BIOGEN REPORTS FULL YEAR 2019 REVENUES OF $14.4 BILLION

2019 revenues grew 7%, driven by growth in all core business areas

2019 GAAP EPS increased 46%; Non-GAAP EPS increased 28%

Company reported positive Phase 2 data for BIIB059 in lupus; plans to advance to Phase 3

Biogen acquired commercialization rights to biosimilars of LUCENTIS® and EYLEA® in the U.S. and other major markets

Company entered into an agreement to acquire novel asset with application in Alzheimer's and Parkinson's disease

Cambridge, Mass., January 30, 2020 -- Biogen Inc. (Nasdaq: BIIB) today reported full year and fourth quarter 2019 financial results.

"In 2019 Biogen demonstrated strong execution across all of our core business areas with resilience in MS, continued strong worldwide growth for SPINRAZA, and an expanded biosimilars business," said Michel Vounatsos, Biogen's Chief Executive Officer. "In addition, as part of our expanded pipeline, we are excited about the prospects for aducanumab in Alzheimer's disease and look forward to completing a regulatory filing in the U.S. as soon as possible."

Financial Results

- Full year total revenues were $14,378 million, a 7% increase versus the prior year, driven by growth in all of the Company's core business areas.
    - Full year multiple sclerosis (MS) revenues, including $688 million in royalties on the sales of OCREVUS®, increased 2% versus the prior year to $9,217 million.
    - Full year SPINRAZA® revenues increased 22% versus the prior year to $2,097 million.
    - Full year biosimilars revenues increased 35% to $738 million.

- Full year GAAP net income and diluted earnings per share (EPS) attributable to Biogen Inc. were $5,889 million and $31.42, respectively, compared to $4,431 million and $21.58, respectively, in the prior year.

- Full year Non-GAAP net income and diluted EPS attributable to Biogen Inc. were $6,291 million and $33.57, respectively, compared to $5,378 million and $26.20, respectively, in the prior year.

(In millions, except per share amounts)	Q4 '19	Q3 '19	Q4 '18	Q4 '19 v. Q3 '19	Q4 '19 v. Q4 '18	FY '19	FY '18	FY '19 v. FY '18
Total Revenues	$ 3,671	$ 3,600	$ 3,526	2%	4%	$ 14,378	$ 13,453	7%
GAAP net income[#]	$ 1,440	$ 1,546	$ 947	(7%)	52%	$ 5,889	$ 4,431	33%
GAAP diluted EPS	$ 8.08	$ 8.39	$ 4.73	(4%)	71%	$ 31.42	$ 21.58	46%
Non-GAAP net income[#]	$ 1,486	$ 1,689	$ 1,400	(12%)	6%	$ 6,291	$ 5,378	17%
Non-GAAP diluted EPS	$ 8.34	$ 9.17	$ 6.99	(9%)	19%	$ 33.57	$ 26.20	28%

[#] Net income attributable to Biogen Inc.

Note: Percent changes represented as favorable/(unfavorable)

A reconciliation of GAAP to Non-GAAP full year and quarterly financial results can be found in Table 3 at the end of this news release.

Mr. Vounatsos added, "Our pipeline has grown and is maturing, as we added 7 new clinical programs in 2019 and expect 11 mid- to late-stage data readouts by the end of 2021. We look forward to multiple near-term opportunities for value creation, including in Alzheimer's disease, ALS, stroke, lupus, ophthalmology, and biosimilars, as we aim to build a multi-franchise portfolio. Across all areas of investment, we remain focused on diligent capital allocation to maximize returns for our shareholders over the long term."

Revenue Highlights

(In millions)	Q4 '19	Q3 '19	Q4 '18	Q4 '19 v. Q3 '19	Q4 '19 v. Q4 '18	FY '19	FY '18	FY '19 v. FY '18
Multiple Sclerosis (MS):								
Total Fumarate	$ 1,167	$ 1,122	$ 1,110	4%	5%	$ 4,438	$ 4,274	4%
TECFIDERA®	*$ 1,161*	*$ 1,122*	*$ 1,110*	*3%*	*5%*	*$ 4,433*	*$ 4,274*	*4%*
VUMERITY™	*$ 5*	*$ -*	*$ -*	*NMF*	*NMF*	*$ 5*	*$ -*	*NMF*
Total Interferon	$ 516	$ 530	$ 597	(3%)	(14%)	$ 2,102	$ 2,363	(11%)
AVONEX®	*$ 411*	*$ 420*	*$ 481*	*(2%)*	*(15%)*	*$ 1,666*	*$ 1,915*	*(13%)*
PLEGRIDY®	*$ 106*	*$ 110*	*$ 116*	*(4%)*	*(9%)*	*$ 436*	*$ 448*	*(3%)*
TYSABRI®	$ 473	$ 484	$ 464	(2%)	2%	$ 1,892	$ 1,864	2%
FAMPYRA™	$ 26	$ 24	$ 23	6%	14%	$ 97	$ 93	5%
Spinal Muscular Atrophy:								
SPINRAZA	$ 543	$ 547	$ 470	(1%)	16%	$ 2,097	$ 1,724	22%
Biosimilars:								
BENEPALI™	$ 126	$ 116	$ 125	9%	1%	$ 486	$ 485	0%
IMRALDI™	$ 52	$ 49	$ 17	5%	209%	$ 184	$ 17	NMF
FLIXABI™	$ 18	$ 18	$ 14	(1%)	29%	$ 68	$ 43	58%
Other Product Revenues:								
FUMADERM™	$ 4	$ 4	$ 5	(3%)	(28%)	$ 15	$ 22	(32%)
Total Product Revenues:	**$ 2,925**	**$ 2,895**	**$ 2,826**	**1%**	**4%**	**$ 11,380**	**$ 10,887**	**5%**
OCREVUS Royalties	$ 205	$ 188	$ 152	9%	35%	$ 688	$ 478	44%
RITUXAN®/GAZYVA® Revenues	$ 395	$ 408	$ 383	(3%)	3%	$ 1,603	$ 1,502	7%
Other Revenues	$ 146	$ 110	$ 166	33%	(12%)	$ 708	$ 586	21%
Total Revenues	**$ 3,671**	**$ 3,600**	**$ 3,526**	**2%**	**4%**	**$ 14,378**	**$ 13,453**	**7%**
MS Product Revenues + OCREVUS Royalties	**$ 2,388**	**$ 2,348**	**$ 2,346**	**2%**	**2%**	**$ 9,217**	**$ 9,073**	**2%**

