Biogen Business Overview

2019 Annual Meeting of Stockholders

Michel Vounatsos, CEO

June 19, 2019

Forward-looking statements

This presentation contains forward-looking statements, including statements relating to: our strategy and plans; potential of our commercial business and pipeline programs; capital allocation and investment strategy; clinical development programs, clinical trials, and data readouts and presentations; regulatory filings and the timing thereof; financial matters; and anticipated benefits and potential of investments, collaborations and business development activities. These forward-looking statements may be accompanied by such words as “aim,” “anticipate,” “believe,” “could,” “estimate,” “expect,” “forecast,” “intend,” “may,” “plan,” “potential,” “possible,” “will,” “would,” and other words and terms of similar meaning. Drug development and commercialization involve a high degree of risk, and only a small number of research and development programs result in commercialization of a product. Results in early stage clinical trials may not be indicative of full results or results from later stage or larger scale clinical trials and do not ensure regulatory approval. You should not place undue reliance on these statements or the scientific data presented.

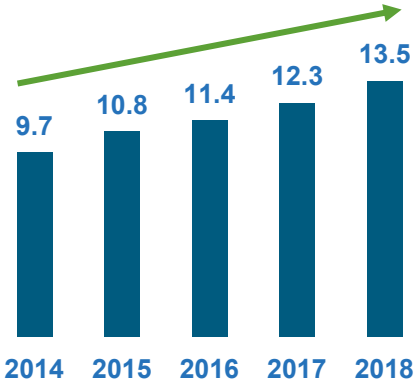
These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including: our dependence on sales from our products; difficulties in obtaining and maintaining adequate coverage, pricing, and reimbursement for our products; failure to protect and enforce our data, intellectual property, and other proprietary rights and the risks and uncertainties relating to intellectual property claims and challenges; uncertainty of long-term success in developing, licensing, or acquiring other product candidates or additional indications for existing products; failure to compete effectively due to significant product competition in the markets for our products; failure to successfully execute or realize the anticipated benefits of our growth and strategic initiatives; risks relating to technology failures or breaches; the risk that positive results in a clinical trial may not be replicated in subsequent or confirmatory trials or success in early stage clinical trials may not be predictive of results in later stage or large scale clinical trials or trials in other potential indications; risks associated with clinical trials, including our ability to adequately manage clinical activities, unexpected concerns that may arise from additional data or analysis obtained during clinical trials, regulatory authorities may require additional information or further studies, or may fail to approve or may delay approval of our drug candidates; the occurrence of adverse safety events, restrictions on use with our products, or product liability claims; our dependence on collaborators and other third parties for the development, regulatory approval, and commercialization of products and other aspects of our business, which are outside of our control; risks associated with current and potential future healthcare reforms; failure to comply with legal and regulatory requirements; the risks of doing business internationally, including currency exchange rate fluctuations; risks relating to management and key personnel changes, including attracting and retaining key personnel; risks relating to investment in our manufacturing capacity; problems with our manufacturing processes; risks related to commercialization of biosimilars; fluctuations in our effective tax rate; risks related to investment in properties; the market, interest, and credit risks associated with our portfolio of marketable securities; risks relating to share repurchase programs; risks relating to access to capital and credit markets; risks related to indebtedness; environmental risks; risks relating to the sale and distribution by third parties of counterfeit or unfit versions of our products; risks relating to the use of social media for our business; change in control provisions in certain of our collaboration agreements; risks relating to the spin-off of our hemophilia business, including exposure to claims and liabilities; and the other risks and uncertainties that are described in the Risk Factors section of our most recent annual or quarterly report and in other reports we have filed with the Securities and Exchange Commission.

These statements are based on our current beliefs and expectations and speak only as of the date of this presentation. We do not undertake any obligation to publicly update any forward-looking statements.

