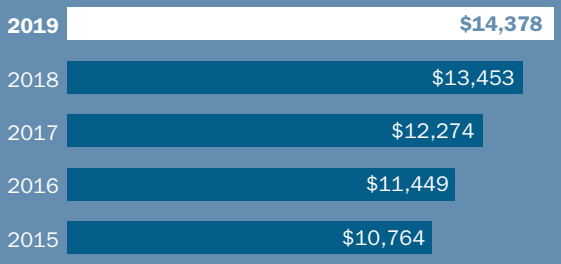
Biogen®

ANNUAL REPORT

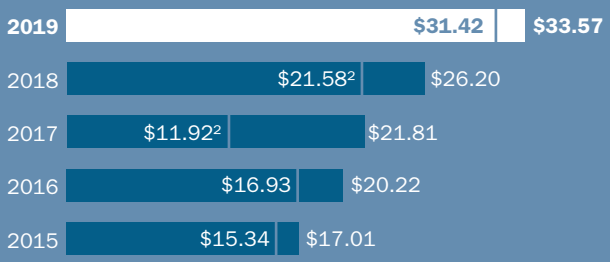
2019

PERFORMANCE HIGHLIGHTS

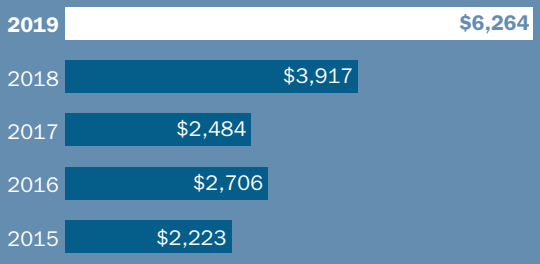
Total Revenues
($ in millions)



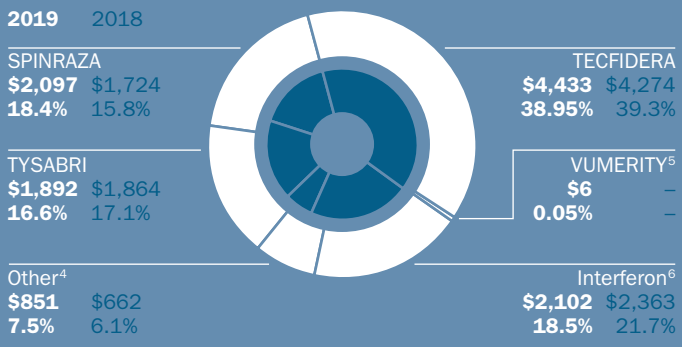
GAAP Diluted EPS/Non-GAAP Diluted EPS[1]



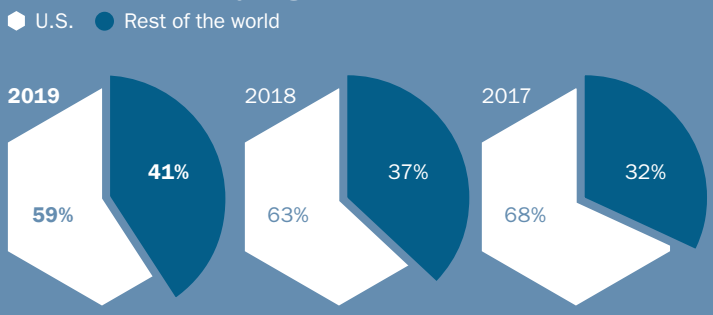
Free Cash Flow[1,3]
($ in millions)

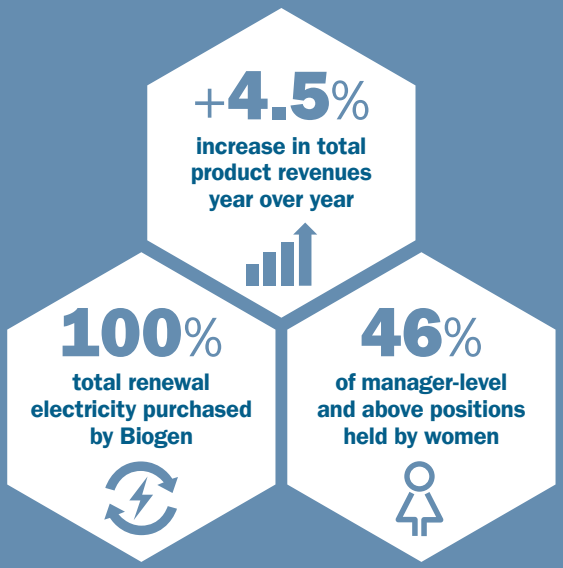


Product Revenues
($ in millions and % of total product revenues)



Product Revenues by Region (% of total product revenues)





1 Non-GAAP diluted earnings per share (EPS) and Free Cash Flow are Non-GAAP financial measures. A reconciliation of GAAP to Non-GAAP diluted EPS and Free Cash Flow amounts is set forth on pages 9–13 of this Annual Report.
2 GAAP diluted 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.
3 Free Cash Flow for 2016 through 2019 reflects an increase in capital expenditures related to the construction of our large-scale biologics manufacturing facility in Solothurn, Switzerland.
4 For 2019 and 2018 Other includes product revenues from FAMPYRA, FUMADERM, BENEPALI, FLIXABI and IMRALDI. For 2018 Other also includes product revenues from ZINBRYTA, which was voluntary withdrawn from the market in March 2018.
5 VUMERITY was approved by the U.S. Food and Drug Administration in October 2019 and became available in the U.S. in November 2019.
6 Interferon includes AVONEX and PLEGRIDY.

