

First Quarter 2018

Financial Results and Business Update



April 24, 2018

Forward-Looking Statements

This presentation contains forward-looking statements, including statements relating to: our strategy and plans; potential of our commercial business and pipeline programs; capital allocation and investment strategy; clinical trials and data readouts and presentations; regulatory filings and the timing thereof; the potential clinical effects of PLEGRIDY, SPINRAZA, TYSABRI, aducanumab, opicinumab, BII098, and/or BII104; anticipated benefits and potential of investments, collaborations, and business development activities; and the anticipated timing to complete certain transactions. 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,” 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 presentation. We do not undertake any obligation to publicly update any forward-looking statements.

Note regarding trademarks: AVONEX®, PLEGRIDY®, RITUXAN®, SPINRAZA®, TECFIDERA®, TYSABRI®, and ZINBRYTA® are registered trademarks of Biogen. BENEPALI™, FLIXABI™, FUMADERM™, and IMRALDI™ are trademarks of Biogen. The following are trademarks of the respective companies listed: ALPROLIX® and ELOCTATE® - Bioverativ Inc., FAMPYRA™ – Acorda Therapeutics, Inc., GAZYVA® and OCREVUS® – Genentech, Inc. Other trademarks referenced in this presentation are the property of their respective owners.

Q1 2018 Earnings Call Agenda

Introduction

Matt Calistri
Investor Relations

Overview

Michel Vounatsos
Chief Executive Officer

R&D Update

Michael Ehlers, M.D., Ph.D.
EVP, Research & Development

Financial Update

Jeffrey Capello
EVP, Chief Financial Officer

Closing Remarks

Michel Vounatsos
Chief Executive Officer

Overview

Michel Vounatsos
Chief Executive Officer



Q1 2018 Revenue Growth of 15% Excluding Hemophilia*

Total Revenues



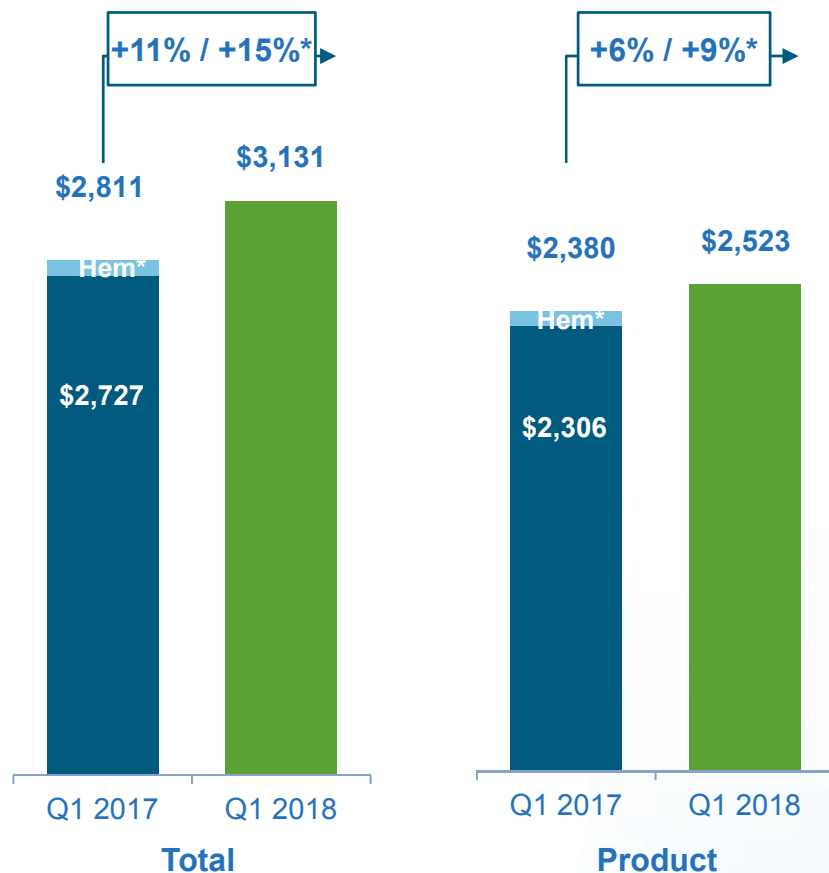
Numbers may not foot due to rounding.

* The 15% increase in total revenues excludes all hemophilia revenues in January 2017. Hemophilia revenues include ELOCTATE and ALPROLIX product revenues as well as royalty and contract manufacturing revenues related to Sobi.



Double Digit Revenue and Earnings Growth in Q1 2018

Revenues (\$M)



 Represents Hemophilia Revenues

Diluted EPS (\$)



* Total revenues grew 11% versus Q1 2017, or 15% excluding hemophilia. Product revenues grew 6% versus Q1 2017, or 9% excluding hemophilia. Hemophilia revenues include ELOCTATE and ALPROLIX product revenues as well as royalty and contract manufacturing revenues received from Sobi. A reconciliation of our GAAP to non-GAAP financial results is at the end of this presentation.

Biogen Implementing Strategy: Strong Progress in Q1



Maximizing the resilience of our MS core business

- ✓ Core business remains resilient
- ✓ Greater-than-expected inventory drawdown in US
- ✓ Continuing to invest in lifecycle management



Accelerating progress in spinal muscular atrophy

- ✓ ~ 4,100 patients on therapy globally as of Q1 2018
- ✓ Increased contribution in US from adult patients
- ✓ Reimbursed in 7 more markets ex-US in past quarter



Creating a leaner and simpler operating model

- ✓ Creating an innovative operating model designed for the future



Developing and expanding our neuroscience portfolio

- ✓ Acquired BLIB104 from Pfizer in neuropsychiatry
- ✓ New 10-year collaboration with Ionis for ASOs
- ✓ Added or advanced 5 clinical assets



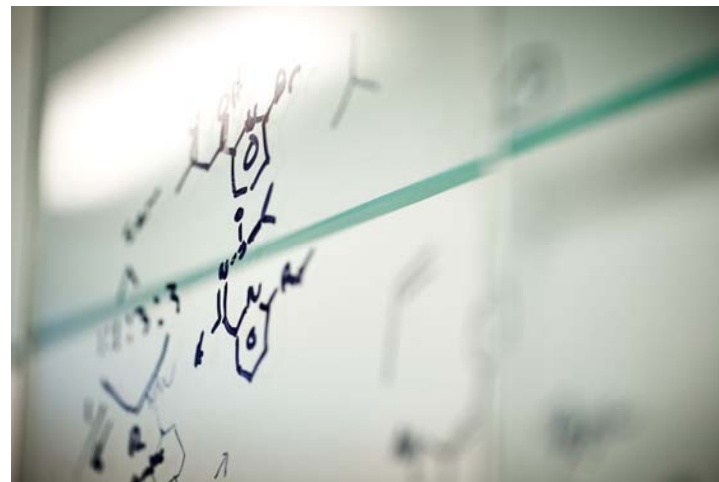
Re-prioritizing our capital allocation efforts

- ✓ Continued priority on business development
- ✓ Repurchased ~900 thousand shares for \$250 million

