UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **July 24, 2018**

BIOGEN INC.

(Exact name of registrant as specified in its charter)

Delaware	**0-19311**	**33-0112644**
(State or other jurisdiction of incorporation)	*(Commission File Number)*	*(IRS Employer Identification No.)*

225 Binney Street, Cambridge, Massachusetts 02142
(Address of principal executive offices; Zip Code)

Registrant's telephone number, including area code: **(617) 679-2000**

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

☐ Emerging growth company

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

Item 2.02 Results of Operations and Financial Condition.

On July 24, 2018, Biogen Inc. issued a press release announcing its results of operations and financial condition for the second quarter ended June 30, 2018. A copy of the press release is furnished as Exhibit 99.1 and is incorporated herein by reference.

The press release is being furnished pursuant to Item 2.02 of this Current Report on Form 8-K and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that Section, nor shall such document be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act.

Item 9.01 Financial Statements and Exhibits.

The exhibit listed below is furnished as part of this Current Report on Form 8-K.

Exhibit Number	Description
99.1	Biogen's press release dated July 24, 2018.

SIGNATURES

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

BIOGEN INC.

By: /s/James Basta
James Basta
Chief Corporation Counsel and Assistant Secretary

Date: July 24, 2018

Biogen Media Contact: **Biogen Investor Contact:**
David Caouette Matt Calistri
Biogen Inc. Biogen Inc.
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BIOGEN Q2 2018 REVENUES INCREASE 9% TO $3.4 BILLION

GAAP diluted EPS increased 3%; Non-GAAP diluted EPS increased 15%

Biogen completes enrollment in Phase 3 studies of aducanumab

Company and Eisai announced topline results for BAN2401 in early Alzheimer's disease

Biogen acquires muscle enhancement program from AliveGen

Company entered into option agreement to acquire TMS-007 for acute ischemic stroke

Cambridge, Mass., July 24, 2018 -- Biogen Inc. (Nasdaq: BIIB) today reported second quarter 2018 financial results, including:

- Total revenues of $3.4 billion, a 9% increase versus the prior year.
  - Multiple sclerosis (MS) revenues were $2.3 billion, including approximately $113 million in royalties on the sales of OCREVUS®.
  - Revenue growth was driven principally by SPINRAZA®, which contributed $423 million in global revenues.
- GAAP net income and diluted earnings per share (EPS) attributable to Biogen Inc. of $867 million and $4.18, respectively, compared to $863 million and $4.07 in the second quarter of 2017, respectively.
  - In the second quarter of 2018 GAAP net income and diluted EPS were impacted by $589 million and $2.84, net of tax, respectively, related to the new collaboration agreement with Ionis Pharmaceuticals, Inc. (Ionis), the acquisition of BIIB104 from Pfizer Inc., the option payment to Neurimmune SubOne AG (Neurimmune) to further reduce royalty payments on potential commercial sales of aducanumab and the option agreement with TMS Co., Ltd. (TMS).
  - In the second quarter of 2017 GAAP net income and diluted EPS were impacted by $447 million and $2.11, net of tax, respectively, related to the asset purchase agreement with Remedy Pharmaceuticals Inc. for BIIB093 and the license agreement with Bristol-Myers-Squibb Company (BMS) for BIIB092.
- Non-GAAP net income and diluted EPS attributable to Biogen Inc. of $1.2 billion and $5.80, respectively, compared to $1.1 billion and $5.04 in the second quarter of 2017, respectively.
  - In the second quarter of 2018 Non-GAAP net income and diluted EPS were impacted by $314 million and $1.52, net of tax, respectively, related to the new collaboration agreement with Ionis and the option agreement with TMS.
  - In the second quarter of 2017 Non-GAAP net income and diluted EPS were impacted by $331 million and $1.56, net of tax, respectively, related to the license agreement with BMS for BIIB092.

