

where
science
meets **humanity**[™]



Q4 and Full Year 2020

Financial Results and Business Update

February 3, 2021



Non-GAAP financial information

This presentation and the discussions during this conference call include certain financial measures that were not prepared in accordance with accounting principles generally accepted in the U.S. (GAAP), including adjusted net income, adjusted diluted earnings per share, revenue growth at constant currency, which excludes the impact of changes in foreign exchange rates and hedging gains or losses, and free cash flow, which is defined as net flow from operations less capital expenditures. Additional information regarding the GAAP and Non-GAAP financial measures and a reconciliation of the GAAP to Non-GAAP financial measures can be found on slides 39-45 of this presentation and in the Q4 2020 earnings release and related financial tables posted on the *Investors* section of Biogen.com. We believe that these and other Non-GAAP financial measures provide additional insight into the ongoing economics of our business and reflect how we manage our business internally, set operational goals and form the basis of our management incentive programs. Non-GAAP financial measures are in addition to, not a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP.

We do not provide guidance for GAAP reported financial measures (other than revenue) or a reconciliation of forward-looking Non-GAAP financial measures to the most directly comparable GAAP reported financial measures because we are unable to predict with reasonable certainty the financial impact of items such as the transaction, integration, and certain other costs related to acquisitions or large business development transactions; unusual gains and losses; potential future asset impairments; gains and losses from our equity security investments; and the ultimate outcome of pending significant litigation without unreasonable effort. These items are uncertain, depend on various factors, and could have a material impact on GAAP reported results for the guidance period. For the same reasons, we are unable to address the significance of the unavailable information, which could be material to future results.

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Forward-looking statements

This presentation and the discussions during this conference call contain forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, relating to: our strategy and plans; potential of, and expectations for, our commercial business and pipeline programs; capital allocation and investment strategy; clinical development programs, clinical trials, and data readouts and presentations; risks and uncertainties associated with drug development and commercialization; regulatory discussions, submissions, filings, and approvals and the timing thereof; the potential benefits, safety, and efficacy of our and our collaboration partners' products and investigational therapies; the anticipated benefits and potential of investments, collaborations, and business development activities; our future financial and operating results; 2021 financial guidance; and plans relating to share repurchases. These forward-looking statements may be accompanied by such words as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "intend," "may," "plan," "potential," "possible," "prospect," "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; 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; difficulties in obtaining and maintaining adequate coverage, pricing, and reimbursement for our products; 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 related to commercialization of biosimilars; 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 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; failure to obtain, protect and enforce our data, intellectual property, and other proprietary rights and the risks and uncertainties relating to intellectual property claims and challenges; the direct and indirect impacts of the ongoing COVID-19 pandemic on our business, results of operations, and financial condition; risks relating to technology failures or breaches; 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; fluctuations in our effective tax rate; fluctuations in our operating results; risks related to investment in properties; the market, interest and credit risks associated with our investment portfolio; risks relating to share repurchase programs; risks relating to access to capital and credit markets; risks related to indebtedness; change in control provisions in certain of our collaboration agreements; environmental risks; and any other risks and uncertainties that are described in other reports we have filed with the U.S. Securities and Exchange Commission (SEC).

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.

Q4 2020 earnings call agenda

Introduction

Michael Hencke

Director, Investor Relations

Overview

Michel Vounatsos

Chief Executive Officer

R&D Update

Al Sandrock, M.D., Ph.D.

EVP, Research & Development

Financial Update

Michael McDonnell

EVP, Chief Financial Officer

Closing Remarks

Michel Vounatsos

Chief Executive Officer

Overview

Michel Vounatsos
Chief Executive Officer

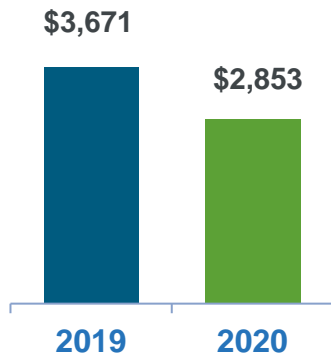


Q4 and full year 2020 financial results

Total Revenues (\$M)

Q4

Full Year



Non-GAAP Diluted EPS (\$)

Q4

Full Year



Strong progress implementing strategy

Maximizing the resilience of our MS core business

- ☑ Full year MS revenues, including OCREVUS royalties, of \$8.7 billion
- ☑ Relatively stable Q4 and full year revenues excluding U.S. TECFIDERA
- ☑ Improved trends for VUMERITY: The #2 MS product and #1 oral in new prescriptions in the U.S.*

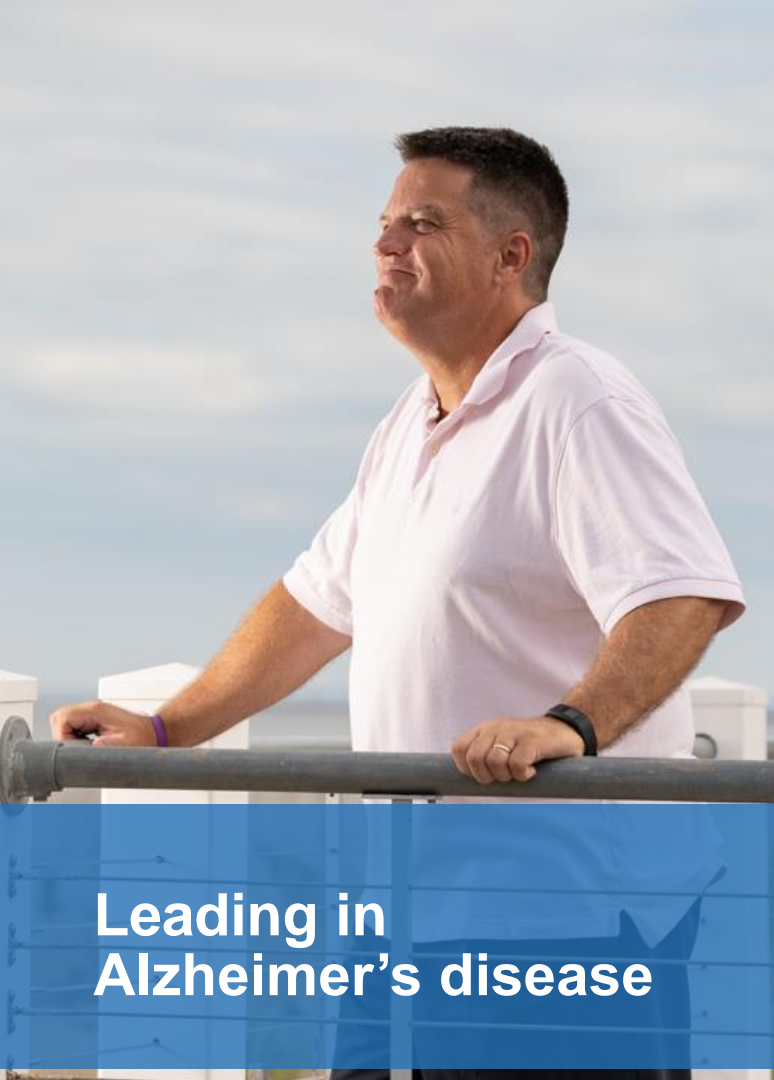
Enhancing our neuromuscular franchise

- ☑ Full year SPINRAZA revenues of \$2.1 billion
- ☑ Over 11,000 patients on therapy globally as of December 31, 2020^
- ☑ Continue to evaluate higher dose SPINRAZA in DEVOTE study
- ☑ Initiated RESPOND study to evaluate SPINRAZA in patients with sub-optimal clinical response to gene therapy

Unlocking the potential of biosimilars

- ☑ Full year biosimilars revenue increased 8% to \$796 million
- ☑ SB11, referencing LUCENTIS, filed in the U.S. and E.U. and SB15, referencing EYLEA, in Phase 3





**Leading in
Alzheimer's disease**

Submitted regulatory filings for aducanumab in the U.S., E.U., and Japan

FDA decision on aducanumab approval expected by June 7, 2021

Remain ready to launch aducanumab in the U.S.

