Biogen Inc.
225 Binney Street
Cambridge, Massachusetts 02142, U.S.A.

Prospectus for the public offer

of 5,733,528 shares of Biogen Inc. common stock
each with a par value of $0.0005
under the Biogen Inc. 2015 Employee Stock Purchase Plan

to the employees of the European Economic Area subsidiaries of Biogen Inc.

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PROSPEKTZUSAMMENFASSUNG

Hinweis an den Leser

Zusammenfassungen bestehen aus verschiedenen Offenlegungselementen, die als „Angaben" bezeichnet werden. Diese Angaben sind unten in den Abschnitten A – E enthalten (A.1 – E.7).

Diese Zusammenfassung enthält alle Angaben, die in einer Zusammenfassung für die angebotene Art von Wertpapieren und diesen Emittenten erforderlich sind. Da bestimmte Angaben in der Zusammenfassung nicht enthalten sein müssen, können in der Nummerierung der Angaben Lücken auftreten.

Es kann vorkommen, dass im Hinblick auf eine bestimmte Angabe keine relevanten Informationen zur Verfügung gestellt werden können, obwohl die entsprechenden Informationen aufgrund der Art der angebotenen Wertpapiere und des Emittenten eigentlich zwingend in die Zusammenfassung aufzunehmen sind. In einem solchen Fall wird die entsprechende Angabe in der Zusammenfassung mit der Bezeichnung „entfällt" und einer kurzen Begründung versehen.

Abschnitt A – Einleitung und Warnhinweise		
A.1	**Einleitung und Warnhinweise**	Diese Zusammenfassung sollte als Einführung zum Prospekt verstanden werden. Der Anleger sollte jede Entscheidung zur Anlage in die Aktien auf die Prüfung des gesamten Prospektes stützen. Für den Fall, dass vor einem Gericht Ansprüche auf Grund der in diesem Prospekt enthaltenen Informationen geltend gemacht werden, könnte der als Kläger auftretende Anleger in Anwendung der einzelstaatlichen Rechtsvorschriften der Staaten des Europäischen Wirtschaftsraums die Kosten für die Übersetzung des Prospekts vor Prozessbeginn zu tragen haben. Diejenigen Personen, die die Verantwortung für die Zusammenfassung einschließlich etwaiger Übersetzungen übernommen haben oder von denen der Erlass der Zusammenfassung ausgeht, können zivilrechtlich für den Inhalt der Zusammenfassung haftbar gemacht werden, jedoch nur für den Fall, dass die Zusammenfassung irreführend, unrichtig oder widersprüchlich ist, wenn sie zusammen mit den anderen Teilen des Prospekts gelesen wird, oder sie, wenn sie zusammen mit den anderen Teilen des Prospekts gelesen wird, nicht alle erforderlichen Schlüsselinformationen vermittelt.
A.2	**Verwendung des Prospekts für die spätere Weiterveräußerung oder endgültige Platzierung von Wertpapieren durch Finanzintermediäre.**	Entfällt. Der Emittent hat der Verwendung des Prospekts für die spätere Weiterveräußerung oder endgültige Platzierung von Wertpapieren nicht zugestimmt.

Abschnitt B – Emittent		
B.1	**Juristische und kommerzielle Bezeichnung des Emittenten**	Die juristische und kommerzielle Bezeichnung des Emittenten lautet Biogen Inc. In dieser Zusammenfassung beziehen sich Verweise auf „Biogen" oder die „Gesellschaft" sowie auf „wir", „uns" und „unsere" auf die Biogen Inc. und ihre in den Konzernabschluss einbezogenen Tochtergesellschaften, sofern sich aus dem Zusammenhang nichts anderes ergibt.
B.2	**Sitz und Rechtsform des Emittenten, das für den Emittenten geltende Recht und Land der Gründung der Gesellschaft**	Biogen ist eine Kapitalgesellschaft. Der Hauptsitz von Biogen befindet sich in 225 Binney Street, Cambridge, Massachusetts 02142, Vereinigte Staaten von Amerika. Die Gesellschaft wurde im Jahr 1985 nach dem Recht des Staates Kalifornien gegründet und wurde im Jahr 1997 zu einer Gesellschaft nach dem Recht des Staates Delaware. Im Jahr 2003 erwarb die Gesellschaft Biogen Inc. und änderte ihren Firmennamen von IDEC Pharmaceuticals Corporation in Biogen Idec Inc. Mit Wirkung zum 23. März 2015 änderte die Gesellschaft ihren Namen von Biogen Idec Inc. in Biogen Inc.
B.3	**Art der derzeiti-**	Biogen ist ein weltweit im Bereich Biopharmazie tätiges Unternehmen mit

	gen Geschäftstätigkeit und Hauptaktivitäten des Emittenten sowie die Hauptmärkte, auf denen der Emittent tätig ist	Schwerpunkt auf der Entdeckung, Entwicklung und weltweiten Bereitstellung von innovativen Therapien für Personen, die an schweren neurologischen und neurodegenerativen Krankheiten leiden, u. a. auch in unseren wesentlichen Wachstumsfeldern Multiple Sklerose („MS“) und Neuroimmunologie, Alzheimer („AD“) und Demenz, Bewegungsstörungen, einschließlich Parkinson, und neuromuskuläre Erkrankungen, einschließlich Spinale Muskelatrophie („SMA“) und Amyotrophe Lateralsklerose („ALS“). Wir konzentrieren uns außerdem auf die Entdeckung, Entwicklung und weltweite Bereitstellung innovativer Behandlungsformen in unseren neu entstehenden Wachstumsfeldern, d. h. in den Bereichen Akutneurologie, neurokognitive Erkrankungen, Schmerztherapie und Augenheilkunde. Außerdem setzen wir auf der Suche nach möglichen Therapien für seltene und genetische Erkrankungen in unseren Kernbereichen und in den neuen Wachstumsfeldern innovative Technologien einschließlich neuer Behandlungsformen durch Gentherapien ein. Zudem stellen wir Nachahmerprodukte von hochentwickelten Biopharmazeutika, sogenannte Biosimilars, her und vermarkten sie. Die Produkte, die wir derzeit vermarkten sind u. a. TECFIDERA, AVONEX, PLEGRIDY, TYSABRI und FAMPYRA zur Behandlung von MS, SPINRAZA zur Behandlung von SMA und FUMADERM zur Behandlung von schwerer Plaque-Psoriasis. Wir verfügen außerdem über bestimmte geschäftliche und finanzielle Rechte in Bezug auf RITUXAN, das zur Behandlung von Non-Hodgkin-Lymphomen, chronisch-lymphatischer Leukämie („CLL“) und anderen Erkrankungen eingesetzt wird, in Bezug auf RITUXAN HYCELA, das zur Behandlung von Non-Hodgkin-Lymphomen und CLL eingesetzt wird, in Bezug auf GAZYVA zur Behandlung von CLL und follikulären Lymphomen, in Bezug auf OCREVUS, das zur Behandlung primär progressiver MS („PPMS“) sowie schubförmig verlaufender MS („RMS“) und für andere potenzielle Anti-CD20-Therapien eingesetzt wird, die uns gemäß den Kooperationsvereinbarungen mit Genentech Inc. („Genentech“), einer hundertprozentigen Tochtergesellschaft der Roche-Gruppe, eingeräumt wurden. CD20 ist ein integrales Membranprotein auf der Zelloberfläche von B-Zellen, weiße Blutkörperchen, die Bestandteil des Immunsystems sind. Anti-CD20-Therapien führen den Abbau von B-Zellen herbei und werden zur Behandlung bestimmter Krebsarten und Autoimmunerkrankungen eingesetzt. Unterstützt werden unsere Bemühungen in den Bereichen Medikamentenforschung und -entwicklung zudem durch den Einsatz beträchtlicher Ressourcen für Forschungs- und Entwicklungsprogramme sowie für Möglichkeiten der Geschäftsentwicklung. Wir gehören seit über zwei Jahrzehnten zu den führenden Unternehmen im Bereich der Forschung und Entwicklung neuer Therapien zur Behandlung von MS, was zu unserem wegweisenden Portfolio von MS-Behandlungsmöglichkeiten geführt hat. Derzeit konzentriert sich unsere Forschung auf weitere Verbesserungen bei der Behandlung von MS, wie etwa die Entwicklung einer neuen Generation von Therapien gegen MS, die darauf abzielen Schäden, die die Krankheit verursacht, rückgängig zu machen oder evtl. sogar zu beheben. Darüber hinaus setzen wir unsere wissenschaftliche Expertise auch auf der Suche nach Lösungen für die schwierigsten und komplexesten Krankheiten ein, wie etwa Alzheimer, die Progressive Supranukleäre Blickparese („PSP“), Parkinson, ALS, Schlaganfall, Epilepsie, kognitive Störungen in Verbindung mit Schizophrenie („CIAS“) und Schmerzen. Unsere innovativen Aktivitäten in der Entwicklung und Vermarktung werden durch unsere Biosimilar-Produkte ergänzt, die den Zugang zu Medikamenten verbessern und die Kosten, die auf den Gesundheitssystemen lasten, senken. Wir nutzen unsere Produktionsmöglichkeiten und unser Know-how, um über Samsung Bioepis Co., Ltd. („Samsung Bioepis“), unserem Gemeinschaftsunternehmen mit der Samsung BioLogics Co., Ltd. („Samsung BioLogics“), Biosimilar-Produkte zu entwickeln, herzustellen und zu vermarkten. Im Rahmen unseres Handelsvertrages vermarkten und verkaufen wir in der Europäischen Union (EU) BENEPALI, ein etanerceptisches Biosimilar-Produkt mit Referenzierung zu ENBREL, FLIXABI, ein Infliximab-Biosimilar-Produkt mit Referenzierung zu REMICADE sowie IMRALDI, ein Adalimumab-Biosimilar-Produkt mit Referenzierung zu HUMIRA.

B.4a	**Wichtigste jüngste Trends mit Auswirkung auf den Emittenten und seine Branche**	Im Zeitraum vom 31. Dezember 2018 bis zum Datum dieses Prospekts hingen die Umsätze von Biogen vom weiteren Verkauf ihrer Hauptprodukte sowie von ihren finanziellen Rechten an ihren Anti-CD20-Therapieprogrammen ab und führen dabei einen Trend fort, der auch frühere Perioden gekennzeichnet hat. Wenn wir keine neuen Produkte und Technologien entwickeln, Rechte daran erwerben und/oder diese vermarkten, sind wir für viele Jahre wesentlich vom Verkauf unserer Hauptprodukte sowie von unseren finanziellen Rechten an unseren Anti-CD20-Therapieprogrammen abhängig. Längerfristig betrachtet hängt unser Umsatzwachstum ab von der erfolgreichen klinischen Entwicklung, der Zulassung und der Einführung neuer vermarktbarer Produkte sowie zusätzlichen Indikationen für unsere bestehenden Produkte, der Fähigkeit der Gesellschaft, Patente und andere mit unseren vermarkteten Produkten verbundenen Rechte sowie durch unsere Forschungs- und Entwicklungsarbeiten entstandene Vermögenswerte zu erlangen und aufrechtzuerhalten und/oder von der erfolgreichen Durchführung von unternehmensexternen geschäftlichen Entwicklungsmöglichkeiten.
B.5	**Beschreibung der Gruppe und Stellung des Emittenten innerhalb der Gruppe**	Entfällt, da bezüglich der Organisationsstruktur von Biogen keine Informationen in diesem Prospekt enthalten sein müssen.
B.6	**Darstellung der Beteiligungen am Kapital der Gesellschaft**	Entfällt, da bezüglich der Beteiligungen am Kapital von Biogen keine Informationen in diesem Prospekt enthalten sein müssen.
B.7	**Ausgewählte Finanzinformationen bezüglich des Emittenten und erhebliche nachfolgende Veränderungen**	Die ausgewählten Daten aus den Konzern-Gewinn- und Verlustrechnungen für die zum 31. Dezember 2018, 2017 und 2016 endenden Geschäftsjahre sind dem geprüften Konzernabschluss der Gesellschaft, wie dieser in dem Geschäftsbericht (*Annual Report*) auf Formblatt 10-K für das am 31 Dezember 2018 beendete Geschäftsjahr veröffentlicht wurde, entnommen (das "**2018 10-K**"). Die ausgewählten Konzernbilanzdaten zum 31. Dezember 2018 und 2017 sind dem geprüften Konzernabschluss der Gesellschaft, wie er in dem 2018 10-K veröffentlicht wurde, entnommen und die ausgewählten Konzernbilanzdaten zum 31. Dezember 2016 sind dem geprüften Konzernabschluss der Gesellschaft, wie dieser in dem Geschäftsbericht (*Annual Report*) auf Formblatt 10-K für das am 31 Dezember 2017 beendete Geschäftsjahr veröffentlicht wurde, entnommen (das "**2017 10-K**"). Die geprüften Konzernabschlüsse der Gesellschaft wurden im Einklang mit den in den Vereinigten Staatenallgemein anerkannten Grundsätzen ordnungsgemäßer Buchführung erstellt. Zum 21. März 2019 lag der Wechselkurs von US-Dollar zu Euro bei USD 1,0000 = EUR 0,8791 (Quelle: Bloomberg). Diese Wechselkursinformationen dienen lediglich der Veranschaulichung. Wir geben keine Zusicherung dahingehend ab, dass ein in den nachstehenden Tabellen aufgeführter US-Dollar-Betrag zu diesem Wechselkurs oder einem anderen Wechselkurs in Euro umgerechnet wurde oder werden könnte. **Daten aus der Konzern-Gewinn- und Verlustrechnung**

	Für die zum 31. Dezember endenden Geschäftsjahre		
(in Millionen USD, außer für Werte, die „pro Aktie“ angegeben werden)	**2018**	**2017**	**2016**
Betriebsergebnisse[(1)]			
Erlöse:			
Verkaufserlöse, netto	$ 10.886,8	$ 10.354,7	$ 9.817,9
Erlöse aus Anti-CD20 Therapien	1.980,2	1.559,2	1.314,5
Andere Erlöse	585,9	360,0	316,4
Gesamterlöse	13.452,9	12,273.9	11.448,8
Kosten und Aufwendungen:			
Herstellungskosten, ohne Abschreibungen auf erworbenes immaterielles Vermögen	1.816,3	1.630,0	1.478,7

Forschung und Entwicklung	2.597,2	2.253,6	1.973,3
Vertriebs-, Verwaltungs- und allgemeine Kosten	2.106,3	1.933,9	1.946,6
Abschreibungen (*amortization and impairment*) auf erworbenes immaterielles Vermögen	747,3	814,7	385,6
Gewinnbeteiligung (Verlust) aus Kooperation	185,0	112,3	10,2
Erwerb laufender Forschung und Entwicklung	122,5	120,0	—
Restrukturierungskosten	12,0	0,9	33,1
(Gewinn) Verlust bei der Neubewertung von Eventualaufwendungen	(12,3)	62,7	14,8
Kosten für Beilegung Rechtsstreit TECFIDERA	—	—	454,8
Gesamtbetrag der Kosten und Aufwendungen	7.564,3	6.928,1	6.297,1
Betriebsgewinn	5.888,6	5.345,8	5.151,7
Andere Einnahmen (Aufwendungen), netto	11,0	(217,0)	(218,7)
Einnahmen vor Einkommenssteueraufwand und Anteil an Fehlbetrag einer Beteiligung vor Steuern	5.899,6	5.128,8	4.933,0
Aufwand Einkommenssteuer	1.425,6	2.458,7	1.237,3
Anteil an Fehlbetrag einer Beteiligung nach Steuern	—	—	—
Nettoeinnahmen	4.474,0	2.670,1	3.695,7
Nettoeinnahmen (Nettoverluste), die auf Minderheitsbeteiligungen entfallen, nach Steuern	43,3	131,0	(7,1)
Auf Biogen Inc. entfallende Nettoeinnahmen	4.430,7	$ 2.539,1	$ 3.702,8
Nettoeinnahmen pro Aktie (USD):			
Auf Biogen Inc. entfallendes unverwässertes Ergebnis pro Aktie	$ 21,63	$ 11,94	$ 16,96
Auf Biogen Inc. entfallendes verwässertes Ergebnis pro Aktie	$ 21,58	$ 11,92	$ 16,93
Gewichtete Durchschnittszahl der bei der Berechnung berücksichtigte Aktien (in Millionen)			
Auf Biogen Inc. entfallendes unverwässertes Ergebnis pro Aktie	204,9	212,6	218,4
Auf Biogen Inc. entfallendes verwässertes Ergebnis pro Aktie	205,3	213,0	218,8

(1) Am 1. Februar 2017 schlossen wir die Abspaltung unseres Hämophilie-Geschäfts, der Bioverativ Inc. („Bioverativ"), als unabhängige, börsennotierte Gesellschaft ab. Unsere Konzern-Gewinn- und Verlustrechnung berücksichtigt die Finanzergebnisse unseres Hämophilie-Geschäfts bis 31. Januar 2017.