Strong track record

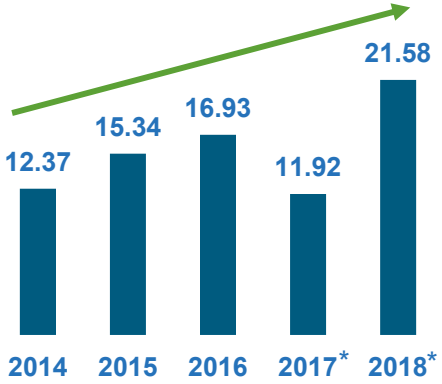
Revenues ($B)

+9% CAGR



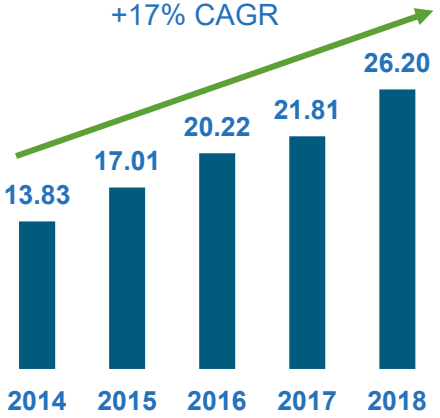
GAAP Diluted EPS($)

+15% CAGR



Non-GAAP Diluted EPS($)^

+17% CAGR

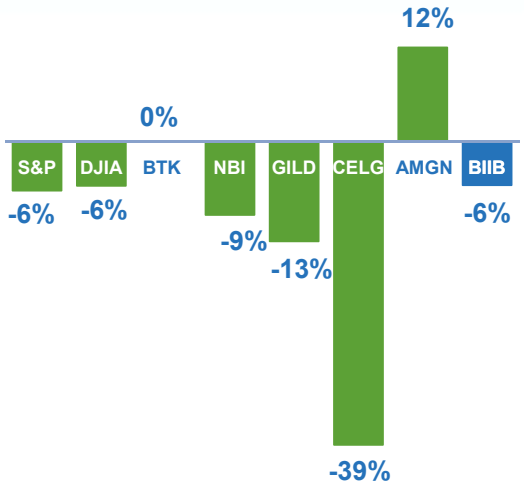


* GAAP diluted earnings per share (EPS) for 2018 and 2017 includes charges of $125 million and $1,176 million, respectively, related to the impact of the Tax Cuts and Jobs Act of 2017.

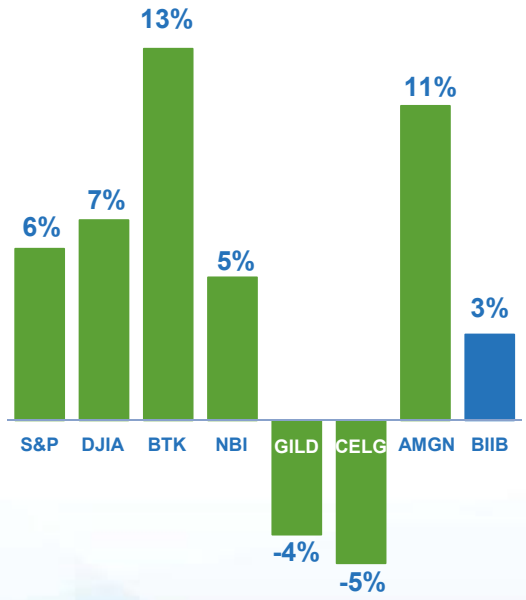
^ Non-GAAP diluted EPS is a Non-GAAP financial measure. A reconciliation of our GAAP to Non-GAAP financial results is at the end of this presentation.