CEO LETTER

My fellow stockholders,
2019 was a remarkable year for Biogen as we delivered strong operating performance across all of our core business areas, double-digit earnings growth versus a year ago and strong execution of our strategy. We strengthened our pipeline by adding seven new clinical programs, which we believe will help us further expand our multi-franchise portfolio and drive mid- and long-term growth.

2019 was also marked by changing developments for aducanumab, an investigational treatment for early Alzheimer's disease. In October 2019, together with our collaboration partner Eisai Co., Ltd. (Eisai), we announced plans to pursue regulatory approval for aducanumab in the U.S. This decision was based on a new analysis, conducted in consultation with the U.S. Food and Drug Administration (FDA), of a larger dataset from the Phase 3 EMERGE and ENGAGE studies of aducanumab that had been discontinued in March 2019 following a pre-specified futility analysis.

The extraordinary events surrounding aducanumab and the progress across our portfolio is a testament to Biogen's commitment to follow the science – one that was made possible by fearless, dedicated colleagues.

Before turning to 2019 in more detail, we want to acknowledge the health and economic challenges facing all of us as a result of the current COVID-19 pandemic. Many of our communities as well as a number of our colleagues have been directly affected by COVID-19. We are committed to doing all we can to ensure the health and safety of all our employees and provide an uninterrupted supply of our medicines to patients around the world. We are grateful to everyone at Biogen who has helped us maintain our manufacturing and business operations so that patients can continue to receive our therapies. We are closely monitoring the ongoing and ever-changing developments and the impact it may have on our business operations, including our sales, manufacturing and clinical trials.

"We work with purpose to advance science to address the urgent and long-term challenges facing humanity."

Michel Vounatsos, Chief Executive Officer

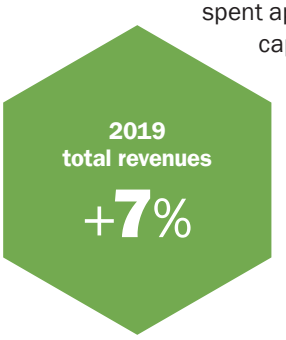
Our purpose
At Biogen we pioneer science with the goal of better understanding and preserving the underlying qualities of our essential human nature. We strongly believe that neuroscience is the next frontier that will see real scientific progress and breakthrough, and we believe that our diverse, talented workforce, with more than 7,700 employees worldwide, is uniquely positioned to take on some of the most challenging healthcare needs and to move Biogen forward. As we work to improve patients' lives, we also care deeply about making a difference in our society as a whole through science that may have the potential to, among other things, improve brain health, mobility and vision. We focus on science that seeks to solve societal problems and create access to innovation. We work with purpose to advance science to address the urgent and long-term challenges facing humanity.

CEO LETTER

Delivering sustainable performance

In 2019 we generated $14.4 billion in full-year total revenues, a 7% increase versus the prior year, and we generated net cash flows from operations of approximately $7.1 billion. GAAP diluted earnings per share for 2019 were $31.42, an increase of 46% over 2018, and Non-GAAP diluted earnings per share increased 28% over the prior year to $33.57.

Our business and cash generation remained strong and provided us with the flexibility to allocate capital to create long-term stockholder value. In 2019 we spent approximately $2.3 billion in research and development and repurchased approximately 24 million shares of our common stock for a total value of approximately $5.9 billion. In addition, we spent approximately $515 million in 2019 on capital expenditures including a significant investment in the large scale biologics manufacturing facility we are building in Solothurn, Switzerland.



These results reflect the resilience of our multiple sclerosis (MS) business as well as the continued growth of both SPINRAZA and our biosimilars business.

Capturing the neuroscience opportunity

To review Biogen's strong 2019 performance – as well as Biogen's future – let's consider some key statistics.