Konzernbilanzdaten[(1)]

	Zum 31. Dezember		
(in Millionen USD)	**2018**	**2017**	**2016**
Vermögenswerte			
Umlaufvermögen:			
Zahlungsmittel und Zahlungsmitteläquivalente	$ 1.224,6	$ 1.573,8	$ 2.326,5
Börsenfähige Wertpapiere	2.313,4	2.115,2	2.568,6
Forderungen aus Lieferungen und Leistungen, netto	1.958,5	1.787,0	1.441,6
Fällig aus Anti-CD20 Therapien	526,9	532,6	300,6
Bestände	929,9	902,7	1.001,6
Sonstiges Umlaufvermögen	687,6	962,0	1.093,3
Umlaufvermögen, gesamt	7.640,9	7.873,3	8.732,2
Börsenfähige Wertpapiere	1.375,9	3.057,3	2.829,4
Sachanlagen, netto	3.601,2	3.182,4	2.501,8
Immaterielle Vermögenswerte, netto	3.120,0	3.879,6	3.808,3
Geschäftswert	5.706,4	4.632,5	3.669,3
Latente Steueransprüche	2.153,9	595,9	—[(2)]
Investitionen und sonstige Vermögenswerte	1.690,6	431,6	1.335,8

Bilanzsumme	$ 25.288,9	$ 23.652,6	$ 22,876.8
Verbindlichkeiten und Eigenkapital			
Kurzfristige Verbindlichkeiten:			
Kurzfristiger Anteil der Verbindlichkeiten aus Schuldverschreibungen[(3)] und sonstige Finanzierungsvereinbarungen	$ —	$ 3,2	$ 4,7
Steuerschulden	63,5	68,2	231,9
Verbindlichkeiten aus Lieferungen und Leistungen	370,5	395,5	279,8
Aufgelaufende Aufwendungen und sonstige	2.861,2	2.901,3	2.903,5
Laufende Verbindlichkeiten, gesamt	3.295,2	3.368,2	3.419,9
Verbindlichkeiten aus Schuldverschreibungen und sonstige Finanzierungsvereinbarungen[(4)]	5.936,5	5.935,0	6.512,7
Latente Steuerverbindlichkeiten	1.636,2	122,6	93,1
Andere langfristige Verbindlichkeiten	1.389,4	1.628,7	722,5
Gesamtverbindlichkeiten	12.257,3	11.054,5	10.748,2
Eigenkapitalbeteiligung durch Aktien der Gesellschaft („Equity"):			
Vorzugsaktien, mit einem Nennwert von USD 0,001 pro Aktie	—	—	—
Stammaktien, mit einem Nennwert von USD 0,0005 pro Aktie	0,1	0,1	0,1
Zusätzlich eingezahltes Kapital	—	97,8	—
Kumulierter sonstiger Verlust	(240,4)	(318,4)	(319,9)
Gewinnrücklagen	16.257,0	15.810,4	15.071,6
Eigene Aktien, zu Anschaffungskosten; 23,8 Mio., 23,8 Mio. bzw. 22.6 Mio. Aktien	(2.977,1)	(2.977,1)	(2.611 ,7)
Gesamteigenkapital Biogen Inc.	13.039,6	12.612,8	12.140,1
Minderheitsbeteiligungen	(8,0)	(14,7)	(11,5)
Gesamteigenkapital	13.031,6	12.598,1	12.128,6
Verbindlichkeiten und Eigenkapital gesamt	$ 25.288,9	$ 23.652,6	$ 22.876,8

(1) Am 1. Februar 2017 schlossen wir die Abspaltung der Bioverativ als unabhängige, börsennotierte Gesellschaft ab. Unsere Konzernbilanzdaten berücksichtigen die Finanzergebnisse unseres Hämophilie-Geschäfts bis 31. Januar 2017.

(2) Im Oktober 2016 gab das US-amerikanische Rechnungslegungsgremium *Financial Accounting Standards Board* das *Accounting Standards Update* Nr. 2016-01, Income Taxes (Topic 740): Intra-entity Transfer of Assets Other Than Inventory. (*etwa Einkommensteuer (Punkt 740)- Einheitenübergreifende Übertragung von Vermögenswerten Sonstige als Inventar*), heraus. Diese neue Norm wurde für uns am 1. Januar 2018 wirksam. Nach Annahme der neuen Norm haben wir zusätzliche "Latente Steuerguthaben" von ca. USD 2.0 Mrd. verzeichnet. Als eine Folge, haben wir in der Konzernbilanz, die Bestandteil unseres auf Formular 10-K für das Jahr 2018 veröffentlichten Konzernabschlusses ist, „Latente Steuerguthaben" und „Investitionen und sonstige Vermögenswerte" als gesonderte Posten ausgewiesen. Wir haben die "Latenten Steuerguthaben" in unserer Konzernbilanz, die Bestandteil unseres Formular 10-K für das Jahr 2017 veröffentlichten Konzernabschlusses ist, unter „Investitionen und sonstige Vermögenswerte" verbucht.]

(3) Dieser Posten erscheint in der Konzernbilanz, die Bestandteil unseres auf Formular 10-K für das Jahr 2017 veröffentlichten Konzernabschlusses ist, als „Kurzfristiger Anteil der Verbindlichkeiten aus Schuldverschreibungen und sonstige Finanzierungsvereinbarungen".

(4) Dieser Posten erscheint in der Konzernbilanz, die Bestandteil unseres auf Formular 10-K für das Jahr 2017 veröffentlichten Konzernabschlusses ist, als „Verbindlichkeiten aus Schuldverschreibungen und sonstige Finanzierungsvereinbarungen".

Skyhawk Therapeutics, Inc.

Im Januar 2019 schlossen wir mit der Skyhawk Therapeutics, Inc. („Skyhawk") eine Vereinbarung über Kooperation und Forschungs- und Entwicklungsleistungen ab, in der sich die Parteien verpflichten, die Technologieplattform SkySTAR von Skyhawk wirksam mit dem Ziel der Entdeckung innovativer Behandlungsmöglichkeiten mit niedermolekularen Wirkstoffen für Patienten mit neurologischen Störungen, einschließlich MS und SMA, einzusetzen. Wir sind für die Entwicklung und mögliche Vermarktung der sich aus dieser Kooperation ergebenden Behandlungsmöglichkeiten verantwortlich.

Wir haben im Zusammenhang mit dieser Vereinbarung an Skyhawk eine Vorauszahlung in Höhe von USD 74,0 Mio. geleistet. Zudem könnten weitere Zahlungen an Skyhawk in Höhe von insgesamt ca. USD 2,0 Mrd. in Form von

		zusätzlichen Meilensteinzahlungen sowie möglichen Lizenzgebühren auf kommerzielle Nettoumsätze folgen. Im ersten Quartal 2019 werden wir im Zusammenhang mit dieser Kooperation voraussichtlich Forschungs- und Entwicklungskosten in Höhe von ca. USD 35,0 Mio. verbuchen. *Nightstar Therapeutics* Im März 2019 haben wir eine Vereinbarung zum Erwerb von Nightstar Therapeutics („NST“) geschlossen, einer im Vereinigten Königreich ansässigen Gesellschaft, die sich mit Gentherapien im klinischen Stadium, insbesondere mit Behandlungsmöglichkeiten von Adeno-assoziierten Viren bei erblich bedingten Erkrankungen der Netzhaut, befasst. Nach den Bedingungen des beabsichtigten Erwerbs wird Biogen für jede NST-Aktie USD 25,50 in bar zahlen. Der beabsichtigte Erwerb soll im Rahmen eines Sanierungsverfahrens (*scheme of arrangement*) nach Maßgabe von *Part 26* des *U.K Companies Act 2016*, das der Zustimmung eines Gerichts im Vereinigten Königreich bedarf, umgesetzt werden. Der beabsichtigte Erwerb wird vorbehaltlich der üblichen Vollzugsbedingungen, einschließlich der Genehmigung durch die NST-Aktionäre, einer entsprechenden Verfügung durch das Gericht im Vereinigten Königreich und des Erhalts der aufsichtsbehördlichen Freigaben, vollzogen. Biogen erwartet den Abschluss des Erwerbs für Mitte 2019. *FUJIFILM Corporation* Im März 2019 haben wir einen Anteilskaufvertrag geschlossen, nach dem die FUJIFILM Corporation („Fujifilm“) die Anteile von Biogen (Denmark) New Manufacturing ApS, einer Tochtergesellschaft von Biogen, die in Hillerød, Dänemark, Biogens Biopharmaka-Großserienanfertigung unterhält, für bis zu USD 890 Mio. in bar, vorbehaltlich minimaler Garantien zur Kaufverpflichtung und weiterer vertraglicher Bedingungen, erwirbt. Als Teil der beabsichtigten Transaktion werden wir Vereinbarungen über Herstellungsleistungen schließen, nach denen Fujifilm kommerzielle Produkte für Biogen, wie beispielsweise TYSABRI, sowie andere Fremdprodukte, herstellen wird. Der beabsichtigte Erwerb wird vorbehaltlich der üblichen Vollzugsbedingungen, einschließlich der üblichen Anträge und Freigaben nach Maßgabe des *Hart-Scott-Rodino Antitrust Improvements Act of 1976*, in der jeweils geltenden Fassung, in den USA, des dänischen Wettbewerbsgesetzes und des koreanischen Gesetzes zur Regulierung von Monopolen und für lauteren Wettbewerb, vollzogen. Biogen erwartet den Abschluss des Erwerbs für die zweite Jahreshälfte 2019. *Einstellung Programm* Im März 2019 haben wir und unser Kooperationspartner, die Eisai Co., Ltd., die Einstellung der globalen Phase-3-Studien (EMERGE und ENGAGE) zur Prüfung der Wirksamkeit und Sicherheit von Aducanumab bei Patienten mit schwach ausgeprägten kognitiven Störungen durch AD und schwach ausgeprägter AD-Demenz bekanntgeben. Mit Ausnahme der oben beschriebenen sind seit dem 31. Dezember 2018 keine wesentlichen Veränderungen in der Finanzlage oder der Handelsposition der Gesellschaft eingetreten.
B.8	**Pro Forma Finanzinformationen**	Entfällt, da keine historischen Finanzinformationen in diesem Prospekt enthalten sein müssen.
B.9	**Gewinnprognose**	Entfällt. Dieser Prospekt enthält keine Gewinnprognose.
B.10	**Beschränkungen im Bestätigungsvermerk zu den historischen Finanzinformationen**	Entfällt. Es gibt keine entsprechenden Beschränkungen im Bestätigungsvermerk.
B.11	**Erklärung zum**	Biogen geht davon aus, dass ihr Geschäftskapital (d. h., ihre Fähigkeit, auf Barmittel und andere verfügbare Liquiditätsquellen zuzugreifen) ihren derzeitigen Bedarf für

	Geschäftskapital	mindestens 12 Monate ab dem Datum dieses Prospekts deckt.

Abschnitt C – Wertpapiere		
C.1	**Beschreibung von Art und Gattung der angebotenen Wertpapiere, einschließlich der Wertpapieridentifikationsnummer**	Bei den im Rahmen des Mitarbeiteraktienkaufplans 2015 der Biogen Inc. (*Biogen Inc. Employee Stock Purchase Plan* (der „ESPP“)) angebotenen Aktien handelt es sich um Stammaktien von Biogen im Nennwert von jeweils USD 0,0005 pro Aktie. Die Stammaktien der Gesellschaft sind am Nasdaq Global Select Market („Nasdaq“) unter dem Kürzel „BIIB“ zum Handel zugelassen. Die US-Wertpapieridentifikationsnummer oder CUSIP Nummer der Aktien lautet 09062X103. Die internationale Wertpapieridentifikationsnummer (International Securities Identification Number oder ISIN) für die Gesellschaft lautet US09062X1037. Die deutsche Wertpapier-Kenn-Nummer lautet 789617.
C.2	**Währung der Wertpapieremission**	Die Wertpapiere werden in US-Dollar ausgegeben.
C.3	**Anzahl der ausgegebenen Aktien**	Zum 1. Februar 2019 waren 196.708.784 Stammaktien ausgegeben und im Umlauf. Die ausgegebenen Aktien sind voll eingezahlt.
C.4.	**Beschreibung der mit den Wertpapieren verbundenen Rechte**	Ein Teilnahmeberechtigter Mitarbeiter (Definition siehe unten in Abschnitt E.3) der am ESPP teilnimmt, hat so lange keine Stimm-, Dividenden- oder anderen Aktionärsrechte im Hinblick auf ein Angebot nach Maßgabe des ESPP, bis die Aktien im Rahmen des ESPP im Auftrag des Teilnehmers (Definition siehe unten in Abschnitt E.3) gekauft wurden und der Teilnehmer Aktionär der gekauften Aktien ist. Nach dem Kauf ist der am ESPP teilnehmende Teilnahmeberechtigte Mitarbeiter befugt, die mit den Aktien verbundenen Rechte wie nachfolgend beschrieben auszuüben: ***Dividendenrechte.*** Der Verwaltungsrat kann auf jeder ordentlichen oder außerordentlichen Sitzung eine Dividende aus den gesetzlich dazu zur Verfügung stehenden Mitteln beschließen. Der Verwaltungsrat bestimmt das Nachweisdatum (*Record Date*) und das Auszahlungsdatum für Dividendenzahlungen. Dividenden können als Bar- oder Sachdividende oder in Aktien der Gesellschaft ausbezahlt werden. Ein zum Stichtag für die Dividendenerklärung eingetragener Aktionär hat zu diesem Stichtag ein geltendes Anwartschaftsrecht auf die Dividende, darf aber bis zum Auszahlungsdatum nicht versuchen, dieses Recht durchzusetzen. Nicht innerhalb von drei Jahren durchgesetzte Ansprüche auf Dividendenzahlung fallen grundsätzlich dem Staat von Delaware zu. Bislang hat Biogen jedoch keine Bardividenden gezahlt und beabsichtigt dies gegenwärtig auch nicht. Für in der EU und im Europäischen Wirtschaftsraum wohnhafte Aktionäre bestehen keine Dividendenbeschränkungen und keine besonderen Verfahren. ***Stimmrechte.*** Stammaktionäre haben pro Aktie eine Stimme und können über alle die Aktionäre betreffenden Angelegenheiten abstimmen. Alle Maßnahmen, die von Aktionären vorgenommen werden müssen oder für die die Zustimmung der Aktionäre angefordert wird, können in der ordnungsgemäß einberufenen ordentlichen (jährlichen) Hauptversammlung, in einer ordnungsgemäß einberufenen außerordentlichen Hauptversammlung oder im schriftlichen Verfahren von den Aktionären vorgenommen werden. Außerordentliche Versammlungen der Aktionäre der Gesellschaft können aufgrund einer Einberufung durch den Verwaltungsratsvorsitzenden, den *Chief Executive Officer*, durch den Verwaltungsrat der Gesellschaft, oder in Übereinstimmung mit der Satzung (*bylaws*) der Gesellschaft durch Inhaber von mindesten 25% der Aktien der Gesellschaft abgehalten werden. ***Recht auf Liquidationserlöse.*** Im Fall der Liquidation, Auflösung oder Abwicklung der Gesellschaft, sind die Stammaktionäre berechtigt, nach Abzug aller Zahlungen auf

		Verbindlichkeiten oder Rückstellungen, vorbehaltlich vorrangiger Rechte oder Vorzugsaktien, soweit ausgegeben, anteilig an den Vermögensgegenständen der Gesellschaft beteiligt zu werden. ***Keine Bezugs-, Einziehungs-, Gewinnbeteiligungs- oder Wandlungsrechte.*** Die Stammaktionäre der Gesellschaft haben keine Bezugsrechte im Hinblick auf den Erwerb von Aktien der Gesellschaft oder von in Aktien der Gesellschaft wandelbaren Instrumenten. Die Stammaktien der Gesellschaft unterliegen nicht der Einziehung, gewähren kein Recht auf Beteiligung am Gewinn der Gesellschaft und keine Wandlungsrechte.
C.5	**Übertragbarkeit**	Das Angebot zum Bezug von Aktien im Rahmen des ESPP wurde in den Vereinigten Staaten per Registrierungserklärung auf Formblatt S-8 bei der *Securities and Exchange Commission* der Vereinigten Staaten von Amerika („SEC“) registriert. Die ausgegebenen und im Umlauf befindlichen Stammaktien sind grundsätzlich frei übertragbar. Der Zweck des ESPP ist es, Aktien als Investitionsobjekt auszugeben. Es ist jedoch nicht die Absicht der Gesellschaft, in die Angelegenheiten ihrer Mitarbeiter einzugreifen oder diese einzuschränken. Daher bleibt es den Teilnehmern überlassen, in Übereinstimmung mit den anwendbaren Wertpapiergesetzen, Richtlinien zum Insiderhandel sowie den anwendbaren Handelssperrzeiten und den Bestimmungen des ESPP Aktien, die im Rahmen des ESPP gekauft wurden, jederzeit wieder zu verkaufen. Der Teilnehmer trägt die Risiken von Marktschwankungen, die sich im Preis der Aktien abbilden können.
C.6	**Zulassung zum Handel an einem geregelten Markt**	Entfällt. Die Stammaktien der Gesellschaft sind am Nasdaq unter dem Kürzel „BIIB“ zum Handel zugelassen. Die Aktie wird am Nasdaq in US-Dollar gehandelt. In Deutschland werden die Aktien im Freiverkehr an den Börsen Frankfurt, Stuttgart, Berlin, Düsseldorf, Hamburg und München sowie auf Tradegate unter dem Kürzel „IDP“ gehandelt.
C.7	**Dividendenpolitik**	Seit Gründung von Biogen wurden keine Dividenden beschlossen oder gezahlt und die Gesellschaft hat derzeit auch nicht die Absicht, Dividenden zu beschließen oder zu zahlen.