2018 stock price performance vs. peers & indices

1-Year Performance



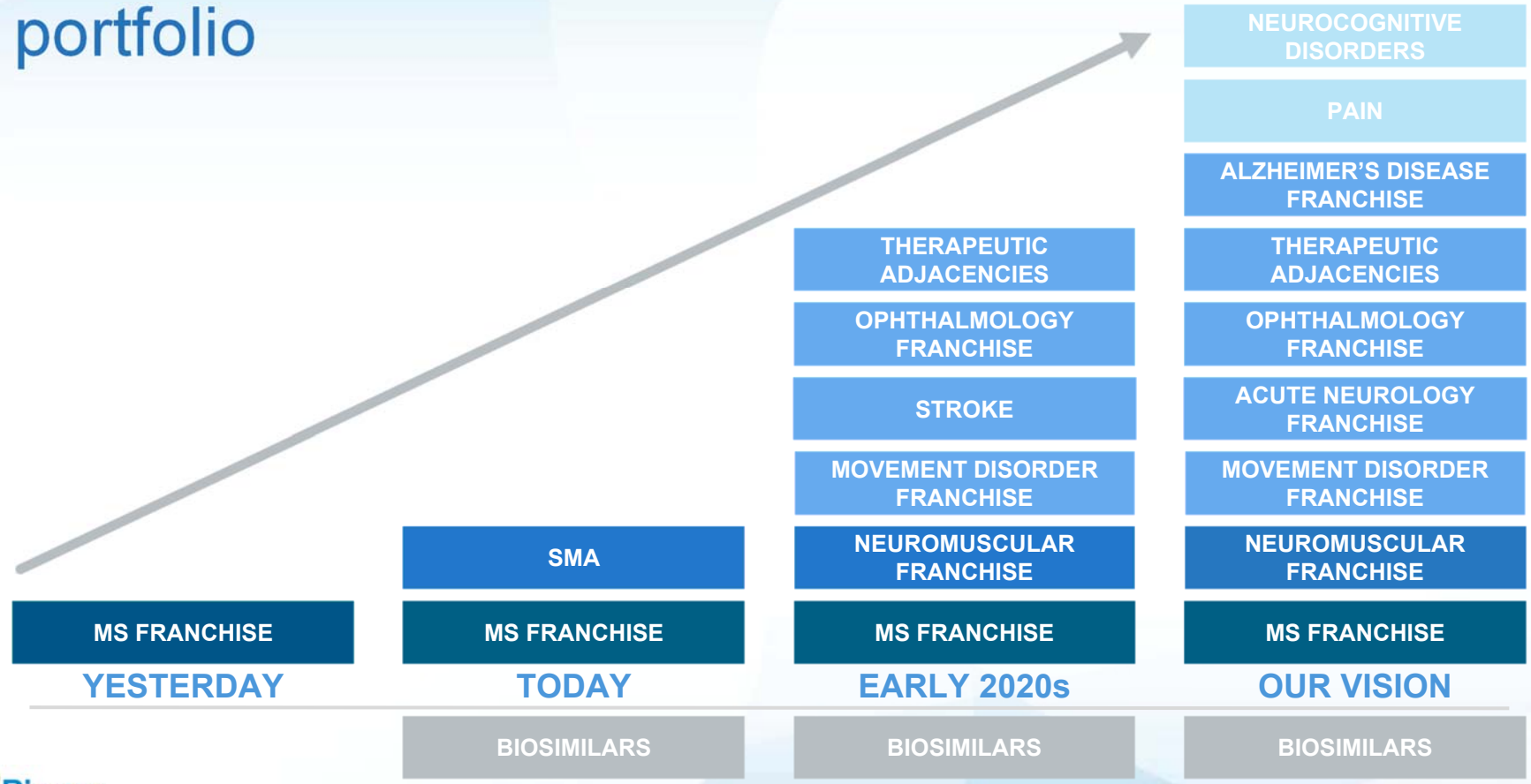
5-Year CAGR*



* Adjusted for the impact of the spin-off of our hemophilia business, Bioverativ, on February 1, 2017; does not reflect the reinvestment by Biogen stockholders of the distribution they received in connection with the spin-off of our hemophilia business or any subsequent increase or decrease in value of Bioverativ stock subsequent to the spin-off.

1-Year Performance = stock price change from 12/31/2017 to 12/31/2018; 5-Year CAGR = compound annual growth rate of stock price from 12/31/2013 to 12/31/2018.
Source: Factset

Continuing to build a multi-franchise portfolio



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Progress diversifying our pipeline

	Additions Since Jan. 2017	Current Programs
MS / Neuroimmunology	+2	4
AD / Dementia	+3	5
PD / Movement Disorders	+1	2
Neuromuscular Disorders	+2	3
Acute Neurology	+3	3
Pain	+2	3
Neurocognitive Disorders	+1	1
Ophthalmology	+2	2
Therapeutic Adjacencies		3
Total	**+16**	**26**

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Strong progress implementing strategy in 2018

Maximizing the resilience of our MS core business

- ☑ Full year MS revenues, including OCREVUS royalties, of $9.1 billion
- ☑ Stable global MS patients in 2018 versus prior year
- ☑ Improved year-over-year trends for MS business in the U.S. throughout 2018

Accelerating progress in spinal muscular atrophy

- ☑ Most successful rare disease launch of all time (through Q1 2019)
- ☑ Over 6,600 patients on therapy globally as of Q4 2018*
- ☑ Foundation of care in SMA with approval in over 40 countries