- We believe there are several hundred sites in the U.S. ready to start treating patients if aducanumab is approved

If approved, aducanumab would become the first therapy to meaningfully change the course of Alzheimer's disease

Strong progress implementing strategy

Developing and expanding our neuroscience portfolio and pursuing therapeutic adjacencies

- *Added or advanced 12 new clinical programs in MS, ALS, Parkinson's disease and other movement disorders, depression, and biosimilars*
- *New collaboration agreements with Denali Therapeutics and Sage Therapeutics for potential first-in-class, oral assets in Parkinson's disease and depression, respectively*
- *Multiple opportunities for near-term value creation with 8 mid-to-late stage readouts expected in 2021*

Continuous improvement and diligent capital allocation

- *Strong cash flow generation*
- *Repurchased ~ 22.4 million shares for a total value of ~ \$6.7 billion in 2020*
- *Executed 8 business development deals for a total value of ~ \$3 billion in 2020*

R&D Update

Al Sandrock, M.D., Ph.D.

EVP, Research & Development

A year of milestones for Biogen R&D in 2020

Continued Progress in Alzheimer's Disease

- Aducanumab regulatory filing submitted in U.S., E.U., and Japan
- **FDA decision on aducanumab expected by June 7, 2021**
- First patient dosed in AHEAD 3-45 trial of BAN2401 in preclinical Alzheimer's disease

Pipeline Progression

- **12 clinical stage programs added or advanced, including:**
 - BIIB107 Phase 1 for MS
 - BIIB105* Phase 1 for ALS
 - SB11[#], referencing LUCENTIS, filed in U.S. and E.U.
- 8 mid-to-late stage data readouts expected in 2021

Business Development

- **Sage Therapeutics:** Late-stage, oral, small molecule for depression and mid-stage, oral small molecule for ET
- **Denali Therapeutics:** Mid-stage oral, small molecule LRRK2 inhibitor in Parkinson's disease
- Multiple collaborations with the aim of enhancing Biogen's existing gene therapy capabilities





Advancing a leading Alzheimer's portfolio

FDA decision on aducanumab expected by June 7

High-dose aducanumab demonstrated robust plaque reduction and reduced clinical decline in Alzheimer's disease

BIIB092 (gosuranemab) Phase 2 study readout expected in H1 2021

Placebo controlled period of Phase 1b study completed for BIIB080 (tau ASO) in mild Alzheimer's disease

- Treatment was generally well tolerated and resulted in a dose- and time-dependent reduction from baseline in CSF total tau and phospho-tau
- Plan to advance BIIB080 into a Phase 2 study in Alzheimer's disease



Intramuscular PLEGRIDY approved in the U.S. & E.U.

Positive CHMP opinion for subcutaneous TYSABRI

Submission of Marketing Authorization Application for VUMERITY in E.U.

NOVA study, evaluating efficacy of TYSABRI EID, expected to read out mid-year

Initiated the Phase 1 study for B1B107, an anti-VLA4 antibody for MS

- Leverages proven mechanism of action of TYSABRI, targeting alpha4 integrins
- Potential high-efficacy therapeutic with optimized dosing, safety, and patient convenience

**Continued
commitment to MS**



Moving forward in neuromuscular and movement disorders

Initiated the RESPOND study evaluating SPINRAZA in patients with a sub-optimal clinical response to gene therapy

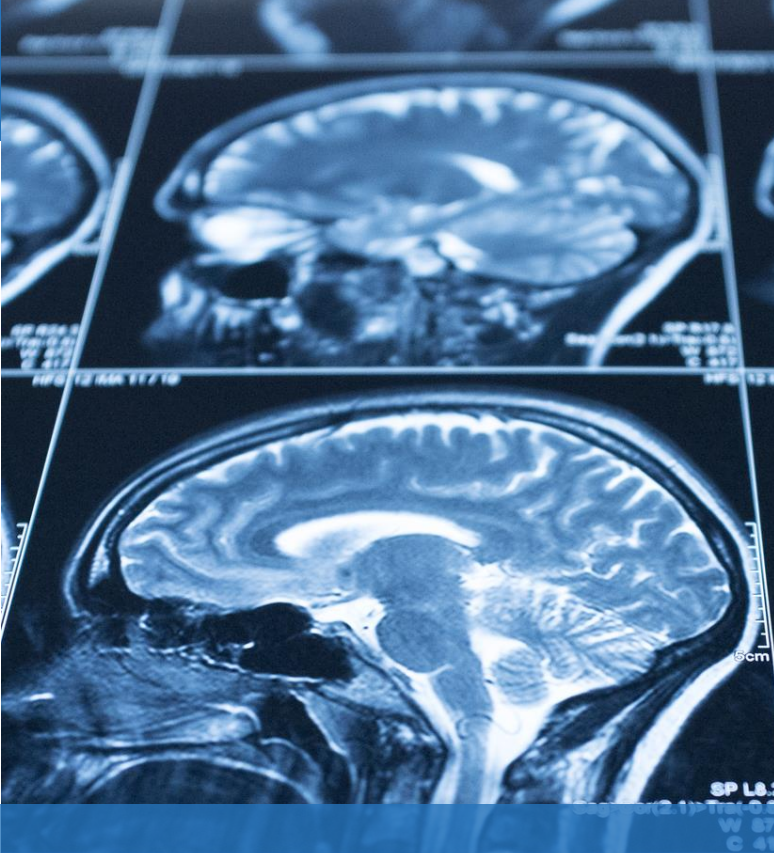
Last patient enrolled in the Phase 3 study of BIIB067 (tofersen) for *SOD1* ALS; Readout expected by end of year

Phase 2 study of BIIB054 in Parkinson's disease did not achieve proof-of-concept

- Study did not meet primary or secondary endpoints
- Biogen has discontinued development of BIIB054 and will apply learnings to future efforts in Parkinson's disease

Phase 1b study completed for BIIB122* (DNL151), LRRK2 inhibitor in Parkinson's disease

- Study met target and pathway engagement goals
- Late-stage trials expected to initiate by end of 2021



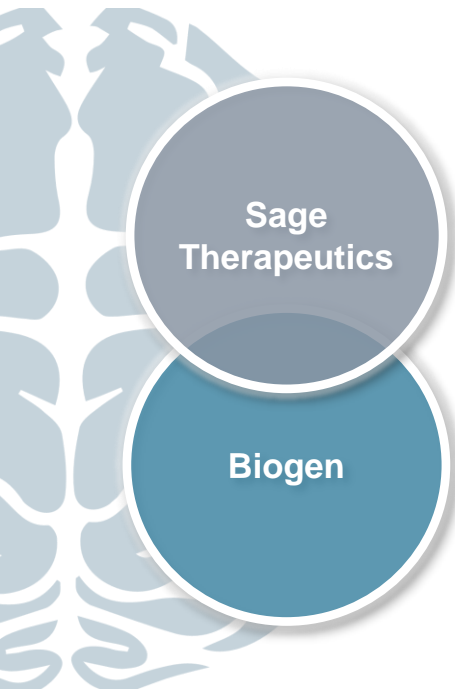
Enrollment completed for TMS-007# Phase 2 study in acute ischemic stroke with novel hypothesized mechanism of action:

- Changes conformation of plasminogen to facilitate activation from endogenous tPA at site of clot
- Does not directly convert plasminogen to plasmin, thereby potentially limiting systemic effects
- Inhibits soluble epoxide hydrolase, which could reduce production of pro-inflammatory mediators of vasoconstriction and breakdown of the blood brain barrier
- ***Potential best-in-class thrombolytic agent with an extended therapeutic window and a favorable safety profile***

Ongoing Phase 3 study for BII093 (glibenclamide IV) in large hemispheric infarction

Progress in Stroke

Collaboration with Sage to accelerate expansion into neuropsychiatry



BIIB125 (zuranolone)

- Potential to transform the treatment of depression through an “as-needed” short course of treatment and address the stigma often associated with chronic use of antidepressants
- Potential first-in-class oral GABA_A receptor PAM with demonstrated rapid, durable benefit in MDD and PPD
- Four Phase 3 studies ongoing to assess efficacy and safety of zuranolone
- Potential indication expansion in generalized anxiety disorder, bipolar disorder, and treatment-resistant depression

BIIB124 (SAGE-324)

- GABA_A receptor PAM with differentiated profile
- Phase 2 study in essential tremor expected to readout in H1 2021
- Potential indication expansion in epilepsy and Parkinson’s disease

Early-stage collaborations to enhance our gene regulation capabilities

ViGeneron

- *Collaboration to develop potential gene therapy for inherited retinal diseases*
- *Companies will leverage ViGeneron's proprietary AAV capsid technology administered via intravitreal injection*
- *Intravitreal injection has potential to improve retinal area coverage and reduce burden of gene-therapy administration in patients*

Atalanta Therapeutics

- *Collaboration to develop potential RNAi treatments for multiple targets, including HTT for the treatment of Huntington's disease*
- *Strategic collaboration will utilize Atalanta's branched siRNA platform*
- *Preclinical research suggests that branched siRNAs can achieve potent and sustained gene silencing in the central nervous system*