(In millions, except per share amounts)	Q2 '18	Q2 '17	Q1 '18	Q2 '18 v. Q2 '17	Q2 '18 v. Q1 '18
Total revenues	$ 3,357	$ 3,078	$ 3,131	9%	7%
GAAP net income#	$ 867	$ 863	$ 1,173	0%	(26%)
GAAP diluted EPS	$ 4.18	$ 4.07	$ 5.54	3%	(25%)
Non-GAAP net income#	$ 1,202	$ 1,069	$ 1,282	12%	(6%)
Non-GAAP diluted EPS	$ 5.80	$ 5.04	$ 6.05	15%	(4%)

Net income attributable to Biogen Inc.

Note: Percent changes represented as favorable/(unfavorable)

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

“We continued to execute on our strategy to be the leader in neuroscience, as exemplified by our progress in our growth areas of Alzheimer’s disease, neuromuscular disease and acute neurology,” said Michel Vounatsos, Biogen’s chief executive officer. “Overall, revenues grew nine percent to a record $3.4 billion in the second quarter. The number of patients treated with our MS therapies globally remained relatively stable compared to last year. We saw an increase of over 20 percent in the number of adult SPINRAZA patients in the U.S. versus last quarter, as we work to increase access and adoption in older patients. Outside the U.S., the pace of reimbursement for SPINRAZA across multiple geographies supported meaningful revenue growth, and we look forward to introducing the therapy to new markets worldwide.”

“In addition, we have made advancements in Alzheimer’s disease, with the completed enrollment in the aducanumab Phase 3 studies and encouraging topline data for BAN2401,” Mr. Vounatsos continued. “We also continued to expand our neuroscience pipeline with new assets targeting stroke and muscle enhancement.”

Revenue Highlights

(In millions)	Q2 '18	Q2 '17	Q1 '18	Q2 '18 v. Q2 '17	Q2 '18 v. Q1 '18
Multiple Sclerosis:					
TECFIDERA®	$ 1,087	$ 1,111	$ 987	(2%)	10%
Total Interferon	$ 626	$ 691	$ 550	(9%)	14%
AVONEX®	*$ 502*	*$ 557*	*$ 451*	*(10%)*	*11%*
PLEGRIDY®	*$ 124*	*$ 133*	*$ 100*	*(7%)*	*24%*
TYSABRI®	$ 467	$ 496	$ 462	(6%)	1%
FAMPYRA™	$ 23	$ 23	$ 24	2%	(6%)
ZINBRYTA®	$ 0	$ 16	$ 1	(100%)	(100%)
Spinal Muscular Atrophy					
SPINRAZA	$ 423	$ 203	$ 364	108%	16%
Other Product Revenues:					
Biosimilars	$ 127	$ 91	$ 128	40%	(0%)
FUMADERM™	$ 6	$ 10	$ 7	(47%)	(21%)
Total Product Revenues:	**$ 2,758**	**$ 2,640**	**$ 2,523**	**4%**	**9%**
OCREVUS Royalties	$ 113	$ 18	$ 77	NMF	47%
RITUXAN®/GAZYVA® Revenues	$ 377	$ 379	$ 366	(1%)	3%
Other Revenues	$ 109	$ 42	$ 164	161%	(34%)
Total Revenues	**$ 3,357**	**$ 3,078**	**$ 3,131**	**9%**	**7%**
MS Product Revenues + OCREVUS Royalties	**$ 2,316**	**$ 2,355**	**$ 2,101**	**(2%)**	**10%**

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

- In the second quarter of 2018 channel inventory levels in the U.S. decreased by approximately $45 million for TECFIDERA, AVONEX and PLEGRIDY. This compares to a decrease of approximately $130 million in the first quarter of 2018 and relatively stable inventory levels in the second quarter of 2017 versus the first quarter of 2017.