Developing and expanding our neuroscience portfolio

- ☑ Building depth in core growth areas beyond MS, SMA, and Alzheimer's disease
- ☑ Pursuing multiple complementary modalities
- ☑ Positive interim data from Phase 1/2 study of tofersen (BIIB067) in SOD1 ALS

Prioritizing our capital allocation efforts

- ☑ Generated $6.2 billion in net cash flows from operations in 2018
- ☑ Six BD transactions and Samsung Bioepis opt-in in 2018 for ~$1.8 billion
- ☑ Repurchased ~14.8 million shares in 2018 for ~$4.4 billion

Creating a leaner and simpler operating model

- ☑ Focused on implementing a lean and simple operating model with the goal of continuous operational improvement

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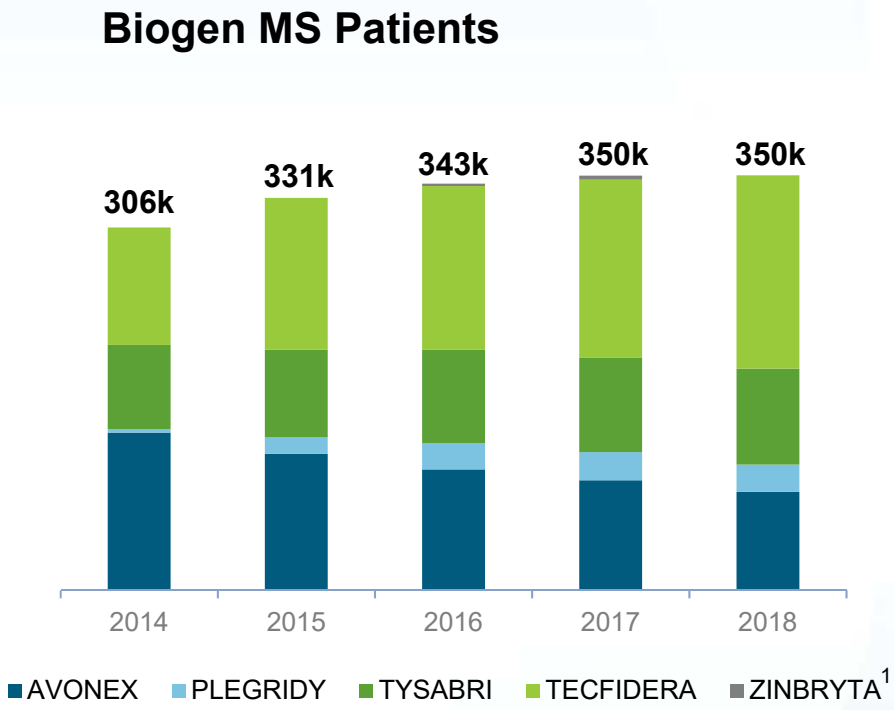
* Includes patients on therapy across the post-marketing setting, the expanded access program, and clinical trials.