It is estimated that approximately 50 million people worldwide suffer from dementia and approximately 10 million suffer from Parkinson's disease. Neurological disease is the leading cause of disability and the second largest cause of death globally.[1,2]

Aging populations will almost certainly increase these numbers significantly. It is estimated that the global population over the age of 60 will be nearly 1.5 billion by 2030, and by 2050 those over 60 will be nearly 2 billion, with 1.5 billion over the age of 65.[3,4]

These numbers are only part of the story. There are important inflection points in medical history when a breakthrough in knowledge or technology generates new ideas and treatments. Consider, for example, the advancements that followed the discoveries of anesthesia, medical imaging, penicillin, organ transplants, HIV treatment and immunotherapy. For Biogen, we believe our expertise and capabilities could lead to the next major inflection point in neuroscience.

Our view is that neurological diseases are deeply connected. As the pathways of disease are interrelated, so are the potential approaches to treating them. Our experience in MS gives our scientists and researchers deeper insights into remyelination and repair, neuroprotection and axonal health, with potential applications in Alzheimer's disease, Parkinson disease, amyotrophic lateral sclerosis (ALS) and stroke.

Leading in Alzheimer's disease

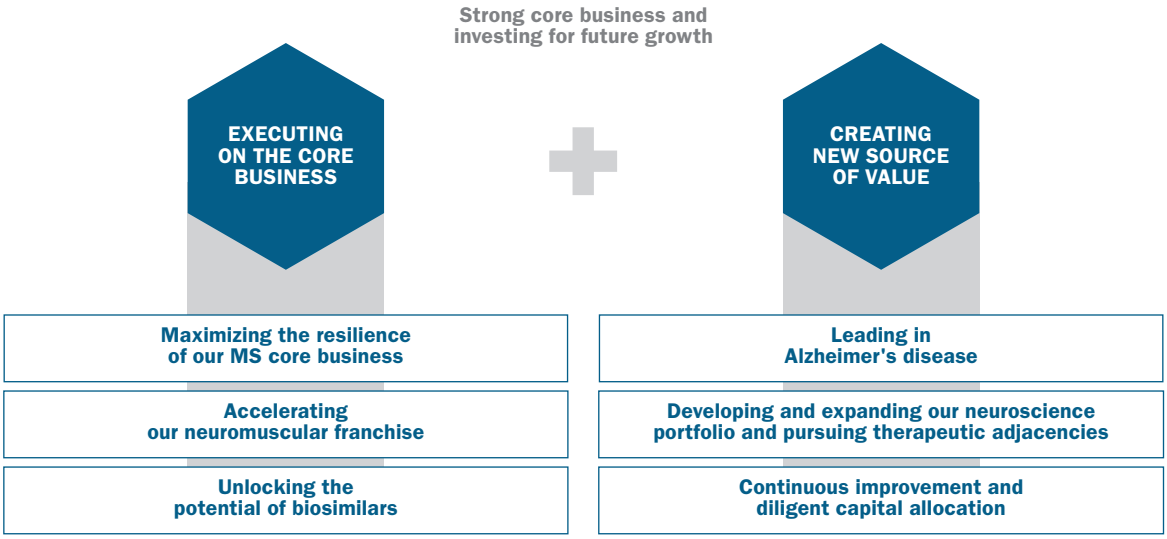
The announcement in October 2019 of our plan to pursue regulatory filing for aducanumab in the U.S. was one of the highlights of our year.

In March 2019 we announced the discontinuation of EMERGE and ENGAGE, our two Phase 3 studies, based on the results of a pre-specified futility analysis that predicted that both studies were unlikely to meet their primary endpoint upon completion. In retrospect, we now know that the result of the futility analysis, based on a smaller and earlier dataset, was incorrect. Following the discontinuation of the studies, additional data from a greater number of patients became available.

A new analysis of this larger dataset, conducted in consultation with the FDA, showed that the Phase 3 EMERGE study met its pre-specified primary and secondary endpoints by showing a significant reduction in clinical decline. And, we believe that results from a subset of patients in the Phase 3 ENGAGE study who received sufficient exposure to high dose aducanumab support the findings from EMERGE, though ENGAGE did not meet its primary endpoint.

Over the past months, we have been actively engaging with the FDA and are working diligently to complete the regulatory filing in the U.S. as soon as possible. We are also actively engaging with regulators in Europe and in Japan based on the positive results of the new findings.

BIOGEN FORWARD
Our approach to deliver sustainable value



One of our first priorities was to offer eligible patients who had been enrolled in the discontinued aducanumab studies the possibility of restarting the investigational treatment. The first patient in the U.S. returned to dosing in March 2020, and we are also actively working in Europe and Japan to re-open sites.

If approved, aducanumab would become the first therapy to reduce clinical decline in patients at early stages of the disease. While this brings tremendous hope, there remain significant challenges as patients are usually diagnosed late in the progression of the disease. Consequently, we have started working collaboratively with healthcare stakeholders to help support efforts that could enable the system to diagnose patients early enough so they might benefit from potential treatment.

The path for innovation is not straightforward – especially for Alzheimer's disease research – and aducanumab's journey has been humbling, fueled by both a drive to address the unmet need and hope. All along, we have worked with determination to follow the science with patients in mind.