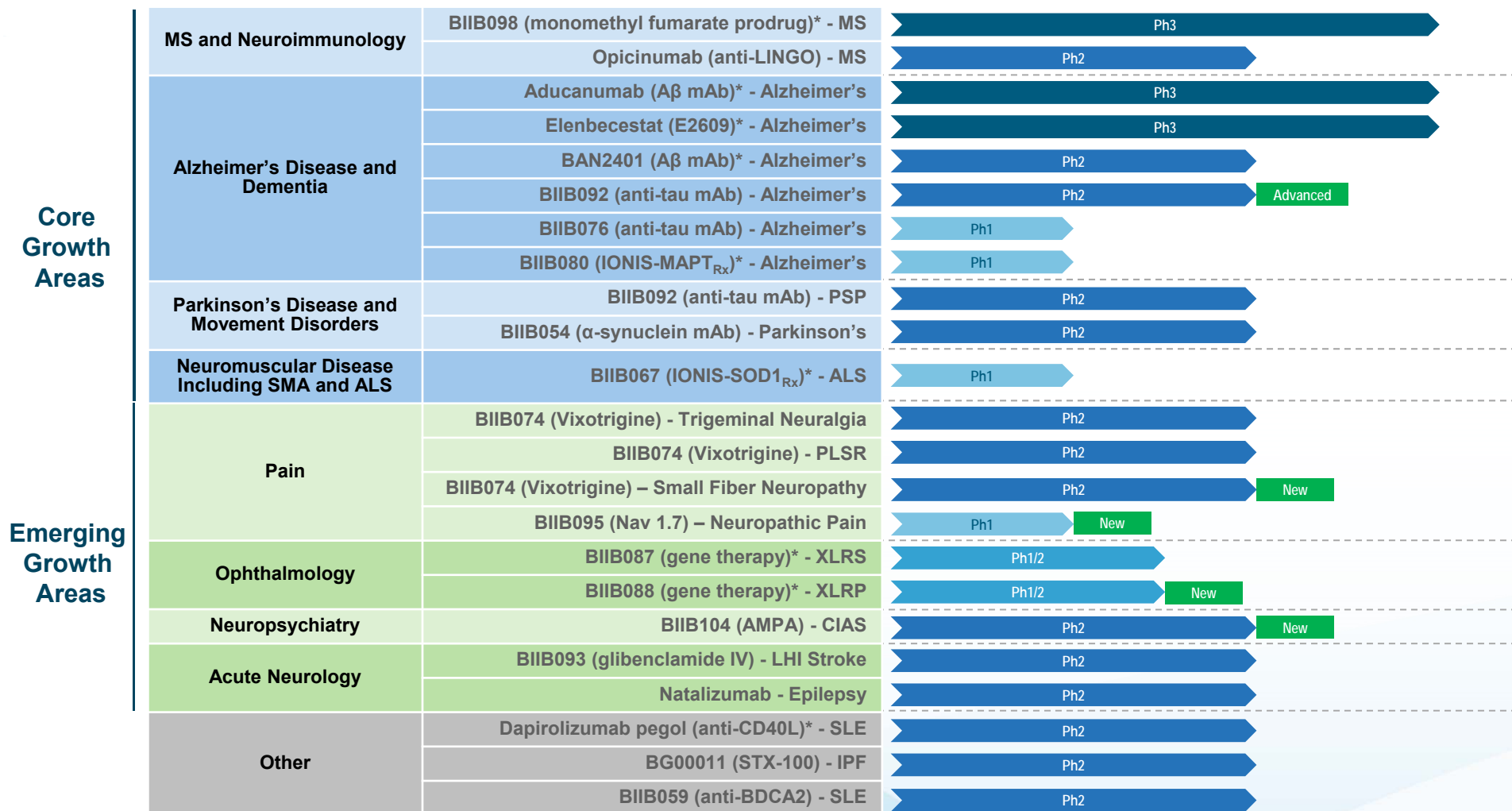
R&D Update

Michael Ehlers, M.D., Ph.D.

EVP, Research & Development



Added or Advanced 5 Clinical Programs in Last Quarter



* Collaboration programs

Progress Across Core Growth Areas



MS and Neuroimmunology

- ✓ New data on extended interval dosing for TYSABRI
- ✓ New clinical data at AAN for BIIB098
- ✓ Developing potential intramuscular formulation of PLEGRIDY
- ✓ Advancing opicinumab as potential remyelination therapy



Alzheimer's Disease/Dementia

- ✓ Presented new data from Phase 1b study of aducanumab at AAN
- ✓ BAN2401 continuing to 18-month final analysis in Q3 2018
- ✓ Initiated Phase 2 trial of anti-tau antibody BIIB092



Neuromuscular Disorders

- ✓ New data from NURTURE in pre-symptomatic infants
- ✓ Case series in teens and adults showing clinical value of SPINRAZA
- ✓ Initiating preclinical studies of SPINRAZA in combination with gene therapy



Movement Disorders

- ✓ Phase 1 data for BIIB054 in Parkinson's disease support advancement to Phase 2
- ✓ Phase 1 data for BIIB092 in progressive supranuclear palsy demonstrated > 90% reduction in CSF free tau

Recent Business Development Activity



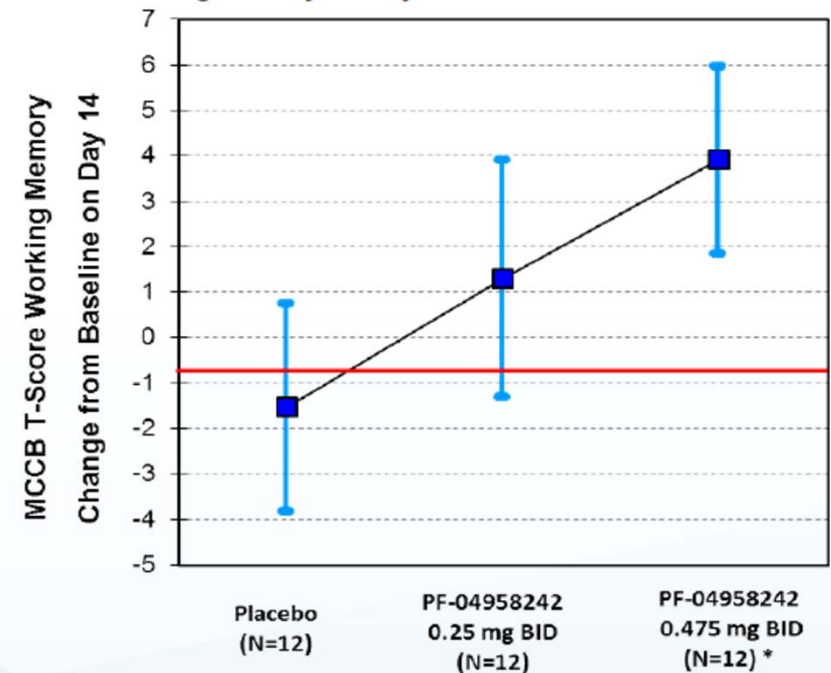
Neuropsychiatry

- ▶ Acquired from Pfizer **BIB104** (formerly known as PF-04958242) for cognitive impairment associated with **schizophrenia** (CIAS)
 - ▶ **First-in-class, Phase 2b ready** AMPA receptor potentiator
- ▶ Data from a number of distinct early clinical studies demonstrating functional circuit activation as measured by fMRI, **treatment effects on relevant domains of cognition**, and the potential for a favorable benefit-risk profile.
- ▶ Upfront payment of \$75 million, up to \$515 million in milestones, and tiered royalties