Demonstrated resilience in our $9 billion MS franchise

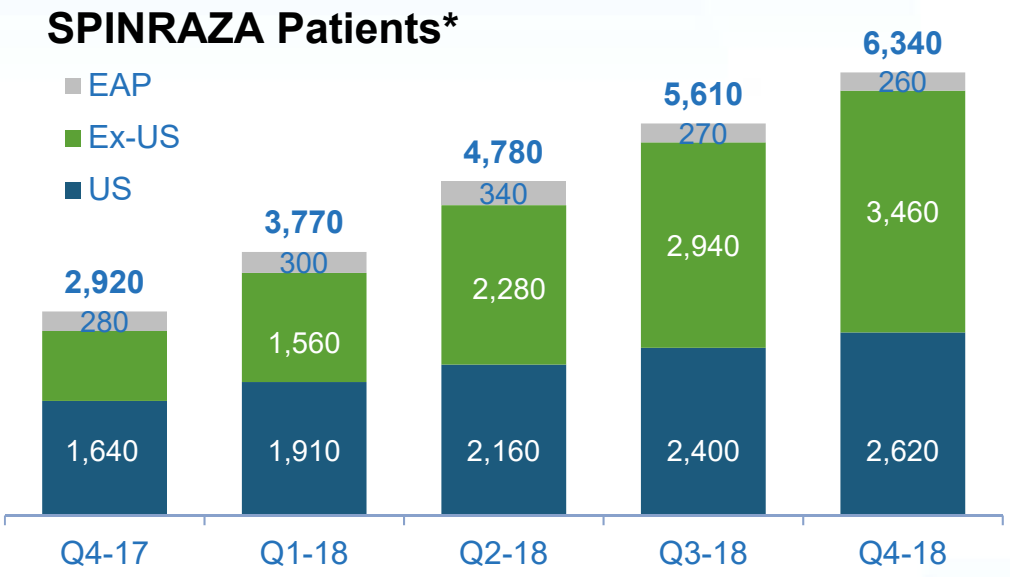


Highlights

- ~$20B market with ~1 million treated MS patients worldwide[2]
- As of March 31, 2019, Biogen products treated ~35% of all treated MS patients globally[2]
- **VUMERITY (diroximel fumarate)[3]** is a potential novel oral option – now filed with FDA
- Reinvigorating our MS R&D strategy, with the goals of:
  - Developing transformative therapies for relapsing MS
  - Advancing care in progressive disease
  - Improving disability and restoring function

Note: Patient numbers represent estimated ending patient count as of December 31st of each year.
1. ZINBRYTA was withdrawn from the market in March 2018
2. Biogen data on file.
3. In collaboration with Alkermes. The brand name VUMERITY has been conditionally accepted by FDA and will be confirmed upon approval.

Global SPINRAZA performance



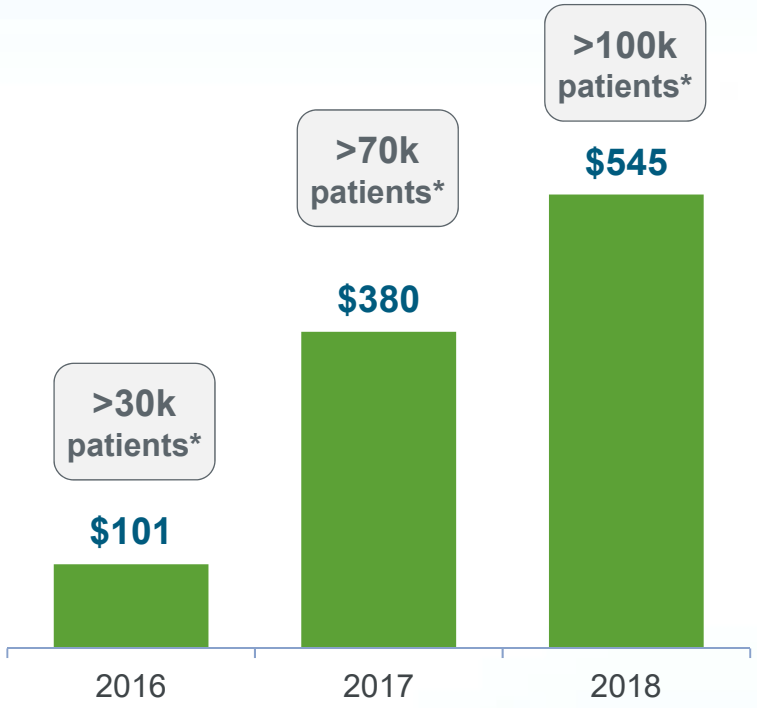
* U.S. and Ex-US SPINRAZA patients represent the total number of patients on therapy in the post-marketing setting as of the end of each quarter, including free patients in the U.S. EAP patients represent patients actively enrolled in the Expanded Access Program (EAP) as of the end of each quarter. As of the end of Q4-18, there were an additional ~ 300 patients enrolled in ongoing clinical studies of SPINRAZA.
# Biogen analysis, data on file.

Highlights

- 2018 revenues of $1.7 billion
- > 45,000 individuals with SMA in Biogen direct markets worldwide#
- > 7,500 patients on therapy as of March 31, 2019*
- Proven, durable efficacy across a broad range of patients with SMA
- Demonstrated longer-term safety profile
- Reversible, virus-free targeted mechanism of action
- Investing in SMA beyond SPINRAZA, pursuing:
  - Muscle strengthening (BIIB110, Phase 1)
  - Novel ASO drug candidates
  - New preclinical oral splicing modulator
  - Optimizing ASO dosing/delivery

Growing biosimilars business

Biosimilars Revenue ($M)



Commercialization in Europe

- > 100,000 patients currently on Biogen biosimilars*
- IMRALDI launched in Europe on October 17, 2018
- Expect uptake of Biogen biosimilars to contribute estimated healthcare savings of up to €1.8 billion in 2019 across Europe*

Samsung Bioepis Joint Venture

- Increased equity stake to ~49.9%
- Leveraging expertise in protein engineering and biologics manufacturing
- Advancing biosimilars of trastuzumab and bevacizumab

Biogen

* Biogen data on file.