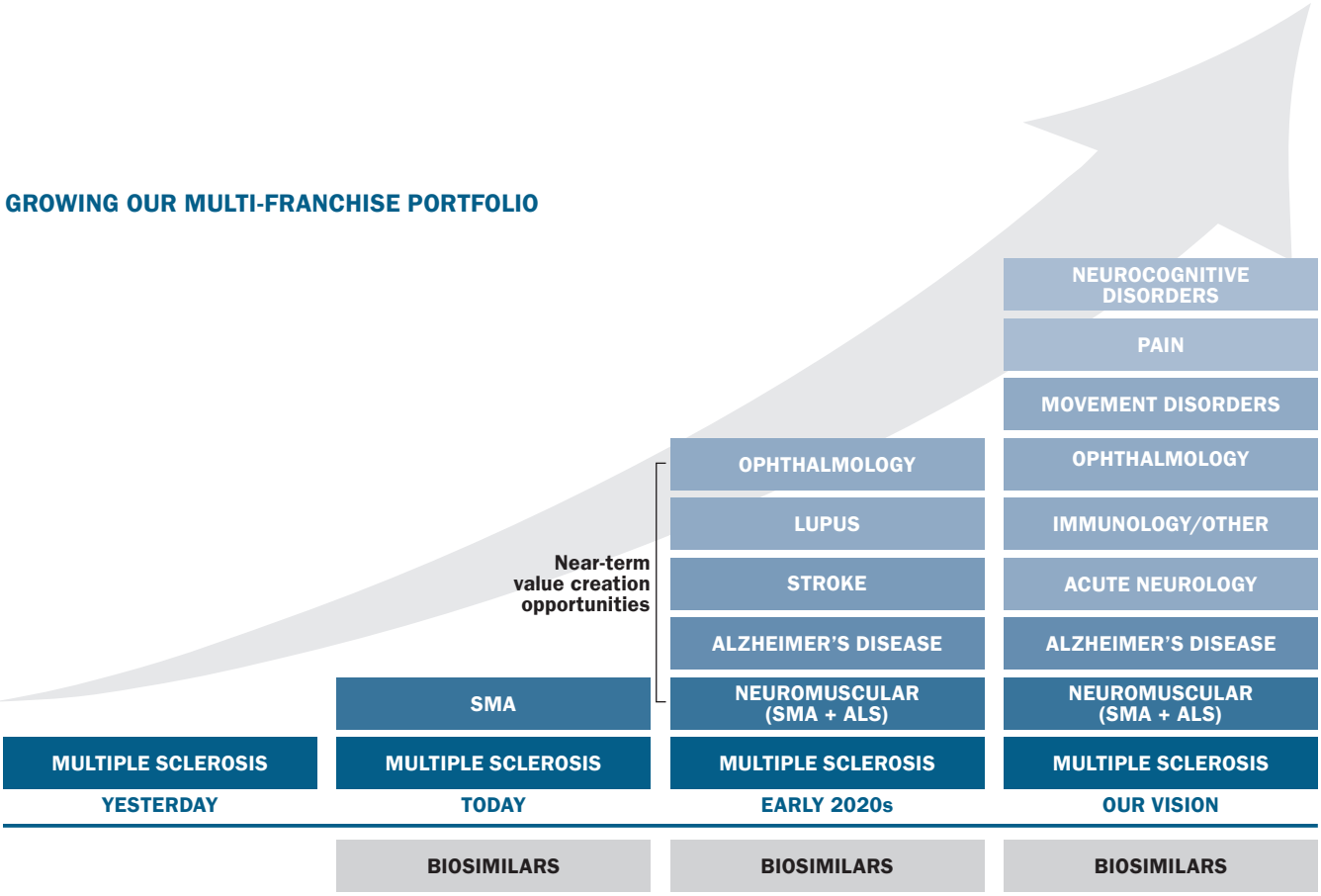
We also believe it will take more than one therapy to treat Alzheimer's disease, so we continue to advance a broad portfolio of potential Alzheimer's therapies. In March 2019 our collaboration partner Eisai announced the start of CLARITY AD, a Phase 3 study of BAN2401, an anti-amyloid beta antibody co-developed with Biogen to potentially treat patients with early Alzheimer's disease. In addition, our portfolio includes BIIB080, a tau-targeted antisense oligonucleotide (ASO) in Phase 1; BIIB076, an anti-tau antibody in Phase 1; and gosuranemab (BIIB092), a distinct anti-tau antibody in Phase 2, as well as a number of pre-clinical programs.

In addition to our Alzheimer's disease pipeline and pre-clinical programs, we have entered into a number of transactions with potential applications in Alzheimer's disease:

- In December 2019 we entered into a collaboration with Camp4 Therapeutics, whose platform may bring additional capability in the identification of potential druggable targets for Alzheimer's disease, among others.