8 mid-to-late stage readouts expected by end of 2021 across a diversified neuroscience portfolio

		Data Readout	Expected By
<div>4</div> Pivotal Readouts	Choroideremia	Phase 3 data for BIIB111	H1 2021
	MDD	Phase 3 data for zuranolone*	H1 & H2 2021#
	PPD	Phase 3 data for zuranolone*	H2 2021
	ALS	Phase 3 data for tofersen	H2 2021
<div>4</div> Phase 2 Readouts	Essential Tremor	Phase 2 data for BIIB124*	H1 2021
	XLRP	Phase 2/3 data for BIIB112	H1 2021
	Stroke	Phase 2 data for TMS-007 [†]	H1 2021
	Alzheimer's disease	Phase 2 data for gosuranemab	H1 2021

* Collaboration program; # Data from the WATERFALL study for episodic treatment of MDD expected in H1 2021, and data from the CORAL study for rapid response therapy in MDD when co-initiated with standard antidepressant therapy expected in H2 2021; [†] Option agreement; MDD = major depressive disorder; PPD = postpartum depression; ALS = amyotrophic lateral sclerosis; XLRP = X-linked retinitis pigmentosa

Broad neuroscience pipeline to drive multi-franchise strategy

Core Growth Areas

Core Growth Areas	MS and Neuroimmunology	BIIB061 (oral remyelination) – MS	Ph1
		BIIB091 (BTK inhibitor) – MS	Ph1
		BIIB107 (anti-VLA4) – MS	Ph1
	Alzheimer's Disease and Dementia	Aducanumab (Aβ mAb)* – Alzheimer's	Filed in U.S., E.U., and Japan
		BAN2401 (lecanemab)* – Alzheimer's	Ph3
		BIIB092 (gosuranemab) – Alzheimer's	Ph2
		BIIB076 (anti-tau mAb) – Alzheimer's	Ph1
		BIIB080 (tau ASO) – Alzheimer's	Ph1
	Neuromuscular Disorders including SMA and ALS	BIIB067 (tofersen) – ALS	Ph3
		BIIB078 (IONIS-C9 _{Rx})# – ALS	Ph1
		BIIB105 (ataxin-2 ASO)# – ALS	Ph1
		BIIB100 (XPO1 inhibitor) – ALS	Ph1
		BIIB110 (ActRIIA/B ligand trap) – SMA	Ph1
	Parkinson's disease and movement disorders	BIIB124 (SAGE-324)* – ET	Ph2
		BIIB094 (ION859)# – Parkinson's	Ph1
		BIIB118 (CK1 inhibitor) – ISWRD in Parkinson's	Ph1
		BIIB101 (ION464)# – Multiple System Atrophy	Ph1
		BIIB122 (DNL151)* – Parkinson's	Ph1
	Ophthalmology	BIIB111 (timrepigene emparvovec) – Choroideremia	Ph3
		BIIB112 (RPGR gene therapy) – XLRP	Ph2
	Neuropsychiatry	BIIB125 (zuranolone)* – PPD	Ph3
		BIIB125 (zuranolone)* – MDD	Ph3
		BIIB104 (AMPA PAM) – CIAS	Ph2
Emerging Growth Areas	Immunology	Dapirolizumab pegol (anti-CD40L)* – SLE	Ph3
		BIIB059 (anti-BDCA2) – CLE/SLE	Ph2
	Acute Neurology	BIIB093 (glibenclamide IV) – LHI Stroke	Ph3
		TMS-007# – Acute Ischemic Stroke	Ph2
		BIIB093 (glibenclamide IV) – Brain Contusion	Ph2
	Neuropathic Pain	BIIB074 (vixotrigine) – Trigeminal Neuralgia	Ph2
		BIIB074 (vixotrigine) – Small Fiber Neuropathy	Ph2
		BIIB095 (Nav 1.7) – Neuropathic Pain	Ph1
	Biosimilars	SB11 (referencing LUCENTIS®)*	Filed in U.S. and E.U.
		SB15 (referencing EYLEA®)*	Ph3

* Collaboration program; # Option agreement; MS = multiple sclerosis; ALS = amyotrophic lateral sclerosis; SMA = spinal muscular atrophy; ET = essential tremor; ISWRD = irregular sleep wake rhythm disorder; XLRP = X-linked retinitis pigmentosa; PPD = postpartum depression; MDD = major depressive disorder; CIAS = cognitive impairment associated with schizophrenia; SLE = systemic lupus erythematosus; CLE = cutaneous lupus erythematosus; LHI = large hemispheric infarction

Financial Update

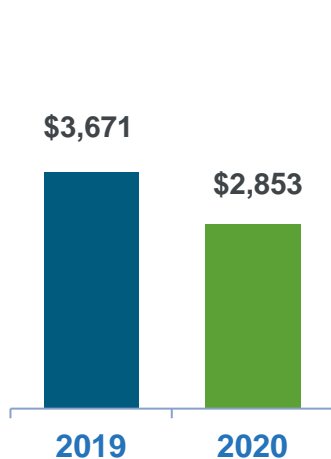
Michael McDonnell
EVP, Chief Financial Officer

Q4 and full year 2020 financial results

Total Revenues (\$M)

Q4

Full Year



Non-GAAP Diluted EPS (\$)

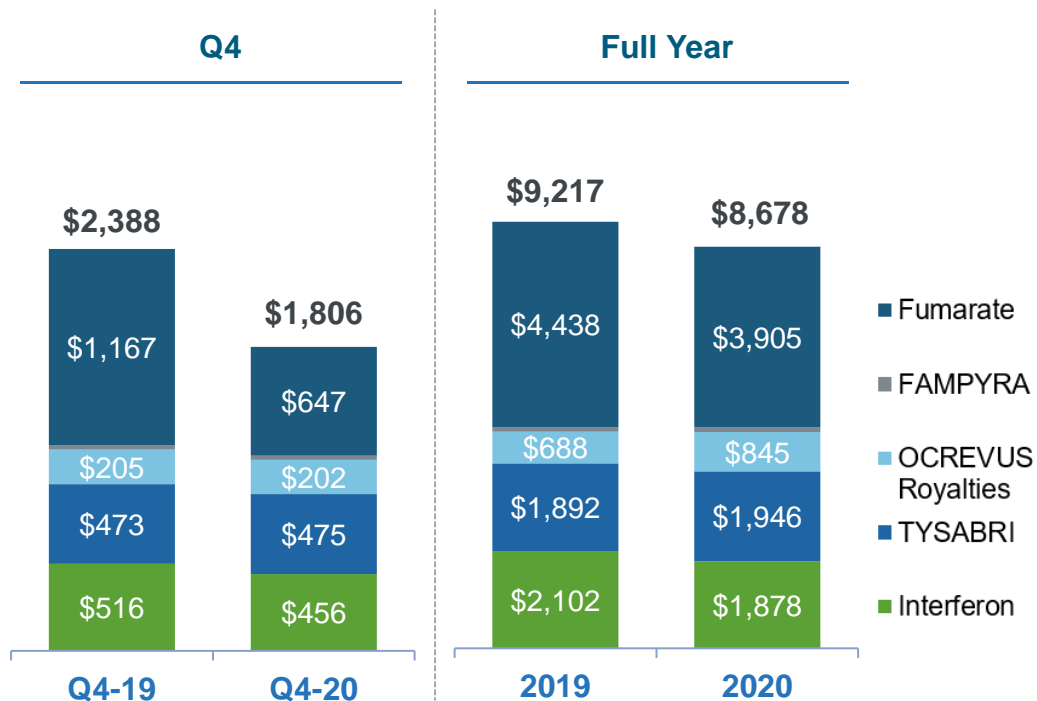
Q4

Full Year



Global multiple sclerosis revenues

MS Revenues (\$M)