Multiple Ascending Dose Study in Patients with Stable Schizophrenia

Figure 2. MMRM Result Summary (LS Mean and 80% CI) of MCCB Working Memory - Study 2



* Statistically significant difference between PF-04958242 0.475 mg BID and placebo ($t = 2.6$, $df = 30.3$, 2-sided $p = 0.0143$)

Adams BA et al., ACNP, 2016

Progress Across Emerging Growth Areas



Acute Neurology

- ✓ Initiating Phase 3 for BII093 in large hemispheric infarction in mid-2018
- ✓ First patient dosed in Phase 2 study of natalizumab in epilepsy



Neuropathic Pain

- ✓ Initiating Phase 3 for BII074 in trigeminal neuralgia, with startup activities outside the US in parallel to FDA engagement
- ✓ Phase 2 for BII074 in painful lumbosacral radiculopathy fully enrolled
- ✓ Initiated Phase 2 for BII074 in small fiber neuropathy
- ✓ Initiated Phase 1 for BII095, our second Nav 1.7 inhibitor



Ophthalmology

- ✓ AGTC completed enrollment of Phase 1/2 trial of BII087 in x-linked retinoschisis
- ✓ AGTC dosed first patient in Phase 1/2 study of BII088 in x-linked retinitis pigmentosa

Ionis Collaboration Provides Differentiated ASO Platform for Biogen

- 1 We believe that **antisense oligonucleotide** therapeutics will provide **highly efficacious** treatment solutions for **numerous neurological diseases**, and this collaboration will position Biogen to be a clearly differentiated leader in this space
- 2 We believe this collaboration has the potential to create an **innovation engine** by uniting the long standing, **industry-leading expertise** and extensive intellectual property portfolio of Ionis in ASOs, with the considerable **neuroscience** translational and development capabilities of Biogen
- 3 We think ASOs are the single **most advanced genetically based approach** for targeting neurological diseases, which we believe could enable **accelerated development timelines**, give access to classically 'undruggable' targets, and **complement future gene therapy efforts**
- 4 This collaboration **will differentiate Biogen** by providing **exclusive rights to Ionis' ASO technology across a broad range of neuroscience**
- 5 Capital efficient deal structure that we believe leaves **substantial capacity** for **future business development** and **M&A activity**, as well as **share repurchases**

Numerous Potential Neurological Disease Targets

Disease	US Prevalence
Amyotrophic Lateral Sclerosis	30k
Angelman Syndrome	15k
Dravet Syndrome	10k
Fragile X	70k
Frontotemporal Dementia	50k
Parkinson's-GBA Mutation	100k
Progressive Supranuclear Palsy	18k
Rett Syndrome	10k
Spinal Muscular Atrophy	9k

We aim to advance several SPINRAZA-like drugs to patients in the future

Source: Biogen internal estimates

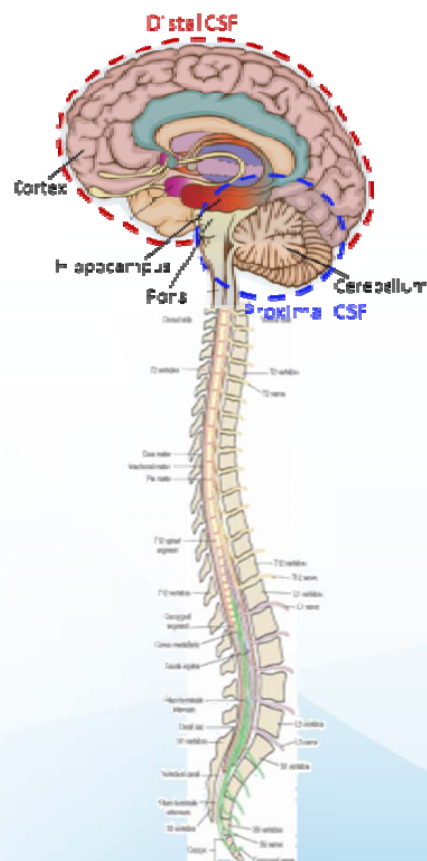
ASOs and Gene Therapy – Complementary CNS Treatment Modalities

Combination / sequential therapy, potential benefits:

- Additive activity at a cellular level
- Complementary distribution and transduction across the CNS
- Potential to augment activity with ASO, should AAV efficacy wane

Intrathecally delivered ASOs

- Well-tolerated
- Highly selective
- Able to both up- and down-regulate protein expression
- Not subject to immune surveillance
- Ability to titrate dose
- Readily manufactured



CNS targeted gene therapy

- Potential one-time treatment
- Remaining uncertainties:
 - Safety profile
 - Treatment of populations with anti-AAV serotype antibodies
 - Transduction across a variety of cell types
 - Manufacturing standards at commercial scale

Financial Update

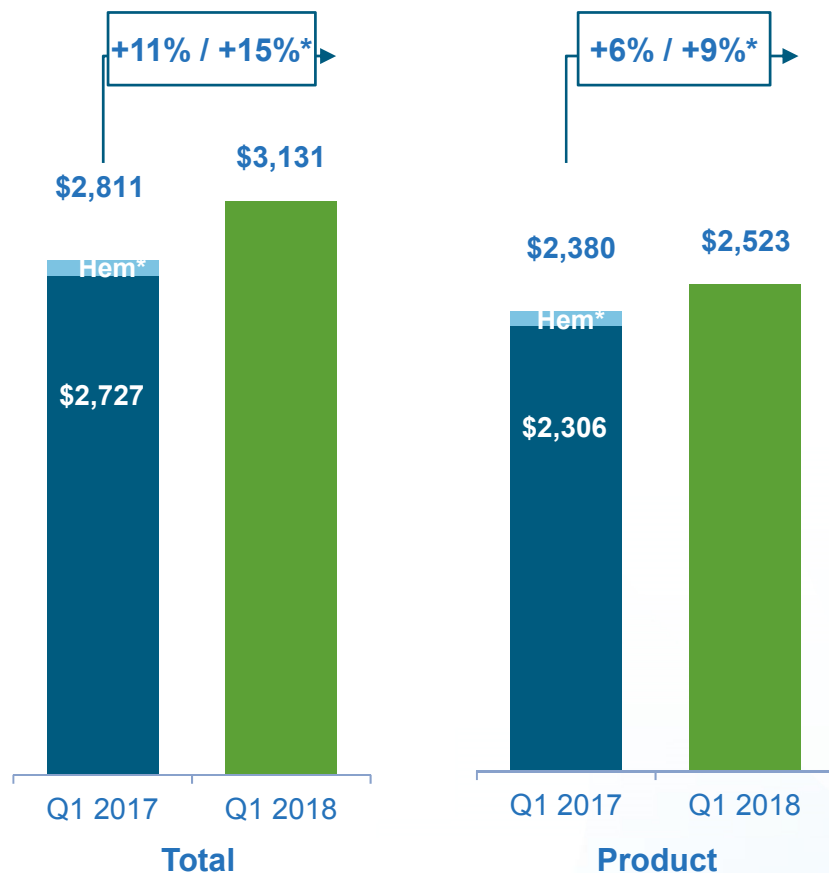
Jeffrey Capello

EVP, Chief Financial Officer



Double Digit Revenue and Earnings Growth in Q1 2018

Revenues (\$M)