CEO LETTER

GROWING OUR MULTI-FRANCHISE PORTFOLIO



– In January 2020 we entered into an agreement with Pfizer Inc., which was completed in March, and acquired a Phase 1 asset for the potential treatment of patients with behavioral and neurological symptoms across various psychiatric and neurological diseases, including the treatment of sundowning in Alzheimer's disease.

– In February 2020 we announced a global collaboration with Sangamo Therapeutics, Inc., which became effective in April 2020, to develop gene regulation therapies for Alzheimer's, Parkinson's, neuromuscular and other neurological diseases.

Resilience in MS

In 2019 we remained a global market leader in MS with an approximately 34% market share of the approximately one million MS patients being treated worldwide. Our portfolio ranges from symptomatic treatment to disease-modifying therapies and, with 25 active MS clinical trials, we continue pioneering research across all stages of MS.

In October 2019, together with Alkermes plc, we announced FDA approval for VUMERITY, a novel fumarate treatment for relapsing MS. We are excited about the prospect of this new option for patients. VUMERITY offers the well-characterized efficacy of TECFIDERA, the most prescribed oral medicine for relapsing MS in the U.S., and showed superior patient-reported gastrointestinal tolerability.

We continued to advance the Phase 2b study of opicinumab (anti-LINGO) as a potential remyelinating agent for MS. If successful, opicinumab would represent a first-in-class therapy to potentially repair or restore function in MS patients, an entirely different approach from current disease-modifying therapies.

We recently had two label updates in the European Union to allow, where clinically needed, the use of AVONEX and PLEGRIDY during pregnancy and breastfeeding, and we have several portfolio innovations in progress, such as the evaluation of

extended interval dosing with TYSABRI, that we believe are primed to strengthen the business from multiple facets. Looking ahead, our unwavering commitment in MS continues.

Continued growth and regional expansion in spinal muscular atrophy

SPINRAZA, the first treatment approved for infants, children and adults with spinal muscle atrophy (SMA), continued to grow in the U.S. and even more so outside the U.S. In 2019 full-year SPINRAZA revenues increased 22% from 2018 to $2.1 billion, driven by 9% growth in the U.S. to $933 million and 34% growth outside the U.S. to $1.2 billion.

By the end of 2019 SPINRAZA was approved in over 50 countries with formal reimbursement in 40 countries, including China. More than 10,000 patients have been treated with SPINRAZA globally, including in clinical studies, the expanded access programs and the post-marketing setting.

Despite progress, a cure has yet to be found for this devastating disease, and our commitment to the SMA community remains unwavering. The results of the NURTURE study in pre-symptomatic infants, presented at the annual Cure SMA meeting in June 2019, showed that treating patients earlier improved outcomes. We are pleased that newborn screening for SMA has increasingly become routine and implemented in 23 states in the U.S. to date. In September 2019 we announced that we plan to initiate DEVOTE, a new Phase 2/3 study evaluating the safety and potential for even greater efficacy of a higher dose of SPINRAZA in the treatment of SMA. The first patient in the study was dosed in March 2020.

SPINRAZA's success is an example of Biogen's pioneering science and strong execution capabilities. In less than four years, SPINRAZA has become a foundation of care for SMA, providing life-changing benefits to many patients and turning what was an often-fatal disease for infants with the most severe form of SMA into a potentially survivable condition.

Double-digit growth in biosimilars

A core part of our strategy is to unlock the potential of biosimilars as a growth driver and as part of our value proposition to support a sustainable healthcare system. Biosimilars are products that have been demonstrated to be similar in efficacy and safety to the originator's approved biological product, with the advantage that they offer cost savings, providing payers and health systems the budgetary headroom to fund innovation.

In 2019 our biosimilars business grew 35%, generating $738 million in revenues. More than 200,000 patients were treated with our three anti-tumor necrosis factor (anti-TNF) biosimilars, an increase of approximately 70% versus the prior year. Overall, we estimate that our anti-TNF biosimilars have contributed healthcare savings of approximately €1.8 billion in Europe in 2019.

In December 2019 we bolstered our biosimilar business by securing the exclusive rights to commercialize two potential ophthalmology biosimilar products, SB11 referencing LUCENTIS and SB15 referencing EYLEA, in major markets worldwide, including the U.S., Canada, Europe, Japan and Australia.

Advancing significant opportunities for value creation

The progress of our pipeline reflects our commitment to bringing potentially innovative new therapies to patients and further supports our goal of building a multi-franchise neuroscience portfolio.

"The progress of our pipeline reflects our commitment to bringing potentially innovative new therapies to patients and further supports our goal of building a multi-franchise neuroscience portfolio."

We are pioneers in neuroscience and are not afraid to go where others won't. Our focus enables us to leverage the interconnectivity in neuroscience and to develop unique asymmetric core capabilities that we believe may increase the probability of success of our pipeline.