- In the second quarter of 2018 SPINRAZA revenues were comprised of $206 million in sales in the U.S. and $217 million in sales outside the U.S. The number of commercial patients receiving SPINRAZA grew approximately 13% in the U.S. and approximately 47% outside the U.S. versus the first quarter of 2018. In the second quarter of 2018 Biogen recorded SPINRAZA revenues in over 25 countries.

- Changes in foreign exchange rates, net of hedging, benefitted total revenues in the second quarter of 2018 by approximately $50 million versus the prior year and by approximately $1 million versus the prior quarter.

Expense Highlights

(In millions)	Q2 '18	Q2 '17	Q1 '18	Q2 '18 v. Q2 '17	Q2 '18 v. Q1 '18
GAAP cost of sales	$ 421	$ 366	$ 446	(15%)	6%
Non-GAAP cost of sales	$ 421	$ 366	$ 446	(15%)	6%
GAAP R&D	$ 981	$ 796	$ 497	(23%)	(98%)
Non-GAAP R&D	$ 819	$ 796	$ 497	(3%)	(65%)
GAAP SG&A	$ 516	$ 430	$ 501	(20%)	(3%)
Non-GAAP SG&A	$ 512	$ 430	$ 497	(19%)	(3%)

Note: Percent changes represented as favorable/(unfavorable)

Other Financial Highlights

- For the second quarter of 2018 the Company's effective GAAP tax rate was 22%, and the Company's effective non-GAAP tax rate was 21%.
- In the second quarter of 2018 Biogen repurchased approximately 9.6 million shares of the Company's common stock for a total value of $2.75 billion.
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- As of June 30, 2018, Biogen had cash, cash equivalents and marketable securities totaling approximately $4.4 billion, and approximately $5.9 billion in notes payable.
- In the second quarter of 2018 the Company generated $1.1 billion in net cash flows from operations.
- For the second quarter of 2018 the Company's weighted average diluted shares were 207 million.

2018 Financial Guidance

Biogen is updating its full year 2018 financial guidance. This guidance consists of the following components:

- Revenue is expected to be approximately $13.0 billion to $13.2 billion, an increase from the prior guidance of $12.7 billion to $13.0 billion.
- GAAP R&D expense is expected to be approximately 19% to 20% of total revenue, compared to the prior guidance range of 16% to 17%.
- Non-GAAP R&D expense is expected to be approximately 18% to 19% of total revenue, compared to the prior guidance range of 16% to 17%.
- GAAP and non-GAAP SG&A expense is expected to be approximately 15% to 16% of total revenue, unchanged from the prior guidance.
- GAAP tax rate is expected to be approximately 21.5% to 22.5%, compared to prior guidance of 23.5% to 24.5%.
- Non-GAAP tax rate is expected to be approximately 20.5% to 21.5%, compared to prior guidance of 22.5% to 23.5%.
- GAAP diluted EPS is expected to be between $21.80 and $22.40 compared to the prior guidance range of $22.20 and $23.20.
- Non-GAAP diluted EPS is expected to be between $24.90 and $25.50, an increase from the prior guidance range of $24.20 to $25.20.

This financial guidance does not include any impact from potential acquisitions or large business development transactions, as both are hard to predict.

Biogen may incur charges, realize gains or experience other events or circumstances in 2018 that could cause actual results to vary from this guidance.

Business Development Updates

- Today Biogen announced it has acquired ALG-801 (Phase 1a) and ALG-802 (preclinical) from AliveGen, Inc. ALG-801 (now known as BIIB110) and ALG-802 represent novel ways of targeting the myostatin pathway, which is one of the most thoroughly studied approaches for muscle enhancement. BIIB110 and ALG-802 are recombinant proteins that act as ActRIIB ligand traps to inhibit myostatin pathway signaling, and their targeted mechanism of action may result in greater efficacy and improved safety compared to other myostatin approaches. We initially plan to study BIIB110 and ALG-802 in multiple neuromuscular indications including spinal muscular atrophy (SMA) and amyotrophic lateral sclerosis. The acquisition includes an upfront payment of $27.5 million, and Biogen may pay up to $535 million in additional potential development and commercialization milestones across both assets and multiple indications.