Q4 2020 Highlights

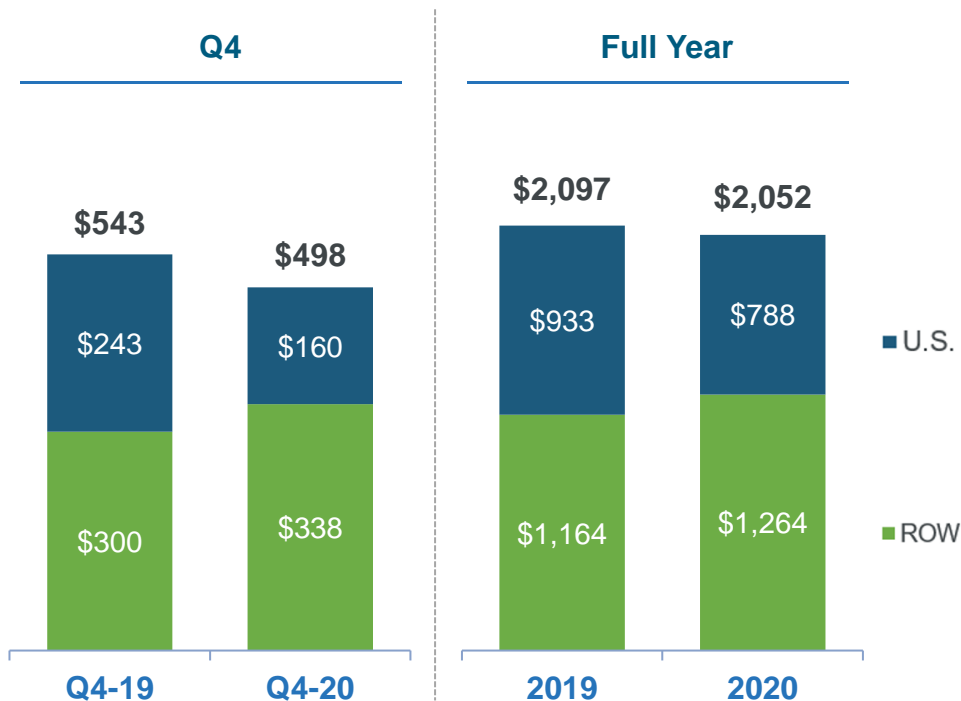
- **Fumarates** declined 45% vs. prior year impacted by the entrance of multiple TECFIDERA generics in the U.S.
- **TYSABRI** stable vs. prior year with continued global patient growth
- **Interferons** decreased 12% vs. prior year

Full Year 2020 Highlights

- **Fumarates** declined 12% vs. prior year impacted by the entrance of multiple TECFIDERA generics in the U.S.
- **TYSABRI** grew 3% vs. prior year with continued global patient growth
- **Interferons** decreased 11% vs. prior year

Global SPINRAZA revenues

SPINRAZA Revenues (\$M)

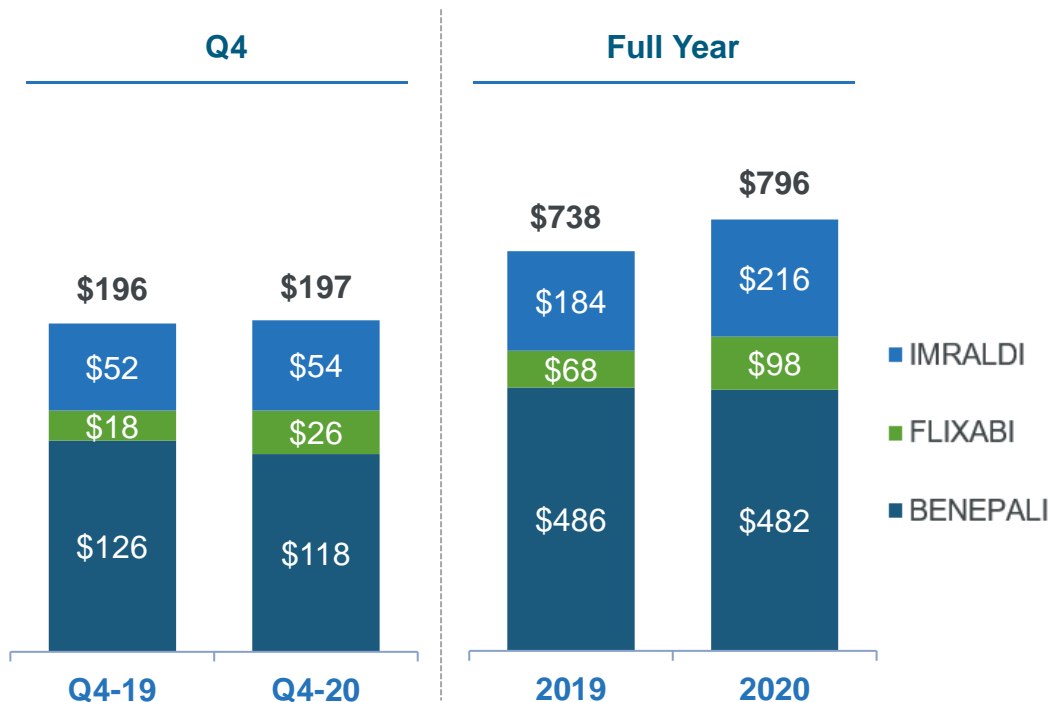


Highlights

- U.S. SPINRAZA revenues impacted by competition, exacerbated by impacts of COVID-19
- ROW SPINRAZA revenues increased with growth in patients
- Over 11,000 patients on therapy*
 - Over 60,000 SMA patients in markets where Biogen expects to commercialize SPINRAZA#
- Proven efficacy across all patient types and a well characterized safety profile
- First patient dosed in RESPOND study
- Initiated the second cohort in DEVOTE study
- Approved in over 50 countries with formal reimbursement in over 40 countries

Biosimilars revenues

Biosimilars Revenues (\$M)



Biogen.

Numbers may not foot due to rounding.

Highlights

- Continued impacts of slowdown in new treatments and reduced clinic capacity due to COVID-19
- ~ 240,000 patients on Biogen biosimilar products at end of Q4 2020*
- Biogen contributed ~ €2.4 billion of healthcare savings in 2020 across Europe#
- SB11 (referencing LUCENTIS) filed in U.S. and E.U.
- Biogen plans to commercialize potential ophthalmology biosimilars referencing LUCENTIS and EYLEA across the U.S., Canada, Europe, Japan, and Australia

* Includes ~112,000 patients on BENEPAI, ~88,000 patients on IMRALDI, and ~38,000 patients on FLIXABI.

Biogen estimate, data on file.

Q4 and full year 2020 revenue highlights

\$ in Millions	Q4 2020	Q4 2019	Δ Y/Y	FY 2020	FY 2019	Δ FY/FY
Total Product Revenues*	\$2,302	\$2,925	(21%)	\$10,692	\$11,380	(6%)
RITUXAN/GAZYVA Revenues	\$217	\$395	(45%)	\$1,132	\$1,603	(29%)
OCREVUS Royalties	\$202	\$205	(1%)	\$845	\$688	23%
Revenues from Anti-CD20 Therapeutic Programs	\$419	\$601	(30%)	\$1,978	\$2,290	(14%)
Other Revenues	\$132	\$146	(9%)	\$775	\$708	9%
Total Revenues*	\$2,853	\$3,671	(22%)	\$13,445	\$14,378	(6%)

Q4 and full year 2020 financial results highlights

(\$ in Millions except EPS, Shares in Millions)	Q4 2020	Q4 2019	Δ Y/Y		FY 2020	FY 2019	Δ FY/FY
Total Revenues	\$2,853	\$3,671	(22%)		\$13,445	\$14,378	(6%)
Cost of Sales	\$491	\$447	(10%)		\$1,805	\$1,955	8%
Gross Profit	\$2,362	\$3,224	(27%)		\$11,640	\$12,423	(6%)
Non-GAAP R&D Expenses	\$642	\$692	7%		\$2,097	\$2,273	8%
Non-GAAP SG&A Expenses	\$793	\$662	(20%)		\$2,482	\$2,325	(7%)
Collaboration Profit Sharing (Loss)	\$66	\$60	(11%)		\$233	\$242	4%
Non-GAAP Operating Income	\$860	\$1,811	(52%)		\$6,827	\$7,583	(10%)
Non-GAAP Other Income (Expense)	(\$51)	(\$50)	(1%)		(\$187)	(\$110)	(69%)
Non-GAAP Profit Before Taxes and JV Equity	\$809	\$1,761	(54%)		\$6,640	\$7,473	(11%)
Non-GAAP Taxes	\$129	\$283	54%		\$1,190	\$1,181	(1%)
Non-GAAP Taxes %	15.9%	16.1%			17.9%	15.8%	
Non-GAAP JV Equity Income (Loss)	\$25	\$8	207%		\$45	(\$1)	NMF
Non-GAAP Net Income	\$706	\$1,486	(53%)		\$5,495	\$6,291	(13%)
Non-GAAP Net Income (Loss) Attributable to Noncontrolling Interests	\$0	\$0	NMF		\$60	\$0	NMF
Non-GAAP Net Income Attributable to Biogen Inc.	\$706	\$1,486	(52%)		\$5,436	\$6,291	(14%)
Weighted average diluted shares used in calculating diluted EPS	154	178	14%		161	187	14%
Non-GAAP Diluted EPS	\$4.58	\$8.34	(45%)		\$33.70	\$33.57	0%

