

where
science meets **humanity**™



J.P. Morgan 2021 Healthcare Conference

Michel Vounatsos, Chief Executive Officer

January 11, 2021



Forward-looking statements

This presentation contains forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, relating to: our strategy and plans; potential of 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; and our future financial and operating results. 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; 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; the direct and indirect impacts of the ongoing COVID-19 pandemic on our business, results of operations, and financial condition; uncertainty of long-term success in developing, licensing, or acquiring other product candidates or additional indications for existing products; failure to compete effectively due to significant product competition in the markets for our products; failure to successfully execute or realize the anticipated benefits of our strategic and growth initiatives; the risk that positive results in a clinical trial may not be replicated in subsequent or confirmatory trials or success in early stage clinical trials may not be predictive of results in later stage or large scale clinical trials or trials in other potential indications; risks associated with clinical trials, including our ability to adequately manage clinical activities, unexpected concerns that may arise from additional data or analysis obtained during clinical trials, regulatory authorities may require additional information or further studies, or may fail to approve or may delay approval of our drug candidates; the occurrence of adverse safety events, restrictions on use with our products, or product liability claims; difficulties in obtaining and maintaining adequate coverage, pricing, and reimbursement for our products; risks relating to technology failures or breaches; our dependence on collaborators, joint venture partners, and other third parties for the development, regulatory approval, and commercialization of products and other aspects of our business, which are outside of our full control; risks associated with current and potential future healthcare reforms; risks relating to management and key personnel changes, including attracting and retaining key personnel; failure to comply with legal and regulatory requirements; the risks of doing business internationally, including currency exchange rate fluctuations; risks relating to investment in our manufacturing capacity; problems with our manufacturing processes; risks related to commercialization of biosimilars; fluctuations in our operating results; fluctuations in our effective tax rate; risks related to investment in properties; the market, interest, and credit risks associated with our portfolio of marketable securities; risks relating to share repurchase programs; risks relating to access to capital and credit markets; risks related to indebtedness; environmental risks; risks relating to the distribution and sale by third parties of counterfeit or unfit versions of our products; risks relating to the use of social media for our business; change in control provisions in certain of our collaboration agreements; and the other risks and uncertainties that are described in the Risk Factors section of our most recent annual or quarterly report and in other reports we have filed with the U.S. Securities and Exchange Commission (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.

Note regarding trademarks: PLEGRIDY®, RITUXAN®, SPINRAZA®, TECFIDERA®, TYSABRI®, and VUMERITY® are registered trademarks of Biogen. Healthy Climates, Other trademarks referenced in this presentation are the property of their respective owners.