- In June 2018 Biogen announced that it entered into an exclusive option agreement with TMS to acquire TMS-007 and backup compounds. TMS-007 is believed to restore blood flow following acute stroke, with an extended treatment window versus current standard of care, and is currently being evaluated in a Phase 2 study in Japan. The agreement included an upfront payment of $4 million, and Biogen will make an additional $18 million payment if it exercises its purchase option and may pay up to $335 million in additional potential development and commercialization milestones as well as tiered royalties.

- In June 2018 Biogen and Ionis closed their new ten-year exclusive collaboration to develop novel antisense drug candidates for a broad range of neurological diseases. Biogen will have the option to license therapies arising out of this collaboration and will be responsible for their development and commercialization. Under the terms of the collaboration, Biogen made an upfront payment of $375 million and purchased approximately 11.5 million shares of Ionis' common stock at a cost of $625 million, for a total payment of $1 billion. Biogen may pay development milestones to Ionis of up to $125 million or $270 million for each program, depending on the indication, and royalties on net sales.

Recent Events

- In July 2018 Biogen completed enrollment in ENGAGE and EMERGE, the Phase 3 studies of aducanumab, Biogen's anti-amyloid beta antibody candidate for early Alzheimer's disease.

- In July 2018 Biogen and Eisai announced positive topline results of the final analysis at 18 months of the Phase 2 study of BAN2401, a monoclonal antibody that targets amyloid beta aggregates, in 856 patients with early Alzheimer's disease. The study achieved statistical significance on key secondary endpoints evaluating Alzheimer's Disease Composite Score (ADCOMS) and on reduction of amyloid accumulated in the brain as measured using amyloid-PET (positron emission tomography). Dose-dependent changes from baseline were observed across the PET results and the clinical endpoints. Further, the highest treatment dose of BAN2401 began to show statistically significant clinical benefit as measured by ADCOMS as early as 6 months including at 12 months. BAN2401 demonstrated an

acceptable tolerability profile through 18 months of study drug administration. The most common treatment emergent adverse events were infusion-related reactions and Amyloid Related Imaging Abnormalities (ARIA). As reported in December 2017, the study did not achieve its primary outcome measure which was designed to enable a potentially more rapid entry into Phase 3 development based on Bayesian analysis at 12 months of treatment. These data will be presented by Eisai on Wednesday, July 25th at 3:30 p.m. CT at the Alzheimer's Association International Conference (AAIC) 2018 in Chicago. A live webcast of Eisai's presentation is expected to be available concurrent with the AAIC presentation at https://edge.media-server.com/m6/p/ajpiv8im.

- In June 2018 Biogen exercised its option to purchase additional shares of Samsung Bioepis Co., Ltd., a joint venture established in 2012 by Samsung BioLogics Co., Ltd and Biogen. Under the terms of the 2012 joint venture agreement, Biogen will pay Samsung BioLogics approximately $700 million for the option shares, increasing Biogen's ownership in Samsung Bioepis from approximately 5.4% to approximately 49.9%. The completion of this share purchase is subject to certain regulatory closing conditions and is expected to close in the second half of 2018. The exact share purchase price will depend on the timing of the closing and foreign currency exchange rates at that time.

- In June 2018 Biogen and Samsung Bioepis announced pooled analysis results from three separate Phase 3 studies comparing the efficacy and safety of BENEPALI in reference to etanercept; FLIXABI in reference to infliximab; and IMRALDI™ in reference to adalimumab in patients with moderate to severe rheumatoid arthritis. The data indicated that the incidence of anti-drug antibodies was comparable between the biosimilars and their reference products and that radiographic progression of disease was minimal and comparable across all treatment groups. The data were presented at the Annual European Congress of Rheumatology (EULAR 2018) in Amsterdam, Netherlands.