Note: Numbers may not foot due to rounding; percent changes represented as favorable/(unfavorable)

- In the fourth quarter of 2019 channel inventory levels in the U.S. increased by approximately $135 million for TECFIDERA, VUMERITY, AVONEX, PLEGRIDY, and TYSABRI combined. This compares to a decrease of approximately $30 million in the third quarter of 2019 and an increase of approximately $105 million in the fourth quarter of 2018.

- In the fourth quarter of 2019 SPINRAZA revenues comprised $243 million in sales in the U.S. and $300 million in sales outside the U.S. The number of commercial patients receiving SPINRAZA grew approximately 2% in the U.S. and approximately 10% outside the U.S. versus the third quarter of 2019.

Expense Highlights

(In millions)	Q4 '19	Q3 '19	Q4 '18	Q4 '19 v. Q3 '19	Q4 '19 v. Q4 '18	FY '19	FY '18	FY '19 v. FY '18
GAAP cost of sales	$ 447	$ 430	$ 489	(4%)	8%	$ 1,955	$ 1,816	(8%)
Non-GAAP cost of sales	$ 447	$ 430	$ 489	(4%)	8%	$ 1,955	$ 1,816	(8%)
GAAP R&D	$ 692	$ 540	$ 612	(28%)	(13%)	$ 2,281	$ 2,597	12%
Non-GAAP R&D	$ 692	$ 540	$ 602	(28%)	(15%)	$ 2,273	$ 2,425	6%
GAAP SG&A	$ 665	$ 555	$ 591	(20%)	(12%)	$ 2,376	$ 2,106	(13%)
Non-GAAP SG&A	$ 662	$ 547	$ 591	(21%)	(12%)	$ 2,325	$ 2,095	(11%)

Note: Percent changes represented as favorable/(unfavorable)

- R&D expense in the fourth quarter of 2019 included $63 million related to the transaction completed in December 2019 with Samsung Bioepis Co., Ltd. (Samsung Bioepis).

- R&D expense in the fourth quarter of 2019 included $45 million related to the option exercise with Ionis Pharmaceuticals, Inc. (Ionis) to develop and commercialize BIIB080, an antisense oligonucleotide targeting tau, for Alzheimer's disease and potentially other tauopathies.

- R&D expense in the fourth quarter of 2019 included $30 million related to collaboration agreements with CAMP4 Therapeutics and Catalyst Biosciences, Inc.

- SG&A expense in the fourth quarter of 2019 increased versus the third quarter of 2019 primarily due to increased commercial and medical investments as well as the timing of spend on general and administrative expense.

Other Financial Highlights

- For 2019 GAAP other income was $83 million, and Non-GAAP other expense was $110 million. The difference between 2019 GAAP and Non-GAAP other income (expense) was primarily due to GAAP-only gains on strategic investments recognized in 2019. For the fourth quarter of 2019 GAAP other expense was $49 million, and Non-GAAP other expense was $50 million.

- For 2019 the Company's effective full year GAAP and Non-GAAP tax rates were 16.3% and 15.8%, respectively. For the fourth quarter of 2019 the Company's effective GAAP and Non-GAAP tax rates were 16.0% and 16.1%, respectively.
    - Compared to the prior year, the Company's effective GAAP and Non-GAAP tax rates for both the full year and fourth quarter of 2019 benefitted from a non-recurring change in the Company's tax profile in 2019 and the sale of the remaining portion of higher taxed inventory in 2018 due to intercompany effects. Furthermore, compared to the prior year, the Company's effective GAAP tax rates for both the full year and fourth quarter of 2019 also benefitted from the unfavorable effects of U.S. tax reform in 2018.

- Throughout 2019 Biogen repurchased approximately 23.6 million shares of the Company's common stock for a total value of $5,868 million, including approximately 7.7 million shares repurchased in the fourth quarter of 2019 for a total value of $2,093 million.
    - As of December 31, 2019, there was $1,279 million remaining under the share repurchase program authorized in March 2019.
    - In December 2019 Biogen's Board of Directors authorized an additional program to repurchase up to $5,000 million of the Company's common stock.

- As of December 31, 2019, Biogen had cash, cash equivalents, and marketable securities totaling $5,884 million, and $5,955 million in notes payable and other financing arrangements.