Abschnitt D – Risiken		
Mitarbeiter sollten vor ihrer Anlageentscheidung die nachfolgend beschriebenen Risiken, die im Abschnitt „Risikofaktoren“ (*Risk Factors*) näher beschrieben sind, und die übrigen in diesem Prospekt enthaltenen Informationen sorgfältig lesen und bei ihrer Anlageentscheidung berücksichtigen. Der Eintritt dieser Risiken kann, einzeln oder zusammen mit anderen Umständen, die Geschäftstätigkeit und die Finanzlage der Gesellschaft wesentlich beeinträchtigen und dazu führen, dass der Börsenkurs der Aktien der Gesellschaft fällt. In diesem Fall könnten Mitarbeiter ihr eingesetztes Kapital ganz oder teilweise verlieren. Der Prospekt enthält alle Risiken, die die Gesellschaft für wesentlich erachtet. Allerdings könnten sich die nachfolgend aufgeführten Risiken rückwirkend betrachtet als nicht abschließend herausstellen und daher nicht die einzigen Risiken sein, denen die Gesellschaft ausgesetzt ist. Weitere Risiken könnten die Geschäftstätigkeit und die Finanzlage der Gesellschaft beeinträchtigen. Die gewählte Reihenfolge der Risikofaktoren enthält weder eine Aussage über die Eintrittswahrscheinlichkeit noch über das Ausmaß bzw. die Bedeutung der einzelnen Risiken.		
D.1	**Risiken im Hinblick auf Biogen oder ihr Branchenumfeld**	• Unser Erfolg hängt maßgeblich von den Erlösen ab, die wir mit unseren Hauptprodukten erzielen. • Der Absatz unserer Produkte ist zu einem wesentlichen Teil von ausreichender Versicherungsdeckung, den Preisfestlegungsverfahren sowie der Erstattung durch Dritte abhängig, die ihrerseits immer stärker hartem Druck seitens der Politik, der Gesellschaft, ihrer Wettbewerber und sonstiger Stellen ausgesetzt sind. Gelingt es uns nicht, ausreichende Versicherungsdeckung zu erhalten und aufrechtzuerhalten oder sinken die Preise bzw. die Erstattungen, könnte dies negative Auswirkungen auf unser Geschäft, unsere Reputation, unsere Umsätze und unser Betriebsergebnis haben oder dazu führen, dass unser Aktienkurs an der Börse an Wert verliert oder schwankt.

		• Gelingt es uns nicht, einen angemessenen Schutz für unsere Rechte an Informationen, Geistigem Eigentum und sonstigen Eigentumsrechte zu erwirken und aufrechtzuerhalten, könnte unser Geschäft Schaden nehmen. • Unser langfristiger Erfolg hängt von der erfolgreichen Entwicklung neuer Produkte und zusätzlicher Indikationen für bestehende Produkte ab. • Gelingt es uns nicht, uns im Markt gegen Wettbewerber durchzusetzen, werden unsere Geschäftstätigkeit und Marktposition in Mitleidenschaft gezogen. • Wenn es uns nicht gelingt, unsere Wachstumsinitiativen erfolgreich durchzuführen, könnte sich dies nachteilig auf unser Geschäft auswirken. • Durch einen Ausfall oder einer Sicherheitsverletzung unserer Technologiesysteme könnten wir Haftungsansprüchen ausgesetzt oder gezwungen sein, unseren Geschäftsbetrieb zu unterbrechen. • Erfolgreiche präklinische Arbeiten bzw. erste klinische Studien sind kein Garant für den Erfolg einer klinischen Studie in späteren Phasen oder die behördliche Zulassung bzw. kommerzielle Rentabilität eines Produkts. • Bei klinischen Studien und der Entwicklung biopharmazeutischer Produkte handelt es sich um langwierige und komplizierte Verfahren. Gelingt es uns nicht, unsere klinischen Aktivitäten angemessen zu steuern, könnten unsere klinischen Studien verzögert bzw. ggf. erforderliche aufsichtsbehördliche Zulassungen verweigert werden. • Unerwünschte sicherheitsrelevante Ereignisse, Auflagen im Hinblick auf Verwendung sowie Sicherheitswarnungen in Bezug auf unsere Produkte können negative Auswirkungen auf unser Geschäft, unseren Absatz und unseren Aktienkurs haben. • Wir sind im Rahmen der Erzielung von Erlösen und bei der Entwicklung, der behördlichen Zulassung, der Markteinführung und der Vermarktung bestimmter Produkte und Produktkandidaten der Gesellschaft auf Geschäftsbeziehungen mit Partnern und anderen Dritten angewiesen, die wir nicht vollständig kontrollieren können. • Aktuelle oder mögliche zukünftige Gesundheitsreformen könnten sich nachteilig auf unser Betriebsergebnis auswirken. • Wenn es uns nicht gelingt, die für die Gesundheitsbranche geltenden umfangreichen aufsichtsrechtlichen Anforderungen zu erfüllen, könnten uns zusätzliche Kosten entstehen. Es könnte ferner zur Zahlung von Bußgeldern und zu Geschäftsausfällen kommen. • Unsere Umsätze und unser Geschäftsbetrieb unterliegen den mit einer internationalen Geschäftstätigkeit einhergehenden Risiken. • Veränderungen in der Geschäftsleitung oder bei Schlüsselmitarbeitern könnten unserem Betriebsablauf schaden und wir könnten Schwierigkeiten haben, Schlüsselmitarbeiter an uns zu binden bzw. rechtzeitig qualifizierten Ersatz für Mitglieder der Geschäftsleitung und sonstige Schlüsselmitarbeiter, die die Gesellschaft verlassen, zu gewinnen und an uns zu binden. • Wir erweitern unsere Produktionskapazität für den zukünftigen klinischen und kommerziellen Bedarf von Produktkandidaten, was zu erheblichen Investitionen führen wird, ohne dass garantiert ist, dass die Investitionen sich amortisieren. • Bei der Herstellung auftretende Probleme könnten unsere Aufwendungen beträchtlich erhöhen und dazu führen, dass unsere Produkte nur eingeschränkt zur Verfügung stehen und unsere Umsatzerlöse zurückgehen. • Unser Erfolg bei der Vermarktung von Biosimilar-Produkten, die von Samsung Bioepis entwickelt werden, unterliegt Risiken und Unsicherheiten, die der Entwicklung, Herstellung und Vermarktung von Biosimilar-Produkten inhärent sind. Wenn Samsung Bioepis bei der Entwicklung, Herstellung und Vermarktung von Biosimilar-Produkten nicht erfolgreich ist, sind wir möglicherweise nicht in der

		Lage, die erwarteten Vorteile aus unserer Investition in Samsung Bioepis zu realisieren. • Unsere operativen Ergebnisse unterliegen erheblichen Schwankungen. • Unser effektiver Steuersatz schwankt und es könnten für uns Steuerverbindlichkeiten anfallen, die über die gebildeten Steuerrückstellungen hinausgehen. • Unsere Investitionen in Immobilien könnten sich nicht auszahlen. • Wir halten ein Portfolio von marktgängigen Wertpapieren, und dessen Wert unterliegt Markt-, Zins- und Kreditrisiken, die seinen Wert verringern könnten. • Wir könnten nicht in der Lage sein, Zugang zu den Kapital- und Kreditmärkten zu für uns günstigen Bedingungen zu erhalten. • Unser Verschuldungsgrad könnte sich nachteilig auf unser Geschäft auswirken und unsere Möglichkeiten einschränken, Änderungen in unserer Geschäftstätigkeit zu planen oder auf entsprechende Änderungen zu reagieren. • Unser Geschäftsbetrieb beinhaltet das Risiko, dass es zu Umweltverschmutzungen kommt oder dass Personen Schaden nehmen. Dies beinhaltet auch die Kosten für Einhaltung von Umweltschutzvorschriften. • Der illegale Vertrieb und Verkauf gefälschter bzw. wirkungsloser oder gestohlener Biogen-Produkte durch Dritte könnte sich auf unseren Ruf und unser Geschäft nachteilig auswirken. • Die zunehmende Nutzung sozialer Medienplattformen (*social media*) birgt neue Risiken und Herausforderungen. • Wir könnten aufgrund der Abspaltung unseres Hämopilie-Geschäfts Ansprüchen und Haftung ausgesetzt sein.
D.3	**Wertpapierbezogene Risiken**	• Wir können nicht zusichern, dass wir weiterhin Geschäftsanteile zurückkaufen werden oder dass wir Geschäftsanteile zu günstigen Preisen zurückkaufen werden. • Bestimmungen zum Kontrollwechsel in einigen unserer Kooperationsverträge könnten Dritte von dem Versuch einer Übernahme der Gesellschaft abhalten.

Abschnitt E – Das Angebot		
E.1	**Nettoemissionserlöse und geschätzte Gesamtkosten der Emission**	Am 21. März 2019 betrug der Schlusskurs der Stammaktie der Gesellschaft, der an der Nasdaq quotiert wurde, USD 226,88. Zum 31. Dezember 2018 hatten wir weltweit ca. 7.800 Mitarbeiter. Unter der Annahme, dass jeder teilnahmeberechtigte Mitarbeiter 110,19 Aktien kauft, würde die maximale jährliche Anzahl an Aktien, die im Rahmen des ESPP in den 12 Monaten nach dem Datum des Prospekts zu einem angenommenen Kaufpreis von USD 192,85, also 85 % des Marktwert der Stammaktien am 21. März 2019, angeboten würde, zu Bruttoerträgen der Gesellschaft in Höhe von ca. USD 165.750.00 führen. Die Kosten dieses Angebots bestehen aus Rechtsberatungskosten in Höhe von ungefähr USD 50.000. Nach Abzug dieser Kosten würde der Nettoemissionserlös auf Basis der vorstehenden Annahmen etwa USD 165.700.000 betragen.
E.2a	**Gründe für das Angebot und Verwendung des Emissionserlöses**	Zweck des ESPP ist es, Teilnahmeberechtigten Mitarbeitern die Möglichkeit zu bieten, im Wege von Gehaltseinbehalten Stammaktien der Gesellschaft zu einem ermäßigten Bezugspreis zu erwerben. Die Gesellschaft kann die Erlöse aus der Ausgabe und Ausübung von Erwerbsrechten (Definition siehe unten in Abschnitt E.3) im Rahmen des ESPP für alle Geschäftszwecke nutzen.
E.3	**Beschreibung der Angebotsbedin-**	Gegenstand dieses Prospekts sind die Angebote von Stammaktien der Biogen im Rahmen des ESPP. Der ESSP sieht die Gewährung von Erwerbsrechten für teilnahmeberechtigte Mitarbeiter der Gesellschaft oder ihrer Tochtergesellschaften vor, die

	gungen	die Teilnehmer am ESPP zum Erwerb von Stammaktien der Gesellschaft zu einem festgelegten Kaufpreis berechtigen. Mit Ausnahme des ESPP lösen die aktienbasierten Vergütungspläne der Gesellschaft keine Pflicht zur Veröffentlichung eines Prospektes gemäß der EU-Prospektrichtlinie aus. Daher sind weder die entsprechenden Prämien, noch die zugrunde liegenden Aktien Gegenstand dieses Prospektes. Diese Prämien werden in diesem Prospekt nicht behandelt. ***Angebotene Aktien.*** Bei den im Rahmen des ESPP angebotenen Aktien handelt es sich um Stammaktien der Gesellschaft im Nennwert von jeweils USD 0,0005 pro Aktie. Insgesamt stehen im Rahmen des ESPP 5.733.528 Aktien zum Erwerb zur Verfügung. ***Verwaltung des ESPP.*** Der ESPP wird vom Vergütungs- und Managemententwicklungsausschuss (*Compensation and Management Development Committee;* „Vergütungsausschuss") des Verwaltungsrats (der „Planverwalter"), verwaltet. ***Teilnahmeberechtigte Mitarbeiter.*** Jeder Mitarbeiter von Biogen oder einer ihrer ausgewählten Tochtergesellschaften, der (i) regulär mehr als 5 Monate pro Kalenderjahr beschäftigt ist, (ii) regulär mindestens 20 Wochenstunden arbeitet, und (iii) die Bedingungen des ESPP erfüllt, insbesondere die Registrierungsunterlagen (einschließlich des Formulars zur Ermächtigung von Gehaltseinbehalten) rechtzeitig ausfüllt und einreicht, ist zur Teilnahme am ESPP berechtigt („Teilnahmeberechtigter Mitarbeiter"). Der Planverwalter kann zusätzliche Teilnahmevoraussetzungen für Angebotszeiträume festlegen, die noch nicht begonnen haben. ***Angebotszeitraum.*** Die Stammaktien der Gesellschaft werden im Rahmen des ESPP durch eine Reihe von aufeinander folgenden dreimonatigen Angebotszeiträumen (jeweils ein *offering periods*) zum Erwerb angeboten, die jeweils am ersten Geschäftstag eines Kalenderquartals beginnen und am letzten Geschäftstag eines Kalenderquartals enden (jeweils ein „Angebotszeitraum"), es sei denn der Planverwalter legt etwas anderes fest. Nach Billigung dieses Prospekts durch die Bundesanstalt für Finanzdienstleistungsaufsicht („BaFin") wird dieser Prospekt den laufenden Angebotszeitraum, den Angebotszeitraum vom 1. April 2019 bis zum 30. Juni 2019 und teilweise den Angebotszeitraum vom 1. Juli 2019 bis zum 30. September 2019 abdecken. ***Erwerbsrechte und Kaufpreis.*** Am ersten Tag eines Angebotszeitraums erhält jeder teilnehmende Teilnahmeberechtigte Mitarbeiter (ein „Teilnehmer") automatisch das Recht, am letzten Geschäftstag des betreffenden Angebotszeitraums (jeweils ein „Kauftag") Stammaktien zu erwerben („Erwerbsrecht"). Ein Mitarbeiter erhält jedoch kein Erwerbsrecht im Rahmen des ESPP, wenn dieser unmittelbar nach Gewährung des Erwerbsrechts im Besitz von Aktien wäre, die dann 5 % oder mehr der gesamten Stimmrechte oder des gesamten Wertes aller Aktiengattungen der Gesellschaft bzw. einer ihrer Tochtergesellschaften entsprechen (oder gemäß anwendbarem Recht entsprechend gestellt würde). Der Kaufpreis von Stammaktien, die bei der Ausübung eines Erwerbsrechts am Kauftag des betreffenden Angebotszeitraums ausgegeben werden, beträgt fünfundachtzig Prozent (85 %) des jeweils niedrigeren der folgenden Beträge: (a) des Marktwerts einer Stammaktie am ersten Geschäftstag des Angebotszeitraums oder (b) des Marktwerts einer Stammaktie am Kauftag (der „Kaufpreis"). Der „Marktwert" entspricht dem am jeweiligen Tag am Nasdaq notierten Schlusskurs der Biogen-Stammaktien. Handelt es sich bei diesem Tag nicht um einen Handelstag, gilt als Marktwert der notierte Schlusskurs am Handelstag unmittelbar vor diesem Tag. ***Ausübung des Erwerbsrechts.*** Jedes Erwerbsrecht wird automatisch am Kauftag ausgeübt. Für jeden Teilnehmer werden dann am jeweiligen Kauftag entsprechend Stammaktien der Gesellschaft gekauft. Die Kauftage während der Gültigkeit des Prospekts sind der 31. März 2019, der 30. Juni 2019, der 30. September 2019 und der 31. Dezember 2019. ***Kaufpreiszahlung – Gehaltseinbehalte.*** In der Regel wird der Kaufpreis durch automatisch vom Gehalt des Teilnehmers einbehaltene Beträge gezahlt und zum Erwerb