- In June 2018 Biogen presented data from its SPINRAZA clinical development program for SMA at the Cure SMA 2018 Annual SMA Conference in Dallas, TX. Platform and poster presentations highlighted interim analyses from the SHINE and NURTURE studies, which assess SPINRAZA's safety and efficacy among those with infantile-onset SMA, and data on the utility of plasma phosphorylated neurofilament heavy chain (pNF-H) as a potential biomarker for SMA.

- In June 2018 Biogen and Eisai announced that elenbecestat, the oral BACE (beta amyloid cleaving enzyme) inhibitor, demonstrated an acceptable safety and tolerability profile in a Phase 2 clinical study, and the results demonstrated a statistically significant difference in amyloid-beta levels in the brain measured by amyloid-PET. A numerical slowing of decline in functional clinical scales of a potentially clinically important difference was also observed, although this effect was not statistically significant. These data will be featured in an Eisai poster presentation on Wednesday, July 25th starting at 9:30 a.m. CT at AAIC in Chicago.

- In June 2018 Daniel Karp joined Biogen as Executive Vice President, Corporate Development. Mr. Karp leads the newly created Corporate Development function, which includes corporate and business development and corporate strategy. He is a member of the executive committee and reports directly to Mr. Vounatsos.

- In May 2018 Biogen and Neurimmune announced that Biogen exercised its option to further reduce the previously negotiated royalty rates payable on potential commercial sales of products developed under this collaboration, including potential commercial sales of aducanumab. Biogen made a one-time $50 million payment to Neurimmune in exchange for a 5% reduction in the original royalty rates, which follows the 15% reduction in royalty rates announced in October 2017. The reduced royalty

rates on potential commercial sales of aducanumab will be in the high single digits to low-teens. Biogen licensed the worldwide rights to aducanumab from Neurimmune in 2007.

Conference Call and Webcast
The Company's earnings conference call for the second quarter will be broadcast via the internet at 8:00 a.m. ET on July 24, 2018, 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.

Note about Earnings Releases and Calls
Starting with this second quarter 2018 earnings release, Biogen has ceased publishing press releases relating to future earnings calls, earnings releases and investor events via newswire services. The Company will post these materials on the Investors section of Biogen's website, www.biogen.com, and issue a statement on Twitter (@biogen) when they become available.

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. 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, and today has the leading portfolio of medicines to treat multiple sclerosis; has introduced the first and only approved treatment for spinal muscular atrophy; and is focused on advancing neuroscience research programs in Alzheimer's disease and dementia, MS and neuroimmunology, movement disorders, neuromuscular disorders, pain, ophthalmology, neuropsychiatry and acute neurology. Biogen also manufactures and commercializes biosimilars of advanced biologics.