Biogen 2019 and beyond

- **Biogen's purpose remains the same: We aim to transform patient lives by pioneering and leading in neuroscience**
- **We now have an opportunity and obligation to rebound**
- **Remain focused on growing our core business in MS, SMA, and biosimilars**
- **Expect continued progress as we aim to build a multi-franchise portfolio**
- **Will invest in the areas we believe have the highest potential return for stockholders**

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GAAP to Non-GAAP reconciliation

Diluted EPS and net income attributable to Biogen Inc.

(Unaudited, $ in millions, except per share amounts)	2018	2017[1]	2016	2015	2014
GAAP Diluted EPS	$21.58	$11.92	$16.93	$15.34	$12.37
Adjustments to net income attributable to Biogen Inc.	4.62	9.89	3.29	1.67	1.46
Non-GAAP Diluted EPS	$26.20	$21.81	$20.22	$17.01	$13.83
GAAP Net Income Attributable to Biogen Inc.	$4,431	$2,539	$3,703	$3,547	$2,935
Amortization of acquired intangible assets[A,B]	747	815	374	365	473
TECFIDERA litigation settlement charge[A]	–	–	455	–	–
Acquired in-process research and development	113	120	–	–	–
Research and development[C]	10	–	–	–	–
Gain (loss) on fair value remeasurement of contingent consideration[D]	(12)	63	15	31	(39)
Premium paid on purchase of Ionis common stock[J]	162	–	–	–	–
(Gain) loss on equity security investments	(128)	–	–	–	–
Net distribution to noncontrolling interests[E]	44	132	–	–	–
Restructuring, business transformation and other cost saving initiatives:					
2017 corporate strategy implementation[F]	11	18	–	–	–
Restructuring charges[F]	12	1	33	93	–
Cambridge manufacturing facility rationalization costs[G]	–	–	55	–	–
Hemophilia business separation costs	–	19	18	–	–
Gain on deconsolidation of variable interest entities	–	–	(4)	–	–
Donation to Biogen Foundation	–	–	–	–	35
Stock option expense and other	–	–	–	–	12
Income tax effect related to reconciling items	(147)	(236)	(225)	(104)	(135)
Elimination of deferred tax asset[H]	11	–	–	–	–
Tax reform[I]	125	1,174	–	–	–
Non-GAAP Net Income Attributable to Biogen Inc.	$5,378	$4,645	$4,423	$3,932	$3,281

1 On February 1, 2017, we completed the spin-off of our hemophilia business. Our consolidated results of operations reflect the financial results of our hemophilia business through January 31, 2017.

NOTES: Our "Non-GAAP net income attributable to Biogen Inc." and "Non-GAAP diluted earnings per share" financial measures exclude the following items from "GAAP net income attributable to Biogen Inc." and "GAAP diluted earnings per share": (1) purchase accounting, merger-related and other adjustments, (2) hemophilia business separation costs, (3) restructuring, business transformation and other cost saving initiatives, (4) (gain) loss on equity security investments, (5) stock option expense, (6) other select items and (7) their related tax effects. We believe that the disclosure of these Non-GAAP financial measures provides additional insight into the ongoing economics of our business and reflects how we manage our business internally, set operational goals and form the basis of our management incentive programs. These Non-GAAP financial measures are not in accordance with generally accepted accounting principles in the United States and should not be viewed in isolation or as a substitute for reported, or GAAP, net income attributable to Biogen Inc. and GAAP diluted earnings per share. Numbers may not foot due to rounding.

Additional reconciliations of our Non-GAAP financial measures can be found in the Investors section of www.biogen.com.

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Notes to GAAP to Non-GAAP reconciliation

A In January 2017 we entered into a settlement and license agreement among Biogen Swiss Manufacturing GmbH, Biogen International Holding Ltd., Forward Pharma A/S (Forward Pharma) and certain related parties, which was effective February 1, 2017. Pursuant to this agreement, we obtained U.S. and rest of world licenses to Forward Pharma's intellectual property, including Forward Pharma's intellectual property related to TECFIDERA. In exchange, we paid Forward Pharma $1.25 billion in cash, of which $795 million was recognized as an intangible asset in the first quarter of 2017.