		von Stammaktien der Gesellschaft am Ende eines jeden Angebotszeitraumes verwendet. Der Teilnehmer ermächtigt die Gesellschaft zu Gehaltseinbehalten in Höhe von maximal zehn Prozent(10%) des versteuerten Einkommens pro Zahlungszeitraum in ein Prozent (1%) Schritten. Das versteuerte Einkommen umfasst das reguläre Grundgehalt, Überstunden, Schichtzulagen, jährliche Boni, Provisionen und sonstige Verkaufsanreize. Die von einem Teilnehmer erteilte Ermächtigung zur Durchführung von Gehaltseinbehalten bleibt so lange für die darauffolgenden Angebotszeiträume in Kraft, bis der Teilnehmer nicht mehr am ESPP teilnimmt oder seine Ermächtigung zurücknimmt bzw. ein neues Formular mit der Ermächtigung zur Durchführung geänderter Gehaltseinbehalte übermittelt. Ein Teilnehmer kann im Laufe eines Angebotszeitraums den Betrag des von ihm gestatteten Gehaltseinbehalts einmalig verringern, jedoch nicht erhöhen. Soweit ein Teilnehmer im Laufe eines Angebotszeitraums den von ihm gestatteten Gehaltseinbehalt auf null Prozent (0 %) reduziert, werden die zuvor während dieses Angebotszeitraums aufgelaufenen Gehaltseinbehalte am Kauftag des betreffenden Angebotszeitraums zum Kauf von Stammaktien eingesetzt. Daraufhin endet die Teilnahme des Teilnehmers am ESPP. Beträge, die vom Gehalt einbehalten, jedoch nicht zum Erwerb von Stammaktien verwendet wurden, sei es, weil der Teilnehmer von seiner Teilnahme an einem Angebotszeitraum zurückgetreten ist oder aus sonstigen Gründen, werden dem Teilnehmer so schnell wie verwaltungstechnisch nach einem solchen Rücktritt bzw. Ereignis möglich, zinslos erstattet. Der Teilnehmer kann sein persönliches Konto bzw. eine detaillierte Aufstellung seiner bisherigen Käufe einsehen, indem er sich mit Fidelity Investments („Fidelity"), dem von Biogen bestimmten Dienstleistungsanbieter für die Aktienpläne unter +1 800-544-9354 bzw. online über www.netbenefits.fidelity.com in Verbindung setzt. ***Kaufobergrenzen.*** Pro Kalenderjahr kann ein Teilnehmer im Rahmen des ESPP Stammaktien der Gesellschaft im Marktwert von bis zu – jedoch nicht mehr als – USD 25.000 kaufen. Zusätzlich zu der Obergrenze von USD 25.000 pro Kalenderjahr darf ein Teilnehmer an einem Kauftag nicht mehr als 2.500 Aktien kaufen. ***Lieferung.*** Jedes Erwerbsrecht wird automatisch am Kauftag ausgeübt. Der Kauf erfolgt durch Verwendung des Betrags, der vom Gehalt des Teilnehmers für den an diesem Kauftag endenden Angebotszeitraum einbehalten wurde, zum Kauf von Stammaktien der Gesellschaft. Die Lieferung der gekauften Aktien erfolgt so bald wie möglich, regelmäßig innerhalb von sieben (7) bis zehn (10) Tagen, nach dem jeweiligen Kauftag. An innerhalb oder außerhalb der USA ansässige Mitarbeiter aufgrund der Ausübung von Erwerbsrechten auszugebende Aktien werden auf einem dafür vorgesehenen, bei Fidelity für den Teilnehmer geführten Brokerkonto hinterlegt und auf Fidelity registriert, es sei denn dies wird vom Planverwalter anderweitig festgelegt. ***Beendigung der Teilnahme.*** Der Teilnehmer kann seine Teilnahme am ESPP durch Übermittlung einer entsprechenden Erklärung an den Planverwalter unter Einhaltung der hierfür von dem Planverwalter festgelegten Verfahren sowie in einer für diesen akzeptablen Form, widerrufen. Damit diese Widerrufserklärung im Hinblick auf den nachfolgenden Kauftag wirksam ist, muss sie spätestens fünf (5) Tage vor diesem Kauftag (oder einem anderen, von dem Planverwalter vorgegebenen Datum) übermittelt werden. Im Falle der Beendigung werden die aufgelaufenen, vom Gehalt des Teilnehmers einbehaltenen Beträge so schnell wie verwaltungstechnisch möglich, zinslos an diesen erstattet. Soweit ein Teilnehmer den Prozentsatz des in Zukunft von seinem Gehalt einzubehaltenden Betrags auf null Prozent (0 %) absenkt, gilt dies als Beendigung der Teilnahme an zukünftigen Angebotszeiträumen. ***Beendigung der Teilnahmeberechtigung.*** Bei Beendigung des Beschäftigungsverhältnisses des Teilnehmers während eines Angebotszeitraums gleich aus welchem Grund (einschließlich Tod) oder wenn dieser nicht mehr zum Kreis der Teilnahmeberechtigten Mitarbeiter zählt, hört er auf, ein Teilnehmer zu sein, werden alle Erwerbsrechte storniert, werden die aufgelaufenen Gehaltseinbehalte so schnell wie dann

		verwaltungstechnisch möglich an den Teilnehmer (oder im Falle seines Todes an seinen Nachlass oder an den von ihm Begünstigten) zinslos erstattet und stehen dem Teilnehmer im Rahmen des Plans keine weiteren Rechte zu. ***Laufzeit, Beendigung und Änderung.*** Der Verwaltungsrat der Gesellschaft kann den ESPP jederzeit aussetzen oder beenden. Der Verwaltungsrat kann den ESPP jederzeit in dem Umfang und in der Weise ändern, wie er es für angebracht hält. ***Übertragbarkeit von Erwerbsrechten.*** Im Rahmen des ESPP gewährte Erwerbsrechte können von den Teilnehmern weder abgetreten noch übertragen werden, ausgenommen durch Testament oder im Wege der gesetzlichen Erbfolge oder durch Nachlassverteilung nach dem Tod des Teilnehmers; zu Lebzeiten des Teilnehmers kann nur der Teilnehmer selbst das Erwerbsrecht ausüben. ***Registrierung.*** Die Teilnahme am ESPP erfolgt auf freiwilliger Basis. Jeder Teilnahmeberechtigte Mitarbeiter muss sich für die Teilnahme registrieren. Die Teilnahmeberechtigten Mitarbeiter werden vor jedem Angebotszeitraum intern, durch entsprechende Mitteilungen im Intranet der Gesellschaft, über die Registrierungsfristen informiert. ***Provision.*** Beim Verkauf von Aktien, die nach Ausübung eines Erwerbsrechts erworben wurden, wird von Fidelity und der SEC eine Provision berechnet.
E.4	**Beschreibung aller für das Angebot wesentlichen Interessen, einschließlich von Interessenskonflikten**	Entfällt. Es gibt keine derartigen Interessen.
E.5	**Name des Unternehmens, das die Wertpapiere zum Verkauf anbietet**	Biogen Inc.
E.6	**Maximale Verwässerung**	Der Buchwert des Eigenkapitals der Gesellschaft (definiert als gesamtes Vermögen minus gesamte Verbindlichkeiten) gemäß den zusammengefassten Konzernabschlüssen betrug zum 31. Dezember 2018 etwa USD 13.039.600.000. Dies entspricht ungefähr USD 66,29 pro Aktie (errechnet auf Basis von 196.708.784 im Umlauf befindlichen Aktien per 1. Februar 2019). Wenn die Gesellschaft einen Nettoemissionserlös in Höhe von USD 165.700.000 zum Datum dieses Prospekts erhalten hätte, hätte der Buchwert des Eigenkapitals zu diesem Zeitpunkt ungefähr USD 13.205.300.000 oder USD 66,84 pro Aktie, betragen (auf Basis der erhöhten Anzahl von 197.568.260 ausgegebenen Aktien nach dem Kauf von 859.476,28 Aktien und eines angenommenen Kaufpreises von USD 192,85, was 85 Prozent des Marktpreises der Aktien am 21. März 2019 entspricht). Auf Basis der oben beschriebenen Annahmen würde die Durchführung des Angebots daher zu einer unmittelbaren Erhöhung des Buchwertes des Eigenkapitals pro Aktie auf USD 66,84 führen und der Buchwert der Aktien bestehender Aktionäre würde sich um USD 0,55 pro Aktie oder etwa 0,83 % erhöhen. Teilnahmeberechtigte Mitarbeiter, die Aktien zum Kaufpreis von USD 192,85 erwerben, unterliegen einer Verwässerung von USD 126,01 pro Aktie oder etwa 65,34%.
E.7	**Schätzung der dem Anleger vom Emittenten in Rechnung gestellten Ausgaben**	Entfällt. Es gibt keine derartigen Ausgaben.

PROSPECTUS SUMMARY

Note to the reader

Summaries are made up of disclosure requirements known as "Elements." These elements are numbered in Sections A – E (A.1 – E.7).

This summary contains all the Elements required to be included in a summary for this type of securities and issuer. Because some Elements are not required to be addressed, there may be gaps in the numbering sequence of the Elements.

Even though an Element may be required to be inserted in the summary because of the type of securities and issuer, it is possible that no relevant information can be given regarding the Element. In this case a short description of the Element is included in the summary with the mention of "not applicable" together with a short explanatory statement.

Section A – Introduction and Warnings		
A.1	**Introduction and warnings**	This summary should be read as an introduction to the prospectus. Any decision to invest in the securities should be based on consideration of the prospectus as a whole by the investor. Where a claim relating to the information contained in the prospectus is brought before a court, the plaintiff investor might, under the national legislation of the member states of the European Economic Area, have to bear the costs of translating the prospectus before the legal proceedings are initiated. Civil liability attaches to those persons who have assumed responsibility for the contents of the summary or presented the summary including any translation thereof, but only if the summary is misleading, inaccurate or inconsistent when read together with the other parts of the prospectus or it does not provide, when read together with the other parts of the prospectus, the required key information.
A.2	**Use of the prospectus for subsequent resale or final placement of securities by financial intermediaries.**	Not applicable. The issuer has not consented to the use of the prospectus for subsequent resale or final placement of securities.

Section B – Issuer		
B.1	**Legal and commercial name of the Issuer**	The legal and commercial name of the issuer is Biogen Inc. References in this summary to "Biogen" or the "Company", as well as "we," "us," and "our," shall mean Biogen Inc. and its consolidated subsidiaries, unless the context indicates otherwise.
B.2	**Domicile and legal form of the Issuer, the legislation under which the Issuer operates and its country of incorporation**	Biogen is a corporation. Biogen's principal offices are located at 225 Binney Street, Cambridge, Massachusetts 02142, United States. The Company was formed as a California corporation in 1985 and became a Delaware corporation in 1997. In 2003, the Company acquired Biogen, Inc. and changed its corporate name from IDEC Pharmaceuticals Corporation to Biogen Idec Inc. Effective March 23, 2015, the Company changed its name from Biogen Idec Inc. to Biogen Inc.
B.3	**Description of the nature of the Issuer's current operations and its principal activities and identification of the principal markets in which the Issuer competes**	Biogen is a global biopharmaceutical company focused on discovering, developing and delivering worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases, including in our core growth areas of multiple sclerosis ("MS") and neuroimmunology, Alzheimer's disease ("AD") and dementia, movement disorders, including Parkinson's disease, and neuromuscular disorders, including spinal muscular atrophy ("SMA") and amyotrophic lateral sclerosis ("ALS"). We are also focused on discovering, developing and delivering worldwide innovative therapies in our emerging growth areas of acute neurology, neurocognitive disorders, pain and ophthalmology. In addition, we are employing innovative technologies to discover potential treatments for rare and genetic disorders, including new ways of treating diseases through gene therapy in our core and emerging growth areas. We also manufacture and commercialize biosimilars of

		advanced biologics. Our marketed products include TECFIDERA, AVONEX, PLEGRIDY, TYSABRI and FAMPYRA for the treatment of MS, SPINRAZA for the treatment of SMA and FUMADERM for the treatment of severe plaque psoriasis. We also have certain business and financial rights with respect to RITUXAN for the treatment of non-Hodgkin's lymphoma, chronic lymphocytic leukemia ("CLL") and other conditions, RITUXAN HYCELA for the treatment of non-Hodgkin's lymphoma and CLL, GAZYVA for the treatment of CLL and follicular lymphoma, OCREVUS for the treatment of primary progressive MS ("PPMS") and relapsing MS ("RMS") and other potential anti-CD20 therapies pursuant to our collaboration arrangements with Genentech, Inc. ("Genentech"), a wholly-owned member of the Roche Group. CD20 is an integral membrane protein expressed on the surface of B cells, a type of white blood cell that is part of the immune system. Anti-CD20 therapies cause B cell depletion and are used to treat certain cancers and autoimmune diseases. We support our drug discovery and development efforts through the commitment of significant resources to discovery, research and development programs and business development opportunities. For over two decades we have led in the research and development of new therapies to treat MS, resulting in our leading portfolio of MS treatments. Now our research is focused on additional improvements in the treatment of MS, such as the development of next generation therapies for MS, with a goal to reverse or possibly repair damage caused by the disease. We are also applying our scientific expertise to solve some of the most challenging and complex diseases, including AD, progressive supranuclear palsy ("PSP"), Parkinson's disease, ALS, stroke, epilepsy, cognitive impairment associated with schizophrenia ("CIAS") and pain. Our innovative drug development and commercialization activities are complemented by our biosimilar products that expand access to medicines and reduce the cost burden for healthcare systems. We are leveraging our manufacturing capabilities and know-how to develop, manufacture and market biosimilar products through Samsung Bioepis Co., Ltd. ("Samsung Bioepis"), our joint venture with Samsung BioLogics Co., Ltd. ("Samsung BioLogics"). Under our commercial agreement, we market and sell BENEPALI, an etanercept biosimilar referencing ENBREL, FLIXABI, an infliximab biosimilar referencing REMICADE, and IMRALDI, an adalimumab biosimilar referencing HUMIRA, in the European Union.
B.4a	**Most significant recent trends affecting the Issuer and its industry**	In the period from December 31, 2018 through the date of this prospectus, Biogen's revenues have depended upon continued sales of its principal products as well as the financial rights it has in its anti-CD20 therapeutic programs, continuing a trend that has characterized Biogen's business in previous periods as well. Unless we develop, acquire rights to and/or commercialize new products and technologies, we will be substantially dependent on sales from our principal products and our financial rights in our anti-CD20 therapeutic programs for many years. In the longer term, our revenue growth will depend upon the successful clinical development, regulatory approval and launch of new commercial products as well as additional indications for our existing products, our ability to obtain and maintain patents and other rights related to our marketed products, assets originating from our research and development efforts and/or successful execution of external business development opportunities.
B.5	**Description of the group and Issuer's position within the group**	Not applicable, because information regarding the organizational structure of Biogen is not required to be provided elsewhere in the prospectus.
B.6	**Interests in the Issuer's capital**	Not applicable, because information regarding Biogen's capital structure is not required to be provided elsewhere in the prospectus.
B.7	**Financial information**	The selected consolidated statements of income data for the years ended December 31, 2018, 2017 and 2016, below are derived from the Company's audited

	regarding the Issuer and subsequent material changes	consolidated financial statements as published in its Annual Report on Form 10-K for the fiscal year ended December 31, 2018 (the "2018 10-K"). The selected consolidated balance sheets data at December 31, 2018 and 2017, are derived from the Company's audited consolidated financial statements as published in the 2018 10-K, and the selected consolidated balance sheets data at December 31, 2016 are derived from the Company's audited consolidated financial statements as published in its Annual Report on Form 10-K for the fiscal year ended December 31, 2017 (the "2017 10-K"). The Company's audited consolidated financial statements were prepared in accordance with accounting principles generally accepted in the United States. At March 21, 2019, the exchange rate between the U.S. dollar and the euro, expressed as euros per dollar, was $1.0000 = €0.8791 (*source*: Bloomberg). We have provided this exchange rate information solely for illustrative purposes. We make no representation that any amount of U.S. dollars specified in the tables below has been, or could be, converted into euro at the rate indicated or any other rate. **Consolidated Statements of Income Data**

	Year ended December 31,		
(In $ millions, except per share amounts)	**2018**	**2017**	**2016**
Results of Operations[1]			
Revenues:			
Product, net	$ 10,886.8	$ 10,354.7	$ 9,817.9
Revenues from anti-CD20 therapeutic programs	1,980.2	1,559.2	1,314.5
Other	585.9	360.0	316.4
Total revenues	13,452.9	12,273.9	11,448.8
Costs and expenses:			
Cost of sales, excluding amortization of acquired intangible assets	1,816.3	1,630.0	1,478.7
Research and development	2,597.2	2,253.6	1,973.3
Selling, general and administrative	2,106.3	1,933.9	1,946.6
Amortization and impairment of acquired intangible assets	747.3	814.7	385.6
Collaboration profit (loss) sharing	185.0	112.3	10.2
Acquired in-process research and development	112.5	120.0	—
Restructuring charges	12.0	0.9	33.1
(Gain) loss on fair value remeasurement of contingent consideration	(12.3)	62.7	14.8
TECFIDERA litigation settlement charge	—	—	454.8
Total cost and expenses	7,564.3	6,928.1	6,297.1
Income from operations	5,888.6	5,345.8	5,151.7
Other income (expense), net	11.0	(217.0)	(218.7)
Income before income tax expense and equity in loss of investee, net of tax	5,899.6	5,128.8	4,933.0
Income tax expense	1,425.6	2,458.7	1,237.3
Equity in loss of investee, net of tax	—	—	—
Net income	4,474.0	2,670.1	3,695.7
Net (loss) income attributable to non-controlling interests, net of tax	43.3	131.0	(7.1)
Net income attributable to Biogen Inc.	4,430.7	$ 2,539.1	$ 3,702.8
Net income per share ($):			
Basic earnings per share attributable to Biogen Inc.	$ 21.63	$ 11.94	$ 16.96
Diluted earnings per share attributable to Biogen Inc.	$ 21.58	$ 11.92	$ 16.93
Weighted-average shares used in calculating (number in millions):			
Basic earnings per share attributable to Biogen Inc.	204.9	212.6	218.4
Diluted earnings per share attributable to Biogen Inc.	205.3	213.0	218.8

(1) On February 1, 2017, we completed the spin-off of our hemophilia business, Bioverativ Inc. ("Bioverativ"), as an independent, publicly traded company. Our consolidated statements of income data reflect the financial results of our hemophilia business through

January 31, 2017.