Balance sheet highlights

\$3.4B

**Cash and marketable securities
at end of Q4 2020**

\$7.4B

Debt at end of Q4 2020

\$4.0B

Net debt at end of Q4 2020

\$4.2B

Net cash flow from operations in 2020

\$425M

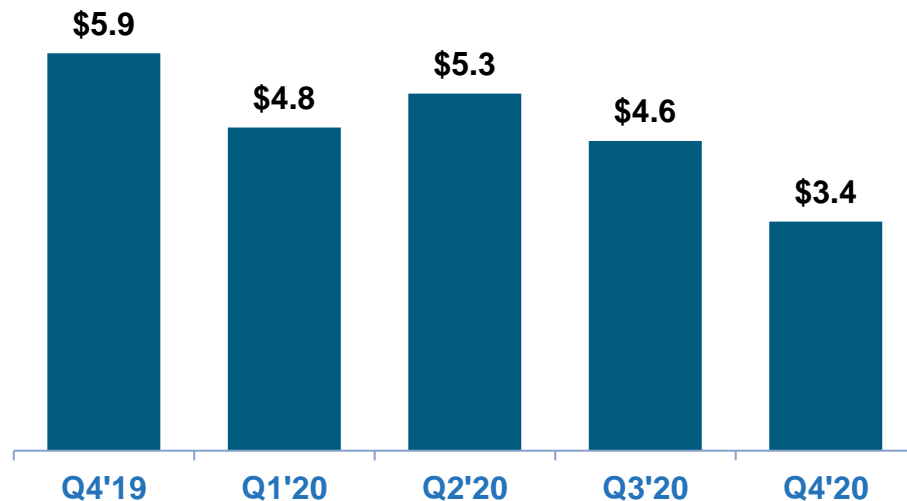
Capital expenditures in 2020

\$3.8B

Free cash flow* in 2020

Cash and Marketable Securities

(\$ billions)



*Free cash flow is defined as net cash flow from operations less capital expenditures. Our GAAP financial measures and a reconciliation of GAAP to Non-GAAP financial results are at the end of this presentation.

Biogen 2021 full year financial guidance

	2020 Actual	2021 Guidance
Revenues	\$13.4 billion	\$10.45 billion to \$10.75 billion
Non-GAAP Diluted EPS	\$33.70	\$17.00 to \$18.50
Capital Expenditures	\$425 million	\$375 million to \$425 million

Please see Biogen's Q4 2020 earnings release, available at the Investors section of Biogen's website at investors.biogen.com, for additional 2021 financial guidance assumptions.

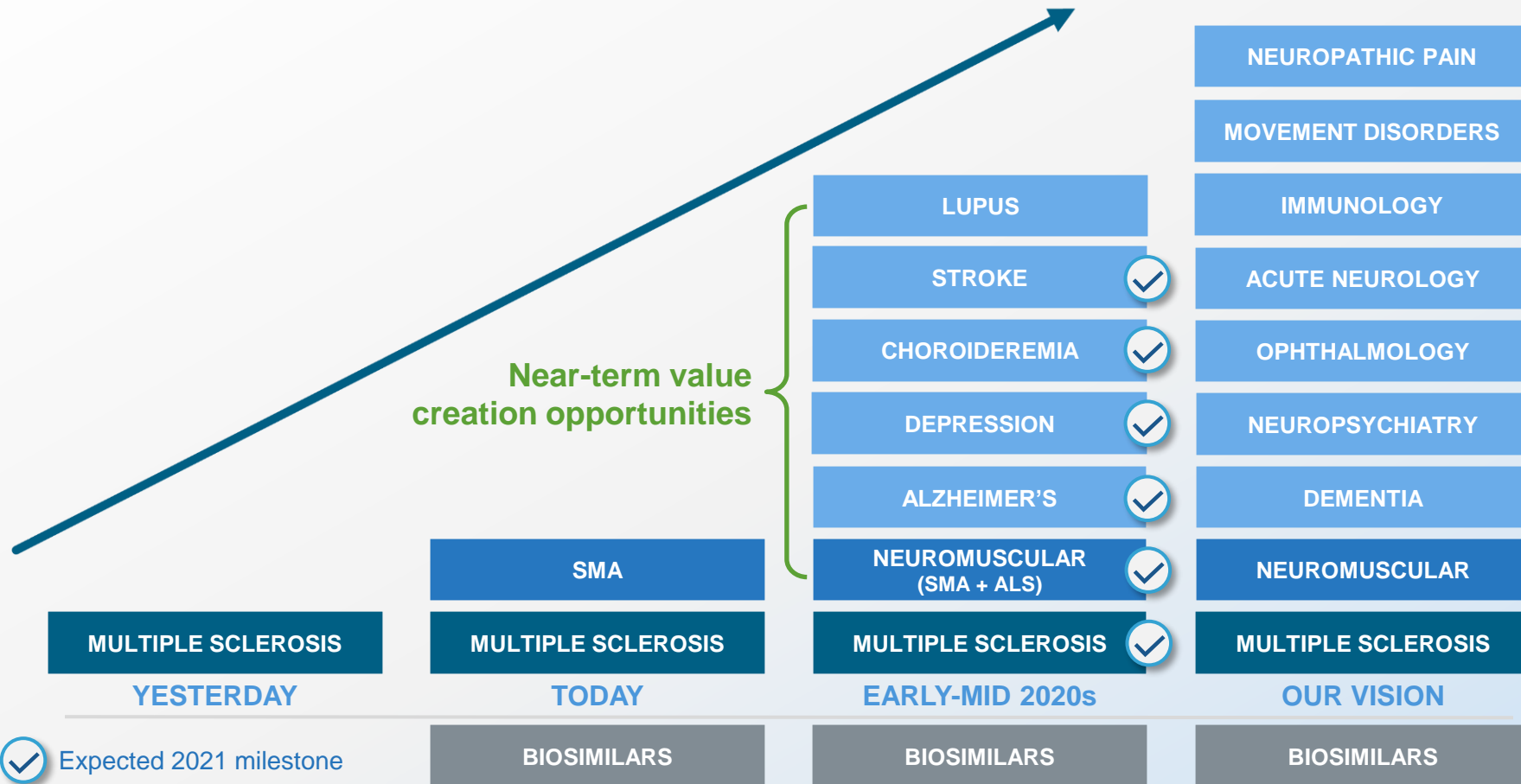
Biogen may incur charges, realize gains or losses, or experience other events or circumstances in 2021 that could cause any of these assumptions to change and/or actual results to vary from this financial guidance.

Please see slide 2 of this presentation for additional information on our use of Non-GAAP measures, including forward-looking Non-GAAP financial measures.

Closing Remarks

Michel Vounatsos
Chief Executive Officer

Building a multi-franchise portfolio



Creating value through pioneering science

Biogen poised to potentially lead in Alzheimer's

- ✓ Aducanumab regulatory filing submitted in U.S., E.U., and Japan; FDA decision expected by June 7, 2021
- ✓ Broad Alzheimer's portfolio
- ✓ Denali Transport Vehicle platform

Working to create multiple franchises

- ✓ Collaborations with Sage and Denali expand portfolios in neuropsychiatry and Parkinson's disease, respectively
- ✓ Added or advanced 12 new clinical-stage programs in 2020
- ✓ Continued evolution of pipeline

Multiple value creation inflection points

- ✓ 33 clinical assets
- ✓ 26 new clinical programs since 2017
- ✓ 8 mid- to late-stage data readouts expected by end of 2021



Accelerating action on the greatest challenges of our time

Climate & Health

- 1st Fortune 500 company to commit to a fossil fuel-free future prioritizing public health
- 5-time rank as No. 1 Biotech on DJSI* World Index
- Collaborating with Harvard and MIT to advance science of climate and health, and exploring the link between air pollution and brain health

Access & Equity

- >90% of clinical trial studies started in 2020 recruited underrepresented patient populations[#]
- ~230k patients treated with biosimilars[#]
- Engaged 57k+ students in STEM Community Labs since 2002 with priority focus on underrepresented students

Diversity & Inclusion

- Achieved 48% women globally and 28% ethnic/racial minorities in U.S. in director positions and above[#]
- Launched enhanced strategy with aim to boost diversity[^] in U.S. manager positions and above by 30% by YE 2021
- Committed to transparency on workplace metrics, including EEO-1[†] reporting

Biogen has been recognized for its longstanding leadership in corporate responsibility

5-time No. 1 Biotech

MEMBER OF
Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM



Newsweek
America's Most Responsible Companies 2021

8-time 100%



100%



* Dow Jones Sustainability Index. # Biogen data on file as of December 31, 2020. ^ Percent of U.S. manager positions and above held by Black, African American, and Latinx employees as well as Asian employees where underrepresented. † Equal Employment Opportunity (EEO).