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 press release 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 trials and data readouts and presentations; regulatory filings and the timing thereof; risks and uncertainties associated with drug development and commercialization; anticipated benefits and potential of investments, collaborations and business development activities; the anticipated timing to complete certain transactions; and 2018 financial guidance. These forward-looking statements may be accompanied by such words as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "possible," "will" 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 principal products; failure to compete effectively due to significant product competition in the markets for our products; difficulties in obtaining and maintaining adequate coverage, pricing and reimbursement for our products; the occurrence of adverse safety events, restrictions on use with our products or product liability claims; 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; 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; risks associated with current and potential future healthcare reforms; problems with our manufacturing processes; risks relating to technology failures or breaches; 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; failure to successfully execute on our growth initiatives; risks relating to management and key personnel changes, including attracting and retaining key personnel; risks relating to investment in and expansion of manufacturing capacity for future clinical and commercial requirements; failure to comply with legal and regulatory requirements; fluctuations in our effective tax rate; the risks of doing business internationally, including currency exchange rate fluctuations; risks related to commercialization of biosimilars; risks related to investment in properties; the market, interest and credit risks associated with our portfolio of marketable securities; risks relating to stock 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 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 risks of operational difficulties and 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 press 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 June 30,		For the Six Months Ended June 30,	
	2018	2017	2018	2017
Revenues:				
Product, net	$ 2,757.5	$ 2,639.7	$ 5,281.0	$ 5,019.8
Revenues from anti-CD20 therapeutic programs	490.4	397.1	933.6	737.7
Other	108.6	41.6	273.0	131.6
Total revenues	3,356.5	3,078.4	6,487.6	5,889.1
Cost and expenses:				
Cost of sales, excluding amortization of acquired intangible assets	421.0	366.2	867.0	750.8
Research and development	981.0	796.2	1,477.7	1,219.6
Selling, general and administrative	516.2	429.8	1,017.5	928.5
Amortization of acquired intangible assets	107.4	117.5	211.3	566.0
Acquired in-process research and development	75.0	120.0	85.0	120.0
Collaboration profit (loss) sharing	39.2	26.5	81.7	47.3
Loss (gain) on fair value remeasurement of contingent consideration	1.9	21.2	(3.7)	31.2
Restructuring charges	1.6	—	3.2	—
Total cost and expenses	2,143.3	1,877.4	3,739.7	3,663.4
Income from operations	1,213.2	1,201.0	2,747.9	2,225.7
Other income (expense), net	(34.5)	(68.6)	(75.5)	(106.6)
Income before income tax expense and equity in loss of investee, net of tax	1,178.7	1,132.4	2,672.4	2,119.1
Income tax expense	263.7	269.6	586.2	508.8
Equity in loss of investee, net of tax	—	—	—	—
Net income	915.0	862.8	2,086.2	1,610.3
Net income (loss) attributable to noncontrolling interests, net of tax	48.4	—	46.7	(0.1)
Net income attributable to Biogen Inc.	$ 866.6	$ 862.8	$ 2,039.5	$ 1,610.4
Net income per share:				
Basic earnings per share attributable to Biogen Inc.	$ 4.18	$ 4.07	$ 9.75	$ 7.53
Diluted earnings per share attributable to Biogen Inc.	$ 4.18	$ 4.07	$ 9.73	$ 7.52
Weighted-average shares used in calculating:				
Basic earnings per share attributable to Biogen Inc.	207.1	211.9	209.2	213.7
Diluted earnings per share attributable to Biogen Inc.	207.3	212.2	209.5	214.0

TABLE 2

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

	As of June 30, 2018	As of December 31, 2017
ASSETS		
Cash, cash equivalents and marketable securities	$ 3,224.2	$ 3,689.0
Accounts receivable, net	1,951.0	1,787.0
Inventory	931.7	902.7
Other current assets	1,325.2	1,494.6
Total current assets	7,432.1	7,873.3
Marketable securities	1,160.2	3,057.3
Property, plant and equipment, net	3,409.0	3,182.4
Intangible assets, net	3,661.3	3,879.6
Goodwill	5,170.3	4,632.5
Investments and other assets	3,120.0	1,027.5
TOTAL ASSETS	$ 23,952.9	$ 23,652.6
LIABILITIES AND EQUITY		
Current liabilities	$ 3,152.4	$ 3,368.2
Notes payable	5,928.4	5,935.0
Other long-term liabilities	2,618.4	1,751.3
Equity	12,253.7	12,598.1
TOTAL LIABILITIES AND EQUITY	$ 23,952.9	$ 23,652.6

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		
	June 30, 2018	June 30, 2017	March 31, 2018
GAAP earnings per share - Diluted	$ 4.18	$ 4.07	$ 5.54
Adjustments to GAAP net income attributable to Biogen Inc. (as detailed below)	1.62	0.97	0.51
Non-GAAP earnings per share - Diluted	$ 5.80	$ 5.04	$ 6.05