Consolidated Balance Sheets Data[1]

(In $ millions)	As of December 31, 2018	2017	2016
Assets			
Current assets:			
Cash and cash equivalents	$ 1,224.6	$ 1,573.8	$ 2,326.5
Marketable securities	2,313.4	2,115.2	2,568.6
Accounts receivable, net	1,958.5	1,787.0	1,441.6
Due from anti-CD20 therapeutic programs	526.9	532.6	300.6
Inventory	929.9	902.7	1,001.6
Other current assets	687.6	962.0	1,093.3
Total current assets	7,640.9	7,873.3	8,732.2
Marketable securities	1,375.9	3,057.3	2,829.4
Property, plant and equipment, net	3,601.2	3,182.4	2,501.8
Intangible assets, net	3,120.0	3,879.6	3,808.3
Goodwill	5,706.4	4,632.5	3,669.3
Deferred tax asset	2,153.9	595.9	—[2]
Investments and other assets	1,690.6	431.6	1,335.8
Total assets	$ 25,288.9	$ 23,652.6	$ 22,876.8
Liabilities and equity			
Current liabilities:			
Current portion of notes payable[3] and other financing arrangements	$ —	$ 3.2	$ 4.7
Taxes payable	63.5	68.2	231.9
Accounts payable	370.5	395.5	279.8
Accrued expenses and other	2,861.2	2,901.3	2,903.5
Total current liabilities	3,295.2	3,368.2	3,419.9
Notes payable and other financing arrangements[4]	5,936.5	5,935.0	6,512.7
Deferred tax liability	1,636.2	122.6	93.1
Other long-term liabilities	1,389.4	1,628.7	722.5
Total liabilities	12,257.3	11,054.5	10,748.2
Equity:			
Preferred stock, par value $0.001 per share	—	—	—
Common stock, par value $0.0005 per share	0.1	0.1	0.1
Additional paid-in capital	—	97.8	—
Accumulated other comprehensive loss	(240.4)	(318.4)	(319.9)
Retained earnings	16,257.0	15,810.4	15,071.6
Treasury stock, at cost; 23.8 million. 23.8 million and 22.6 million shares, respectively	(2,977.1)	(2,977.1)	(2,611,7)
Total Biogen Inc. shareholders' equity	13,039.6	12,612.8	12,140.1
Noncontrolling interests	(8.0)	(14.7)	(11.5)
Total equity	13,031.6	12,598.1	12,128.6
Total liabilities and equity	$ 25,288.9	$ 23,652.6	$ 22,876.8

(1) On February 1, 2017, we completed the spin-off of Bioverativ as an independent, publicly traded company. Our consolidated balance sheets data reflect the financial results of our hemophilia business through January 31, 2017.

(2) In October 2016 the Financial Accounting Standards Board issued Accounting Standards Update No. 2016-01, *Income Taxes (Topic 740): Intra-entity Transfer of Assets Other Than Inventory*. This new standard became effective for us on January 1, 2018. Upon adoption of this new standard we recorded additional deferred tax assets of approximately $2.0 billion. As a result, we presented "deferred tax assets" and "investments and other assets" as separate line items in the consolidated balance sheets included in our consolidated financial statements as published in the 2018 10-K. In the consolidated balance sheets included in our consolidated financial statements as published in the 2017 10-K, we included deferred tax assets within the "investments and other assets" line item.

(3) This line items appears as "current portion of notes payable and other financing arrangements" in the consolidated balance sheets included in our consolidated financial statements as published in the 2017 10-K.

(4) This line items appears as "notes payable and other financing arrangements" in the consolidated balance sheets included in our consolidated financial statements as published in the 2017 10-K.

		Skyhawk Therapeutics, Inc. In January 2019 we entered into a collaboration and research and development services agreement with Skyhawk Therapeutics, Inc. ("Skyhawk") pursuant to which the companies will leverage Skyhawk's SkySTAR technology platform with the goal of discovering innovative small molecule treatments for patients with neurological diseases, including MS and SMA. We will be responsible for the development and potential commercialization of any therapies resulting from this collaboration. In connection with this agreement, we made an upfront payment of $74.0 million to Skyhawk. We may also pay Skyhawk up to a total of approximately $2.0 billion in additional milestone payments as well as potential royalties on net commercial sales. We expect to record research and development expense of approximately $35.0 million in the first quarter of 2019 related to this collaboration. *Nightstar Therapeutics* In March 2019 we entered into an agreement to acquire Nightstar Therapeutics ("NST"), a U.K. based clinical-stage gene therapy company focused on adeno-associated virus treatments for inherited retinal disorders. Under the terms of the proposed acquisition, Biogen will pay $25.50 in cash for each NST share. It is intended that the proposed acquisition will be implemented by means of a U.K. Court-sanctioned scheme of arrangement under Part 26 of the U.K. Companies Act 2006. The closing of the proposed acquisition is subject to customary closing conditions, including approval by NST shareholders, the issuance of an order by the U.K. Court and receipt of regulatory approvals. Biogen expects to complete the acquisition by mid-year 2019. *FUJIFILM Corporation* In March 2019 we entered into a share purchase agreement pursuant to which FUJIFILM Corporation ("Fujifilm") will acquire the shares of Biogen (Denmark) New Manufacturing ApS, a Biogen subsidiary that holds Biogen's large-scale biologics manufacturing operations located in Hillerød, Denmark, for up to $890 million in cash, subject to minimum purchase commitment guarantees and other contractual terms. As part of the proposed transaction, we will enter into manufacturing services agreements under which Fujifilm will produce commercial products for Biogen, such as TYSABRI, as well as other third-party products. The closing of the proposed transaction is subject to customary closing conditions, including customary filings and clearances under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, in the U.S., the Danish Competition Act and the Korean Monopoly Regulation and Fair Trade Act. Biogen expects to complete the transaction in the second half of 2019. *Discontinued Program* In March 2019 we and our collaboration partner Eisai Co., Ltd. announced that we are discontinuing the global Phase 3 trials, EMERGE and ENGAGE, designed to evaluate the efficacy and safety of aducanumab in patients with mild cognitive impairment due to AD and mild AD dementia. Except as described above, no significant change in the Company's financial or trading position has occurred since December 31, 2018.
B.8	**Pro forma financial information**	Not applicable, because no historical financial information is required to be provided in the prospectus.
B.9	**Profit forecast**	Not applicable. This prospectus does not contain any profit forecast.
B.10	**Qualifications in the audit report on the historical financial information**	Not applicable. There are no such qualifications in the auditors' report.
B.11	**Working Capital**	Biogen believes that its working capital (i.e., its ability to access cash and other

	Statement	available liquid resources) is sufficient to meet its present requirements for at least the next 12 months from the date of this prospectus.

Section C – Securities		
C.1	**Type and class of the securities being offered, including the Security Identification Code**	The securities offered under the Biogen Inc. 2015 Employee Stock Purchase Plan (the "ESPP") are Biogen's common stock with a par value of $0.0005 per share. The Company's common stock is listed on the Nasdaq Global Select Market ("Nasdaq") under the symbol "BIIB". The U.S. security identification number, or CUSIP number, of the shares is 09062X103. The International Securities Identification Number, or ISIN, for the Company's common stock is US09062X1037. The German Securities Code Number (*Wertpapier-Kenn-Nummer*) is 789617.
C.2	**Currency of the securities Issue**	The U.S. Dollar is the currency of the securities issue.
C.3	**Number of shares issued**	As of February 1, 2019, the Company had 196,708,784 shares of common stock issued and outstanding. The issued shares are fully paid.
C.4	**Rights attached to the securities**	No Eligible Employee (as defined in Section E.3 below) participating in the ESPP shall have any voting, dividend or other shareholder rights with respect to any offering under the ESPP until the shares are purchased pursuant to the ESPP on behalf of the Participant (as defined in Section E.3 below) and the Participant has become a holder of the purchased shares. Following the purchase, the Eligible Employee participating in the ESPP shall be entitled to the rights attached to the shares, as further described below: ***Dividend Rights.*** The Board of Directors may declare a dividend at any regular or special meeting out of funds legally available for dividends. The Board of Directors sets the record date and the payment date for dividend payments. Such dividends may be paid in cash, property or shares of stock. A holder of shares as of the record date for a dividend declaration has an inchoate property right to the dividend as of that record date, but may not actually attempt to enforce that right until the payment date. In general, dividends that are unclaimed for three years escheat to the State of Delaware. However, Biogen has never paid any cash dividends and has no current intention to do so. There are no dividend restrictions and no special dividend procedures for shareholders resident in the EU and the European Economic Area. ***Voting Rights.*** The holders of common stock are entitled to one vote for each share held on all matters as to which shareholders are entitled to vote. Any action required or permitted to be taken by the shareholders for the Company may be effected by a duly called annual or special meeting of such holders or may be effected by consent in writing by such shareholders. Special meetings of the shareholders of the Company may be held upon call of the Chairman of the Board of Directors, the Chief Executive Officer, by the Board of Directors of the Company or, in accordance with the Company's Bylaws, holders of at least 25% of the Company's common stock. ***Rights to Receive Liquidation Distributions.*** In the event of liquidation, dissolution or winding up of the Company, the holders of common stock are entitled to share ratably in all assets remaining after payment of or provisions for the Company's liabilities, subject to prior rights or preferred stock, if any, then outstanding. ***No Preemptive, Redemptive, Profit or Conversions Provisions.*** The holders of the Company's common stock do not have preemptive rights to acquire shares of the Company's stock or securities convertible into the Company's stock. The Company's common stock is not subject to redemption and does not have any right to share in the Company's profits or any conversion rights.
C.5	**Transferability**	The offering of shares under the ESPP has been registered in the U.S. with the U.S. Securities and Exchange Commission ("SEC") on a registration statement on Form S-

		8 and the issued and outstanding shares of common stock are generally freely transferable. The ESPP is intended to provide shares for investment. The Company does not, however, intend to restrict or influence any employee in the conduct of his or her own affairs. A Participant, therefore, may sell shares purchased under the ESPP at any time he or she chooses, subject to compliance with any applicable securities laws, insider trading policies and applicable blackout periods, and the terms of the ESPP. The Participant assumes the risk of any market fluctuations in the price of the shares.
C.6	**Admission to trading on a Regulated Market**	Not applicable. The Company's common stock is listed on Nasdaq under the symbol "BIIB". The stock is quoted on Nasdaq in U.S. dollars. In Germany, the stock is traded on the Open Market (*Freiverkehr*) on the exchanges in Frankfurt, Stuttgart, Berlin, Düsseldorf, Hamburg and Munich as well as on Tradegate under the symbol "IDP".
C.7	**Dividend policy**	No cash dividends have been declared or paid since Biogen was founded and the Company has no current intention to declare or pay cash dividends.

Section D – Risks		
Employees should carefully consider the risks described below, which are described in more detail under the caption "Risk Factors", and other information contained in this prospectus, and take these factors into account in making their investment decision. The occurrence of one or more of these risks alone or in combination with other circumstances may have a material adverse effect on the business and financial condition of the Company and cause the market price of the Company's shares to decline. In such case, employees could lose all or part of their investment. The prospectus contains all risks which the Company deems material. However, the risks described below may turn out to be incomplete and therefore may not be the only risks to which the Company is exposed. Additional risks and uncertainties could have a material adverse effect on the business and financial condition of the Company. The order of presentation of the risk factors below does not indicate the likelihood of their occurrence or the extent or the significance of the individual risks.		
D.1	**Risks related to Biogen or its industry**	• We are substantially dependent on revenues from our principal products. • Sales of our products depend, to a significant extent, on adequate coverage, pricing and reimbursement from third-party payors, which are subject to increasing and intense pressure from political, social, competitive and other sources. Our inability to obtain and maintain adequate coverage, or a reduction in pricing or reimbursement, could have an adverse effect on our business, reputation, revenues and results of operations or could cause a decline or volatility in our stock price. • If we are unable to obtain and maintain adequate protection for our data, intellectual property and other proprietary rights, our business may be harmed. • Our long-term success depends upon the successful development of new products and additional indications for existing products. • If we fail to compete effectively, our business and market position would suffer. • Our business may be adversely affected if we do not successfully execute our growth initiatives. • A breakdown or breach of our technology systems could subject us to liability or interrupt the operation of our business. • Successful preclinical work or early stage clinical trials does not ensure success in later stage trials, regulatory approval or commercial viability of a product. • Clinical trials and the development of biopharmaceutical products is a lengthy and complex process. If we fail to adequately manage our clinical activities, our clinical trials or potential regulatory approvals may be delayed or denied. • Adverse safety events or restrictions on use and safety warnings for our products can negatively affect our business, product sales and stock price. • We depend on relationships with collaborators and other third parties for revenues, and for the development, regulatory approval, commercialization and marketing of certain of our products and product candidates, which are outside of our full control.

		• Our results of operations may be adversely affected by current and potential future healthcare reforms. • If we fail to comply with the extensive legal and regulatory requirements affecting the health care industry, we could face increased costs, penalties and a loss of business. • Our sales and operations are subject to the risks of doing business internationally. • Management and key personnel changes may disrupt our operations, and we may have difficulty retaining key personnel or attracting and retaining qualified replacements on a timely basis for management and other key personnel who may leave the Company. • We are expanding our manufacturing capacity for future clinical and commercial requirements for product candidates, which will result in the incurrence of significant investment with no assurance that such investment will be recouped. • Manufacturing issues could substantially increase our costs, limit supply of our products and/or reduce our revenues. • Our success in commercializing biosimilars developed by Samsung Bioepis is subject to risks and uncertainties inherent in the development, manufacture and commercialization of biosimilars. If Samsung Bioepis is unsuccessful in the development, manufacture and commercialization of biosimilars, we may not realize the anticipated benefits of our investment in Samsung Bioepis. • Our operating results are subject to significant fluctuations. • Our effective tax rate fluctuates, and we may incur obligations in tax jurisdictions in excess of accrued amounts. • Our investments in properties may not be fully realized. • Our portfolio of marketable securities is subject to market, interest and credit risk that may reduce its value. • We may not be able to access the capital and credit markets on terms that are favorable to us. • Our indebtedness could adversely affect our business and limit our ability to plan for or respond to changes in our business. • Our business involves environmental risks, which include the cost of compliance and the risk of contamination or injury. • The illegal distribution and sale by third parties of counterfeit or unfit versions of our products or stolen products could have a negative impact on our reputation and business. • The increasing use of social media platforms presents new risks and challenges. • We may be exposed to claims and liabilities as a result of the spin-off of our hemophilia business.
D.3	**Key Risks Related to the Shares**	• There can be no assurance that we will continue to repurchase shares or that we will repurchase shares at favorable prices. • Some of our collaboration agreements contain change in control provisions that may discourage a third party from attempting to acquire us.

Section E – Offer		
E.1	**Net proceeds and estimate of total expenses**	On March 21, 2019, the closing price of a share of the Company's common stock as quoted on Nasdaq was $226.88. As of December 31, 2018, we had approximately 7,800 employees worldwide. Assuming that each eligible employee purchases 110.19 shares, the maximum annual amount of shares offered under the ESPP in the 12 months following the date of the prospectus assuming a purchase price of $192.85, which is 85% of the common stock's fair market value as of March 21, 2019, then the gross proceeds to the Company would be approximately $165,750,000. The costs of this offering consist of legal expenses in an amount of approximately $50,000. After deduction of such costs the net proceeds, based on the above assumptions, would be approximately $165,700,000.
E.2a	**Reasons for the offer and use of proceeds**	The ESPP is intended to enable Eligible Employees to use payroll deductions to acquire common stock in the Company at a discount to current market trading prices.

		The Company may use the proceeds from the issuance and exercise of Purchase Rights (as defined in Section E.3 below) under the ESPP for any corporate purpose.
E.3	**Description of the terms and conditions of the offer**	The subject matter of this prospectus is offerings of shares of Biogen's common stock under the ESPP. The ESPP permits the grant of Purchase Rights (please refer to the subheading *Purchase Rights and Purchase Price* below for the definition) to Eligible Employees of the Company or its subsidiaries, which entitle the Participants in the ESPP to purchase shares of the Company's common stock at a specified purchase price. With the exception of the ESPP, the Company's share-based compensation plans do not trigger a prospectus requirement under the European Prospectus Directive. Therefore neither those awards nor the underlying shares for such awards form the subject matter of this prospectus. Such awards are not discussed in this prospectus. ***Offered Shares.*** The shares offered under the ESPP are shares of the Company's common stock with a par value of $0.0005 per share. The total number of shares made available for purchase under the ESPP is 5,733,528. ***Administration of the ESPP.*** The ESPP is administered by the Compensation and Management Development Committee of the Company's Board of Directors (referred to as the "Plan Administrator"). ***Eligible Employees.*** An employee of Biogen or any of its designated subsidiaries who (i) customarily works more than 5 months per calendar year, (ii) customarily works 20 hours or more per week and (iii) satisfies the requirements in the ESPP, including the requirement to timely complete and submit the enrollment forms (including a payroll deduction authorization form), is eligible to participate in the ESPP ("Eligible Employee"). The Plan Administrator may establish additional eligibility requirements for offering periods that have not yet commenced. ***Offering Period.*** Unless otherwise determined by the Plan Administrator, shares of the Company's common stock are offered for purchase under the ESPP through a series of successive three-month offering periods commencing on the first business day of each calendar quarter and ending on the last business day of each calendar quarter (each, an "Offering Period"). After approval of this prospectus by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*; "BaFin"), the prospectus will cover the current Offering Period, the Offering Period from April 1, 2019 to June 30, 2019 and part of the Offering Period from July 1, 2019 to September 30, 2019. ***Purchase Rights and Purchase Price.*** On the first day of an Offering Period, each participating Eligible Employee (a "Participant") automatically will be granted a right to purchase common stock (a "Purchase Right") on the last business day of each Offering Period (each, a **"**Purchase Date"). However, no employee may be granted a Purchase Right under the ESPP if, immediately after the Purchase Right is granted, the employee would own (or, under applicable statutory attribution rules, would be deemed to own) stock possessing 5% or more of the total combined voting power or value of all classes of stock of the Company or any of its subsidiaries. The purchase price of shares of common stock issued pursuant to the exercise of a Purchase Right on the Purchase Date of an applicable Offering Period will be eighty-five percent (85%) of the lesser of (a) the Fair Market Value (as defined below) of a share of common stock on the first business day of the Offering Period and (b) the Fair Market Value of a share of common stock on the Purchase Date (the "Purchase Price"). The "Fair Market Value" is the closing price of Biogen common stock as reported on Nasdaq on the applicable date. If such day is not a trading day, the Fair Market Value will be the reported closing price for the immediately preceding day that is a trading day. ***Exercise of Purchase Right.*** Each Purchase Right is automatically exercised on the Purchase Date and shares of the Company's common stock are accordingly purchased on behalf of each Participant on each such Purchase Date. The Purchase Dates during the validity of the prospectus are March 31, 2019, June 30, 2019, September 30, 2019