- The Company generated approximately $7,079 million in net cash flows from operations in 2019, including approximately $1,960 million in the fourth quarter of 2019.

- For 2019 the Company's full year weighted average diluted shares were 187 million. For the fourth quarter of 2019 the Company's weighted average diluted shares were 178 million.

2020 Financial Guidance

Biogen also announced its full year 2020 financial guidance. This financial guidance consists of the following components:

- Revenue is expected to be approximately $14.0 billion to $14.3 billion.

- GAAP and Non-GAAP R&D expense is expected to be approximately 15% to 16% of total revenue.

- GAAP and Non-GAAP SG&A expense is expected to be approximately 19.5% to 20.5% of total revenue.

- GAAP and Non-GAAP tax rate is expected to be approximately 18% to 19%.

- GAAP diluted EPS is expected to be between $29.50 and $31.50.

- Non-GAAP diluted EPS is expected to be between $31.50 and $33.50.

This financial guidance does not include any impact from potential acquisitions or large business development transactions, as both are hard to predict. This financial guidance assumes no generic competition in the U.S. for TECFIDERA in 2020 and no change to foreign exchange rates. This financial guidance assumes additional commercial and R&D expenses related to aducanumab, closing of the proposed transaction with Pfizer Inc., and a stable share count.

Biogen may incur charges, realize gains or losses, or experience other events or circumstances in 2020 that could cause actual results to vary from this financial guidance.

Recent Events

- In January 2020 Biogen announced an agreement to acquire from Pfizer PF-05251749, a novel CNS-penetrant small molecule inhibitor of casein kinase 1 (CK1), for the potential treatment of patients with behavioral and neurological symptoms across various psychiatric and neurological diseases. In particular, Biogen plans to develop the Phase 1 asset for the treatment of sundowning in Alzheimer's disease and irregular sleep wake rhythm disorder in Parkinson's disease. The purchase will include an upfront payment of $75 million with up to $635 million in potential additional development and commercialization milestone payments, as well as tiered royalties in the high single digits to sub-teens. This transaction is subject to customary closing conditions, including the expiration of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 in the U.S., and is expected to close in the first quarter of 2020.

- In 2019 Biogen added seven clinical programs to its pipeline, including BIIB111 (timrepigene emparvovec) for choroideremia (CHM), BIIB112 (RPGR gene therapy) for X-linked retinitis pigmentosa, BIIB091 (BTK inhibitor) for MS, BIIB094 (ION859) for Parkinson's disease, BIIB100 (XPO1 inhibitor) for amyotrophic lateral sclerosis, BIIB093 (glibenclamide IV) for brain contusion, and SB11, a biosimilar referencing LUCENTIS.

- In December 2019 Biogen entered into a collaboration agreement with CAMP4 Therapeutics. The collaboration will leverage CAMP4 Therapeutics' Gene Circuitry Platform™ with the aim of identifying how to dial up or down the expression of disease-associated genes within microglial cells – the primary immune cells of the central nervous system, which are implicated in many serious neurological and neurodegenerative diseases. Under the terms of the agreement, Biogen paid CAMP4 Therapeutics an upfront payment of $15 million.

- In December 2019 Biogen entered into a global license and collaboration agreement with Catalyst Biosciences for the development and commercialization of pegylated CB 2782, a preclinical anti-C3 protease, for the potential treatment of geographic atrophy associated dry age-related macular degeneration. Under the terms of the agreement, Biogen paid Catalyst Biosciences an upfront payment of $15 million.

- In December 2019 Biogen completed a transaction with Samsung Bioepis and secured the exclusive rights to commercialize two new potential ophthalmology biosimilars, SB11 referencing LUCENTIS and SB15 referencing EYLEA, in major markets worldwide, including the U.S., Canada, Europe, Japan, and Australia. In addition, Biogen acquired exclusive commercialization rights for its anti-TNF portfolio, including BENEPALI, FLIXABI, and IMRALDI, in China. Biogen also acquired an option to extend its existing commercial agreement with Samsung Bioepis for this anti-TNF portfolio in Europe.

- In December 2019 Biogen announced topline results from the Phase 2 PASSPORT study of gosuranemab (BIIB092) for progressive supranuclear palsy (PSP). The

primary endpoint, as measured by the PSP rating scale at week 52, was not statistically significant. In addition, the study did not demonstrate efficacy on key clinical secondary endpoints. Safety results of the PASSPORT study were generally consistent with previous studies of gosuranemab. Based on these results, Biogen discontinued development of gosuranemab for PSP and other primary tauopathies.

- In December 2019 Biogen presented topline data from the aducanumab Phase 3 EMERGE and ENGAGE studies at the Clinical Trials on Alzheimer's Disease (CTAD) annual congress in San Diego, California.

- In December 2019 Biogen announced positive top-line results from the Phase 2 LILAC study evaluating the efficacy and safety of BIIB059, a fully humanized IgG1 monoclonal antibody targeting blood dendritic cell antigen 2 (BDCA2) expressed on plasmacytoid dendritic cells, in patients with lupus. LILAC was a two-part study that evaluated BIIB059 versus placebo in individuals with active cutaneous lupus erythematosus (CLE), including chronic and subacute subtypes, with or without systemic manifestations and in individuals with systemic lupus erythematosus (SLE) with active joint and skin manifestations. Both the CLE and SLE parts of the study met the primary endpoints. The safety and tolerability profile of BIIB059 supports its continued development, and Biogen plans to advance BIIB059 to Phase 3.