	For the Six Months Ended	
	June 30, 2018	June 30, 2017
GAAP earnings per share - Diluted	$ 9.73	$ 7.52
Adjustments to GAAP net income attributable to Biogen Inc. (as detailed below)	2.12	2.72
Non-GAAP earnings per share - Diluted	$ 11.85	$ 10.24

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		
	June 30, 2018	June 30, 2017	March 31, 2018
GAAP net income attributable to Biogen Inc.	$ 866.6	$ 862.8	$ 1,172.9
Adjustments:			
Amortization of acquired intangible assets[A]	107.4	117.5	103.9
Acquired in-process research and development	75.0	120.0	10.0
Loss (gain) on fair value remeasurement of contingent consideration	1.9	21.2	(5.6)
Net distribution to noncontrolling interests[B]	48.5	—	—
Restructuring, business transformation and other cost saving initiatives:			
2017 corporate strategy implementation[C]	4.0	—	3.8
Restructuring charges[C]	1.6	—	1.6
Premium paid on purchase of Ionis common stock[D]	162.1	—	—
Loss (gain) on equity security investments	(5.4)	—	6.4
Income tax effect related to reconciling items	(60.2)	(52.4)	(11.3)
Non-GAAP net income attributable to Biogen Inc.	$ 1,201.5	$ 1,069.1	$ 1,281.7

	For the Six Months Ended	
	June 30, 2018	June 30, 2017
GAAP net income attributable to Biogen Inc.	$ 2,039.5	$ 1,610.4
Adjustments:		
Amortization of acquired intangible assets[A]	211.3	566.0
Acquired in-process research and development	85.0	120.0
Loss (gain) on fair value remeasurement of contingent consideration	(3.7)	31.2
Net distribution to noncontrolling interests[B]	46.8	—
Hemophilia business separation costs	—	19.2
Restructuring, business transformation and other cost saving initiatives:		
2017 corporate strategy implementation[C]	7.8	—
Restructuring charges[C]	3.2	—
Premium paid on purchase of Ionis common stock[D]	162.1	—
Loss (gain) on equity security investments	1.0	—
Income tax effect related to reconciling items	(69.8)	(154.8)
Non-GAAP net income attributable to Biogen Inc.	$ 2,483.2	$ 2,192.0

2018 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.	$ 4,550	206	$ 22.09
Adjustments:			
Amortization of acquired intangible assets[A]	430		
Acquired in-process research and development	85		
Loss (gain) on fair value remeasurement of contingent consideration	5		
Net distribution to noncontrolling interests[B]	45		
Restructuring, business transformation and other cost saving initiatives:			
2017 corporate strategy implementation[C]	20		
Restructuring charges[C]	15		
Premium paid on purchase of Ionis common stock[D]	162		
Loss (gain) on equity security investments	(15)		
Income tax effect related to reconciling items	(105)		
Non-GAAP net income attributable to Biogen Inc.	$ 5,192	206	$ 25.20

[A] Amortization of acquired intangible assets includes impairment and amortization charges related to the intangible asset associated with our U.S. and rest of world licenses to Forward Pharma A/S' (Forward Pharma) intellectual property, including Forward Pharma's intellectual property related to TECFIDERA. In exchange for these licenses, we paid Forward Pharma $1.25 billion in cash.

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. We evaluated the recoverability of the U.S. asset acquired from Forward Pharma and recorded an 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. In March 2018 the European Patent Office issued its decision revoking Forward Pharma's European Patent No. 2 801 355. Based upon our assessment of these rulings, we continue to amortize the remaining net book value of the U.S. and rest of world intangible assets in our condensed consolidated statements of income utilizing an economic consumption model.

[B] 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, including on potential commercial sales of aducanumab, by an additional 5%.

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

[D] In June 2018 we completed a new ten-year exclusive collaboration with Ionis Pharmaceuticals, Inc. (Ionis) to develop novel antisense oligonucleotide drug candidates for a broad range of neurological diseases for a total payment of $1.0 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 collaboration agreement 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 and a charge of $162.1 million to research and development expense in our condensed consolidated statements of income for the three and six months ended June 30, 2018, reflecting the premium paid for the common stock.