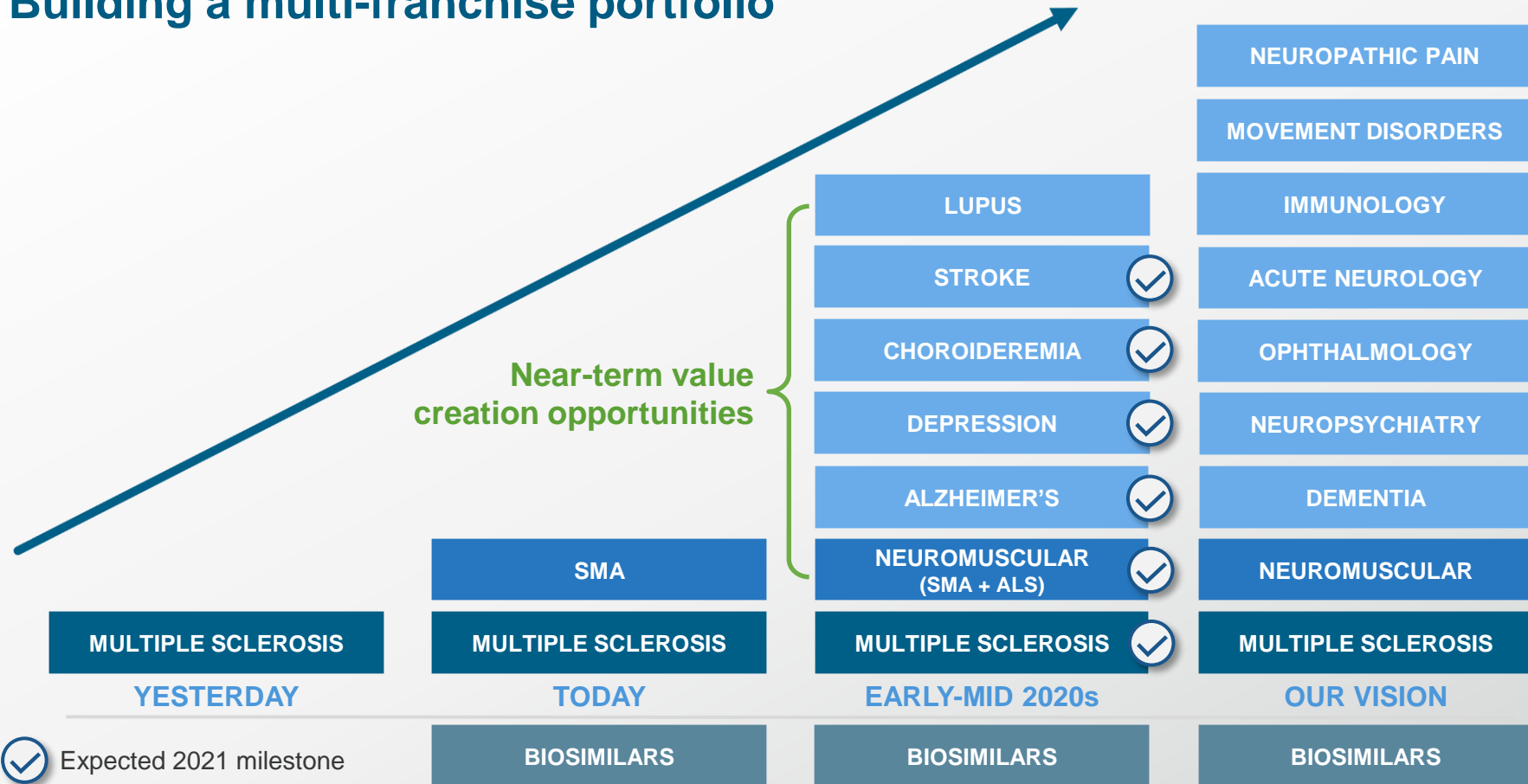
Strong track record of execution

2021: A transformative year

Building for the long term

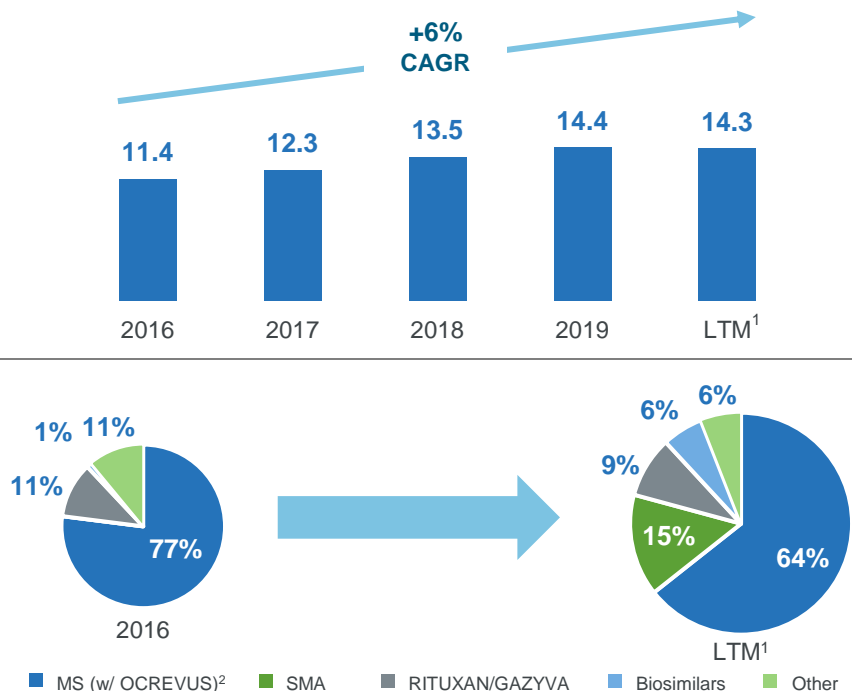


Building a multi-franchise portfolio

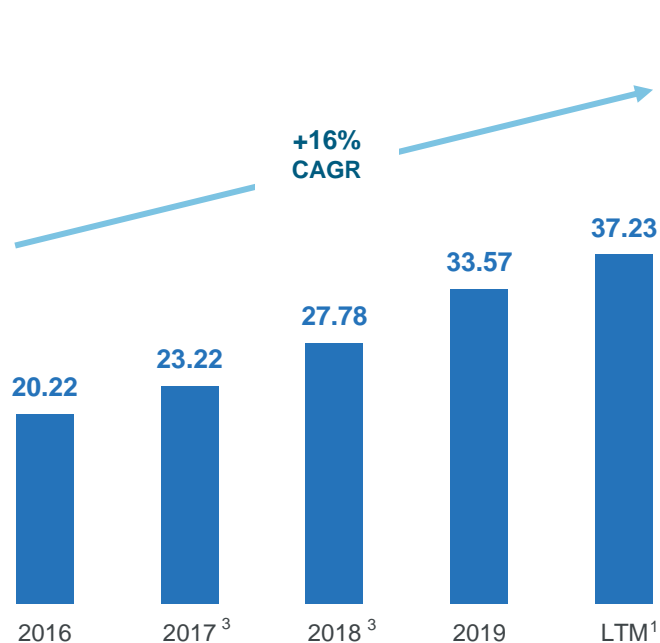


History of strong financial performance

Revenues (\$B)



Non-GAAP diluted EPS (\$)



Our GAAP financial measures and a reconciliation of GAAP to Non-GAAP financial results are at the end of this presentation.

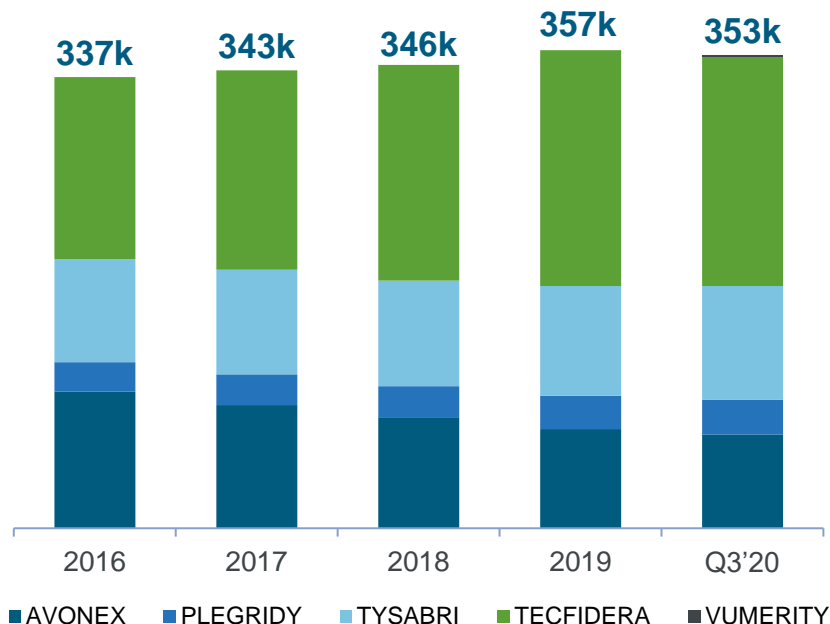
1. LTM = last 12 months prepared based upon the sum of reported amounts for the nine months ended September 30, 2020, and three months ended December 31, 2019.