- In November 2019 Biogen presented detailed results from the Phase 3 EVOLVE-MS-2 study of VUMERITY (diroximel fumarate) at the 27th Annual Meeting of the European Charcot Foundation in Italy. VUMERITY is a novel oral fumarate with a distinct chemical structure, and the EVOLVE-MS-2 results demonstrated improved patient-assessed gastrointestinal (GI) tolerability as compared to TECFIDERA (dimethyl fumarate).

- In November 2019 Biogen completed enrollment in the global Phase 3 STAR clinical study, which is evaluating the investigational gene therapy BIIB111 for the potential treatment of CHM. CHM is a rare, degenerative, X-linked inherited retinal disorder that leads to blindness and currently has no approved treatments.

- In October 2019 the U.S. Food and Drug Administration approved VUMERITY for the treatment of relapsing forms of MS, including clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease.

- In October 2019 Biogen announced that it plans to submit a regulatory filing for aducanumab in Alzheimer's disease based on a new analysis of a larger dataset from the Phase 3 EMERGE and ENGAGE studies.

Conference Call and Webcast

The Company's earnings conference call for the fourth quarter will be broadcast via the internet at 8:00 a.m. ET on January 30, 2020, and will be accessible through the Investors section of Biogen's website, www.biogen.com. Supplemental information in the form of a slide presentation is also accessible at the same location on the internet and will be subsequently available on the website for at least one month.

About Biogen
At Biogen, our mission is clear: we are pioneers in neuroscience. Biogen discovers, develops, and delivers worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases as well as related therapeutic adjacencies. One of the world's first global biotechnology companies, Biogen was founded in 1978 by Charles Weissmann, Heinz Schaller, Kenneth Murray, and Nobel Prize winners Walter Gilbert and Phillip Sharp. Today Biogen has the leading portfolio of medicines to treat multiple sclerosis, has introduced the first approved treatment for spinal muscular atrophy, commercializes biosimilars of advanced biologics, and is focused on advancing research programs in multiple sclerosis and neuroimmunology, Alzheimer's disease and dementia, neuromuscular disorders, movement disorders, ophthalmology, immunology, neurocognitive disorders, acute neurology, and pain.

We routinely post information that may be important to investors on our website at www.biogen.com. Follow us on social media – Twitter, LinkedIn, Facebook, YouTube.

Safe Harbor
This news release contains forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, 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; the potential benefits, safety, and efficacy of our products and investigational therapies; anticipated benefits and potential of investments, collaborations, and business development activities; our future financial and operating results; our 2020 financial guidance; the potential benefits and results that may be achieved through the proposed transaction with Pfizer; and the anticipated completion and timing of the proposed transaction with Pfizer. These forward-looking statements may be accompanied by such words as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "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 strategic and growth initiatives; 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; risks relating to technology failures or breaches; our dependence on collaborators, joint venture partners, and other third parties for the development, regulatory approval, and commercialization of products and other aspects of our business, which are outside of our full control; risks associated with current and potential future healthcare reforms; risks relating to management and key personnel changes, including attracting and retaining key personnel; failure to comply with legal and regulatory requirements; the risks of doing business internationally, including currency exchange rate fluctuations; risks relating to investment in our manufacturing capacity; problems with our manufacturing processes; risks related to commercialization of biosimilars; fluctuations in our operating results; 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 distribution and sale 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 that the proposed transaction with Pfizer will be completed in a timely manner or at all; the possibility that certain closing conditions to the proposed transaction with Pfizer will not be satisfied; uncertainty as to whether the anticipated benefits of the proposed transaction with Pfizer can be achieved; 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 U.S. Securities and Exchange Commission.

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

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TABLE 1

BIOGEN INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENT OF INCOME
(unaudited, in millions, except per share amounts)

	For the Three Months Ended December 31,		For the Twelve Months Ended December 31,	
	2019	2018	2019	2018
Revenues:				
Product, net	$ 2,924.8	$ 2,825.7	$ 11,379.8	$ 10,886.8
Revenues from anti-CD20 therapeutic programs	600.8	534.9	2,290.4	1,980.2
Other	145.7	165.7	707.7	585.9
Total revenues	3,671.3	3,526.3	14,377.9	13,452.9
Cost and expenses:				
Cost of sales, excluding amortization and impairment of acquired intangible assets	447.1	488.5	1,955.4	1,816.3
Research and development	691.7	611.6	2,280.6	2,597.2
Selling, general and administrative	664.9	591.1	2,374.7	2,106.3
Amortization and impairment of acquired intangible assets	67.7	254.1	489.9	747.3
Collaboration profit (loss) sharing	59.8	55.8	241.6	185.0
Loss on divestiture of Hillerød, Denmark manufacturing operations	(40.2)	—	55.3	—
(Gain) loss on fair value remeasurement of contingent consideration	2.6	79.3	(63.7)	(12.3)
Acquired in-process research and development	—	—	—	112.5
Restructuring charges	—	2.8	1.5	12.0
Total cost and expenses	1,893.6	2,083.2	7,335.3	7,564.3
Income from operations	1,777.7	1,443.1	7,042.6	5,888.6
Other income (expense), net	(49.3)	(28.6)	83.3	11.0
Income before income tax expense and equity in loss of investee, net of tax	1,728.4	1,414.5	7,125.9	5,899.6
Income tax expense	276.1	469.6	1,158.0	1,425.6
Equity in loss of investee, net of tax	12.6	—	79.4	—
Net income	1,439.7	944.9	5,888.5	4,474.0
Net income (loss) attributable to noncontrolling interests, net of tax	—	(1.9)	—	43.3
Net income attributable to Biogen Inc.	$ 1,439.7	$ 946.8	$ 5,888.5	$ 4,430.7
Net income per share:				
Basic earnings per share attributable to Biogen Inc.	$ 8.10	$ 4.74	$ 31.47	$ 21.63
Diluted earnings per share attributable to Biogen Inc.	$ 8.08	$ 4.73	$ 31.42	$ 21.58
Weighted-average shares used in calculating:				
Basic earnings per share attributable to Biogen Inc.	177.8	199.8	187.1	204.9
Diluted earnings per share attributable to Biogen Inc.	178.2	200.3	187.4	205.3

