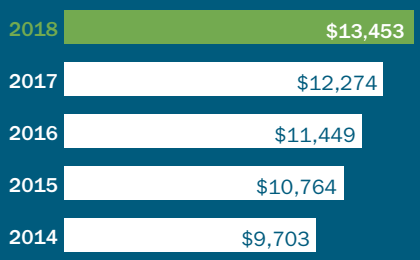
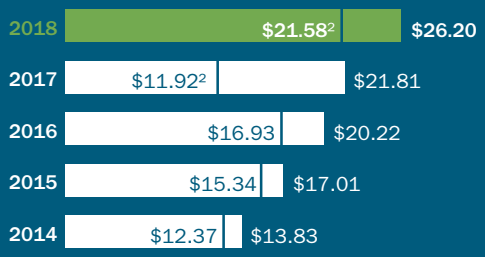
HIGHLIGHTS

Strong financial performance

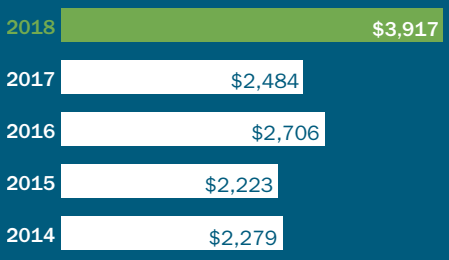
Total Revenues ($ in millions)



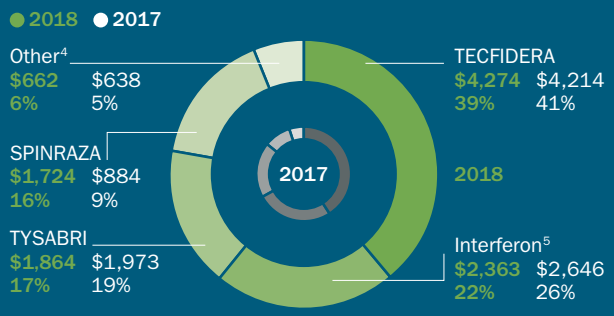
GAAP Diluted EPS/Non-GAAP Diluted EPS[1]



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

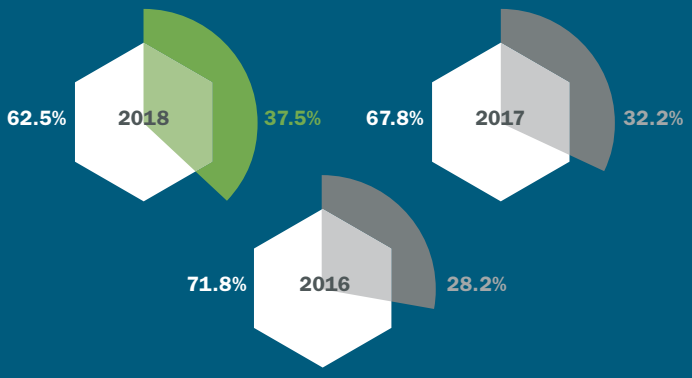


Product Revenues
($ in millions and % of total product revenues)



+5% **Increase in total product revenues year over year**

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 19–21 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 2018 and 2017 reflects an increase in capital expenditures related to the construction of our large-scale biologics manufacturing facility in Solothurn, Switzerland.
4 For 2018 and 2017 Other includes product revenues from FAMPYRA, FUMADERM, BENEPALI, FLIXABI and ZINBRYTA. For 2018 Other also includes product revenues from IMRALDI, which was launched in Europe in October 2018. For 2017 Other also includes product revenues from ALPROLIX and ELOCTATE through January 31, 2017. No product revenues for ALPROLIX and ELOCTATE were recognized subsequent to February 1, 2017, the effective date of the spin-off of our hemophilia business.
5 Interferon includes AVONEX and PLEGRIDY.

CONTENTS

COVER: Natalia Wylie and daughter Sofia, who has infantile onset (Type 1) SMA treated with SPINRAZA.

THIS PAGE: Nuclear Magnetic Resonance (NMR) is used to characterize small molecules and ASOs. Using NMR instruments, we can identify impurities that may occur during synthesis.

Biogen is focused on discovering, developing and delivering innovative therapies for people living with serious neurological and neurodegenerative diseases.

CEO LETTER

Building for sustainable leadership

My fellow stockholders,

2018 was an important year as we took significant steps in strengthening our leadership in our core business and advancing our pipeline.

However, before I comment on our 2018 performance, I would like to acknowledge the discontinuation of the Phase 3 ENGAGE and EMERGE studies of aducanumab in Alzheimer's disease (AD) that we announced in March 2019.