Questions & Answers

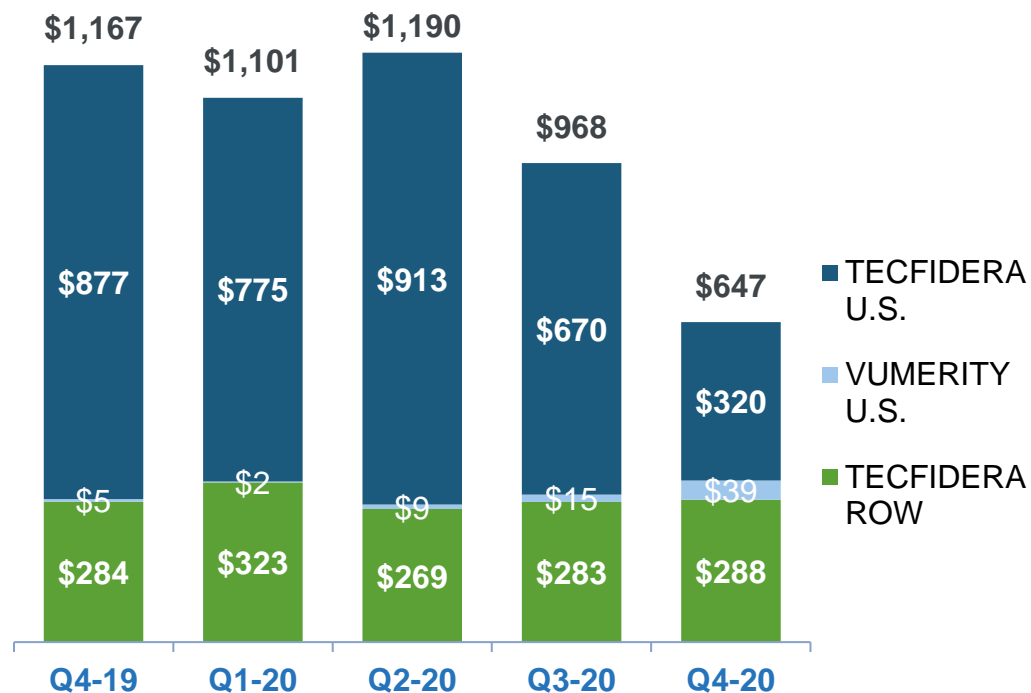


Appendix

Global fumarate revenue



Fumarate Revenues (\$M)



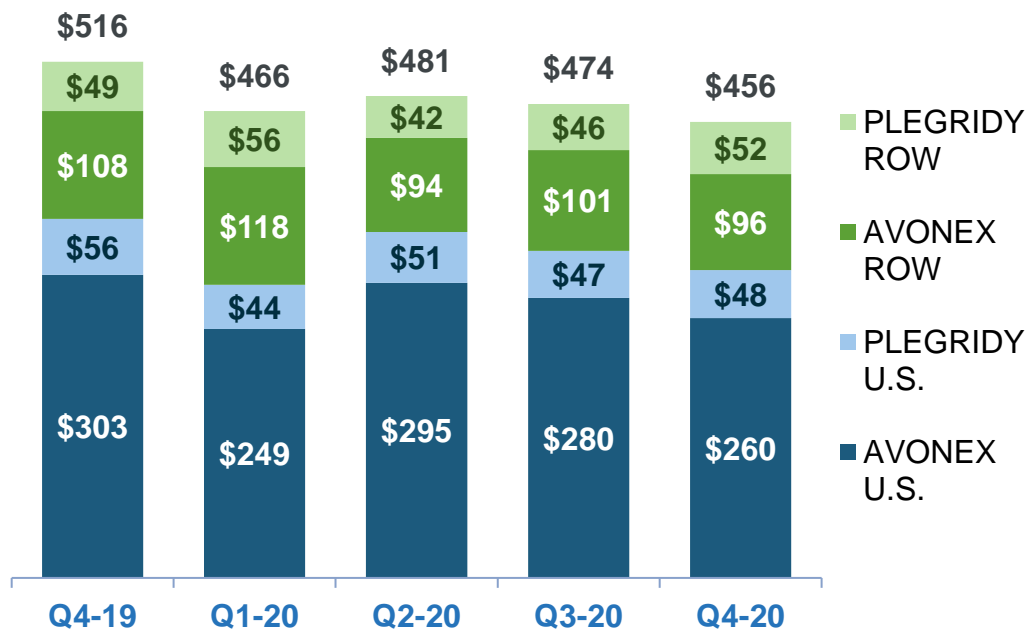
Q4 2020 Highlights

Revenues vs. Q4 2019 and Q3 2020

	<u>$\Delta Y/Y$</u>		<u>$\Delta Q/Q$</u>
WW	- 45%	and	- 33%
U.S.	- 59%	and	- 48%
ROW	+ 1%	and	+ 2%

Global interferon revenue

Interferon Revenues (\$M)



Q4 2020 Highlights

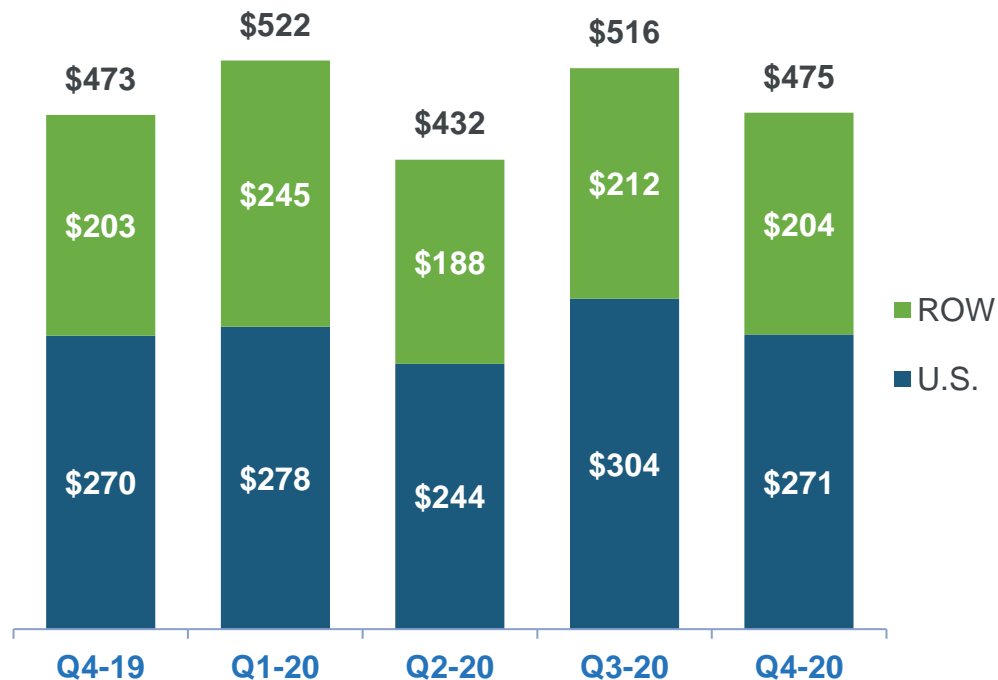
Revenues vs. Q4 2019 and Q3 2020

	<u>ΔY/Y</u>		<u>ΔQ/Q</u>	
WW	- 12%	and	- 4%	
U.S.	- 14%	and	- 6%	
ROW	- 6%	and	+ 1%	

Global TYSABRI revenue



TYSABRI Revenues (\$M)