 Represents Hemophilia Revenues

Diluted EPS (\$)

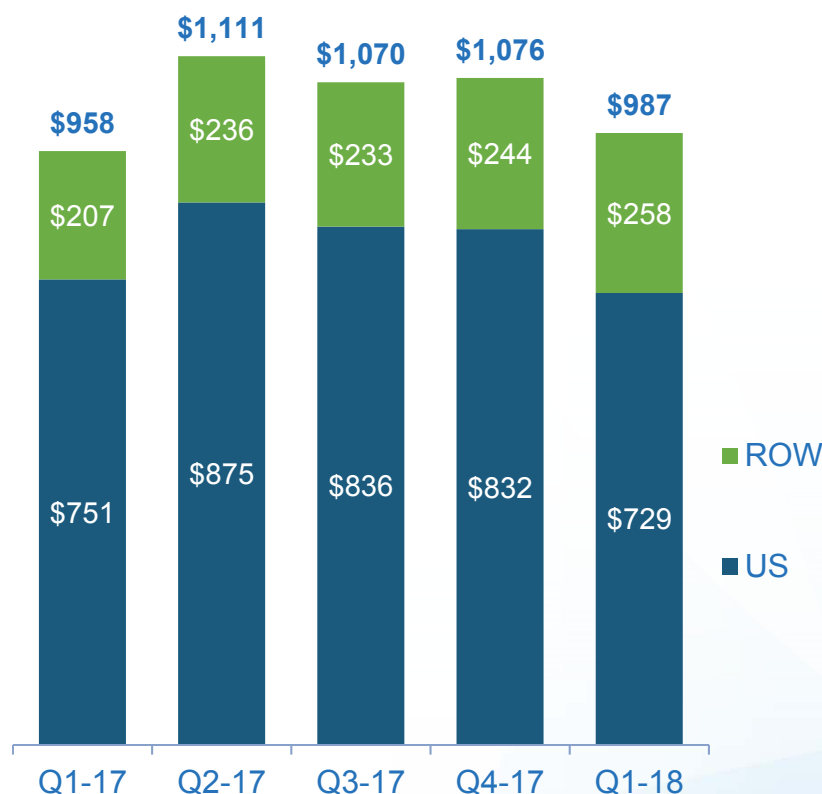


* Total revenues grew 11% versus Q1 2017, or 15% excluding hemophilia. Product revenues grew 6% versus Q1 2017, or 9% excluding hemophilia. Hemophilia revenues include ELOCTATE and ALPROLIX product revenues as well as royalty and contract manufacturing revenues received from Sobi. A reconciliation of our GAAP to non-GAAP financial results is at the end of this presentation.

Global TECFIDERA Performance

Most Prescribed Oral MS Therapy Globally

TECFIDERA Revenues (\$M)



Numbers may not foot due to rounding.

Q1 2018 Highlights

- Revenues vs. Q1 2017 and Q4 2017

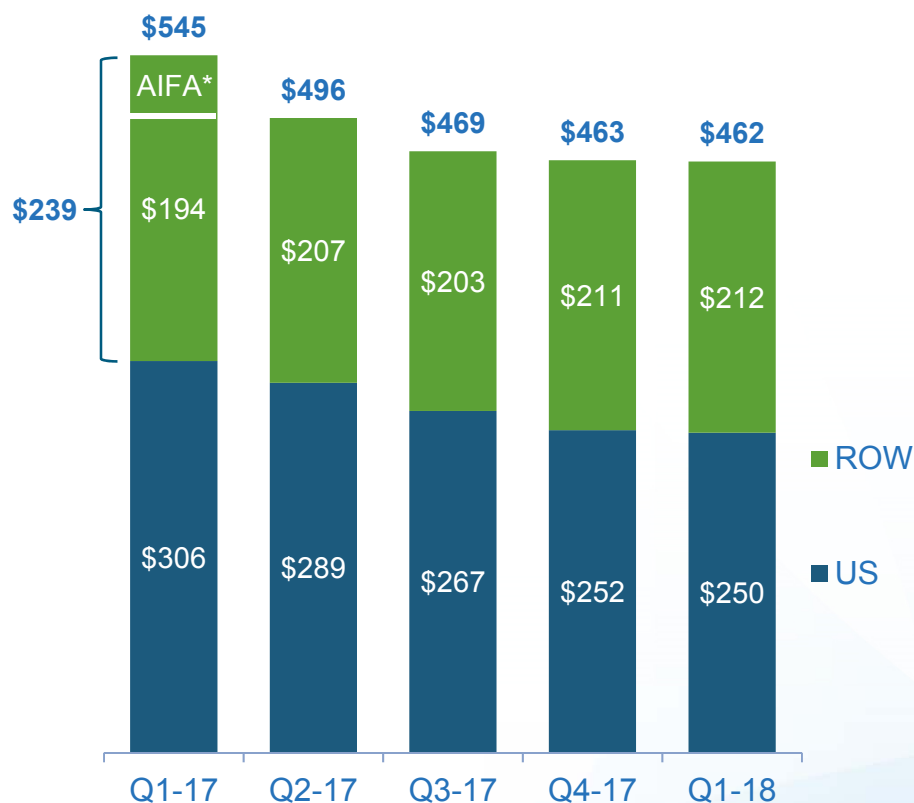
	$\Delta Y/Y$		$\Delta Q/Q$
WW	+ 3%	and	- 8%
US	- 3%	and	- 12%
ROW	+ 25%	and	+ 6%

- Inventory drawdown in the US of ~ \$80 million in Q1 2018, compared to a drawdown of ~ \$60 million in Q1 2017 and an increase of ~ \$40 million in Q4 2017
- Stable volumes in the US when excluding inventory dynamics versus Q4 2017
- Strong patient growth versus Q1 2017 in each large European market
- Solid emerging market growth
 - 16% market share in Japan after one year on the market
- Q1 2018 TECFIDERA revenues benefitted by approximately \$12 million versus Q1 2017 due to changes in foreign exchange rates, net of hedge impact

Global TYSABRI Performance

*Market Leading High Efficacy
Therapy for MS*

TYSABRI Revenues (\$M)



Q1 2018 Highlights

- Revenues vs. Q1 2017 and Q4 2017

	<u>ΔY/Y</u>		<u>ΔQ/Q</u>
WW	- 15%	and	- 0%
US	- 18%	and	- 1%
ROW	- 11%	and	+ 1%

- Relatively stable volumes in the US versus Q4 2017
- Q1 2018 TYSABRI revenues benefitted by approximately \$17 million versus Q1 2017 due to changes in foreign exchange rates, net of hedge impact
- Positive patient growth versus Q1 2017 in most large European markets
- Strong double digit patient growth in emerging markets