		and December 31, 2019. ***Purchase Price Payment – Payroll Deduction.*** In general, the Purchase Price is paid by way of automatic deduction from the Participant's payroll and used to purchase shares of the Company's common stock at the end of each Offering Period. The Participant authorizes the Company to make a payroll deduction up to a maximum of ten percent (10%), in one percent (1%) increments, of after-tax income per pay period. After-tax income includes regular base salary, overtime, shift differentials, annual bonuses, commissions and other sales incentives. A Participant's payroll deduction authorization will remain in effect for subsequent Offering Periods unless the Participant's participation in the ESPP terminates or the Participant cancels the authorization or submits a new payroll deduction authorization form. During an Offering Period, a Participant may reduce the amount of his or her payroll deduction authorization one time, but may not increase it. If, during an Offering Period, a Participant reduces his or her payroll deduction authorization to zero percent (0%), payroll deductions previously accumulated during that Offering Period will be applied to purchase shares of common stock on the Purchase Date for that Offering Period and the Participant's participation in the ESPP will then terminate. Any amount of payroll deductions that are not used for the purchase of shares of common stock, whether because of the Participant's withdrawal from participation in an Offering Period or for any other reason will be returned to the Participant, without interest, as soon as administratively practicable after such withdrawal or other event, as applicable. A Participant may view an individual account balance and a detailed purchase history by contacting Fidelity Investments® ("Fidelity"), Biogen's dedicated stock plan service provider, at (+1) 800-544-9354 or by going online to www.netbenefits.fidelity.com. ***Purchase Limitations.*** A Participant may purchase up to – but not more than – $25,000 in Fair Market Value of the Company's common stock per calendar year under the ESPP. In addition to the $25,000 per calendar year purchase limit, each Participant is limited to purchasing no more than 2,500 shares on any Purchase Date. ***Delivery.*** Each Purchase Right is automatically exercised on the Purchase Date. The purchase shall be effected by applying the Participant's payroll deductions for the Offering Period, ending on such Purchase Date to the purchase of shares of the Company's common stock. As soon as practicable after each Purchase Date, which is generally within seven (7) to ten (10) days after the Purchase Date, the purchased shares will be delivered. Shares issuable to employees within and outside the U.S. upon exercise of Purchase Rights are deposited into a designated brokerage account with Fidelity maintained on behalf of the Participant and held in "street name", unless otherwise designated by the Plan Administrator. ***Termination of Participation.*** The Participant may terminate his or her participation in the ESPP by delivering a notice to the Plan Administrator in accordance with the procedures established by, and in a form acceptable to, the Plan Administrator. To be effective with respect to an upcoming Purchase Date, the cancellation notice must be submitted no later than five (5) business days before such Purchase Date (or such other time specified by the Plan Administrator). Upon a termination, the Participant's accumulated payroll deductions will be returned to the Participant, without interest, as soon as administratively practicable. A Participant who reduces his or her withholding rate for future payroll periods to zero percent (0%) will be deemed to have terminated his or her participation in future Offering Periods. ***Termination of Eligibility.*** Upon the termination of the Participant's employment for any reason (including death) during an Offering Period, or in the event he or she ceases to qualify as an Eligible Employee, the Participant ceases to be a Participant, any Purchase Right will be canceled, the accumulated payroll deductions are returned

		to the Participant (or to his or her estate or designated beneficiary in the event of death) without interest, as soon as administratively practicable thereafter, and the Participant will have no further rights under the Plan. ***Duration, Termination and Amendment.*** The Board of Directors of the Company may, at any time or times, suspend or terminate the ESPP. The Board of Directors may at any time amend the ESPP to any extent and in any manner as it may deem advisable. ***Transferability of Purchase Rights.*** Purchase Rights granted under the ESPP are not assignable or transferable by the Participant other than by will or by the laws of descent and distribution following the Participant's death, and during the Participant's lifetime the Purchase Right shall be exercisable only by the Participant. ***Enrollment.*** The ESPP is a voluntary plan and requires Eligible Employees to enroll in order to participate. Prior to each Offering Period, Eligible Employees are notified of the enrollment deadlines by internal postings on the Company's intranet. ***Commission.*** On sales of shares obtained upon exercise of the Purchase Rights a commission is charged by Fidelity and the SEC.
E.4	**Description of material interest to the offer including conflict or interests**	Not applicable. There are no such interests.
E.5	**Name of the entity offering to sell the security**	Biogen Inc.
E.6	**Maximum dilution**	The book value of the shareholders' equity of the Company (defined as total assets less total liabilities) as reflected in the combined consolidated financial statements amount to approximately $13,039,600,000 as of December 31, 2018. This is equivalent to approximately $66.29 per share (calculated on the basis of 196,708,784 outstanding shares at February 1, 2019). If the Company had obtained net proceeds in the amount of $165,700,000 as of the date of this prospectus, the book value of the shareholders' equity at that time would have been about $13,205,300,000 or $66.84 per share (based on the increased number of 197,568,260 shares after the purchase of 859,476.28 shares, assuming a purchase price of $192.85, which is 85% of the common stock's fair market value as of March 21, 2019). Consequently, under the above-mentioned assumptions, the implementation of the offering would lead to a direct increase in the book value of shareholders' equity to $66.84 per share and existing shareholders will enjoy an increase of the book value of their shares by $0.55 per share, or approximately 0.83%. Eligible employees who acquire shares at the purchase price of $192.85 will be diluted by $126.01 per share, or by approximately 65.34%.
E.7	**Estimated expenses charged to the investor by the Issuer**	Not applicable. There are no such expenses.

RISK FACTORS

Before enrollment in the Biogen Inc. 2015 Employee Stock Purchase Plan (the "ESPP"), employees should carefully consider the risks described below and other information contained in this prospectus, and take these factors into account in making their investment decision.

The occurrence of one or more of these risks alone or in combination with other circumstances may have a material adverse effect on the business and financial condition of the Company and cause the market price of the Company's shares to decline. In such case, employees could lose all or part of their investment.

The prospectus contains all risks which the Company deems material. However, the risks described below may turn out to be incomplete and therefore may not be the only risks to which the Company is exposed. Additional risks and uncertainties could have a material adverse effect on the business and financial condition of the Company.

The order of presentation of the risk factors below does not indicate the likelihood of their occurrence or the extent or the significance of the individual risks.

Risks Associated with Our Business or Industry

We are substantially dependent on revenues from our principal products.

Our revenues depend upon continued sales of our principal products, as well as the financial rights we have in our anti-CD20 therapeutic programs, and, unless we develop, acquire rights to and/or commercialize new products and technologies, we will be substantially dependent on sales from our principal products and our financial rights in our anti-CD20 therapeutic programs for many years. Further, following the completion of the spin-off of our hemophilia business on February 1, 2017, our revenues are further reliant and concentrated on sales of our MS products in an increasingly competitive market, revenues from sales of our product for SMA and our financial rights in our anti-CD20 therapeutic programs. Any of the following negative developments relating to any of our principal products or any of our anti-CD20 therapeutic programs may adversely affect our revenues and results of operations or could cause a decline in our stock price:

- safety or efficacy issues;
- the introduction or greater acceptance of competing products, including lower-priced competing products;
- limitations and additional pressures on product pricing or price increases, including those resulting from governmental or regulatory requirements, increased competition or changes in, or implementation of, reimbursement policies and practices of payors and other third parties; or
- adverse legal, administrative, regulatory or legislative developments.

SPINRAZA has been approved by, among others, the U.S. Food and Drug Administration ("FDA"), the European Commission and the Japanese Ministry of Health, Labor and Welfare, and is in the early stages of commercial launch in certain markets. In addition to risks associated with new product launches and the other factors described in these Risk Factors, our ability to successfully commercialize SPINRAZA may be adversely affected due to:

- our limited marketing experience within certain SMA markets, which may impact our ability to develop additional relationships with the associated medical and scientific community;
- the lack of readiness of healthcare providers to treat patients with SMA;
- the effectiveness of our commercial strategy for marketing SPINRAZA;
- our ability to maintain a positive reputation among patients, healthcare providers and others in the SMA community, which may be impacted by pricing and reimbursement decisions relating to SPINRAZA; and
- the introduction of other products in development that, if successfully developed and approved, may compete with SPINRAZA in the SMA market, including potential gene therapy or oral products.

Sales of our products depend, to a significant extent, on adequate coverage, pricing and reimbursement from third-party payors, which are subject to increasing and intense pressure from political, social, competitive and other sources. Our inability to obtain and maintain adequate coverage, or a reduction in pricing or reimbursement, could have an adverse effect on our business, reputation, revenues and results of operations or could cause a decline or volatility in our stock price.

Sales of our products depend, to a significant extent, on the availability and extent of adequate coverage, pricing and reimbursement from government health administration authorities, private health insurers and other organizations. When a new pharmaceutical product is approved, the availability of government and private reimbursement for that product may be uncertain, as is the pricing and amount for which that product will be reimbursed.

Pricing and reimbursement for our products may be adversely affected by a number of factors, including:

- changes in, and implementation of, federal, state or foreign government regulations or private third-party payors' reimbursement policies;
- pressure by employers on private health insurance plans to reduce costs;
- consolidation and increasing assertiveness of payors, including managed care organizations, health insurers, pharmacy benefit managers, government health administration authorities, private health insurers and other organizations, seeking price discounts or rebates in connection with the placement of our products on their formularies and, in some cases, the imposition of restrictions on access or coverage of particular drugs or pricing determined based on perceived value; and
- our value-based contracting pilot program pursuant to which we aim to tie the pricing of our products to their clinical values by either aligning price to patient outcomes or adjusting price for patients who discontinue therapy for any reason, including efficacy or tolerability concerns.

Our ability to set the price for our products varies significantly from country to country and as a result so can the price of our products. Certain countries set prices by reference to the prices in other countries where our products are marketed. Thus, our inability to obtain and maintain adequate prices in a particular country may not only limit the revenues from our products within that country, but may also adversely affect our ability to secure acceptable prices in existing and potential new markets. This may create the opportunity for third-party cross-border trade or influence our decision to sell or not to sell a product, thus adversely affecting our geographic expansion plans and revenues.

Drug prices are under significant scrutiny in the markets in which our products are prescribed. We expect drug pricing and other health care costs to continue to be subject to intense political and societal pressures on a global basis. In addition, competition from current and future competitors may negatively impact our ability to maintain pricing and our market share. New products or treatments brought to market by our competitors could cause revenues for our products to decrease due to potential price reductions and lower sales volumes.

Payors, including managed care organizations, health insurers, pharmacy benefit managers, government health administration authorities, private health insurers and other organizations, increasingly seek ways to reduce their costs. Many payors continue to adopt benefit plan changes that shift a greater portion of prescription costs to patients. Such measures include more limited benefit plan designs, higher patient co-pay or co-insurance obligations and limitations on patients' use of commercial manufacturer co-pay payment assistance programs (including through co-pay accumulator adjustment or maximization programs). Payors also increasingly seek price discounts or rebates in connection with the placement of our products on their formularies or those they manage and control costs by imposing restrictions on access to or usage of our products, such as by requiring prior authorization or step therapy. Significant consolidation in the health insurance industry has resulted in a few large insurers and pharmacy benefit managers exerting greater pressure in pricing and usage negotiations with drug manufacturers, significantly increasing discounts and rebates required of manufacturers and limiting patient access and usage. Further consolidation among insurers, pharmacy benefit managers and other payors would increase the negotiating leverage such entities have over us and other drug manufacturers. Ultimately, additional discounts, rebates, coverage or plan changes, restrictions or exclusions as described above could have a material adverse effect on sales of our affected products.

Our failure to obtain or maintain adequate coverage, pricing or reimbursement for our products could have an adverse effect on our business, reputation, revenues and results of operations, could curtail or eliminate our ability to adequately fund research and development programs for the discovery and commercialization of new products or could cause a decline or volatility in our stock price.

If we are unable to obtain and maintain adequate protection for our data, intellectual property and other proprietary rights, our business may be harmed.

Our success depends in part on our ability to obtain and defend patent and other intellectual property rights that are important to the commercialization of our products and product candidates. The degree of patent protection that will be afforded to our products and processes in the U.S. and in other important markets remains uncertain and is dependent upon the scope of protection decided upon by the patent offices, courts, administrative bodies and lawmakers in these countries. We may fail to successfully obtain or preserve patent protection for the technologies incorporated into our products and processes, or the protection we obtain may not be of sufficient breadth and degree to protect our commercial interests in all countries where we conduct business. Under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly known as the Hatch-Waxman Act, a manufacturer may file an Abbreviated New Drug Application, seeking approval of a generic copy of an approved innovator product, or a New Drug Application under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, which may be for a new or improved version of the original innovator product. The manufacturers are allowed to rely on the safety and efficacy data of the innovator's product, may not need to conduct clinical trials, can market a competing version of a product after the expiration or loss of patent exclusivity or the expiration or loss of regulatory exclusivity and often charge significantly lower prices. Upon the expiration or loss of patent protection or the expiration or loss of regulatory exclusivity for a product, especially a small molecule product, the major portion of revenues for that product may be dramatically reduced in a very short period of time. If we cannot prevent others from exploiting our inventions, we will not derive the expected benefit from them. Furthermore, our products may be determined to infringe patents or other intellectual property rights held by third parties, which could result in financial, legal, business or reputational harm to us.

We also rely on regulatory exclusivity for protection of our products. Implementation and enforcement of regulatory exclusivity, which may consist of regulatory data protection and market protection, varies widely from country to country. Failure to qualify for regulatory exclusivity, or failure to obtain or maintain the extent or duration of such protections that we expect in each of the markets for our products due to challenges, changes or interpretations in the law or otherwise, could affect our revenues for our products or our decision on whether to market our products in a particular country or countries or could otherwise have an adverse impact on our results of operations.

Litigation, interferences, oppositions, *inter partes* reviews, administrative challenges or other similar types of proceedings are, have been and may in the future be necessary in some instances to determine the validity and scope of certain of our proprietary rights, and in other instances to determine the validity, scope or non-infringement of certain patent rights claimed by third parties to be pertinent to the manufacture, use or sale of our products. We may also face challenges to our patent and regulatory protections covering our products by third parties, including manufacturers of generics and biosimilars that may choose to launch or attempt to launch their products before the expiration of our patent or regulatory exclusivity. Litigation, interference, oppositions, *inter partes* reviews, administrative challenges or other similar types of proceedings are unpredictable and may be protracted, expensive and distracting to management. The outcome of such proceedings could adversely affect the validity and scope of our patent or other proprietary rights, hinder our ability to manufacture and market our products, require us to seek a license for the infringed product or technology or result in the assessment of significant monetary damages against us that may exceed amounts, if any, accrued in our financial statements. An adverse determination in a judicial or administrative proceeding or a failure to obtain necessary licenses could prevent us from manufacturing or selling our products. Furthermore, payments under any licenses that we are able to obtain would reduce our profits derived from the covered products and services. Any of these circumstances could result in financial, business or reputational harm to us or could cause a decline or volatility in our stock price.

Our long-term success depends upon the successful development of new products and additional indications for existing products.

Our long-term viability and growth will depend upon the successful development of additional indications for our existing products as well as the successful development of new products and technologies from our research and development activities, our biosimilars joint venture with Samsung BioLogics or licenses or acquisitions from third parties.

Product development is very expensive and involves a high degree of risk. Only a small number of research and development programs result in the commercialization of a product. Clinical trials may indicate that our product candidates lack efficacy, have harmful side effects, result in unexpected adverse events or raise other concerns that may significantly reduce the likelihood of regulatory approval. This may result in terminated programs, significant restrictions on use and safety warnings in an approved label, adverse placement within the treatment paradigm or significant reduction in the commercial potential of the product candidate.

If we fail to compete effectively, our business and market position would suffer.

The biopharmaceutical industry and the markets in which we operate are intensely competitive. We compete in the marketing and sale of our products, the development of new products and processes, the acquisition of rights to new products with commercial potential and the hiring and retention of personnel. We compete with biotechnology and pharmaceutical companies that have a greater number of products on the market and in the product pipeline, substantially greater financial, marketing and research and development and other resources and other technological or competitive advantages. One or more of our competitors may benefit from significantly greater sales and marketing capabilities, may develop products that are accepted more widely than ours or may receive patent protection that dominates, blocks or adversely affects our product development or business.

Our products are also susceptible to increasing competition in many markets from generics, biosimilars, prodrugs and other products approved under alternative regulatory pathways. Generic versions of drugs, biosimilars, prodrugs and other products approved under alternative regulatory pathways are likely to be sold at substantially lower prices than branded products. Accordingly, the introduction of such products, as well as other lower-priced competing products, may significantly reduce both the price that we receive for branded products and the volume of branded products that we sell, which will negatively impact our revenues.