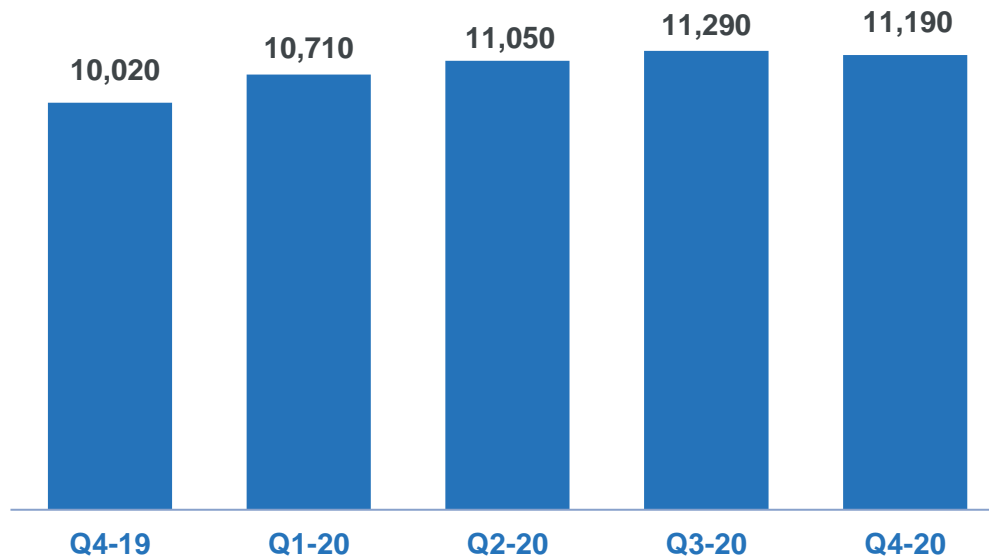


Q4 2020 Highlights

Revenues vs. Q4 2019 and Q3 2020

	<u>ΔY/Y</u>		<u>ΔQ/Q</u>
WW	0%	and	- 8%
U.S.	0%	and	- 11%
ROW	+ 1%	and	- 4%

SPINRAZA Patients*



* Biogen data on file. Total patients across the post-marketing setting, the Expanded Access Program, and clinical trials.

Consolidated Statement of Income

(unaudited, in millions, except per share amounts)

	For the Three Months Ended December 31,		For the Twelve Months Ended December 31,	
	2020	2019	2020	2019
Revenues:				
Product, net	\$ 2,301.6	\$ 2,924.8	\$ 10,692.2	\$ 11,379.8
Revenues from anti-CD20 therapeutic programs	419.0	600.8	1,977.8	2,290.4
Other	132.0	145.7	774.6	707.7
Total revenues	2,852.6	3,671.3	13,444.6	14,377.9
Cost and expenses:				
Cost of sales, excluding amortization and impairment of acquired intangible assets	490.6	447.1	1,805.2	1,955.4
Research and development	1,726.0	691.7	3,990.9	2,280.6
Selling, general and administrative	806.3	664.9	2,504.5	2,374.7
Amortization and impairment of acquired intangible assets	249.2	67.7	464.8	489.9
Collaboration profit (loss) sharing	66.4	59.8	232.9	241.6
(Gain) loss on divestiture of Hillerød, Denmark manufacturing operations	(92.5)	(40.2)	(92.5)	55.3
(Gain) loss on fair value remeasurement of contingent consideration	(62.8)	2.6	(86.3)	(63.7)
Restructuring charges	—	—	—	1.5
Acquired in-process research and development	—	—	75.0	—
Total cost and expenses	3,183.2	1,893.6	8,894.5	7,335.3
Income from operations	(330.6)	1,777.7	4,550.1	7,042.6
Other income (expense), net	683.5	(49.3)	497.4	83.3
Income before income tax expense and equity in loss of investee, net of tax	352.9	1,728.4	5,047.5	7,125.9
Income tax expense	13.3	276.1	992.3	1,158.0
Income tax rate	3.8 %	16.0 %	19.7 %	16.3 %
Equity in loss of investee, net of tax	(18.0)	12.6	(5.3)	79.4
Net income	357.6	1,439.7	4,060.5	5,888.5
Net income (loss) attributable to noncontrolling interests, net of tax	(0.3)	—	59.9	—
Net income attributable to Biogen Inc.	\$ 357.9	\$ 1,439.7	\$ 4,000.6	\$ 5,888.5
Net income per share:				
Basic earnings per share attributable to Biogen Inc.	\$ 2.33	\$ 8.10	\$ 24.86	\$ 31.47
Diluted earnings per share attributable to Biogen Inc.	\$ 2.32	\$ 8.08	\$ 24.80	\$ 31.42
Weighted-average shares used in calculating:				
Basic earnings per share attributable to Biogen Inc.	153.7	177.8	160.9	187.1
Diluted earnings per share attributable to Biogen Inc.	154.0	178.2	161.3	187.4

GAAP to Non-GAAP Reconciliation

(unaudited, in millions, except per share amounts)

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

	For the Three Months Ended December 31,		For the Twelve Months Ended December 31,	
	2020	2019	2020	2019
GAAP earnings per share - Diluted	\$ 2.32	\$ 8.08	\$ 24.80	\$ 31.42
Adjustments to GAAP net income attributable to Biogen Inc. (as detailed below)	2.26	0.26	8.90	2.15
Non-GAAP earnings per share - Diluted	\$ 4.58	\$ 8.34	\$ 33.70	\$ 33.57

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

	For the Three Months Ended December 31,	
	2020	2019
GAAP net income attributable to Biogen Inc.	\$ 357.9	\$ 1,439.7
Adjustments:		
Acquisition and divestiture related costs:		
Amortization and impairment of acquired intangible assets ^A	249.2	67.7
(Gain) loss on fair value remeasurement of contingent consideration ^A	(62.8)	2.6
(Gain) loss on divestiture of Hillerød, Denmark manufacturing operations ^B	(92.5)	(40.2)
Acquisition-related transaction and integration costs	10.1	4.5
Subtotal: Acquisition and divestiture related costs	104.0	34.6
Restructuring, business transformation and other cost saving initiatives:		
2017 corporate strategy implementation	—	0.5
Other cost saving initiatives	2.8	—
Subtotal: Restructuring, business transformation and other cost saving initiatives	2.8	0.5
(Gain) loss on equity security investments	(734.2)	(2.9)
Sage upfront payment and premium paid on the purchase of Sage common stock ^C	1,084.0	—
Premium paid on early debt redemption	—	—
Valuation allowance associated with deferred tax assets ^D	1.0	—
Income tax effect related to reconciling items	(116.6)	(6.9)
Amortization included in equity in loss of investee, net of tax	6.8	20.6
Non-GAAP net income attributable to Biogen Inc.	\$ 705.7	\$ 1,485.6

Footnotes referenced in the tables above are included at the end of this presentation.

Use of Non-GAAP Financial Measures

We supplement our GAAP consolidated financial statements and GAAP financial measures with other financial measures, such as adjusted net income, adjusted diluted earnings per share, revenue growth at constant currency, which excludes the impact of changes in foreign exchange rates and hedging gains or losses, and free cash flow, which is defined as net flow from operations less capital expenditures. We believe that these and other Non-GAAP financial measures provide additional insight into the ongoing economics of our business and reflect how we manage our business internally, set operational goals and form the basis of our management incentive programs. Non-GAAP financial measures are in addition to, not a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP.

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. Acquisitions, divestitures and significant collaboration and licensing arrangements

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

2. Restructuring, business transformation and other cost saving initiatives

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

3. (Gain) loss on equity security investments

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

4. Other items

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

GAAP to Non-GAAP Reconciliation

(unaudited, in millions, except per share amounts)

	For the Twelve Months Ended December 31,	
	2020*	2019
GAAP net income attributable to Biogen Inc.	\$ 4,000.6	\$ 5,888.5
Adjustments:		
Acquisition and divestiture related costs:		
Amortization and impairment of acquired intangible assets ^A	464.8	489.9
Acquired in-process research and development	75.0	—
(Gain) loss on fair value remeasurement of contingent consideration ^A	(86.3)	(63.7)
(Gain) loss on divestiture of Hillerød, Denmark manufacturing operations ^B	(92.5)	55.3
Net distribution to noncontrolling interests	0.3	—
Stock option expense related to acquisition of Nightstar Therapeutics plc	—	26.2
Acquisition-related transaction and integration costs	19.5	27.9
Accelerated share-based compensation expense	—	6.7
Subtotal: Acquisition and divestiture related costs	380.8	542.3
Restructuring, business transformation and other cost saving initiatives:		
2017 corporate strategy implementation	—	3.5
Restructuring charges	—	1.5
Other cost saving initiatives	2.8	—
Subtotal: Restructuring, business transformation and other cost saving initiatives	2.8	5.0
(Gain) loss on equity security investments	(693.9)	(200.2)
Sangamo upfront payment and premium paid on the purchase of Sangamo common stock ^E	208.2	—
Denali upfront payment and premium paid on the purchase of Denali common stock ^F	601.3	—
Sage upfront payment and premium paid on the purchase of Sage common stock ^C	1,084.0	—
Premium paid on early debt redemption	9.4	—
Valuation allowance associated with deferred tax assets ^D	90.3	—
Income tax effect related to reconciling items	(287.9)	31.3
Swiss tax reform ^G	—	(54.3)
Amortization included in equity in loss of investee, net of tax	40.0	78.2
Non-GAAP net income attributable to Biogen Inc.	\$ 5,435.6	\$ 6,290.8

*Beginning in the third quarter of 2020 material upfront payments associated with significant collaboration and licensing arrangements are excluded from Non-GAAP R&D expense in order to better reflect the Company's core operating performance. Full year Non-GAAP results reflect this change as the \$125.0 million upfront payment related to the collaboration with Sangamo Therapeutics, Inc. in the second quarter of 2020 has been excluded from Non-GAAP R&D expense.