2. Includes royalties on the sales of OCREVUS, which began in 2017.

3. 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. Prior period Non-GAAP results have been updated to reflect this change.

Continuing to lead and invest in our multiple sclerosis business

MS Patients



Highlights

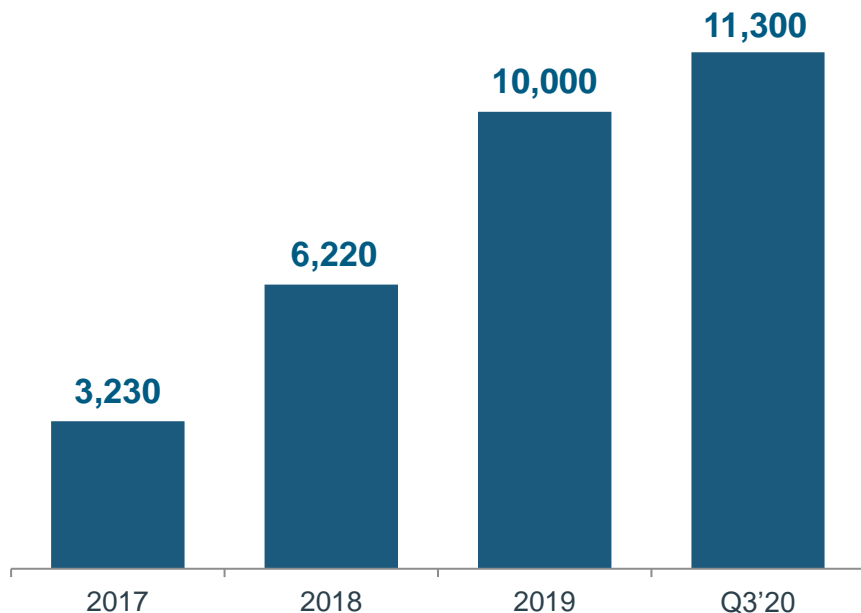
- LTM¹ revenue of **\$6.0 billion**, excluding U.S. TECFIDERA
- VUMERITY (diroximel fumarate) launched in the U.S. as a novel oral option; E.U. approval expected in late 2021
- Intramuscular PLEGRIDY approved in E.U.; U.S. approval expected in Q1 2021
- Approval of subcutaneous TYSABRI in U.S. and E.U. expected in mid-2021
- Data from NOVA study on extended interval dosing for TYSABRI expected mid-2021

Note: Patient numbers represent estimated ending patient count as of December 31st of each year except for 2020, which represents patients as of September 30, 2020.

1. LTM = last 12 months prepared based upon the sum of reported amounts for the nine months ended September 30, 2020, and three months ended December 31, 2019. Includes royalties on the sales of OCREVUS.

Continued leadership position in SMA

SPINRAZA Patients²



Highlights

- LTM¹ revenue of **\$2.1 billion**
- **Over 11,000 patients** on therapy²
 - Over 60,000 SMA patients in markets where Biogen expects to commercialize SPINRAZA³
- Proven efficacy across all patient types and a well characterized safety profile
- **Strengthening our competitive positioning in SMA, pursuing:**
 - Higher dose for even greater efficacy
 - Potential benefit following sub-optimal response to competitor's gene therapy

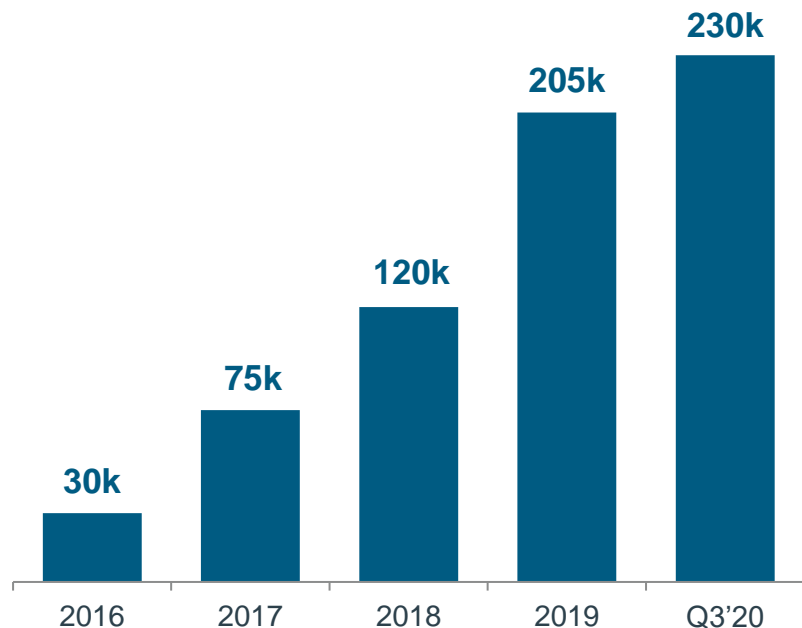
1. LTM = last 12 months prepared based upon the sum of reported amounts for the nine months ended September 30, 2020, and three months ended December 31, 2019.