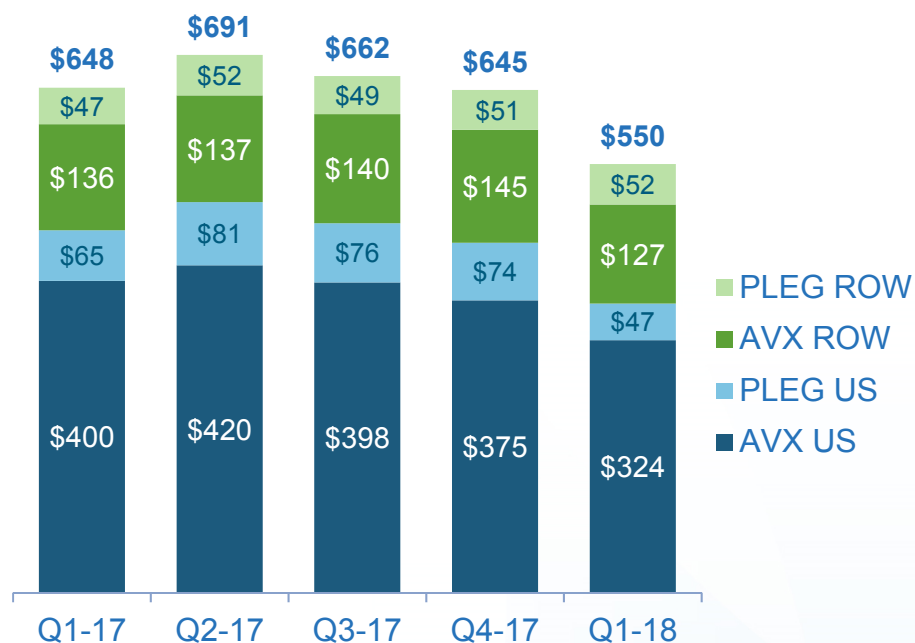
Numbers may not foot due to rounding.

* Outside the US, Q1 2017 TYSABRI revenues benefitted by approximately \$45 million due to reaching an agreement with the Price and Reimbursement Committee of the Italian National Medicines Agency (AIFA) related to TYSABRI sales in prior periods

Global Interferon Performance

*Market Leading Interferon
Franchise for MS*

Interferon Revenues (\$M)



Q1 2018 Highlights

- Total Interferon Revenues vs. Q1 2017 and Q4 2017

	<u>ΔY/Y</u>		<u>ΔQ/Q</u>
WW	- 15%	and	- 15%
US	- 20%	and	- 17%
ROW	- 3%	and	- 9%

- Inventory drawdown in the US of ~ \$50 million in Q1 2018, compared to a drawdown of ~ \$20 million in Q1 2017 and an increase of ~ \$15 million in Q4 2017
- Q1 2018 interferon revenues benefitted by approximately \$11 million versus Q1 2017 due to changes in foreign exchange rates, net of hedge impact

AVONEX
(interferon beta-1a)

plegridy
(peginterferon beta-1a)

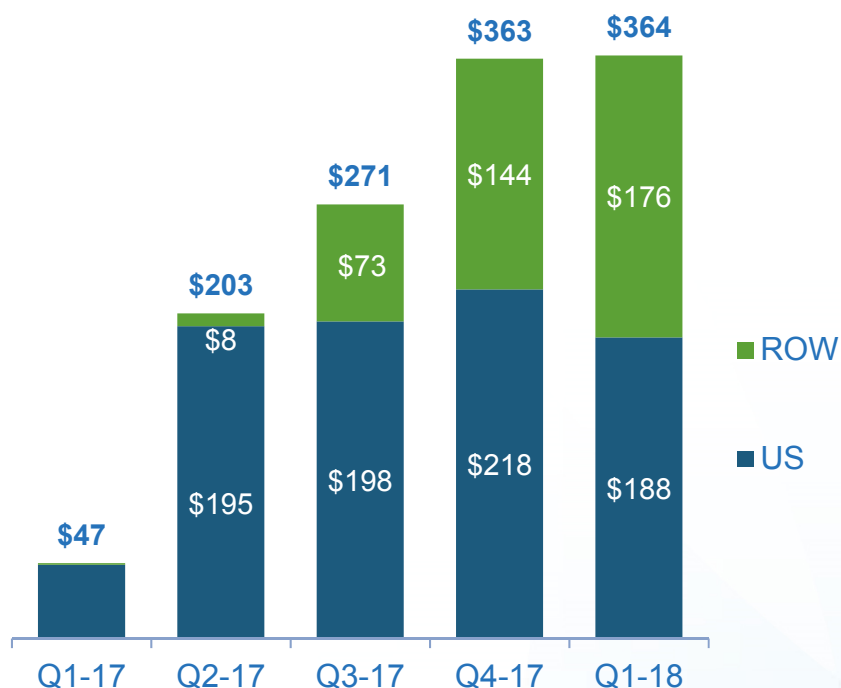


Numbers may not foot due to rounding.

Global SPINRAZA Performance

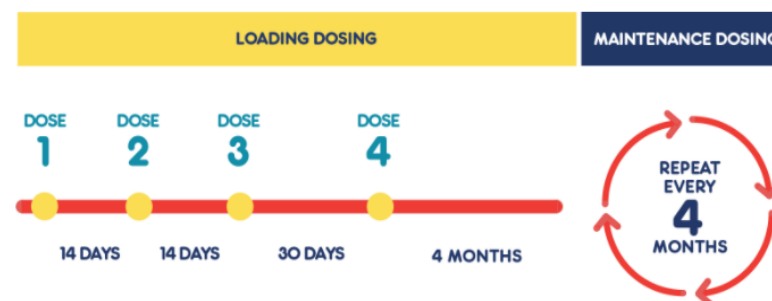
Strong Global Launch Underway

SPINRAZA Revenues (\$M)



Numbers may not foot due to rounding.

Dosing Schedule

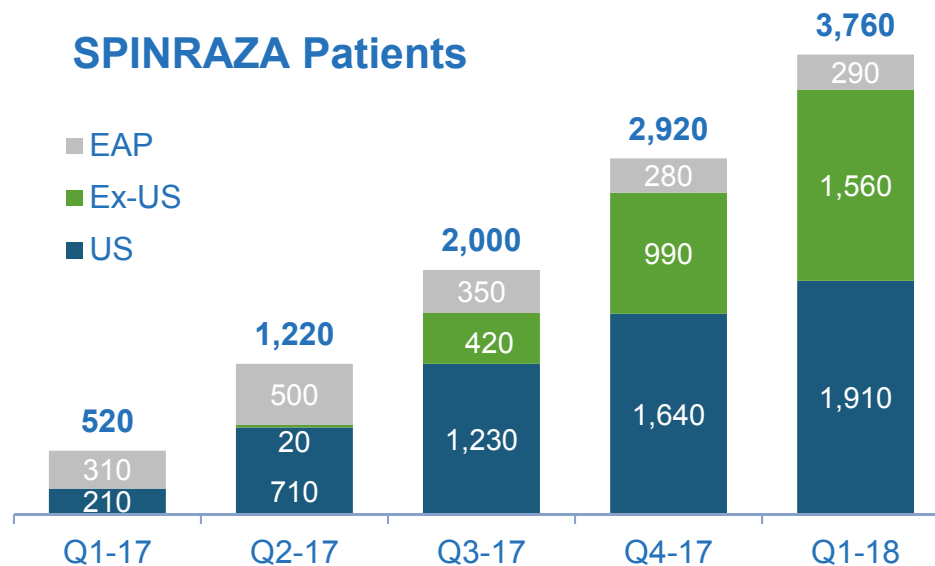


Q1 2018 Highlights

- Secured formal reimbursement in an additional 7 markets
- Reimbursement in 24 countries as of April 20, 2018
 - 17 countries with formal reimbursement
 - 7 countries with individual reimbursement
- Over 2/3 of ex-US revenues from just four countries: Germany, Japan, Italy, and France
- Expect to receive formal reimbursement in at least 7 more countries by the end of 2018
- Inventory levels and discounts and allowances in the US relatively flat versus Q4 2017