A reconciliation between total revenue growth and revenue growth at constant currency is as follows:

	For the Three Months Ended December 31, 2020	For the Year Ended December 31, 2020
Total Revenues		
Revenue growth, as reported	(22.3)%	(6.5)%
Less impact of foreign currency translation and hedging (gains) losses	— %	0.7 %
Revenue growth at constant currency [^]	(22.3)%	(5.8)%
Total MS Revenues (including OCREVUS royalties)		
Revenue growth, as reported	(24.4)%	(5.9)%
Less impact of foreign currency translation and hedging (gains) losses	0.8 %	1.1 %
Revenue growth at constant currency [^]	(23.6)%	(4.8)%
Total SPINRAZA Revenues		
Revenue growth, as reported	(8.3)%	(2.1)%
Less impact of foreign currency translation and hedging (gains) losses	(1.8)%	1.0 %
Revenue growth at constant currency [^]	(10.1)%	(1.1)%
Total Biosimilars Revenues		
Revenue growth, as reported	0.8 %	7.8 %
Less impact of foreign currency translation and hedging (gains) losses	(5.2)%	(1.8)%
Revenue growth at constant currency [^]	(4.4)%	6.0 %

[^] Percentage changes in revenue growth at constant currency are presented excluding the impact of changes in foreign currency exchange rates and hedging gains or losses. The current period's foreign currency revenue values are converted into U.S. dollars using the average exchange rates from the prior period.

GAAP to Non-GAAP Reconciliation

(unaudited, in millions, except per share amounts)

A reconciliation between net cash flow from operations and free cash flow is as follows:

	For the Three Months Ended December 31		For the Twelve Months Ended December 31	
	2020	2019	2020	2019
Net cash flow (outflow) from operating activities	\$ (367.1)	\$ 1,960.2	\$ 4,229.8	\$ 7,078.6
Purchases of property, plant, and equipment	(86.0)	(110.4)	(424.8)	(514.5)
Free cash flow [^]	<u>\$ (453.1)</u>	<u>\$ 1,849.8</u>	<u>\$ 3,805.0</u>	<u>\$ 6,564.1</u>

[^] Free cash flow is defined as net cash flow from operations less capital expenditures.

Notes to GAAP to Non-GAAP Reconciliation

^A Amortization and impairment of acquired intangible assets for the three months ended December 31, 2020, compared to the same period in 2019, increased primarily due to the impact of an impairment charge related to timrepigene emparvovec (BIIB111), which was obtained as part of the Nightstar Therapeutics plc acquisition. During the fourth quarter of 2020 we began experiencing third-party manufacturing delays for BIIB111 and determined that forecasted costs associated with advancing the program through development and commercialization will exceed our original estimates. We reassessed the fair value of the program based on these changes in assumptions and determined that the program was partially impaired. We recognized an impairment charge of approximately \$115.0 million during the fourth quarter of 2020.

In February 2021 we announced that we discontinued development of BIIB054 (cinpanemab) for the potential treatment of Parkinson's disease as our Phase 2 SPARK study did not meet its primary or secondary endpoints. Although we made this determination in February 2021, it was based on conditions that existed as of December 31, 2020. As a result, we recognized an impairment charge of approximately \$75.4 million during the fourth quarter of 2020 to reduce the fair value of the related in-process research and development (IPR&D) intangible asset to zero. We also adjusted the value of our contingent consideration obligation related to BIIB054 resulting in a gain of \$51.0 million in the fourth quarter of 2020.

For the twelve months ended December 31, 2020, amortization and impairment of acquired intangible assets reflects the impact of the BIIB111 and BIIB054 impairment charges as well as a \$19.3 million impairment charge related to one of our IPR&D intangible assets. 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 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. We also adjusted the value of our contingent consideration obligations related to BG00011 resulting in a gain of \$61.2 million in the third quarter of 2019.

^B 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. Upon the closing of this transaction, we received approximately \$881.9 million in cash, which may be adjusted based on other contractual terms, which are discussed below.

Notes to GAAP to Non-GAAP Reconciliation (continued)

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, an investigational treatment for Alzheimer's disease, resulting in a reduction in the pre-tax loss on divestiture from \$95.5 million to \$55.3 million.

During the fourth quarter of 2020 we reduced our estimate of the fair value of the adverse commitment by approximately \$62.0 million based on our current manufacturing forecasts. Additionally, we recorded a reduction to our pre-tax loss of approximately \$30.5 million due to a refund of interest paid associated with a tax matter. As of December 31, 2020, the cumulative loss on the divestiture of the Hillerød, Denmark manufacturing operations was \$33.2 million.

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. Consistent with our assessment as of the transaction date, 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.

^c In November 2020 we entered into a global collaboration and license agreement with Sage Therapeutics, Inc. (Sage) to jointly develop and commercialize zuranolone (SAGE-217) for the potential treatment of major depressive disorder, postpartum depression and other psychiatric disorders and SAGE-324 for the potential treatment of essential tremor and other neurological disorders. In connection of the closing of this transaction in December 2020 we purchased \$650.0 million of Sage common stock, or approximately 6.2 million shares at \$104.14 per share, which are subject to transfer restrictions. We recorded an asset in investments and other assets in our consolidated balance sheets to reflect the initial fair value of the Sage common stock acquired and a charge of approximately \$209.0 million to research and development expense in our consolidated statements of income to reflect the premium paid for the Sage common stock. We also made an upfront payment of \$875.0 million that was recorded as research and development expense.

Notes to GAAP to Non-GAAP Reconciliation (continued)

^D Income tax expense for the three and twelve months ended December 31, 2020, included \$1.0 million and \$90.3 million, respectively, in income tax expense related to a net valuation allowance against certain deferred tax assets, due to the decisions of the U.S. District Court of the Northern District of West Virginia and the U.S. District Court of the District of Delaware that the asserted claims of our U.S. patent No. 8,399,514, which cover the treatment of multiple sclerosis with 480 mg of dimethyl fumarate per day as provided for in our TECFIDERA label, are invalid.

^E In February 2020 we entered into a collaboration and license agreement with Sangamo Therapeutics, Inc. (Sangamo) to develop and commercialize ST-501 for tauopathies, including Alzheimer's disease; ST-502 for synucleinopathies, including Parkinson's disease; a third neuromuscular disease target; and up to nine additional neurological disease targets to be identified and selected within a five-year period. In connection with the closing of this transaction in April 2020 we purchased \$225.0 million of Sangamo common stock, or approximately 24 million shares at \$9.21 per share, which are subject to transfer restrictions. We recorded an asset in investments and other assets in our condensed consolidated balance sheets to reflect the initial fair value of the Sangamo common stock acquired and a charge of approximately \$83.2 million to research and development expense in our condensed consolidated statements of income to reflect the premium paid for the Sangamo common stock. We also made an upfront payment of \$125.0 million that was recorded as research and development expense.

^F In August 2020 we entered into a collaboration and license agreement with Denali Therapeutics Inc. (Denali) to co-develop and co-commercialize Denali's small molecule inhibitors of leucine-rich kinase 2 (LRRK2) for Parkinson's disease. As part of this collaboration, we purchased approximately \$465.0 million of Denali common stock in September 2020, or approximately 13 million shares at \$34.94 per share, which are subject to transfer restrictions. We recorded an asset in investments and other assets in our condensed consolidated balance sheets to reflect the initial fair value of the Denali common stock acquired and a charge of approximately \$41.3 million to research and development expense in our condensed consolidated statements of income to reflect the premium paid for the Denali common stock. We also made an upfront payment of \$560.0 million that was recorded as research and development expense.

^G During the third quarter of 2019 a new taxing regime in the country and certain cantons of Switzerland was enacted, which we refer to 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 twelve months ended December 31, 2019.