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. Purchase accounting, merger-related and other adjustments

We exclude certain purchase accounting related items associated with the acquisition of businesses, assets and amounts in relation to the consolidation or deconsolidation of variable interest entities for which we are the primary beneficiary. These adjustments include, but are not limited to, charges for in-process research and development milestones, the amortization of intangible assets, and charges or credits from the fair value remeasurement of our contingent consideration obligations.

2. Hemophilia business separation costs

We have excluded costs that are directly associated with the set up and spin-off of our hemophilia business into an independent, publicly-traded company on February 1, 2017. These costs represent incremental third party costs attributable solely to hemophilia separation and set up activities.

3. Restructuring, business transformation and other cost saving initiatives

We exclude costs associated with the company’s 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 on-going or future business operations.

4. Loss (gain) on equity security investments

Effective January 2018 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 on-going or future business operations.

5. 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 diluted earnings per share.

TABLE 4

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

	For the Three Months Ended								
	June 30, 2018			June 30, 2017			March 31, 2018		
	United States	Rest of World	Total	United States	Rest of World	Total	United States	Rest of World	Total
Multiple Sclerosis (MS):									
TECFIDERA	$ 825.8	$ 261.0	$ 1,086.8	$ 875.0	$ 235.6	$ 1,110.6	$ 728.9	$ 258.0	$ 986.9
Interferon*	444.7	180.8	625.5	501.7	188.9	690.6	371.4	178.9	550.3
TYSABRI	265.5	201.7	467.2	289.4	206.6	496.0	249.7	212.4	462.1
FAMPYRA	—	23.0	23.0	—	22.6	22.6	—	24.4	24.4
ZINBRYTA	—	—	—	—	16.1	16.1	—	1.4	1.4
Spinal Muscular Atrophy:									
SPINRAZA	205.9	216.8	422.7	194.8	8.1	202.9	188.0	175.9	363.9
Other Product Revenues:									
FUMADERM	—	5.5	5.5	—	10.3	10.3	—	7.0	7.0
BENEPALI	—	115.6	115.6	—	88.7	88.7	—	120.9	120.9
FLIXABI	—	11.2	11.2	—	1.9	1.9	—	6.6	6.6
Total product revenues	$ 1,741.9	$ 1,015.6	$ 2,757.5	$ 1,860.9	$ 778.8	$ 2,639.7	$ 1,538.0	$ 985.5	$ 2,523.5

	For the Six Months Ended					
	June 30, 2018			June 30, 2017		
	United States	Rest of World	Total	United States	Rest of World	Total
Multiple Sclerosis (MS):						
TECFIDERA	$ 1,554.7	$ 519.0	$ 2,073.7	$ 1,626.1	$ 442.7	$ 2,068.8
Interferon*	816.0	359.8	1,175.8	966.5	372.4	1,338.9
TYSABRI	515.2	414.1	929.3	594.9	446.1	1,041.0
FAMPYRA	—	47.4	47.4	—	43.1	43.1
ZINBRYTA	—	1.4	1.4	—	26.8	26.8
Spinal Muscular Atrophy:						
SPINRAZA	393.9	392.7	786.6	241.2	9.1	250.3
Hemophilia:						
ELOCTATE	—	—	—	42.2	6.2	48.4
ALPROLIX	—	—	—	21.0	5.0	26.0
Other Product Revenues:						
FUMADERM	—	12.5	12.5	—	20.0	20.0
BENEPALI	—	236.5	236.5	—	154.0	154.0
FLIXABI	—	17.8	17.8	—	2.5	2.5
Total product revenues	$ 3,279.8	$ 2,001.2	$ 5,281.0	$ 3,491.9	$ 1,527.9	$ 5,019.8

*Interferon includes AVONEX and PLEGRIDY