CEO LETTER

We closed 2019 with a pipeline that included 27 clinical programs, of which 6 are in Phase 3, 12 are in Phase 2 and 9 in Phase 1 – as well as a deep pre-clinical pipeline across multiple modalities. We believe that no other company is as well-positioned to develop potentially breakthrough medicines for patients living with devastating neurological and neurodegenerative diseases. Looking forward, we expect multiple mid- to late-stage readouts by the end of 2021.

We have an unwavering commitment to neuromuscular disorders, and we are inspired by the progress of tofersen (BIIB067), an ASO being studied for the potential treatment of a rare form of ALS in adults with a confirmed superoxide dismutase 1 (SOD1) mutation. At the 71st annual meeting of the American Academy of Neurology in May 2019 we presented positive results of a Phase 1/2 study of tofersen, and we have started enrollment of VALOR, a pivotal Phase 3 study. We believe the Phase 1/2 data further demonstrate the potential of targeting genetic drivers of disease.

>10,000
patients treated with SPINRAZA globally[6]

In December 2019 we announced positive top-line results from the Phase 2 LILAC study evaluating the efficacy and safety of BIIB059 (anti-BDCA2) in patients with lupus. The study results showed that BIIB059, a monoclonal antibody, demonstrated a statistically significant reduction of disease activity in people with cutaneous lupus and systemic lupus erythematosus, as compared to those who received placebo. There are currently only a limited number of treatment options available to help manage these difficult-to-treat and chronic diseases, and we are excited by the prospect to advance BIIB059 to Phase 3.

We continued to further our pipeline in ophthalmology. In March 2019 we acquired Nightstar Therapeutics plc, a clinical-stage gene therapy company. As a result, we added two mid- to late-stage clinical assets, as well as preclinical programs, that focus on adeno-associated virus treatments for inherited retinal disorders that can lead to blindness. Following the acquisition, we completed enrollment of the Phase 3 STAR study of BIIB111 (timrepigene emparvovec) for the potential treatment of choroideremia, a rare, degenerative, X-linked retinal disorder that leads to blindness and currently has no approved treatments. The study is designed to investigate the safety and efficacy of a single subretinal injection of the gene therapy.

While we hope to continue the clinical trials that we have underway, we expect that COVID-19 precautions may impact the timeline of some of our trials.

Where science meets humanity

We feel a great sense of responsibility in our role as a corporate citizen to make a positive impact both today and in the future. To do this, we must always consider and act on environmental, social and governance (ESG) issues as an integral part of how we do our business, every day.

In 2019, for the fourth time, Biogen was listed as the number one company for the biotechnology industry in the Dow Jones Sustainability World Indices.

Since 2014 Biogen has been carbon neutral, as reflected in our use of 100% renewable electricity and financially supported carbon offset projects. It is clear that more is needed, and we are working to find solutions that align with the recommendations of climate scientists to move beyond carbon offsets. Also, we treat water as a precious commodity – strictly monitoring and looking for ways to reduce use. We continue to actively employ green chemistry processes and techniques to reduce our waste, water and energy consumption.

Our employees are actively involved in our corporate responsibility efforts. In September 2019 more than 3,000 Biogen employees across more than 30 countries volunteered their time and energy for our annual Care Deeply Day. Since 2010 this global day of service has supported more than 100 community-based organizations, science education programs, nutrition and food security and other local needs.

In 2019 we took two major steps in providing greater transparency on how critical decisions are made about access to our medicines. In June we published our updated *Pricing Principles* that outline how we determine responsible pricing for our therapies, and in December we published our framework of *Access Programs* for investigational therapies. Our thinking on these very important access matters has been guided by health equity and affordability while sustaining innovation.

The Biogen Foundation supports our commitment to science, technology, engineering and math education (STEM). In 2019 more than 4,220 students participated in education sessions at our Community Labs in our Cambridge, Massachusetts, and Research Triangle Park, North Carolina, locations. Since our Community Labs began, nearly 55,000 children have been engaged in our hands-on programs, and in 2019 54% of those students came from low-income households and/or groups traditionally underrepresented in science.

Biogen's ongoing success is rooted in the strength of our diverse people and our inclusive culture. We firmly believe that diverse teams drive better performance. Within Biogen today, we are proud of the fact that 46% of our director-level and above positions are held by women, and in the U.S., 26% of director-level and above roles are held by racial or ethnic minorities. Recently, we have taken important steps in setting goals to ensure diversity in our clinical trial programs. This is part of our commitment to address the needs of the patients we serve. In the U.S. alone, we know that African Americans make up only 5% of clinical trial participants, while Hispanic representation is 1%.[5] This is not sufficient representation, a fact we are working to help change.

In 2020 we will continue to advance our corporate responsibility leadership. Ultimately, we believe that by doing the right thing for our community and the world, we can help build sustainable value for all our stakeholders.

Our multi-front response to the COVID-19 pandemic

Biogen is engaging on many fronts to respond to the COVID-19 global crisis by focusing our efforts on the following major areas.