SPINRAZA Patient Dynamics

SPINRAZA Patients



Highlights

- As of March 31, 2018 ~ 4,100 patients on therapy across the post-marketing setting, the EAP, and clinical trials
- More than half of infants (< 2 years old) and close to half of pediatric SMA patients (2-17) are on therapy in the US
- ~ 25% of US SPINRAZA patients are adults (18+)

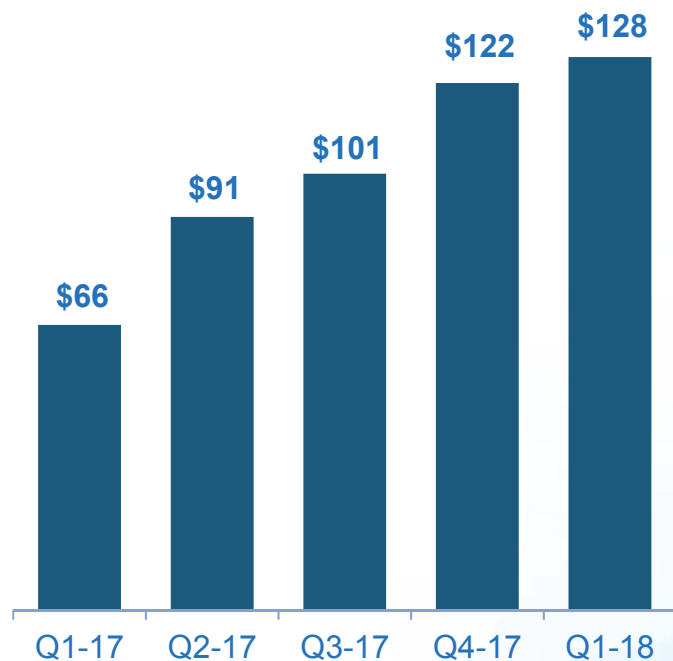
US Patient Dynamics	Q1-17	Q2-17	Q3-17	Q4-17	Q1-18
Total patients	210	710	1,230	1,640	1,910
New patient starts	210	500	530	420	280
Average doses per patient	2.3	2.6	1.9	1.6	1.1
% Loading doses	100%	100%	90%	75%	60%
% Maintenance doses	0%	0%	10%	25%	40%
% Free doses	25%	20%	20%	20%	20%

Numbers may not foot due to rounding. US and Ex-US SPINRAZA patients represent the total estimated number of patients on therapy in the post-marketing setting as of the end of each quarter, including free patients in the US. EAP patients represent patients actively enrolled in the Expanded Access Program (EAP) as of the end of each quarter. As of the end of Q1-18, there were an additional ~ 310 patients enrolled in ongoing clinical studies.



Growing Biosimilars Business

Biosimilars Revenues (\$M)



COMMERCIALIZATION IN EUROPE

- ~ 80,000 patients currently on Biogen biosimilars
- We estimate that BENEPAI uptake has led to healthcare savings of up to €800 million annually across Europe
- Reached agreement with AbbVie to launch IMRALDI in Europe in Oct. 2018

Benepali[®]
Etanercept

Flixabi[®]
Infliximab

Imraldi[®]
Adalimumab

SAMSUNG BIOEPIS JOINT VENTURE

- Plan to exercise option to acquire up to 49.9% equity stake
- Leveraging expertise in protein engineering and biologics manufacturing
- Advancing biosimilars of insulin glargine, trastuzumab, and bevacizumab

Q1 2018 Financial Results Summary: Revenues

\$ in Millions	Q1 2018	Q1 2017	Q4 2017	Δ Y/Y	Δ Q/Q
Total MS Product Revenues ¹	\$2,025	\$2,183	\$2,219	(7%)	(9%)
SPINRAZA US	\$188	\$46	\$218	305%	(14%)
SPINRAZA ROW	\$176	\$1	\$144	NMF	22%
Total SPINRAZA Revenues	\$364	\$47	\$363	668%	0%
ELOCTATE	\$0	\$48	\$0	NMF	NMF
ALPROLIX	\$0	\$26	\$0	NMF	NMF
Total Hemophilia Revenues	\$0	\$74	\$0	NMF	NMF
Biosimilars Revenues	\$128	\$66	\$122	93%	5%
FUMADERM Revenues	\$7	\$10	\$9	(28%)	(21%)
Total Product Revenues ¹	\$2,523	\$2,380	\$2,712	6%	(7%)
RITUXAN/GAZYVA Revenues	\$366	\$341	\$338	7%	8%
OCREVUS Royalties	\$77	\$0	\$77	NMF	(0%)
Revenues from Anti-CD20 Therapeutic Programs	\$443	\$341	\$415	30%	7%
Other Revenues	\$164	\$90	\$180	83%	(8%)
Total Revenues	\$3,131	\$2,811	\$3,307	11%	(5%)



Numbers may not foot due to rounding. Percent changes represented as favorable & (unfavorable). For all periods, there were no adjustments between GAAP and non-GAAP revenues.

¹ Net of Hedge

Q1 2018 Financial Results Summary

\$ in Millions	Q1 2018	Q1 2017	Q4 2017	ΔY/Y	ΔQ/Q
GAAP Cost of Sales	\$446	\$385	\$509	(16%)	12%
% of Total Revenues	14%	14%	15%		
Non-GAAP Cost of Sales	\$446	\$385	\$509	(16%)	12%
% of Total Revenues	14%	14%	15%		
GAAP R&D Expenses	\$497	\$423	\$588	(17%)	15%
% of Total Revenues	16%	15%	18%		
Non-GAAP R&D Expenses	\$497	\$421	\$588	(18%)	15%
% of Total Revenues	16%	15%	18%		
GAAP SG&A Expenses	\$501	\$499	\$572	(1%)	12%
% of Total Revenues	16%	18%	17%		
Non-GAAP SG&A Expenses	\$497	\$482	\$554	(3%)	10%
% of Total Revenues	16%	17%	17%		
GAAP Amortization of Acquired Intangibles	\$104	\$449	\$140	77%	26%
Non-GAAP Amortization of Acquired Intangibles	\$0	\$0	\$0	NMF	NMF
Collaboration Profit Sharing	\$43	\$21	\$30	(104%)	(43%)



Numbers may not foot due to rounding. Percent changes represented as favorable & (unfavorable). A reconciliation of our GAAP to non-GAAP financial results is at the end of this presentation.