2. Total patients across the post-marketing setting, the Expanded Access Program, and clinical trials.

3. Biogen data on file.

Bolstering a growing biosimilars business

Biosimilars Patients



Commercialization of anti-TNFs in Europe

- LTM¹ revenue of \$794 million
- Biogen contributed > €2 billion of healthcare savings in 2020 across Europe²

Expanding biosimilar portfolio

- Biogen to commercialize potential ophthalmology biosimilars referencing LUCENTIS and EYLEA across the U.S., Canada, Europe, Japan, and Australia
 - Global market of almost \$11 billion in 2018³
 - SB11 (LUCENTIS biosimilar) filed in U.S. and E.U.

Samsung Bioepis Joint Venture

- Equity stake of ~49.9%

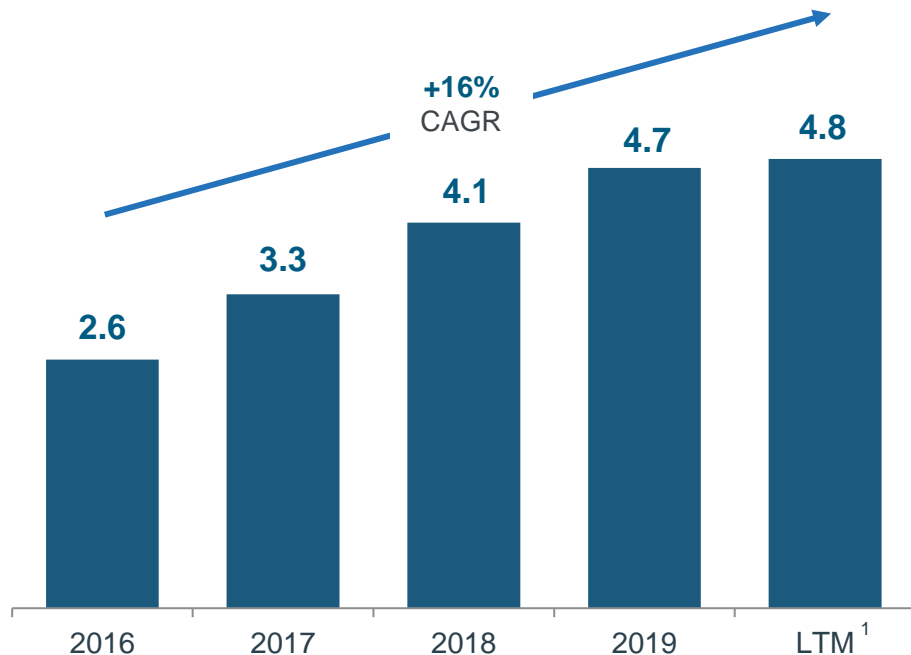
1. LTM = last 12 months prepared based upon the sum of reported amounts for the nine months ended September 30, 2020, and three months ended December 31, 2019.

2. Biogen estimate, data on file.

3. Company reported sales, EvaluatePharma.

Capitalizing on global growth opportunities

Biogen Ex-U.S. product revenues, net (\$B)²



Expanding into new markets³

- Increasing footprint in Asia and Middle East
 - China
 - Korea
 - Taiwan
 - Hong Kong
 - United Arab Emirates
- Growing presence in Latin America
 - Colombia
 - Mexico

1. LTM = last 12 months prepared based upon the sum of reported amounts for the nine months ended September 30, 2020, and three months ended December 31, 2019.

2. Excludes hemophilia product revenues for 2016 and 2017.

3. New affiliates after January 2017.

Strong financial position

\$4.6B

**Cash and marketable securities
at end of Q3 2020**

\$7.4B

Debt at end of Q3 2020

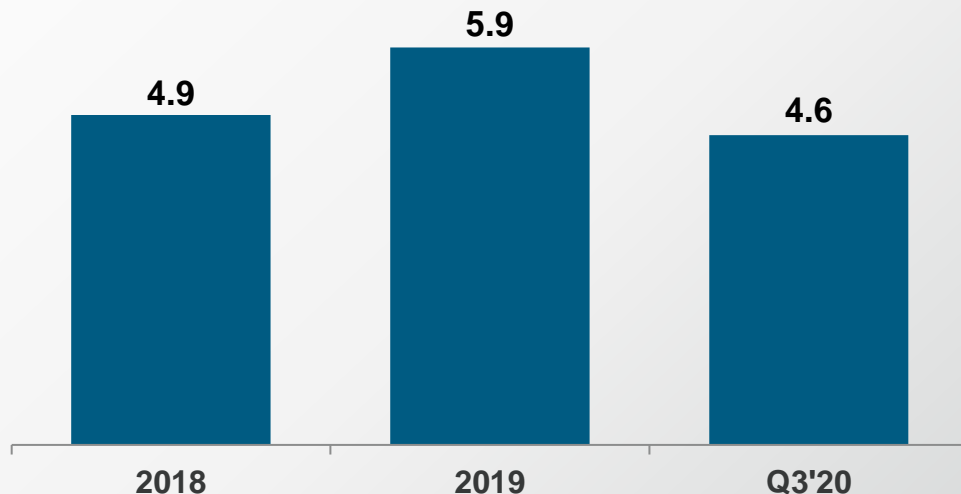
\$2.8B

Net debt at end of Q3 2020

\$6.6B

**Net cash flow from operations
in LTM¹**

Cash and Marketable Securities (\$B)



1. LTM = last 12 months prepared based upon the sum of reported amounts for the nine months ended September 30, 2020, and three months ended December 31, 2019.