TABLE 2

BIOGEN INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited, in millions)

	As of December 31, 2019	As of December 31, 2018
ASSETS		
Cash, cash equivalents and marketable securities	$ 4,475.9	$ 3,538.0
Accounts receivable, net	1,880.5	1,958.5
Inventory	804.2	929.9
Other current assets	1,221.2	1,214.5
Total current assets	8,381.8	7,640.9
Marketable securities	1,408.1	1,375.9
Property, plant and equipment, net	3,247.3	3,601.2
Operating lease assets	427.0	—
Intangible assets, net	3,527.4	3,120.0
Goodwill	5,757.8	5,706.4
Investments and other assets	4,484.9	3,844.5
TOTAL ASSETS	$ 27,234.3	$ 25,288.9
LIABILITIES AND EQUITY		
Current portion of notes payable	$ 1,495.8	$ —
Other current liabilities	3,368.0	3,295.2
Total current liabilities	4,863.8	3,295.2
Notes payable	4,459.0	5,936.5
Long-term operating lease liabilities	412.7	—
Other long-term liabilities	4,159.7	3,025.6
Equity	13,339.1	13,031.6
TOTAL LIABILITIES AND EQUITY	$ 27,234.3	$ 25,288.9

TABLE 3

BIOGEN INC. AND SUBSIDIARIES
GAAP TO NON-GAAP RECONCILIATION:
NET INCOME ATTRIBUTABLE TO BIOGEN INC. AND DILUTED EARNINGS PER SHARE

(unaudited, in millions, except per share amounts)

An itemized reconciliation between diluted earnings per share on a GAAP and Non-GAAP basis is as follows:

	For the Three Months Ended		
	December 31, 2019	September 30, 2019	December 31, 2018
GAAP earnings per share - Diluted	$ 8.08	$ 8.39	$ 4.73
Adjustments to GAAP net income attributable to Biogen Inc. (as detailed below)	0.26	0.78	2.26
Non-GAAP earnings per share - Diluted	$ 8.34	$ 9.17	$ 6.99

	For the Twelve Months Ended	
	December 31, 2019	December 31, 2018
GAAP earnings per share - Diluted	$ 31.42	$ 21.58
Adjustments to GAAP net income attributable to Biogen Inc. (as detailed below)	2.15	4.62
Non-GAAP earnings per share - Diluted	$ 33.57	$ 26.20

An itemized reconciliation between net income attributable to Biogen Inc. on a GAAP and Non-GAAP basis is as follows:

	For the Three Months Ended		
	December 31, 2019	September 30, 2019	December 31, 2018
GAAP net income attributable to Biogen Inc.	$ 1,439.7	$ 1,545.9	$ 946.8
Adjustments:			
Acquisition and divestiture related costs:			
Amortization and impairment of acquired intangible assets [A, B]	67.7	283.9	254.1
Research and Development	—	—	10.0
(Gain) loss on fair value remeasurement of contingent consideration [C]	2.6	(57.8)	79.3
Loss on divestiture of Hillerød, Denmark manufacturing operations [D]	(40.2)	(17.7)	—
Net distribution to noncontrolling interests	—	—	(1.6)
Acquisition-related transaction and integration costs	4.5	(0.3)	—
Accelerated share-based compensation expense	—	6.7	—
Subtotal: Acquisition and divestiture related costs	34.6	214.8	341.8
Restructuring, business transformation and other cost saving initiatives:			
2017 corporate strategy implementation [E]	0.5	1.3	—
Restructuring charges [E]	—	0.3	2.8
Subtotal: Restructuring, business transformation and other cost saving initiatives	0.5	1.6	2.8
(Gain) loss on equity security investments	(2.9)	4.6	12.2
Income tax effect related to reconciling items	(6.9)	(44.8)	(49.8)
Elimination of deferred tax asset	—	—	10.6
U.S. tax reform [F]	—	—	135.8
Swiss tax reform [G]	—	(54.3)	—
Amortization included in Equity in loss of investee, net of tax [H]	20.6	21.2	—
Non-GAAP net income attributable to Biogen Inc.	$ 1,485.6	$ 1,689.0	$ 1,400.2

