}$		16.5	(1.7)	
Income tax effect related to reconciling items ^D		(1.6)	(2.3)	
Non-GAAP net income	\$	79.1 \$	27.7	
Net income (loss) per diluted common share:				
GAAP	\$	0.39 \$	(1.12)	
Non-GAAP ^E	\$	0.82 \$	0.29	

[^] During the first quarter of 2020, the Company recognized non-cash collaboration revenue from Mitsubishi Tanabe Pharma Corporation under the collaboration and license agreement entered into in 2015.

^B During the first quarter of 2019, the Company incurred IPR&D expenses of \$113.1 million in association with the collaboration and license agreement entered into with Voyager in 2019.

^C The Company recognized an unrealized loss of \$16.5 million for the first quarter of 2020 and an unrealized gain of \$1.7 million for the first quarter of 2019 to adjust its equity security investments to fair value.

^DEstimated income tax effect of non-GAAP reconciling items are calculated using applicable statutory tax rates, taking into consideration any valuation allowance.

^E Non-GAAP net income per diluted common share for the first quarter of 2019 reflects diluted shares of 94.8 million, which were calculated in accordance with the guidance on earnings per share in ASC 260.



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