In the MS market, we face intense competition as the number of products and competitors continues to expand. Due to our significant reliance on sales of our MS products, including TECFIDERA, our business may be harmed if we are unable to successfully compete in the MS market. More specifically, our ability to compete, maintain and grow our share in the MS market may be adversely affected due to a number of factors, including:

- the introduction of more efficacious, safer, less expensive or more convenient alternatives to our MS products, including our own products and products of our collaborators;
- the introduction of biosimilars, follow-on products, generic versions of branded MS products, prodrugs or products approved under other alternative regulatory pathways, which would be significantly less costly than our products to bring to market and would be offered for sale at lower prices, and could result in a significant percentage of the sales of our products being lost to such biosimilars, follow-on products, generic versions of branded MS products, prodrugs or products approved under other alternative regulatory pathways;
- the off-label use by physicians of therapies indicated for other conditions to treat MS patients;
- patient dynamics, including the size of the patient population and our ability to attract and maintain new and current patients to our therapies;
- damage to physician and patient confidence in any of our MS products or generic or biosimilars of our MS products, or to our sales and reputation as a result of label changes or adverse experiences or events that may occur with patients treated with our MS products or generic or biosimilars of our MS products;
- inability to obtain appropriate pricing and reimbursement for our MS products compared to our competitors in key international markets; or
- our ability to obtain and maintain patent, data or market exclusivity for our MS products.

Our business may be adversely affected if we do not successfully execute our growth initiatives.

We anticipate growth through internal development projects, commercial initiatives and external opportunities, which may include the acquisition, partnering and in-licensing of products, technologies and companies or the entry into strategic alliances and collaborations. While we believe we have a number of promising programs in our pipeline, failure of internal development projects to advance or difficulties in executing on our commercial initiatives could impact our current and future growth, resulting in additional reliance on external development opportunities for growth. The availability of high quality, cost-effective development opportunities is limited and competitive, and we are not certain that we will be able to identify candidates that we and our shareholders consider suitable or complete transactions on terms that are acceptable to us and our shareholders. We may fail to complete transactions for other reasons, including if we are unable to obtain desired financing on favorable terms, if at all. Even if we are able to successfully identify and complete acquisitions and other strategic alliances and collaborations, we may face unanticipated costs or liabilities in connection with the transaction or we may not be able to integrate them, which may prove to be an expensive and time consuming procedure, or take full advantage of them or otherwise realize the benefits that we expect.

Supporting our growth initiatives and the further development of our existing products and potential new products in our pipeline will require significant capital expenditures and management resources, including investments in research and development, sales and marketing, manufacturing capabilities and other areas of our

business. If we do not successfully execute our growth initiatives, then our business and financial results may be adversely affected and we may incur asset impairment or restructuring charges.

A breakdown or breach of our technology systems could subject us to liability or interrupt the operation of our business.

We are increasingly dependent upon technology systems and data. Our computer systems continue to increase in multitude and complexity, making them potentially vulnerable to breakdown, malicious intrusion and random attack. Likewise, data privacy or security breaches by individuals authorized to access our technology systems or others may pose a risk that sensitive data, including intellectual property, trade secrets or personal information belonging to us, our patients, customers or other business partners, may be exposed to unauthorized persons or to the public. Cyber-attacks are increasing in their frequency, sophistication and intensity, and are becoming increasingly difficult to detect. They are often carried out by motivated, well-resourced, skilled and persistent actors, including nation states, organized crime groups, "hacktivists" and employees or contractors acting with malicious intent. Cyber-attacks could include the deployment of harmful malware and key loggers, ransomware, a denial-of-service attack, a malicious website, the use of social engineering and other means to affect the confidentiality, integrity and availability of our technology systems and data. Our key business partners face similar risks and any security breach of their systems could adversely affect our security posture. While we continue to build and improve our systems and infrastructure, including our business continuity plans, there can be no assurance that our efforts will prevent breakdowns or breaches in our systems that could adversely affect our business and operations and/or result in the loss of critical or sensitive information, which could result in financial, legal, business or reputational harm to us. In addition, our liability insurance may not be sufficient in type or amount to cover us against claims related to security breaches, cyber-attacks and other related breaches.

Successful preclinical work or early stage clinical trials does not ensure success in later stage trials, regulatory approval or commercial viability of a product.

Positive results in a clinical trial may not be replicated in subsequent or confirmatory trials. Additionally, success in preclinical work or early stage clinical trials does not ensure that later stage or larger scale clinical trials will be successful or that regulatory approval will be obtained. In addition, even if later stage clinical trials are successful, regulatory authorities may delay or decline approval of our product candidates. Regulatory authorities may disagree with our view of the data, require additional studies or disagree with our trial design or endpoints. Regulatory authorities may also fail to approve the facilities or the processes used to manufacture a product candidate, our dosing or delivery methods or companion devices. Regulatory authorities may grant marketing approval that is more restricted than anticipated. These restrictions may include limiting indications to narrow patient populations and the imposition of safety monitoring, educational requirements and risk evaluation and mitigation strategies. The occurrence of any of these events could result in significant costs and expenses, have an adverse effect on our business, financial condition and results of operations, and cause our stock price to decline or experience periods of volatility.

Even if we are able to successfully develop new products or indications, sales of new products or products with additional indications may not meet investor expectations. We may also make a strategic decision to discontinue development of a product or indication if, for example, we believe commercialization will be difficult relative to the standard of care or other opportunities in our pipeline.

Clinical trials and the development of biopharmaceutical products is a lengthy and complex process. If we fail to adequately manage our clinical activities, our clinical trials or potential regulatory approvals may be delayed or denied.

Conducting clinical trials is a complex, time-consuming and expensive process. Our ability to complete clinical trials in a timely fashion depends on a number of key factors. These factors include protocol design, regulatory and institutional review board approval, patient enrollment rates and compliance with current good clinical practices ("cGCP"). If we or our third-party clinical trial providers or third-party contract research organizations ("CROs") do not successfully carry out these clinical activities, our clinical trials or the potential regulatory approval of a product candidate may be delayed or be unsuccessful.

We have opened clinical trial sites and are enrolling patients in a number of countries where our experience is limited. In most cases, we use the services of third parties to carry out our clinical trial related activities and rely on such parties to accurately report their results. Our reliance on third parties for these activities may impact our ability to control the timing, conduct, expense and quality of our clinical trials. One CRO has responsibility for a substantial portion of our activities and reporting related to our clinical trials. If this CRO does not adequately perform, many of our trials may be affected. We may need to replace our CROs. Although we believe there are a number of other CROs we could engage to continue these activities, the replacement of an existing CRO may result in the delay of the affected trials or otherwise adversely affect our efforts to obtain regulatory approvals and commercialize our product candidates.

Adverse safety events or restrictions on use and safety warnings for our products can negatively affect our business, product sales and stock price.

Adverse safety events involving our marketed products or generic or biosimilar products marketed by others may have a negative impact on our business. Discovery of safety issues with our products could create product liability and could cause additional regulatory scrutiny and requirements for additional labeling or safety monitoring, withdrawal of products from the market and the imposition of fines or criminal penalties. Adverse safety events may also damage physician, patient and/or investor confidence in our products and our reputation. Any of these could result in liabilities, loss of revenues, material write-offs of inventory, material impairments of intangible assets, goodwill and fixed assets, material restructuring charges or other adverse impacts on our results of operations.

Regulatory authorities are making greater amounts of stand-alone safety information directly available to the public through periodic safety update reports, patient registries and other reporting requirements. The reporting of adverse safety events involving our products or products similar to ours and public rumors about such events may increase claims against us and may also cause our product sales or stock price to decline or experience periods of volatility.

Restrictions on use or significant safety warnings that may be required to be included in the label of our products, such as the risk of developing progressive multifocal leukoencephalopathy or liver injury in the label for certain of our products, may significantly reduce expected revenues for those products and require significant expense and management time.

We depend on relationships with collaborators and other third parties for revenues, and for the development, regulatory approval, commercialization and marketing of certain of our products and product candidates, which are outside of our full control.

We rely on a number of significant collaborative and other third-party relationships for revenues, and for the development, regulatory approval, commercialization and marketing of certain of our products and product candidates. We also outsource to third parties certain aspects of our regulatory affairs and clinical development relating to our products and product candidates. Reliance on collaborative and other third-party relationships subjects us to a number of risks, including:

- we may be unable to control the resources our collaborators or third parties devote to our programs, products or product candidates;
- disputes may arise under an agreement, including with respect to the achievement and payment of milestones or ownership of rights to technology developed with our collaborators or other third parties, and the underlying agreement with our collaborators or other third parties may fail to provide us with significant protection or may fail to be effectively enforced if the collaborators or third parties fail to perform;
- the interests of our collaborators or third parties may not always be aligned with our interests, and such parties may not pursue regulatory approvals or market a product in the same manner or to the same extent that we would, which could adversely affect our revenues;
- third-party relationships and collaborations often require the parties to cooperate, and failure to do so effectively could adversely affect product sales, or the clinical development or regulatory approvals of products under joint control, could result in termination of the research, development or commercialization of product candidates or could result in litigation or arbitration;
- any failure on the part of our collaborators or other third parties to comply with applicable laws and regulatory requirements in the marketing, sale and maintenance of the marketing authorization of our products or to fulfill any responsibilities our collaborators or other third parties may have to protect and enforce any intellectual property rights underlying our products could have an adverse effect on our revenues as well as involve us in possible legal proceedings; and
- any improper conduct or actions on the part of our collaborators or other third parties could subject us to civil or criminal investigations and monetary and injunctive penalties, and could adversely impact our ability to conduct business, our operating results and our reputation.

Given these risks, there is considerable uncertainty regarding the success of our current and future collaborative efforts. If these efforts fail, our product development or commercialization of new products could be delayed or revenues from products could decline and/or we may not realize the anticipated benefits of the collaboration arrangements.

Our results of operations may be adversely affected by current and potential future healthcare reforms.

In the U.S., federal and state legislatures, health agencies and third-party payors continue to focus on containing the cost of health care. Legislative and regulatory proposals, enactments to reform health care insurance programs and increasing pressure from social sources could significantly influence the manner in which our products are prescribed and purchased. For example, provisions of the Patient Protection and Affordable Care Act (the "PPACA") have resulted in changes in the way health care is paid for by both governmental and private insurers, including increased rebates owed by manufacturers under the Medicaid Drug Rebate Program, annual fees and taxes on manufacturers of certain branded prescription drugs, the requirement that manufacturers participate in a discount program for certain outpatient drugs under Medicare Part D and the expansion of the number of hospitals eligible for discounts under Section 340B of the Public Health Service Act. These changes have had and are expected to continue to have a significant impact on our business.

We may face uncertainties as a result of federal and administrative efforts to repeal, substantially modify or invalidate some or all of the provisions of the PPACA. There is no assurance that the PPACA, as currently enacted or as amended in the future, will not adversely affect our business and financial results, and we cannot predict how future federal or state legislative or administrative changes relating to healthcare reform will affect our business.

The administration has also indicated an intent to address prescription drug pricing and recent Congressional hearings have brought increased public attention to the costs of prescription drugs. These actions and the uncertainty about the future of the PPACA and healthcare laws may put downward pressure on pharmaceutical pricing and increase our regulatory burdens and operating costs.

There is also significant economic pressure on state budgets that may result in states increasingly seeking to achieve budget savings through mechanisms that limit coverage or payment for our drugs. In recent years, some states have considered legislation and ballot initiatives that would control the prices of drugs, including laws to allow importation of pharmaceutical products from lower cost jurisdictions outside the U.S. and laws intended to impose price controls on state drug purchases. State Medicaid programs are increasingly requesting manufacturers to pay supplemental rebates and requiring prior authorization by the state program for use of any drug for which supplemental rebates are not being paid. Government efforts to reduce Medicaid expenses may lead to increased use of managed care organizations by Medicaid programs. This may result in managed care organizations influencing prescription decisions for a larger segment of the population and a corresponding limitation on prices and reimbursement for our products.

In the EU and some other international markets, the government provides health care at low cost to consumers and regulates pharmaceutical prices, patient eligibility or reimbursement levels to control costs for the government-sponsored health care system. Many countries have announced or implemented measures, and may in the future implement new or additional measures, to reduce health care costs to limit the overall level of government expenditures. These measures vary by country and may include, among other things, patient access restrictions, suspensions on price increases, prospective and possible retroactive price reductions and other recoupments and increased mandatory discounts or rebates, recoveries of past price increases and greater importation of drugs from lower-cost countries. These measures have negatively impacted our revenues and may continue to adversely affect our revenues and results of operations in the future.

If we fail to comply with the extensive legal and regulatory requirements affecting the health care industry, we could face increased costs, penalties and a loss of business.

Our activities, and the activities of our collaborators, distributors and other third-party providers, are subject to extensive government regulation and oversight both in the U.S. and in foreign jurisdictions. The FDA and comparable agencies in other jurisdictions directly regulate many of our most critical business activities, including the conduct of preclinical and clinical studies, product manufacturing, advertising and promotion, product distribution, adverse event reporting and product risk management. Our interactions in the U.S. or abroad with physicians and other health care providers that prescribe or purchase our products are also subject to government regulation designed to prevent fraud and abuse in the sale and use of products and place significant restrictions on the marketing practices of health care companies. Health care companies such as ours are facing heightened scrutiny of their relationships with health care providers from anti-corruption enforcement officials. In addition, health care companies such as ours have been the target of lawsuits and investigations alleging violations of government regulation, including claims asserting submission of incorrect pricing information, impermissible off-label promotion of pharmaceutical products, payments intended to influence the referral of health care business, submission of false claims for government reimbursement, antitrust violations or violations related to environmental matters. There is also enhanced scrutiny of company-sponsored patient assistance programs, including insurance premium and co-pay assistance programs and donations to third-party charities that provide such assistance. If we, or our vendors or donation recipients, are deemed to fail to comply with

relevant laws, regulations or government guidance in the operation of these programs, we could be subject to significant fines or penalties. Risks relating to compliance with laws and regulations may be heightened as we continue to expand our global operations and enter new therapeutic areas with different patient populations, which may have different product distribution methods, marketing programs or patient assistance programs from those we currently utilize or support.

Conditions and regulations governing the health care industry are subject to change, with possible retroactive effect, including:

- new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or judicial decisions, related to health care availability, pricing or marketing practices, compliance with wage and hour laws and other employment practices, method of delivery, payment for health care products and services, compliance with health information and data privacy and security laws and regulations, tracking and reporting payments and other transfers of value made to physicians and teaching hospitals, extensive anti-bribery and anti-corruption prohibitions, product serialization and labeling requirements and used product take-back requirements;
- changes in the FDA and foreign regulatory approval processes that may delay or prevent the approval of new products and result in lost market opportunity;
- U.S. government shutdowns, similar to the one that began in December 2018, may result in delays to the FDA's review and approval process, slowing the time necessary for new drug candidates to be reviewed and/or approved, which may adversely affect our business;
- requirements that provide for increased transparency of clinical trial results and quality data, such as the European Medicines Agency's clinical transparency policy, which could impact our ability to protect trade secrets and competitively-sensitive information contained in approval applications or could be misinterpreted leading to reputational damage, misperception or legal action, which could harm our business; and
- changes in FDA and foreign regulations that may require additional safety monitoring, labeling changes, restrictions on product distribution or use or other measures after the introduction of our products to market, which could increase our costs of doing business, adversely affect the future permitted uses of approved products or otherwise adversely affect the market for our products.

Violations of governmental regulation may be punishable by criminal and civil sanctions against us, including fines and civil monetary penalties and exclusion from participation in government programs, including Medicare and Medicaid, as well as against executives overseeing our business. In addition to penalties for violation of laws and regulations, we could be required to repay amounts we received from government payors, or pay additional rebates and interest if we are found to have miscalculated the pricing information we have submitted to the government. We cannot ensure that our compliance controls, policies and procedures will in every instance protect us from acts committed by our employees, collaborators, partners or third-party providers that would violate the laws or regulations of the jurisdictions in which we operate. Whether or not we have complied with the law, an investigation into alleged unlawful conduct could increase our expenses, damage our reputation, divert management time and attention and adversely affect our business.

Our sales and operations are subject to the risks of doing business internationally.

We are increasing our presence in international markets, particularly emerging markets, subjecting us to many risks that could adversely affect our business and revenues, such as:

- the inability to obtain necessary foreign regulatory or pricing approvals of products in a timely manner;
- uncertainties regarding the collectability of accounts receivable;
- fluctuations in foreign currency exchange rates that may adversely impact our revenues, net income and value of certain of our investments;
- difficulties in staffing and managing international operations;
- the imposition of governmental controls;
- less favorable intellectual property or other applicable laws;
- increasingly complex standards for complying with foreign laws and regulations that may differ substantially from country to country and may conflict with corresponding U.S. laws and regulations;

- the far-reaching anti-bribery and anti-corruption legislation in the United Kingdom, including the U.K. Bribery Act 2010, and elsewhere and escalation of investigations and prosecutions pursuant to such laws;
- the effects of the implementation of the U.K.'s decision to voluntarily depart from the EU, known as Brexit;
- compliance with complex import and export control laws;
- restrictions on direct investments by foreign entities and trade restrictions;
- greater political or economic instability;
- changes in tax laws; and
- the imposition of tariffs or embargoes and other trade restrictions, including the recent tariffs imposed by the U.S. and China and the possibility of additional tariffs or other trade restrictions relating to trade between the two countries.

In addition, our international operations are subject to regulation under U.S. law. For example, the U.S. Foreign Corrupt Practices Act (the "FCPA") prohibits U.S. companies and their representatives from paying, offering to pay, promising to pay or authorizing the payment of anything of value to any foreign government official, government staff member, political party or political candidate for the purpose of obtaining or retaining business or to otherwise obtain favorable treatment or influence a person working in an official capacity. In many countries, the health care professionals we regularly interact with may meet the FCPA's definition of a foreign government official. Failure to comply with domestic or foreign laws could result in various adverse consequences, including: possible delay in approval or refusal to approve a product, recalls, seizures or withdrawal of an approved product from the market, disruption in the supply or availability of our products or suspension of export or import privileges, the imposition of civil or criminal sanctions, the prosecution of executives overseeing our international operations and damage to our reputation. Any significant impairment of our ability to sell products outside of the U.S. could adversely impact our business and financial results.