	For the Twelve Months Ended	
	December 31, 2019	December 31, 2018
GAAP net income attributable to Biogen Inc.	$ 5,888.5	$ 4,430.7
Adjustments:		
Acquisition and divestiture related costs:		
Amortization and impairment of acquired intangible assets [A, B]	489.9	747.3
Acquired in-process research and development	—	112.5
Research and Development	—	10.0
(Gain) loss on fair value remeasurement of contingent consideration [C]	(63.7)	(12.3)
Loss on divestiture of Hillerød, Denmark manufacturing operations [D]	55.3	—
Net distribution to noncontrolling interests [K]	—	43.7
Stock option expense [I]	26.2	—
Acquisition-related transaction and integration costs	27.9	—
Accelerated share-based compensation expense	6.7	—
Subtotal: Acquisition and divestiture related costs	542.3	901.2
Restructuring, business transformation and other cost saving initiatives:		
2017 corporate strategy implementation [E]	3.5	10.9
Restructuring charges [E]	1.5	12.0
Subtotal: Restructuring, business transformation and other cost saving initiatives	5.0	22.9
Premium paid on purchase of Ionis common stock [J]	—	162.1
(Gain) loss on equity security investments	(200.2)	(128.0)
Income tax effect related to reconciling items	31.3	(146.6)
Elimination of deferred tax asset	—	10.6
U.S. tax reform [F]	—	124.9
Swiss tax reform [G]	(54.3)	—
Amortization included in Equity in loss of investee, net of tax [H]	78.2	—
Non-GAAP net income attributable to Biogen Inc.	$ 6,290.8	$ 5,377.8

2020 Full Year Guidance: GAAP to Non-GAAP Reconciliation

An itemized reconciliation between projected net income attributable to Biogen Inc. and diluted earnings per share on a GAAP and Non-GAAP basis is as follows:

	$	Shares	Diluted EPS
GAAP net income attributable to Biogen Inc.	$ 5,338.0	174.9	$ 30.52
Adjustments:			
Amortization of acquired intangible assets	262.0		
Loss (gain) on fair value remeasurement of contingent consideration	7.0		
Acquired in-process research and development	75.0		
Amortization included in Equity in loss of investee, net of tax [H]	67.0		
Income tax effect related to reconciling items	(65.0)		
Non-GAAP net income attributable to Biogen Inc.	$ 5,684.0	174.9	$ 32.50

Notes to GAAP to Non-GAAP Reconciliation

[A] Amortization and impairment of acquired intangible assets for the three months ended September 30, 2019, and the twelve months ended December 31, 2019, reflects the impact of a $215.9 million impairment charge related to certain in-process research and development (IPR&D) assets associated with the Phase 2b study of BG00011 (STX-100) for the potential treatment of idiopathic pulmonary fibrosis, which was discontinued during the third quarter of 2019.

Amortization and impairment of acquired intangible assets for the twelve months ended December 31, 2018, includes the impact of impairment charges related to certain IPR&D assets associated with our vixotrigine (BIIB074) program totaling $189.3 million that were recognized during the third quarter of 2018. During the third quarter of 2018 we completed a Phase 2b study of vixotrigine for the potential treatment of painful lumbosacral radiculopathy (PLSR). The study did not meet its primary or secondary efficacy endpoints and we discontinued development of vixotrigine for the potential treatment of PLSR. As a result, we recognized an impairment charge of approximately $60.0 million during the third quarter of 2018 to reduce the fair value of the IPR&D intangible asset to zero. In addition, we delayed the initiation of the Phase 3 studies of vixotrigine for the potential treatment of trigeminal neuralgia (TGN) as we awaited the outcome of ongoing interactions with the U.S. Food and Drug Administration (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 potential treatment of PLSR and insights from the Phase 2 study of vixotrigine for the potential treatment of small fiber neuropathy. We reassessed the fair value of the TGN program using reduced expected lifetime revenues, higher expected clinical development costs and a lower cumulative probability of success. As a result of that reassessment, we recognized an impairment charge of $129.3 million during the third quarter of 2018 to reduce the fair value of the TGN IPR&D intangible asset to $41.8 million.

[B] 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 as of 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 $795.2 million was recognized within intangible assets in the first quarter of 2017.

We had an intellectual property dispute with Forward Pharma in the U.S. 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 $328.2 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 $176.8 million impairment charge in the fourth quarter of 2018 to reduce the remaining net book value of the U.S. asset to zero.

We have an intellectual property dispute with Forward Pharma in the European Union concerning intellectual property related to TECFIDERA.

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 remaining net book value of the TECFIDERA rest of world intangible asset as of December 31, 2019, was $36.1 million.

For the twelve months ended December 31, 2019, compared to the prior year period, the decrease in amortization of acquired intangible assets, excluding impairment charges, was primarily due to a net overall decrease in our expected rate of amortization for acquired intangible assets. This decrease was primarily due to lower amortization subsequent to the impairment in the fourth quarter of 2018 of the U.S. license to Forward Pharma intellectual property, including Forward Pharma's intellectual property related to TECFIDERA, and higher expected lifetime revenues of TYSABRI.

[C] (Gain) loss on fair value remeasurement of contingent consideration for the three months ended September 30, 2019, and the twelve months ended December 31, 2019, reflects our adjustment to the value of our contingent consideration obligations related to the BG00011 asset, resulting in a gain of $61.2 million during the third quarter of 2019.

(Gain) loss on fair value remeasurement of contingent consideration for the twelve months ended December 31, 2018, reflects our adjustment to the fair value of our contingent consideration obligations related to our vixotrigine program for the potential treatment of TGN.