Strong track record of execution

2021: A transformative year

Building for the long term



Leading in Alzheimer's disease with potential approval of aducanumab



- **First ever positive Phase 3 study for a therapy to change the course of Alzheimer's disease**
- **Sufficient exposure to high dose aducanumab reduced clinical decline across multiple clinical endpoints**
- **Continuing to engage with the FDA as it completes its review; regulatory filings submitted in E.U. and Japan**
- **Ready to launch in the U.S. and ramping up launch preparations outside the U.S.**
- **Also advancing a broad portfolio including BAN2401 and multiple tau-directed assets**

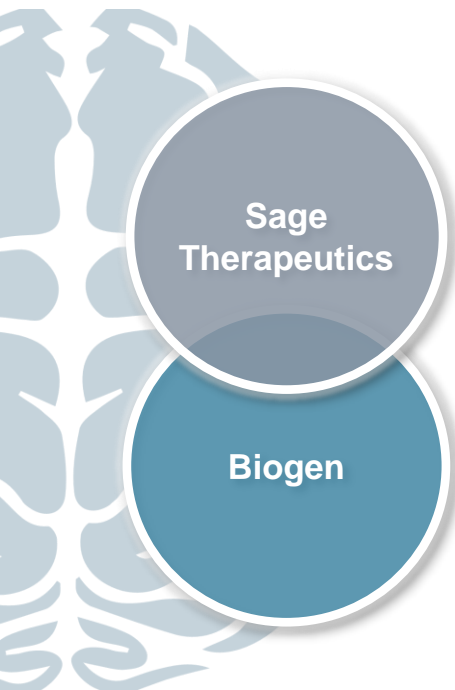
Note: Aducanumab and BAN2401 are being developed in collaboration with Eisai Co., Ltd.

9 mid-to-late stage readouts in 2021

		Data Readout	Expected By*	Potential Value Creation
Phase 3	Choroideremia	Phase 3 data for BIIB111	H1 2021	<div>4</div> Pivotal Readouts
	MDD	Phase 3 data for SAGE-217	H1 & H2 2021 [#]	
	PPD	Phase 3 data for SAGE-217	H2 2021	
	ALS	Phase 3 data for tofersen	H2 2021	
Phase 2	Essential Tremor	Phase 2 data for SAGE-324	H1 2021	<div>5</div> Phase 2 Readouts
	Parkinson's disease	Phase 2 data for BIIB054	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	

* Current best estimate subject to change; [#] 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

Collaboration with Sage to accelerate expansion into neuropsychiatry



SAGE-217 (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 trials ongoing to assess efficacy and safety of SAGE-217
- Potential indication expansion in generalized anxiety disorder, bipolar disorder, and treatment-resistant depression

SAGE-324

- GABA_A receptor PAM with differentiated profile
- SAGE-324 in Phase 2 for essential tremor
- Potential indication expansion in epilepsy and Parkinson’s disease

GABA_A = gamma aminobutyric acid type A; PAM = positive allosteric modulator; MDD = major depressive disorder; PPD = post-partum depression