This disappointing news reaffirmed the complexity of treating AD. We are grateful to the patients, their families and investigators who participated in the studies. We know that the sobering reality of drug discovery is that many studies will fail before one succeeds. We are committed to learning from these clinical studies and furthering the scientific understanding of this terrible disease.

We believe our foundation and future remain strong. Neurological diseases are the #1 cause of disability and the #2 cause of death worldwide[1]. The prevalence and societal burden of these diseases are massive and are increasing as the aging population continues to grow. Few other areas of medicine hold as much promise for scientific breakthroughs.

In 2018 we maintained our market leadership in our core franchise of multiple sclerosis (MS) and made progress toward building a neuromuscular disease franchise with the expansion of SPINRAZA, the first approved treatment for spinal muscular atrophy (SMA), a rare neurological disease.

Our view is that neurological diseases are deeply connected. Because the pathways of these diseases are interrelated, we believe the potential approaches for treating them are as well. Our success in MS gives us insight into many other disease areas. For example, research in remyelination and repair, neuroprotection and axonal health could have applications in AD, amyotrophic lateral sclerosis (ALS), Parkinson's disease, stroke and pain.

We are working to build a multi-franchise therapeutic portfolio and to create new sources of value by diversifying our pipeline. In 2018 we made progress in movement disorders such as Parkinson's disease and in neuromuscular disorders such as ALS.

1 Source: Lancet Neurology, 2017; DRG 2017, American Heart Association, American Parkinson's Disease Association, The ALS Association.

Achievements in 2018

JANUARY
– Acquired BIIB100 (XPO1 inhibitor), a Phase 1 ready asset primarily for ALS

APRIL
– Acquired BIIB104 (AMPA), a first-in-class Phase 2b asset for CIAS

MAY
– Initiated Phase 2 TANGO study of BIIB092 (gosuranemab) for AD

> "We are working to build a multi-franchise therapeutic portfolio and to create new sources of value by diversifying our pipeline."

2018 core business performance

In 2018 we generated an all-time high of $13.5 billion in total revenues for the year, a 10% increase over the prior year, and we generated net cash flows from operations of $6.2 billion. GAAP diluted earnings per share for 2018 were $21.58, an increase of 81% over 2017, and Non-GAAP diluted earnings per share increased 20% over the prior year to $26.20.

These results reflect the resilience of our core MS business, the continued strong global launch of SPINRAZA and the ongoing growth of our biosimilar business.

With approximately 35% of MS patients treated with our medicines globally, in 2018 we continued to be the leader in MS, and we remain firmly committed to the MS community. Our MS portfolio ranges from symptomatic treatments to disease modifying therapies, which enables us to address diverse patient needs across disease stages, and we have continued to push forward. In December Alkermes, with whom we have a license and collaboration agreement, submitted a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) for diroximel fumarate (BIIB098), a potential treatment for relapsing forms of MS (RMS). If approved, we will be responsible for marketing diroximel fumarate, which we plan to do under the brand name VUMERITY, a name conditionally accepted by the FDA.

In SMA, SPINRAZA revenues for 2018 nearly doubled year over year with total global revenues of $1.7 billion, which was driven by strong revenue growth in both the U.S. and international markets. Since its launch two years ago, SPINRAZA, our first product based on the anti-sense oligonucleotide (ASO) platform, has become the standard of care in SMA. By the end of 2018 SPINRAZA had been approved in over 40 countries and had received formal reimbursement in 30 countries. Including clinical trials and our Expanded Access Program, as of year-end, more than 6,600 patients have benefited from this remarkable therapy.

Additionally, in November, SPINRAZA won the prestigious International Prix Galien for Best Biotechnology Product – its seventh Prix Galien, following six individual country awards.

The efficacy and safety profile of SPINRAZA are evidenced by our long-term data and mounting real-world evidence. This includes the unprecedented efficacy data in pre-symptomatic infants as demonstrated by the new interim results from the NURTURE clinical study evaluating efficacy and safety that we announced in October.

Our 2018 revenues also grew as a result of the continued expansion of our biosimilar business. Our biosimilars revenues increased 44% over the prior year. This growth was primarily driven by the success of BENEPALI (an etanercept biosimilar referencing ENBREL), as well as the continued growth of FLIXABI (an infliximab biosimilar referencing REMICADE) and the October launch of IMRALDI (an adalimumab biosimilar referencing HUMIRA) in several European markets. We believe biosimilar products benefit patients and

JUNE
- Acquired exclusive option for TMS-007 for acute ischemic stroke
- Expanded strategic collaboration with Ionis to develop novel ASO drug candidates
- Launched Aby/Cleo app to support individuals with MS

JULY
- Acquired Phase 1a BIIB110 (ActRIIA/B ligand trap) and pre-clinical ALG-802 for neuromuscular indications

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.