In the third quarter of 2018 we decided to delay the initiation of the Phase 3 studies of vixotrigine for the potential treatment of TGN. As a result of that decision, we adjusted the value of our contingent consideration obligations related to the TGN program to reflect the lower cumulative probabilities of success resulting in a gain of $89.6 million in the third quarter of 2018.

In the fourth quarter of 2018 we received feedback from the FDA regarding the design of the Phase 3 studies of vixotrigine for the potential treatment of TGN. Following this feedback, 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 $80.6 million in the fourth quarter of 2018.

[D] In August 2019 we completed the sale of all of the outstanding shares of our subsidiary that owned our biologics manufacturing operations in Hillerød, Denmark to FUJIFILM Corporation (FUJIFILM). Upon the closing of this transaction, we received approximately $881.9 million in cash, which may be adjusted based on other contractual terms, which are discussed below. We determined that the operations disposed of in this transaction did not meet the criteria to be classified as discontinued operations under the applicable guidance.

As part of this transaction, we have provided FUJIFILM with certain minimum batch production commitment guarantees. There is a risk that the minimum contractual batch production commitments will not be met. Based upon current estimates we expect to incur an adverse commitment obligation of approximately $74.0 million associated with such guarantees. We may adjust this estimate based upon changes in business conditions, which may result in the increase or reduction of this adverse commitment obligation in subsequent periods. We also may be obligated to indemnify FUJIFILM for liabilities that existed relating to certain business activities incurred prior to the closing of this transaction.

In addition, we may earn certain contingent payments based on future manufacturing activities at the Hillerød facility. For the disposition of a business, our policy is to recognize contingent consideration when the consideration is realizable. We currently believe the probability of earning these payments is remote and therefore we did not include these contingent payments in our calculation of the fair value of the operations.

As part of this transaction, we entered into certain manufacturing services agreements with FUJIFILM pursuant to which FUJIFILM will use the Hillerød facility to produce commercial products for us, such as TYSABRI, as well as other third-party products.

In connection with this transaction we recognized a total net loss of approximately $164.4 million in our consolidated statements of income. This loss included a pre-tax loss of $95.5 million, which was recorded in loss on divestiture of Hillerød, Denmark manufacturing operations. The loss recognized was based on exchange rates and business conditions on the closing date of this transaction, and included costs to sell our Hillerød, Denmark manufacturing operations of approximately $11.2 million and our estimate of the fair value of an adverse commitment of approximately $114.0 million associated with the guarantee of future minimum batch production at the Hillerød facility. The value of this adverse commitment was determined using a probability-weighted estimate of future manufacturing activity. We also recorded a tax expense of $68.9 million related to this transaction. During the fourth quarter of 2019 we recorded a $40.2 million reduction in our estimate of the future minimum batch commitment utilizing our current manufacturing forecast, which reflects the impact of forecasted aducanumab batches, resulting in a reduction in the pre-tax loss on divestiture from $95.5 million to $55.3 million.

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

[F] 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, which has the effect of subjecting certain earnings of our foreign subsidiaries and collaborations to immediate U.S. taxation as global intangible low-taxed income (GILTI) or Subpart F income, and includes base erosion prevention measures on U.S. earnings and the reduced effective tax rate on income that comes from U.S. exports, called Foreign Derived Intangible Income. 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.

U.S. tax reform amounts for the three and twelve months ended December 31, 2018, reflects the effect of an expense of $135.8 million related to the establishment of GILTI deferred taxes.

Tax reform amounts for the twelve months ended December 31, 2018, reflects the effect of a net reduction of $34.6 million to our 2017 preliminary estimate associated with a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings (the Transition Toll Tax), an expense of $12.7 million for the remeasurement of our deferred tax balances and an $11.0 million expense to reflect other aspects of the 2017 Tax Act.

[G] During the third quarter of 2019 a new taxing regime in the country and certain cantons of Switzerland was enacted and we refer to this as Swiss Tax Reform. As a result of the impact of Swiss Tax Reform, we recorded an income tax benefit of approximately $54.3 million resulting from a remeasurement of our deferred tax assets and liabilities in the third quarter of 2019.

[H] Amortization included in equity in loss of investee, net of tax reflects the amortization of the differences between the fair value of our investment in Samsung Bioepis Co., Ltd. and the carrying value of our interest in the underlying net assets of the investee. These basis differences are amortized over their economic life.

[I] Stock option expense reflects the accelerated vesting of stock options previously granted to Nightstar Therapeutics plc (NST) employees as a result of our acquisition of NST in the second quarter of 2019.

[J] In June 2018 we closed a 10-year exclusive collaboration agreement with Ionis Pharmaceuticals, Inc. (Ionis) to develop novel antisense oligonucleotide drug candidates for a broad range of neurological diseases (the 2018 Ionis Agreement) for a total payment of $1.0 billion, consisting of an upfront payment of $375.0 million and the purchase of approximately 11.5 million shares of Ionis common stock at a cost of $625.0 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 2018 Ionis Agreement in April 2018 and the effect of certain holding period restrictions. We recorded an asset of $462.9 million in investments and other assets in our condensed consolidated balance sheets reflecting the fair value of the common stock as of the purchase date and a charge of $162.1 million to research and development expense in our condensed consolidated statements of income in the second quarter of 2018 reflecting the premium paid for the common stock.