Through the Biogen Foundation, we have committed $10 million to support the global response efforts and the immediate needs of communities. Our donations are focused on expanding testing options, easing the strain on medical systems and supporting access to necessities like food.

We have directed employees to work from home and provided support, including financial support, to all Biogen employees and their families worldwide to protect their health and safety and prevent the disease from further spreading.

We have deployed our scientific resources and capabilities, which include equipment and supplies, to help support organizations as they work on the front lines to treat and contain the virus.

We are helping to increase the understanding of COVID-19 and advance research efforts and potential therapeutic options. For example, we have entered into a consortium with the Broad Institute of MIT and Harvard, and Partners HealthCare to create an open COVID-19 biobank. We will provide scientific expertise and enable impacted Biogen employees, as well as close contacts, to donate blood samples and related health data, which will then be analyzed by scientists and researchers and will be openly shared with the global scientific community.

Our teams are mobilized as we work to ensure patients continue to have access to our therapies and are closely monitoring developments and potential impacts on our business. As we've moved forward through this crisis, the importance of our work and the vital role our team plays in supplying critical therapies for people living with serious neurological and neurodegenerative diseases has become even clearer.

CEO LETTER

Looking to the future

Given the fluidity of the current environment, we anticipate that there may be near-term impacts on our business or operations from the COVID-19 pandemic. However, we believe that we have multiple opportunities for long-term value creation as we continue to build a multi-franchise neuroscience portfolio.

As always, we will remain financially disciplined, continue to drive efficiencies and operate with integrity as we aim to continue to deliver long-term value to our stockholders and society. We believe that neuroscience is at an inflection point, and Biogen is at the forefront. We are hopeful about the prospect of creating new sources of value for our stockholders and continuing to deliver on our purpose to lead in this space as we work to develop new therapies for the betterment of humanity.

None of our accomplishments or our prospects for future success would be possible without the commitment of the people of Biogen, the trust of our stockholders and the support all of our takeholders – scientists, collaboration partners, healthcare providers, advocacy groups, caregivers and patients.

My sincere thanks and appreciation to all of you. Together, we are tackling some of the most difficult and devastating diseases, and I believe we can have a profound, positive impact on society. We are dedicated to working ethically and compliantly with a passion for science to help deliver innovative therapies for patients and value for our stockholders. At Biogen, we are pioneering science for humanity. Millions are waiting for life-changing therapies, which is why we can't wait. The time is now.

Michel Vounatsos
Chief Executive Officer

1 https://www.alz.co.uk/research/WorldAlzheimerReport2018.pdf?2 (2018)
2 https://www.parkinson.org/Understanding-Parkinsons/Statistics
3 https://www.forbes.com/sites/williamhaseltine/2018/04/02/aging-populations-will-challenge-healthcare-systems-all-over-the-world/#5a8efe7c2cc3
4 https://www.un.org/development/desa/en/news/population/our-world-is-growing-older.html
5 https://www.fda.gov/media/84982/download
6 As of December 31, 2019, more than 10,000 patients have been treated with SPINRAZA, including commercial patients, early access patients and clinical trial participants.

GAAP TO NON-GAAP RECONCILIATION

Diluted EPS and net income attributable to Biogen Inc.

(Unaudited, $ in millions, except per share amounts)	2019	2018	2017[1]	2016	2015
GAAP Diluted EPS	**$31.42**	**$21.58**	**$11.92**	**$16.93**	**$15.34**
Adjustments to net income attributable to Biogen Inc.	2.15	4.62	9.89	3.29	1.67
Non–GAAP Diluted EPS	**$33.57**	**$26.20**	**$21.81**	**$20.22**	**$17.01**
GAAP Net Income Attributable to Biogen Inc.	**$5,889**	**$4,431**	**$2,539**	**$3,703**	**$3,547**
Amortization of acquired intangible assets[A, B]	490	747	815	374	365
TECFIDERA litigation settlement charge[B]	–	–	–	455	–
Acquired in-process research and development	–	113	120	–	–
Research and development	–	10	–	–	–
(Gain) loss on fair value remeasurement of contingent consideration[C]	(64)	(12)	63	15	31
Premium paid on purchase of Ionis common stock[D]	–	162	–	–	–
(Gain) loss on equity security investments	(200)	(128)	–	–	–
Net distribution to noncontrolling interests[E]	–	44	132	–	–
Restructuring, business transformation and other cost saving initiatives:					
2017 corporate strategy implementation[F]	3	11	18	–	–
Restructuring charges[F]	2	12	1	33	93
Cambridge manufacturing facility rationalization costs	–	–	–	55	–
Hemophilia business separation costs	–	–	19	18	–
Gain on deconsolidation of variable interest entities	–	–	–	(4)	–
Loss on divestiture of Hillerød Denmark manufacturing operations[G]	55	–	–	–	–
Stock option expense[H]	26	–	–	–	–
Acquisition-related transaction and integration costs	28	–	–	–	–
Accelerated share-based compensation expense	7	–	–	–	–
Income tax effect related to reconciling items	31	(147)	(236)	(225)	(104)
Elimination of deferred tax asset	–	11	–	–	–
Swiss Tax reform[I]	(54)				
U.S. Tax reform[J]	–	125	1,174	–	–
Amortization included in Equity in loss of investee, net of tax[K]	78	–	–	–	–
Non–GAAP Net Income Attributable to Biogen Inc.	**$6,291**	**$5,378**	**$4,645**	**$4,423**	**$3,932**