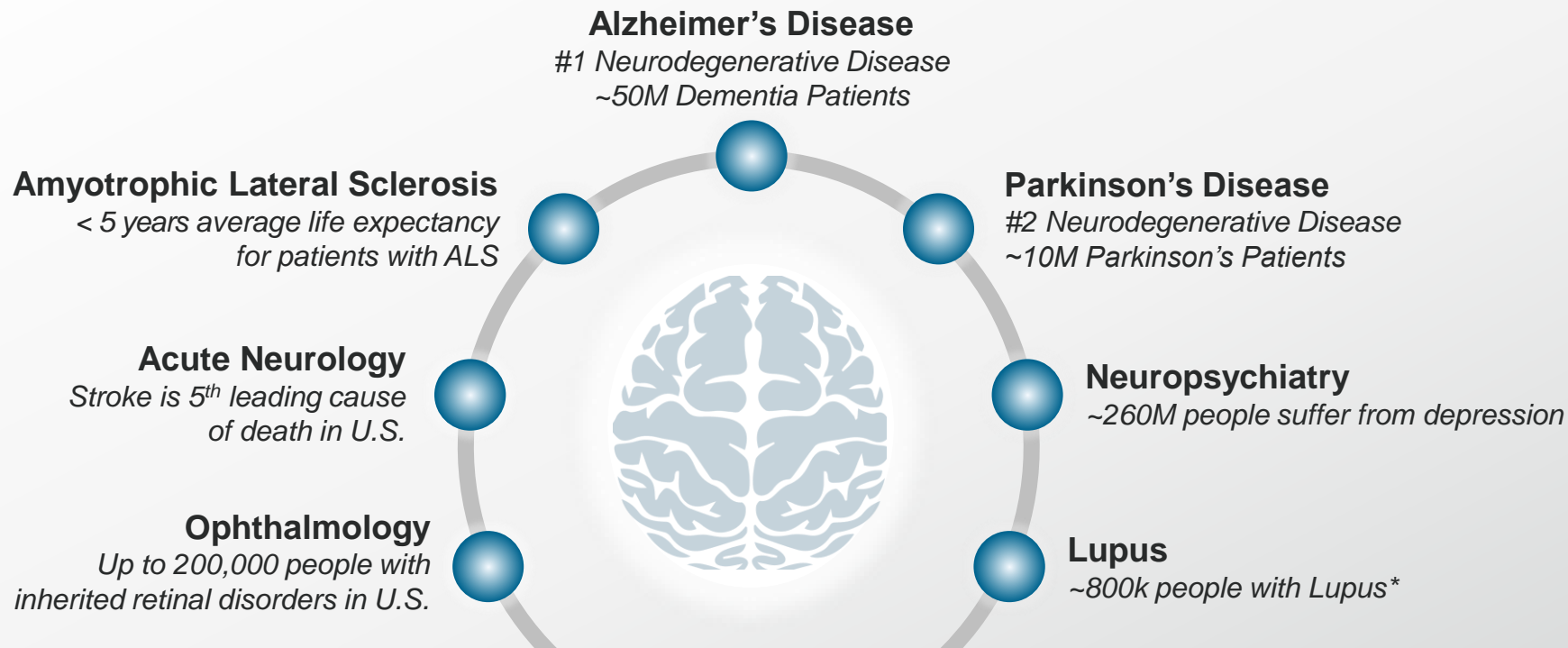
Strong track record of execution

2021: A transformative year

Building for the long term



Addressing unmet needs with large market potential



Potential to launch multiple blockbuster therapies

Source: Lancet Neurology, 2017; World Health Organization; The ALS Association; American Heart Association; Biogen, data on file.

*Represents patients with systemic lupus erythematosus and/or cutaneous lupus erythematosus in the G7