We have two intellectual property disputes with Forward Pharma, one in the U.S. and one in the European Union, concerning intellectual property related to TECFIDERA.

In March 2017 the U.S. intellectual property dispute was decided in our favor. Forward Pharma appealed to the U.S. Court of Appeals for the Federal Circuit. We evaluated the recoverability of the U.S. asset acquired from Forward Pharma and recorded a $328 million impairment charge in the first quarter of 2017 to adjust the carrying value of the acquired U.S. asset to fair value reflecting the impact of the developments in the U.S. legal dispute and continued to amortize the remaining net book value of the U.S. intangible asset in our consolidated statements of income utilizing an economic consumption model. The U.S. Court of Appeals for the Federal Circuit upheld the U.S. Patent and Trademark Office's March 2017 ruling and in January 2019 denied Forward Pharma's petition for rehearing. We evaluated the recoverability of the U.S. asset based upon these most recent developments and recorded a $177 million impairment charge in the fourth quarter of 2018 to reduce the remaining net book value of the U.S. asset to zero.

In March 2018 the European Patent Office (EPO) revoked Forward Pharma's European Patent No. 2 801 355. Forward Pharma has filed an appeal to the Technical Boards of Appeal of the EPO and the appeal is pending. Based upon our assessment of this ruling, we continue to amortize the remaining net book value of the rest of world intangible asset in our consolidated statements of income utilizing an economic consumption model.

The TECFIDERA litigation settlement charge for 2016 represents the portion of the $1.25 billion cash payment made in the first quarter of 2017 attributable to our sales of TECFIDERA during the period April 2014 through December 31, 2016.

Amortization of acquired intangible assets for 2017 also includes a $31 million pre-tax impairment charge related to our acquired and in-licensed rights and patents intangible asset associated with ZINBRYTA after the initiation of an European Medicines Agency review (referred to as an Article 20 Procedure) of ZINBRYTA following the report of a case of fatal fulminant liver failure, as well as four cases of serious liver injury.

B Amortization of acquired intangible assets for 2018 includes the impact of impairment charges totaling $189 million related to certain in-process research and development (IPR&D) assets associated with our vixotrigine (BIIB074) program.

During the third quarter of 2018 we completed a Phase 2b study of vixotrigine for the treatment of painful lumbosacral radiculopathy (PLSR). The study did not meet its primary or secondary efficacy endpoints; therefore, we discontinued development of vixotrigine for the treatment of PLSR and we recognized an impairment charge of approximately $60 million during the third quarter of 2018 to reduce the fair value of the related IPR&D intangible asset to zero. In addition, we delayed the initiation of the Phase 3 studies of vixotrigine for the treatment of trigeminal neuralgia (TGN) as we awaited the outcome of ongoing interactions with the FDA regarding the design of the Phase 3 studies, a more detailed review of the data from the Phase 2b study of vixotrigine for the treatment of PLSR and insights from the Phase 2 study of vixotrigine for the treatment of small fiber neuropathy. We reassessed the fair value of our vixotrigine program for the treatment of TGN using reduced expected lifetime revenues, higher expected clinical development costs and a lower cumulative probability of success and, as a result of that assessment, we recognized an impairment charge of $129 million during the third quarter of 2018 to reduce the fair value of the IPR&D intangible asset associated with our vixotrigine program for the treatment of TGN to $42 million.

C GAAP research and development expense for 2018 includes a $10 million contingent consideration payment accrued in relation to the acquisition of an asset.

D During the third quarter of 2018 we adjusted the fair value of our contingent consideration obligations related to our vixotrigine program for the treatment of TGN to reflect the lower cumulative probabilities of success, which resulted in a gain of $90 million.

In late December 2018 we received feedback from the FDA regarding the design of the Phase 3 studies of vixotrigine for the treatment of TGN. Following this feedback, we are now planning to initiate the Phase 3 studies for our vixotrigine program for the treatment of TGN and, as a result, we adjusted the fair value of our contingent consideration obligations related to our vixotrigine program for the treatment of TGN to reflect the increased probabilities of success and recognized a loss of $81 million in the fourth quarter of 2018.