Q1 2018 Financial Results Summary

\$ in Millions except EPS Shares in Millions	Q1 2018	Q1 2017	Q4 2017	Δ Y/Y	Δ Q/Q
GAAP Other Income (Expense)	(\$41)	(\$38)	(\$66)	(8%)	38%
Non-GAAP Other Income (Expense)	(\$35)	(\$38)	(\$66)	9%	48%
GAAP Tax Rate	22%	24%	112%		
Non-GAAP Tax Rate	21%	23%	29%		
GAAP Net Income (Loss) Attributable to Noncontrolling Interests	(\$2)	(\$0)	\$131	NMF	101%
Non-GAAP Net Income (Loss) Attributable to Noncontrolling Interests	(\$0)	(\$0)	(\$1)	NMF	NMF
Weighted average diluted shares used in calculating diluted EPS	212	216	212	2%	0%
GAAP Net Income Attributable to Biogen	\$1,173	\$748	(\$297)	57%	NMF
GAAP EPS	\$5.54	\$3.46	(\$1.40)	60%	NMF
Non-GAAP Net Income Attributable to Biogen	\$1,282	\$1,123	\$1,116	14%	15%
Non-GAAP EPS	\$6.05	\$5.20	\$5.26	16%	15%



Note: Numbers may not foot due to rounding. Percent changes represented as favorable & (unfavorable). A reconciliation of our GAAP to non-GAAP financial results is at the end of this presentation.

Closing Remarks

Michel Vounatsos
Chief Executive Officer



Expected Pipeline Progress over The Next 12 Months

Expected Milestone



MS and Neuroimmunology

- **BIIB098** head-to-head data in MS and filing with FDA



Alzheimer's Disease/Dementia

- Complete enrollment of Phase 3 studies for **aducanumab**
- 18-month results for **BAN2401**
- Phase 1 data for anti-tau antibody **BIIB076**



Neuromuscular Disorders

- Dosing of the first patient with our **gene therapy for SMA**
- Phase 1 data for **BIIB067** in ALS



Acute Neurology

- Phase 3 initiation for **BIIB093** for large hemispheric infarction



Pain

- Phase 3 initiation for **BIIB074** in trigeminal neuralgia
- Phase 2b data for **BIIB074** in painful lumbosacral radiculopathy

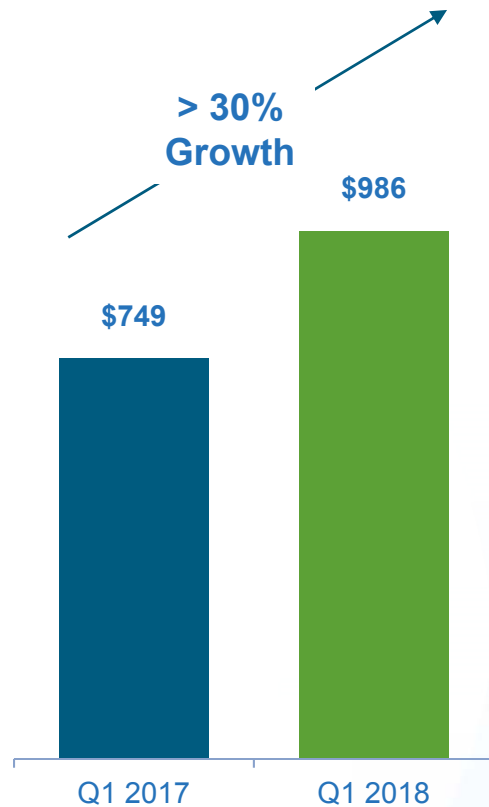


Ophthalmology

- Phase 1/2 data for **BIIB087** in x-linked retinoschisis

Positioning for Long-Term Global Growth

Ex-US Product Revenues (\$M)



Global Strategy

- 8 geographic priority markets
 - US is largest driver of long-term growth
- Selectively expanding global footprint to capitalize on opportunity for SPINRAZA
 - Recently opened affiliates in Colombia, Korea, China, and Taiwan

Questions & Answers



Biogen

Appendix



Q1 2018 Financial Results Summary: MS Revenues

\$ in Millions	Q1 2018	Q1 2017	Q4 2017	Δ Y/Y	Δ Q/Q
TECFIDERA US	\$729	\$751	\$832	(3%)	(12%)
TECFIDERA ROW ¹	\$258	\$207	\$244	25%	6%
Total TECFIDERA Revenues ¹	\$987	\$958	\$1,076	3%	(8%)
AVONEX US	\$324	\$400	\$375	(19%)	(14%)
AVONEX ROW ¹	\$127	\$136	\$145	(7%)	(12%)
Total AVONEX Revenues ¹	\$451	\$537	\$520	(16%)	(13%)
PLEGRIDY US	\$47	\$65	\$74	(27%)	(36%)
PLEGRIDY ROW ¹	\$52	\$47	\$51	11%	3%
Total PLEGRIDY Revenues ¹	\$100	\$112	\$125	(11%)	(20%)
Total Interferon Revenues ¹	\$550	\$648	\$645	(15%)	(15%)
TYSABRI US	\$250	\$306	\$252	(18%)	(1%)
TYSABRI ROW ¹	\$212	\$239	\$211	(11%)	1%
Total TYSABRI Revenues ¹	\$462	\$545	\$463	(15%)	(0%)
FAMPYRA ¹	\$24	\$20	\$24	19%	1%
ZINBRYTA ROW	\$1	\$11	\$12	(87%)	(88%)
Total MS Product Revenues¹	\$2,025	\$2,183	\$2,219	(7%)	(9%)
OCREVUS Royalties	\$77	\$0	\$77	NMF	(0%)
MS Product Revenues¹ + OCREVUS Royalties	\$2,101	\$2,183	\$2,296	(4%)	(8%)



Numbers may not foot due to rounding. Percent changes represented as favorable & (unfavorable). For all periods, there were no adjustments between GAAP and non-GAAP revenues.