Broad neuroscience pipeline to enable next wave of potential growth

34 Clinical programs

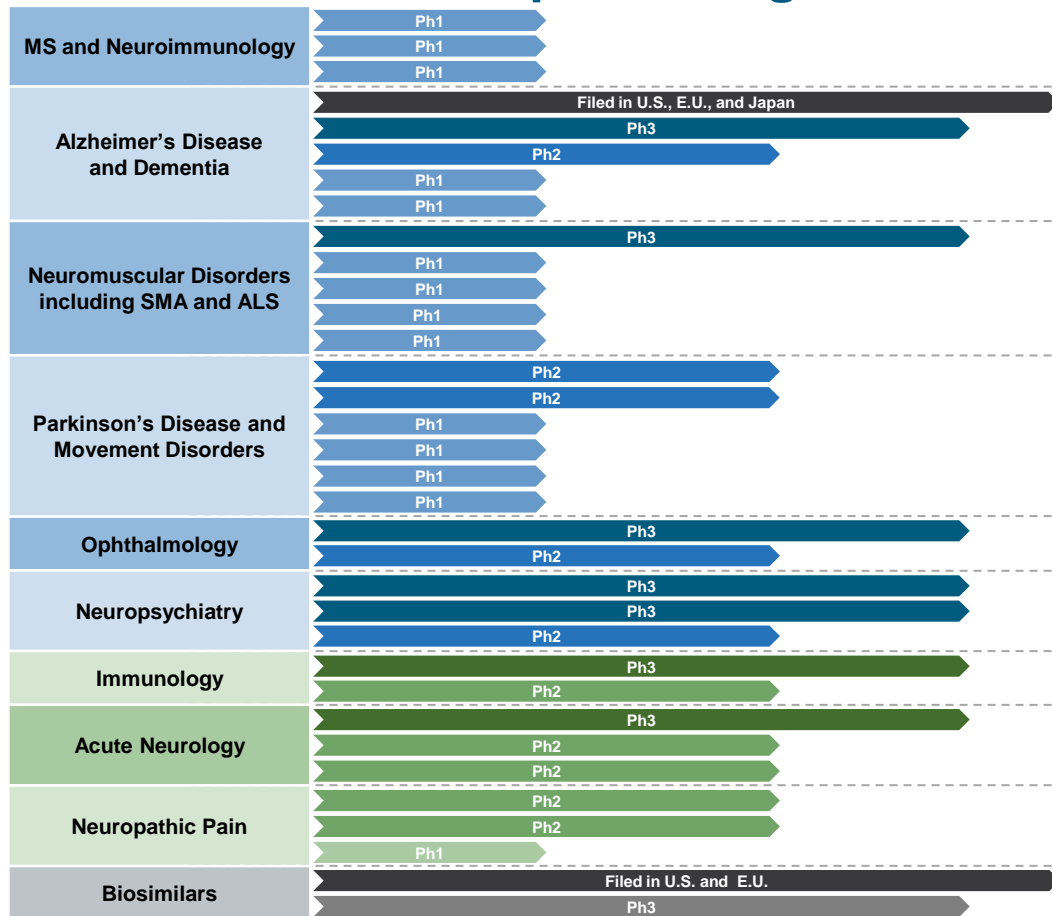
26 New clinical programs since 2017

10 Programs in Phase 3 or filed, including aducanumab in U.S., E.U., and Japan

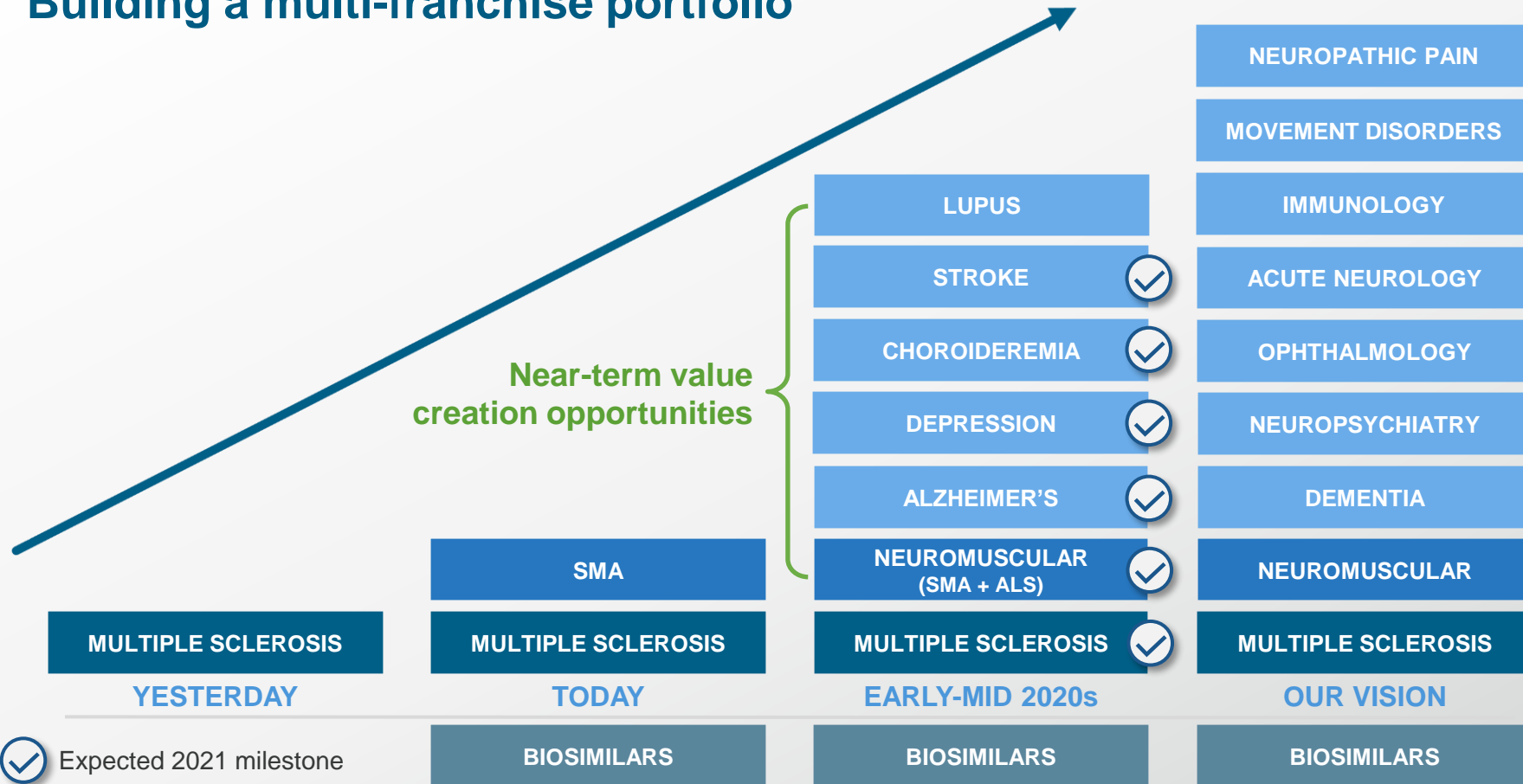
9 Mid-to-late stage readouts expected by end of 2021

23 Business development deals since 2017, including recent collaborations with Denali and Sage

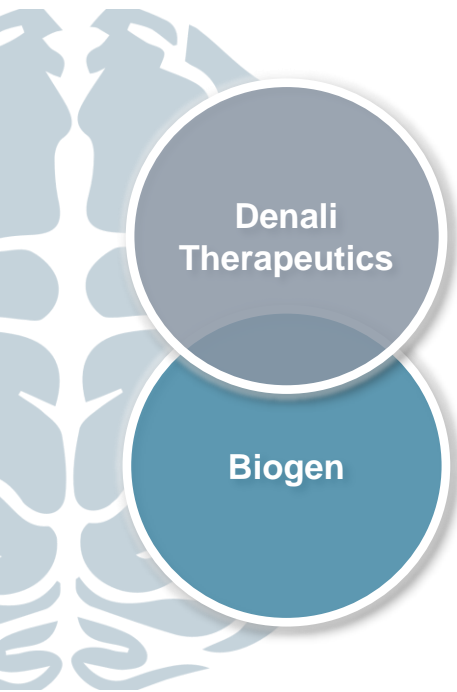
MS = multiple sclerosis; SMA = spinal muscular atrophy; ALS = amyotrophic lateral sclerosis



Building a multi-franchise portfolio



Collaboration with Denali expands pipeline in Parkinson's disease



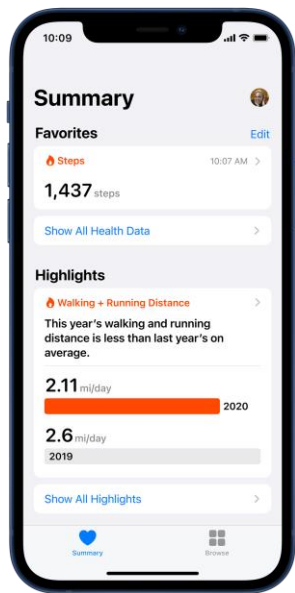
DNL151

- Potential first-in-class, oral small molecule inhibitor of LRRK2 that may slow the progression of Parkinson's disease
- LRRK2 inhibition may provide therapeutic benefit in people with and without known genetic risks for Parkinson's disease
- Target and pathway engagement goals met; expect to initiate late-stage studies by end of 2021

Transport Vehicle (TV) Programs

- Access to select preclinical TV assets, including TV-abeta, designed to leverage transferrin receptor transport to enhance brain uptake