[K] Net distribution to noncontrolling interests reflects the $50.0 million payment to Neurimmune SubOne AG (Neurimmune), net of Neurimmune's tax, to further reduce the previously negotiated royalty rates payable on products developed under our amended collaboration and license agreement with Neurimmune, including royalties payable on potential commercial sales of aducanumab, an investigational treatment for early Alzheimer's disease, by an additional 5%.

Use of Non-GAAP Financial Measures

We supplement our consolidated financial statements presented on a GAAP basis by providing additional measures which may be considered “Non-GAAP” financial measures under applicable SEC rules. 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 diluted earnings per share.

Our “Non-GAAP net income attributable to Biogen Inc.” and “Non-GAAP earnings per share - Diluted” financial measures exclude the following items from “GAAP net income attributable to Biogen Inc.” and “GAAP earnings per share - Diluted”:

1. Acquisition and divestiture related costs

We exclude transaction, integration and certain other costs related to the acquisition and divestiture of businesses. We exclude certain purchase accounting related items associated with the acquisition of assets and amounts in relation to the consolidation or deconsolidation of variable interest entities. These adjustments include, but are not limited to, charges for in-process research and development and certain milestones, the amortization and impairment of intangible assets, charges or credits from the fair value remeasurement of our contingent consideration obligations and losses on assets and liabilities held for sale.

2. Restructuring, business transformation and other cost saving initiatives

We exclude costs associated with our execution of certain strategies and initiatives to streamline operations, achieve targeted cost reductions, rationalize manufacturing facilities or refocus R&D activities. These costs may include employee separation costs, retention bonuses, facility closing and exit costs, asset impairment charges or additional depreciation when the expected useful life of certain assets have been shortened due to changes in anticipated usage and other costs or credits that management believes do not have a direct correlation to our ongoing or future business operations.

3. (Gain) loss on equity security investments

We exclude unrealized and realized gains and losses and discounts or premiums on our equity security investments as we do not believe that these components of income or expense have a direct correlation to our ongoing or future business operations.

4. Other items

We evaluate other items of income and expense on an individual basis and consider both the quantitative and qualitative aspects of the item, including (i) its size and nature, (ii) whether or not it relates to our ongoing business operations and (iii) whether or not we expect it to occur as part of our normal business on a regular basis. We also include an adjustment to reflect the related tax effect of all reconciling items within our reconciliation of our GAAP to Non-GAAP net income attributable to Biogen Inc. and earnings per share - diluted.

TABLE 4

BIOGEN INC. AND SUBSIDIARIES
PRODUCT REVENUES
(unaudited, in millions)

	For the Three Months Ended								
	December 31, 2019			December 31, 2018			September 30, 2019		
	United States	Rest of World	Total	United States	Rest of World	Total	United States	Rest of World	Total
Multiple Sclerosis (MS):									
TECFIDERA	$ 877.0	$ 284.3	$ 1,161.3	$ 856.3	$ 254.1	$ 1,110.4	$ 842.0	$ 280.4	$ 1,122.4
Interferon*	359.3	157.2	516.5	430.9	166.3	597.2	360.3	169.7	530.0
TYSABRI	269.5	203.4	472.9	256.8	207.6	464.4	263.0	220.6	483.6
VUMERITY	5.5	—	5.5						
FAMPYRA	—	25.9	25.9	—	22.7	22.7	—	24.2	24.2
Spinal Muscular Atrophy:									
SPINRAZA	242.8	300.4	543.2	236.2	233.7	469.9	236.7	310.4	547.1
Biosimilars:									
BENEPALI	—	126.0	126.0	—	125.3	125.3	—	115.9	115.9
IMRALDI	—	51.7	51.7	—	16.7	16.7	—	49.3	49.3
FLIXABI	—	18.2	18.2	—	14.1	14.1	—	18.4	18.4
Other Product Revenues:									
FUMADERM	—	3.6	3.6	—	5.0	5.0	—	3.8	3.8
Total product revenues	$ 1,754.1	$ 1,170.7	$ 2,924.8	$ 1,780.2	$ 1,045.5	$ 2,825.7	$ 1,702.0	$ 1,192.7	$ 2,894.7

	For the Twelve Months Ended					
	December 31, 2019			December 31, 2018		
	United States	Rest of World	Total	United States	Rest of World	Total
Multiple Sclerosis (MS):						
TECFIDERA	$ 3,306.5	$ 1,126.2	$ 4,432.7	$ 3,253.2	$ 1,020.9	$ 4,274.1
Interferon*	1,426.6	675.2	2,101.8	1,668.3	694.7	2,363.0
TYSABRI	1,041.8	850.4	1,892.2	1,025.0	839.0	1,864.0
VUMERITY	5.5	—	5.5	—	—	—
FAMPYRA	—	97.1	97.1	—	92.7	92.7
ZINBRYTA	—	—	—	—	1.4	1.4
Spinal Muscular Atrophy:						
SPINRAZA	933.4	1,163.6	2,097.0	854.0	870.2	1,724.2
Biosimilars:						
BENEPALI	—	486.2	486.2	—	485.2	485.2
IMRALDI	—	184.0	184.0	—	16.7	16.7
FLIXABI	—	68.1	68.1	—	43.2	43.2
Other Product Revenues:						
FUMADERM	—	15.2	15.2	—	22.3	22.3
Total product revenues	$ 6,713.8	$ 4,666.0	$ 11,379.8	$ 6,800.5	$ 4,086.3	$ 10,886.8

* Interferon includes AVONEX and PLEGRIDY