Free Cash Flow Reconciliation

Net Cash Flows Provided by Operating Activities[2]	**$7,079**	**$6,188**	**$4,551**	**$4,522**	**$3,716**
Purchases of property, plant and equipment (Capital Expenditures)	(515)	(771)	(867)	(616)	(643)
Contingent consideration related to Fumapharm AG acquisition	(300)	(1,500)	(1,200)	(1,200)	(850)
Free Cash Flow	**$6,264**	**$3,917**	**$2,484**	**$2,706**	**$2,223**

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.

2 Does not reflect the reclassification of amounts for 2016 and 2015 pursuant to the adoption of Accounting Standards Update No. 2016–09, *Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting.*

GAAP TO NON-GAAP RECONCILIATION

Notes to GAAP to Non-GAAP Reconciliation

A Amortization and impairment of acquired intangible assets for 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's 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 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 potential 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 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.

E 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, by an additional 5%.

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

G 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).

GAAP TO NON-GAAP RECONCILIATION

Upon the closing of this transaction, we received approximately $881.9 million in cash, which may be adjusted based on 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 batches of aducanumab, resulting in a reduction in the pre-tax loss on divestiture from $95.5 million to $55.3 million.

H 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.

I 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.

J 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 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, 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.

K 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.

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. “Free Cash Flow” is defined as net cash flows provided by operating activities less purchases of property, plant and equipment and contingent consideration related to our acquisition of Fumapharm AG as disclosed within our Annual Report on Form 10-K.

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., GAAP diluted earnings per share and net cash flows provided by operating activities. 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.

SAFE HARBOR

This Annual Report 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; corporate strategy update; pipeline potential and progress; potential of our commercial business and pipeline programs; the prospects of our product portfolio; capital allocation and investment strategy; clinical development programs, clinical trials and data readouts and presentations; regulatory filings and the timing thereof; risks and uncertainties associated with drug development and commercialization; 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; and the potential impact of the COVID-19 pandemic on our business and operations. 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; the impact related to the effect of COVID-19 or other public health epidemics on our sales and operations, including employees; 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 April 10, 2020. We do not undertake any obligation to publicly update any forward-looking statements, except as required by law.

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CORPORATE INFORMATION

Board of Directors (as of April 10, 2020)

Stelios Papadopoulos, Ph.D.
Chairman, Biogen Inc., Chairman, Exelixis, Inc. and Chairman, Regulus Therapeutics Inc.

Michel Vounatsos
Chief Executive Officer, Biogen Inc.

Alexander J. Denner, Ph.D.
Founding Partner and Chief Investment Officer, Sarissa Capital Management LP

Caroline D. Dorsa
Retired Executive Vice President and Chief Financial Officer, Public Service Enterprise Group Incorporated

William A. Hawkins
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Nancy L. Leaming
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Senior Managing Partner for Global Strategy, Platforms and Innovation, IBM Global Business Services

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Mallinckrodt Professor of Genetics, Emeritus, Harvard Medical School and Executive Vice Chairman, Sana Biotechnology

Robert W. Pangia
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Private Investor and Founder and Managing Partner, Point Rider Group LLC

Eric K. Rowinsky, M.D.
President and Executive Chairman, RGenix, Inc.

The Honorable Lynn Schenk, J.D.
Attorney, Former Chief of Staff to the Governor of California and Former U.S. Congresswoman

Stephen A. Sherwin, M.D.
Clinical Professor of Medicine, University of California, San Francisco and Advisor to Life Sciences Companies

CORPORATE INFORMATION

Stockholder Information

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SEC Form 10-K
A copy of Biogen's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission is available at sec.gov and upon request to:

Investor Relations Department
Biogen Inc.
225 Binney Street
Cambridge, MA 02142
Phone: (781) 464-2442

Transfer agent
To keep your contact information current and for stockholder questions regarding lost stock certificates, address changes and changes of ownership or names in which the shares are held, direct inquiries to:

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Independent accountant
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News releases
As a service to our stockholders and prospective investors, Biogen's news releases are usually posted within one hour of being issued and are available at no cost at investors.biogen.com.

Market information
Our common stock trades on the Nasdaq Global Select Market under the symbol "BIIB."

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