Pioneering science and technology to monitor brain health



- Biogen and Apple to investigate the role of Apple Watch and iPhone in monitoring cognitive health and screening for cognitive decline
- Multi-year, observational research study intends to enroll thousands of participants and will be launched later in 2021
- The study's primary objectives are to develop digital biomarkers to help monitor cognitive performance over time and identify early signs of mild cognitive impairment (MCI)
- If successful, digital biomarkers may:
 - **Accelerate MCI diagnosis**
 - **Improve patient outcomes**
 - **Enhance understanding of cognition**

Accelerating action on the greatest challenges of our time

COVID-19 has further highlighted disparities in healthcare, and the links between equity, health, and climate

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 DJSI¹ World Index
- Collaboration with leading institutions (Harvard, MIT) to advance science of climate and health, including link between air pollution and brain health

Access & Equity

- >90% of clinical trial studies started in 2020 incorporated recruitment for underrepresented patient populations²
- ~230k patients treated with biosimilars
- Engaged 57k+ students in STEM³ Community Labs since 2002 with priority focus on underrepresented students²

Diversity & Inclusion

- Achieved 48% women globally and 28% ethnic/racial minorities in U.S. in director positions and above²
- Launched enhanced strategy with aim to boost diversity⁴ in U.S. manager positions and above by 30% by YE 2021
- 7-time 100% on “Best Place to Work for LGBTQ+ Inclusion” and 100% on Disability Equality Index

1. Dow Jones Sustainability Index. 2. Biogen data on file as of December 31, 2020. 3. Science, Technology, Engineering, and Math. 4. Percent of U.S. manager positions and above held by Black, African American, and Latinx employees as well as Asian employees where underrepresented.

Significant opportunity for value creation

Strong track record of execution

- ✓ Strong progress executing on our strategy
- ✓ Proven ability to compete, launch well, and enter new markets
- ✓ Strong financial position and flexibility to allocate capital

A transformative year

- ✓ Aducanumab under regulatory review in the U.S., E.U., and Japan; FDA decision expected by March 7, 2021
- ✓ 9 mid-to-late stage data readouts expected by end of 2021

Building for the long term

- ✓ Diversifying to create a multi-franchise portfolio
- ✓ Accelerating digital capabilities
- ✓ Strong commitment to corporate responsibility

Note: Aducanumab is being developed in collaboration with Eisai Co., Ltd.



GAAP to Non-GAAP reconciliation

Diluted EPS and Net Income to Biogen Inc.
(Unaudited, \$ in millions, except per share amounts)

	FY 2016	FY 2017*	FY 2018*	FY 2019	LTM
GAAP EPS - Diluted	\$ 16.93	\$ 11.92	\$ 21.58	\$ 31.42	\$ 30.33
Adjustment to net income attributable to Biogen Inc. (see below)	3.29	11.30	6.20	2.15	6.90
Non-GAAP EPS - Diluted	\$ 20.22	\$ 23.22	\$ 27.78	\$ 33.57	\$ 37.23
GAAP Net Income Attributable to Biogen Inc.	\$ 3,703	\$ 2,539	\$ 4,431	\$ 5,889	\$ 5,082
Amortization of acquired intangible assets ^A	374	815	747	490	283
Acquired in-process research and development	-	120	113	-	75
Sangamo upfront payment and premium paid on the purchase of Sangamo common stock ^B	-	-	-	-	208
Denali upfront payment and premium paid on the purchase of Denali common stock ^C	-	-	-	-	601
Ionis upfront payment and premium paid on the purchase of Ionis common stock	-	-	486	-	-
Bristol Myers Squibb upfront payment	-	300	-	-	-
Acquisition-related transaction and integration costs	-	-	-	28	14
(Gain) loss on fair value remeasurement of contingent consideration	15	63	(12)	(64)	(21)
Loss on divestiture of Hillerød, Denmark manufacturing operations ^D	-	-	-	55	(40)
(Gain) loss on equity security investments	-	-	(128)	(200)	37
Net distribution to noncontrolling interests	-	132	44	-	-
Restructuring, business transformation and other cost saving initiatives	88	19	23	5	1
TECFIDERA litigation settlement charge	455	-	-	-	-
Other reconciling items	14	19	10	33	9
Income tax effect related to reconciling items	(225)	(236)	(147)	31	(178)
Elimination of deferred tax asset/Valuation allowance associated with deferred tax assets ^E	-	-	11	-	89
Swiss tax reform	-	-	-	(54)	-
U.S. tax reform	-	1,174	125	-	-
Amortization included in equity in loss of investee, net of tax ^F	-	-	-	78	54
Non-GAAP Net Income Attributable to Biogen Inc.	\$ 4,423	\$ 4,945	\$ 5,702	\$ 6,291	\$ 6,215

Numbers may not foot due to rounding.

LTM = last 12 months prepared based upon the sum of reported amounts for the nine months ended September 30, 2020, and three months ended December 31, 2019.

*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. Prior period Non-GAAP results have been updated to reflect this change.

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 and adjusted diluted earnings per share. 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

A Amortization of acquired intangible assets for 2019 included a \$215.9 million impairment charge related to certain in-process research and development 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.

B 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 approximately \$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.

C 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 approximately \$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.

D 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.

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 aducanumab batches, resulting in a reduction in the pre-tax loss on divestiture from \$95.5 million to \$55.3 million.

E Income tax expense during the last twelve months included \$89.3 million 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.

F Amortization included in equity in loss of investee, net of tax represents the amortization of the differences between the fair value of our investment in Samsung Bioepis Co., Ltd. and the carrying value of our interest in the underlying net assets of the investee. These basis differences are amortized over their economic life.