Notes to GAAP to Non-GAAP reconciliation (continued)

E In October 2017 we amended the terms of our collaboration and license agreement with Neurimmune SubOne AG (Neurimmune). Under the amended agreement, we made a $150 million payment to Neurimmune in exchange for a 15% reduction in the previously negotiated royalty rates payable on products developed under this agreement. In May 2018 we made an additional $50 million payment to Neurimmune to further reduce the previously negotiated royalty rates payable on products developed under this agreement by an additional 5%.

Net distribution to noncontrolling interest for 2018 reflects the $50 million payment made to Neurimmune, net of Neurimmune's tax, in May 2018.

Net distribution to noncontrolling interest for 2017 reflects the $150 million payment made to Neurimmune, net of Neurimmune's tax, in October 2017.

F 2017 corporate strategy implementation and restructuring charges are related to our efforts to create a leaner and simpler operating model.

Restructuring charges for 2016 include charges of $18 million incurred in connection with our 2016 restructuring resulting from our decision to spin-off our hemophilia business. Restructuring charges for 2016 also include severance charges of $7 million related to employee separation costs as a result of our decision to vacate and cease manufacturing in Cambridge, Mass. and vacate our warehouse in Somerville, Mass. Restructuring charges for 2016 further include $8 million of costs incurred in connection with our 2015 corporate restructuring.

Restructuring charges for 2015 reflect $93 million of charges incurred in connection with our 2015 corporate restructuring.

G Cambridge manufacturing facility rationalization costs for 2016 reflect $46 million of additional depreciation expense included in cost of sales, excluding amortization of acquired intangible assets in our consolidated statements of income. Cambridge manufacturing facility rationalization costs for 2016 also includes charges of $7 million for the write-down of excess inventory.

H Elimination of deferred tax asset due to Samsung Bioepis Co., Ltd. qualifying as a corporate joint venture for accounting purposes.

I The Tax Cuts and Jobs Act of 2017 (2017 Tax Act) resulted in significant changes to the U.S. corporate income tax system. These changes include a federal statutory rate reduction from 35% to 21%, the elimination or reduction of certain domestic deductions and credits and limitations on the deductibility of interest expense and executive compensation. The 2017 Tax Act also transitions international taxation from a worldwide system to a modified territorial system and includes base erosion prevention measures on non-U.S. earnings, which has the effect of subjecting certain earnings of our foreign subsidiaries to U.S. taxation as global intangible low-taxed income (GILTI). During the fourth quarter of 2018 we elected to recognize deferred taxes for the basis differences expected to reverse as GILTI is incurred and have established initial deferred tax balances, as of the enactment date of the 2017 Tax Act.

During the fourth quarter of 2017 we recognized within our provision for income taxes a $1.2 billion provisional estimate pursuant to the U.S. Securities and Exchange Commission Staff Accounting Bulletin No. 118. Our provisional estimate included an amount of $990 million associated with a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings (the Transition Toll Tax) and $184 million related to the impact of remeasuring our deferred tax balances to reflect the new federal statutory rate and other changes to U.S. tax law.

Tax reform amounts for 2018 reflect the effect of a net reduction of $35 million to our 2017 preliminary Transition Toll Tax estimate, an expense of $13 million for the remeasurement of our deferred tax balances and an $11 million expense to reflect other aspects of the 2017 Tax Act.

Tax reform amounts for 2018 also reflect the effect of an expense of $136 million related to the establishment of GILTI deferred taxes. The final determination of the Transition Toll Tax and remeasurement of our deferred assets and liabilities was completed in the fourth quarter of 2018.

J In June 2018 we closed a new ten-year exclusive agreement with Ionis Pharmaceuticals, Inc. (Ionis) to develop novel antisense oligonucleotide drug candidates for a broad range of neurological diseases for a total payment of $1 billion consisting of an upfront payment of $375 million and the purchase of approximately 11.5 million shares of Ionis' common stock at a cost of $625 million.

The 11.5 million shares of Ionis' common stock were purchased at a premium to their fair value at the transaction closing date. The premium consisted of acquiring the shares at a price above the fair value based on the trailing 10-day weighted-average close price prior to entering into the agreement in April 2018 and the effect of certain holding period restrictions. We recorded an asset of $463 million in investments and other assets in our consolidated balance sheets reflecting the fair value of the common stock as of the purchase date and a charge of $162 million to research and development expense in our consolidated statements of income during the second quarter of 2018 reflecting the premium paid for the common stock.

Questions & Answers

Biogen