¹ Net of Hedge

Q1 2018 Impact of Foreign Exchange and Hedging

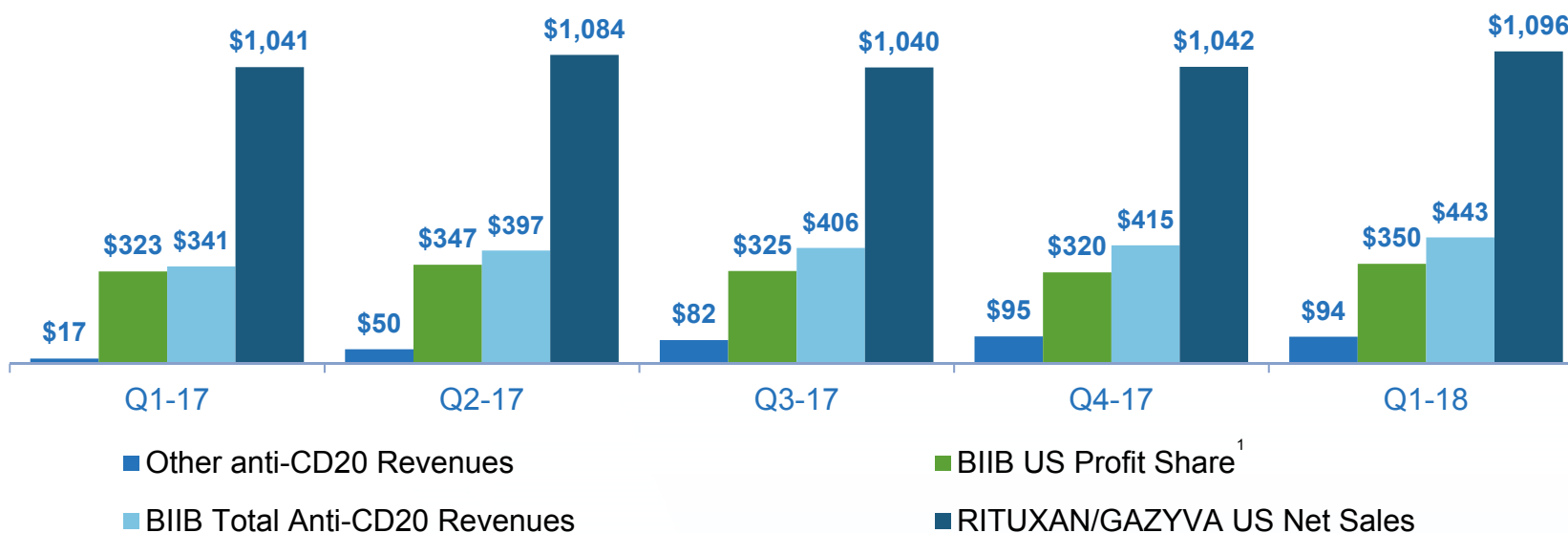
	Actuals	Hedge Gains (Losses) in the Quarter			FX Impact w/o Hedge Favorable / (Unfavorable)		Hedge Impact Favorable/ (Unfavorable)		Total Impact Favorable/ (Unfavorable)	
	Q1'18	Q1'18	Q1'17	Q4'17	Vs. Q1'17	Vs. Q4'17	Vs. Q1'17	Vs. Q4'17	Vs. Q1'17	Vs. Q4'17
Total Revenues	\$3,131	(\$33)	\$7	(\$17)	\$94	\$37	(\$40)	(\$16)	\$54	\$21
TECFIDERA	\$987	(\$13)	\$2	(\$6)	\$27	\$10	(\$15)	(\$6)	\$12	\$3
Interferon	\$550	(\$9)	\$2	(\$5)	\$22	\$7	(\$11)	(\$4)	\$11	\$3
TYSABRI	\$462	(\$11)	\$2	(\$6)	\$30	\$8	(\$13)	(\$5)	\$17	\$3
SPINRAZA	\$364	N/A	N/A	N/A	\$0	\$4	\$0	\$0	\$0	\$4
Biosimilars	\$128	N/A	N/A	N/A	\$9	\$5	\$0	\$0	\$9	\$5



Amounts are in millions and are GAAP and non-GAAP. Numbers may not foot due to rounding.

Anti-CD20 Performance

Revenues from Anti-CD20 Therapeutic Programs (\$M)



Q1 2018 Highlights

	Revenues vs. Q1 2017 and		Q4 2017
	<u>ΔY/Y</u>		<u>ΔQ/Q</u>
US Net Sales	+ 5%	and	+ 5%
US Profit Share ¹	+ 8%	and	+ 9%
Other anti-CD20	NMF	and	- 1%
BIIB Total Anti-CD20 Revenues	+ 30%	and	+ 7%

- In the second quarter of 2017, GAZYVA exceeded \$150 million in gross sales over the prior 12 months. As a result, Biogen's share of RITUXAN annual pre-tax co-promotion profits in the US in excess of \$50 million decreased to 37.5% effective July 1, 2017.
- Other revenues from anti-CD20 therapeutic programs consist of royalty revenues on sales of OCREVUS and our share of pre-tax copromotion profits on RITUXAN in Canada, including a one-time adjustment to revenue recognized in Canada in Q2 2017.



Note: In collaboration with Roche and Genentech. Numbers may not foot due to rounding.

¹ BIIB US profit share = US profit share + expense reimbursement

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		
	March 31, 2018	March 31, 2017	December 31, 2017
GAAP earnings per share - Diluted	\$ 5.54	\$ 3.46	\$ (1.40)
Adjustments to GAAP net income attributable to Biogen Inc. (as detailed below)	0.51	1.74	6.66
Non-GAAP earnings per share - Diluted	\$ 6.05	\$ 5.20	\$ 5.26

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		
	March 31, 2018	March 31, 2017	December 31, 2017
GAAP net income attributable to Biogen Inc.	\$ 1,172.9	\$ 747.6	\$ (297.4)
Adjustments:			
Amortization of acquired intangible assets ^A	103.9	448.5	139.8
Acquired in-process research and development	10.0	—	—
Loss (gain) on fair value remeasurement of contingent consideration	(5.6)	10.0	1.5
Net distribution to noncontrolling interests ^B	—	—	109.7
Hemophilia business separation costs	—	19.2	—
Restructuring, business transformation and other cost saving initiatives:			
2017 corporate strategy implementation ^C	3.8	—	18.5
Restructuring charges ^D	1.6	—	0.9
Loss (gain) on equity security investments	6.4	—	—
Income tax effect related to reconciling items	(11.3)	(102.4)	(30.5)
Tax reform ^E	—	—	1,173.6
Non-GAAP net income attributable to Biogen Inc.	\$ 1,281.7	\$ 1,122.9	\$ 1,116.1

GAAP to Non-GAAP Reconciliation

Net Income Attributable to Biogen Inc. and Diluted Earnings Per Share

(unaudited, in millions, except per share amounts)

* 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.

* Net distribution to noncontrolling interests for the three months ended December 31, 2017, reflects the after-tax \$150.0 million upfront payment made to Neurimmune SubOne AG (Neurimmune) in exchange for a 15% reduction in royalty rates payable on potential commercial sales of aducanumab. This upfront payment is in relation to the amendment of terms of our collaboration agreement with Neurimmune.

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

° On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the 2017 Tax Act) was signed into law and has resulted in significant changes to the U.S. corporate income tax system. The 2017 Tax Act includes a federal statutory rate reduction from 35 percent to 21 percent, the elimination or reduction of certain domestic deductions and credits, the transition of U.S. international taxation from a worldwide tax system towards a territorial tax system, limitations on the deductibility of interest expense and executive compensation and base-erosion prevention measures on future non-U.S. earnings of U.S. entities, which has the effect of subjecting certain of our earnings of foreign subsidiaries to U.S. taxation. These changes became effective beginning in 2018.

The 2017 Tax Act also required a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings (the Transition Toll Tax). Changes in tax rates and tax laws are accounted for in the period of enactment. Therefore, during the three months ended December 31, 2017, we recorded a charge totaling \$1,173.6 million related to our current estimate of the provisions of the 2017 Tax Act, including a \$989.6 million expense under the Transition Toll Tax. The Transition Toll Tax must be paid over an eight-year period, starting in 2018, and will not accrue interest.

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 forms 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 and merger-related 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, the amortization of certain acquired 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.

4. Other items

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