Management and key personnel changes may disrupt our operations, and we may have difficulty retaining key personnel or attracting and retaining qualified replacements on a timely basis for management and other key personnel who may leave the Company.

We have experienced changes in management and other key personnel in critical functions across our organization in recent years. Changes in management and other key personnel have the potential to disrupt our business, and any such disruption could adversely affect our operations, programs, growth, financial condition or results of operations. Further, new members of management may have different perspectives on programs and opportunities for our business, which may cause us to focus on new business opportunities or reduce or change emphasis on our existing business programs.

Our success is dependent upon our ability to attract and retain qualified management and key personnel in a highly competitive environment. Qualified individuals are in high demand, and we may incur significant costs to attract them, particularly at the executive level. We may face difficulty in attracting and retaining key talent for a number of reasons, including management changes, the underperformance or discontinuation of one or more late stage programs or recruitment by competitors. We cannot ensure you that we will be able to hire or retain the personnel necessary for our operations or that the loss of any such personnel will not have a material impact on our financial condition and results of operations.

We are expanding our manufacturing capacity for future clinical and commercial requirements for product candidates, which will result in the incurrence of significant investment with no assurance that such investment will be recouped.

We believe we currently have sufficient large-scale manufacturing capacity to meet our near-term manufacturing requirements. However, due to the long lead times necessary for the expansion of manufacturing capacity, we are expanding our large molecule production capacity by building a large-scale biologics manufacturing facility in Solothurn, Switzerland with no assurance that the additional capacity will be required. In addition, we have made and expect to make significant investments in connection with the building of this manufacturing facility with no assurance that such investment will be recouped. If we are unable to adequately and timely manufacture and supply our products and product candidates or if we do not fully utilize our manufacturing facilities, our business may be harmed.

Manufacturing issues could substantially increase our costs, limit supply of our products and/or reduce our revenues.

The process of manufacturing our products is complex, highly regulated and subject to numerous risks, including:

- *Risks of Reliance on Third Parties and Single Source Providers.* We rely on third-party suppliers and manufacturers for many aspects of our manufacturing process for our products and product candidates. In some cases, due to the unique manner in which our products are manufactured, we rely on single source providers of raw materials and manufacturing supplies. These third parties are independent entities subject to their own unique operational and financial risks that are outside of our control. These third parties may not perform their obligations in a timely and cost-effective manner or in compliance with applicable regulations, and they may be unable or unwilling to increase production capacity commensurate with demand for our existing or future products. Finding alternative providers could take a significant amount of time and involve significant expense due to the specialized nature of the services and the need to obtain regulatory approval of any significant changes to our suppliers or manufacturing methods. We cannot be certain that we could reach agreement with alternative providers or that the FDA or other regulatory authorities would approve our use of such alternatives.
- *Risks Relating to Compliance with cGMP.* We and our third-party providers are generally required to maintain compliance with current Good Manufacturing Practices ("cGMP") and other stringent requirements and are subject to inspections by the FDA and comparable agencies in other jurisdictions to confirm such compliance. Any delay, interruption or other issues that arise in the manufacture, fill-finish, packaging or storage of our products as a result of a failure of our facilities or the facilities or operations of third parties to pass any regulatory agency inspection could significantly impair our ability to develop and commercialize our products. Significant noncompliance could also result in the imposition of monetary penalties or other civil or criminal sanctions and damage our reputation.
- *Global Bulk Supply Risks*. We rely on our principal manufacturing facilities for the production of drug substance for our large molecule products and product candidates. Our global bulk supply of these products and product candidates depends on the uninterrupted and efficient operation of these facilities, which could be adversely affected by equipment failures, labor shortages, natural disasters, power failures and numerous other factors.
- *Risk of Product Loss.* The manufacturing process for our products is extremely susceptible to product loss due to contamination, oxidation, equipment failure or improper installation or operation of equipment or vendor or operator error. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered in our products or manufacturing facilities, we may need to close our manufacturing facilities for an extended period of time to investigate and remediate the contaminant.

Any adverse developments affecting our manufacturing operations or the operations of our third-party suppliers and manufacturers may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls or other interruptions in the commercial supply of our products. We may also have to take inventory write-offs and incur other charges and expenses for products that fail to meet specifications, undertake costly remediation efforts or seek more costly manufacturing alternatives. Such developments could increase our manufacturing costs, cause us to lose revenues or market share as patients and physicians turn to competing therapeutics, diminish our profitability or damage our reputation.

In addition, although we have business continuity plans to reduce the potential for manufacturing disruptions or delays and reduce the severity of a disruptive event, there is no guarantee that these plans will be adequate, which could adversely affect our business and operations.

Our success in commercializing biosimilars developed by Samsung Bioepis is subject to risks and uncertainties inherent in the development, manufacture and commercialization of biosimilars. If Samsung Bioepis is unsuccessful in the development, manufacture and commercialization of biosimilars, we may not realize the anticipated benefits of our investment in Samsung Bioepis.

Our success in commercializing biosimilars developed by Samsung Bioepis is subject to a number of risks, including:

- *Reliance on Third Parties.* We are dependent on the efforts of Samsung Bioepis and other third parties over whom we have limited or no control in the development and manufacturing of biosimilars

products. If Samsung Bioepis or such other third parties fail to perform successfully, we may not realize the anticipated benefits of our investment in Samsung Bioepis;

- *Regulatory Compliance.* Biosimilar products may face regulatory hurdles or delays due to the evolving and uncertain regulatory and commercial pathway of biosimilars products in certain jurisdictions;
- *Intellectual Property and Regulatory Challenges.* Biosimilar products may face extensive patent clearances, patent infringement litigation, injunctions or regulatory challenges, which could prevent the commercial launch of a product or delay it for many years or result in imposition of monetary damages, penalties or other civil sanctions and damage our reputation;
- *Failure to Gain Market and Patient Acceptance*. Market success of biosimilar products will be adversely affected if patients, physicians and/or payors do not accept biosimilar products as safe and efficacious products offering a more competitive price or other benefit over existing therapies;
- *Ability to Provide Adequate Supply*. Manufacturing biosimilars is complex. If we encounter any manufacturing or supply chain difficulties, we may be unable to meet higher than anticipated demand; and
- *Competitive Challenges.* Biosimilar products face significant competition, including from innovator products and from biosimilar products offered by other companies. In some jurisdictions, local tendering processes may restrict biosimilar products from being marketed and sold in those jurisdictions. The number of competitors in a jurisdiction, the timing of approval and the ability to market biosimilar products successfully in a timely and cost-effective manner are additional factors that may impact our success and/or the success of Samsung Bioepis in this business area.

If Samsung Bioepis is unsuccessful in the development, manufacture and commercialization of biosimilar products, we may not realize the anticipated benefits of our investment in Samsung Bioepis.

In addition, as Samsung Bioepis is a privately-held entity, our ability to liquidate our investment in Samsung Bioepis may be limited and we may realize significantly less than the value of such investment.

Our operating results are subject to significant fluctuations.

Our quarterly revenues, expenses and net income (loss) have fluctuated in the past and are likely to fluctuate significantly in the future due to the risks described in these Risk Factors as well as the timing of charges and expenses that we may take. We have recorded, or may be required to record, charges that include:

- the cost of restructurings or other initiatives to streamline our operations and reallocate resources;
- impairments with respect to investments, fixed assets and long-lived assets, including in-process R&D and other intangible assets;
- inventory write-downs for failed quality specifications, charges for excess or obsolete inventory and charges for inventory write downs relating to product suspensions, expirations or recalls;
- changes in the fair value of contingent consideration;
- bad debt expenses and increased bad debt reserves;
- outcomes of litigation and other legal or administrative proceedings, regulatory matters and tax matters;
- milestone payments under license and collaboration agreements; and
- payments in connection with acquisitions and other business development activities.

Our revenues and certain assets and liabilities are also subject to foreign currency exchange rate fluctuations due to the global nature of our operations. Although we have foreign currency forward contracts to hedge specific forecasted transactions denominated in foreign currencies, our efforts to mitigate the impact of fluctuating currency exchange rates may not be successful. As a result, currency fluctuations among our reporting currency, the U.S. dollar, and other currencies in which we do business will affect our operating results, often in unpredictable ways. Our net income may also fluctuate due to the impact of charges we may be required to take with respect to foreign currency hedge transactions. In particular, we may incur higher than expected charges from early termination of a hedge relationship.

Our operating results during any one period do not necessarily suggest the anticipated results of future periods.

Our effective tax rate fluctuates, and we may incur obligations in tax jurisdictions in excess of accrued amounts.

As a global biopharmaceutical company, we are subject to taxation in numerous countries, states and other jurisdictions. As a result, our effective tax rate is derived from a combination of applicable tax rates in the various places that we operate. In preparing our financial statements, we estimate the amount of tax that will become payable in each of such places. Our effective tax rate, however, may be different than experienced in the past due to numerous factors, including changes in the mix of our profitability from country to country, the results of examinations and audits of our tax filings, adjustments to the value of our uncertain tax positions, changes in accounting for income taxes and changes in tax laws, including the Tax Cuts and Jobs Act of 2017 (the "2017 Tax Act"). Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations.

In addition, our inability to secure or sustain acceptable arrangements with tax authorities and future changes in the tax laws, among other things, may result in tax obligations in excess of amounts accrued in our financial statements.

The 2017 Tax Act resulted in significant changes to the U.S. corporate income tax system. These changes include a federal statutory rate reduction from 35% to 21%, the elimination or reduction of certain domestic deductions and credits and limitations on the deductibility of interest expense and executive compensation. The 2017 Tax Act also transitions international taxation from a worldwide system to a modified territorial system, which has the effect of subjecting certain earnings of our foreign subsidiaries to U.S. taxation as global intangible low-taxed income ("GILTI"), and includes base erosion prevention measures on non-U.S. earnings. These changes became effective in 2018.

The 2017 Tax Act also includes a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings (the "Transition Toll Tax"). The Transition Toll Tax will be paid in installments over an eight-year period, which started in 2018, and will not accrue interest.

Our estimates concerning the impact of the 2017 Tax Act on our accounting and on our business remain subject to developing interpretations of the provisions of the 2017 Tax Act and changes to certain estimates and amounts related to the earnings and profits of certain subsidiaries. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the 2017 Tax Act may require further adjustments and changes in our estimates, which could have a material adverse effect on our business, results of operations or financial condition.

In addition, the adoption of some or all of the recommendations set forth in the Organization for Economic Cooperation and Development's project on Base Erosion and Profit Shifting ("BEPS") by tax authorities in the countries in which we operate, could negatively impact our effective tax rate. These recommendations focus on payments from affiliates in high tax jurisdictions to affiliates in lower tax jurisdictions and the activities that give rise to a taxable presence in a particular country.

Our investments in properties may not be fully realized.

We own or lease real estate primarily consisting of buildings that contain research laboratories, office space and manufacturing operations. For strategic or other operational reasons, we may decide to consolidate or co-locate certain aspects of our business operations or dispose of one or more of our properties, some of which may be located in markets that are experiencing high vacancy rates and decreasing property values. If we determine that the fair value of any of our owned properties is lower than their book value, we may not realize the full investment in these properties and incur significant impairment charges or additional depreciation when the expected useful lives of certain assets have been shortened due to the anticipated closing of facilities. If we decide to fully or partially vacate an owned or leased property, we may incur significant cost, including facility closing costs, employee separation and retention expenses, lease termination fees, rent expense in excess of sublease income and impairment of leasehold improvements and accelerated depreciation of assets. Any of these events may have an adverse impact on our results of operations.

Our portfolio of marketable securities is subject to market, interest and credit risk that may reduce its value.

We maintain a portfolio of marketable securities for investment of our cash. Changes in the value of our portfolio of marketable securities could adversely affect our earnings. In particular, the value of our investments may decline due to increases in interest rates, downgrades of the bonds and other securities included in our portfolio, instability in the global financial markets that reduces the liquidity of securities included in our portfolio, declines in the value of collateral underlying the securities included in our portfolio and other factors. Each of these events may cause us to record charges to reduce the carrying value of our investment portfolio or sell investments for less than our acquisition cost. Although we attempt to mitigate these risks through

diversification of our investments and continuous monitoring of our portfolio's overall risk profile, the value of our investments may nevertheless decline.

We may not be able to access the capital and credit markets on terms that are favorable to us.

We may seek access to the capital and credit markets to supplement our existing funds and cash generated from operations for working capital, capital expenditure and debt service requirements and other business initiatives. The capital and credit markets have experienced extreme volatility and disruption in the past, which leads to uncertainty and liquidity issues for both borrowers and investors. In the event of adverse capital and credit market conditions, we may be unable to obtain capital or credit market financing on favorable terms. Changes in credit ratings issued by nationally recognized credit rating agencies could also adversely affect our cost of financing and the market price of our securities.

Our indebtedness could adversely affect our business and limit our ability to plan for or respond to changes in our business.

Our indebtedness, together with our significant contingent liabilities, including milestone and royalty payment obligations, could have important consequences to our business; for example, such obligations could:

- increase our vulnerability to general adverse economic and industry conditions;
- limit our ability to access capital markets and incur additional debt in the future;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow for other purposes, including business development efforts, research and development and mergers and acquisitions; and
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate, thereby placing us at a competitive disadvantage compared to our competitors that have less debt.

Our business involves environmental risks, which include the cost of compliance and the risk of contamination or injury.

Our business and the business of several of our strategic partners involve the controlled use of hazardous materials, chemicals, biologics and radioactive compounds. Although we believe that our safety procedures for handling and disposing of such materials comply with state, federal and foreign standards, there will always be the risk of accidental contamination or injury. If we were to become liable for an accident, or if we were to suffer an extended facility shutdown, we could incur significant costs, damages and penalties that could harm our business. Manufacturing of our products and product candidates also requires permits from government agencies for water supply and wastewater discharge. If we do not obtain appropriate permits, including permits for sufficient quantities of water and wastewater, we could incur significant costs and limits on our manufacturing volumes that could harm our business.

The illegal distribution and sale by third parties of counterfeit or unfit versions of our products or stolen products could have a negative impact on our reputation and business.

Third parties might illegally distribute and sell counterfeit or unfit versions of our products, which do not meet our rigorous manufacturing, distribution and testing standards. A patient who receives a counterfeit or unfit drug may be at risk for a number of dangerous health consequences. Our reputation and business could suffer harm as a result of counterfeit or unfit drugs sold under our brand name. In addition, inventory that is stolen from warehouses, plants or while in-transit, and that is subsequently improperly stored and sold through unauthorized channels, could adversely impact patient safety, our reputation and our business.

The increasing use of social media platforms presents new risks and challenges.

Social media is increasingly being used to communicate about our products and the diseases our therapies are designed to treat. Social media practices in the biopharmaceutical industry continue to evolve and regulations relating to such use are not always clear. This evolution creates uncertainty and risk of noncompliance with regulations applicable to our business. For example, patients may use social media channels to comment on the effectiveness of a product or to report an alleged adverse event. When such disclosures occur, there is a risk that we fail to monitor and comply with applicable adverse event reporting obligations or we may not be able to defend the company or the public's legitimate interests in the face of the political and market pressures generated by social media due to restrictions on what we may say about our products. There is also a risk of inappropriate disclosure of sensitive information or negative or inaccurate posts or comments about us on any social networking website. If any of these events were to occur or we otherwise fail to comply with applicable

regulations, we could incur liability, face overly restrictive regulatory actions or incur other harm to our business.

We may be exposed to claims and liabilities as a result of the spin-off of our hemophilia business.

On February 1, 2017, in connection with the spin-off of our hemophilia business, we distributed all of the then outstanding shares of Bioverativ Inc. ("Bioverativ") common stock to Biogen shareholders pursuant to a separation agreement. In March 2018 Bioverativ was acquired by Sanofi and is now an indirect wholly-owned subsidiary of Sanofi.

The spin-off of our hemophilia business was intended to qualify for tax-free treatment to Biogen and its shareholders under the U.S. Internal Revenue Code. Completion of the spin-off was conditioned upon, among other things, our receipt of a favorable opinion from our tax advisors with respect to the tax-free nature of the transaction. The opinion is not binding on the U.S. Internal Revenue Service (the "IRS") or the courts, and there can be no assurance that the IRS or the courts will not challenge the qualification of the spin-off as a tax-free transaction or that any such challenge would not prevail. If the spin-off is determined to be taxable, the full financial benefits expected to result from the separation may not be achieved and/or Biogen and its shareholders could incur significant tax liabilities, which could adversely affect our business, financial condition or results of operations and the value of our stock could be adversely impacted.

Bioverativ agreed to indemnify us for certain potential liabilities that may arise, but we cannot guarantee that Bioverativ will be able to satisfy its indemnification obligations. Third parties could also seek to hold us responsible for any of these liabilities or obligations, and the indemnity rights we have under the separation agreement may not be sufficient to fully cover all of these liabilities and obligations. Even if we are successful in obtaining indemnification, we may have to bear costs temporarily. In addition, our indemnity obligations to Bioverativ may be significant. These risks could negatively affect our business, financial condition or results of operations.

Risks Associated with Our Shares of Common Stock

There can be no assurance that we will continue to repurchase shares or that we will repurchase shares at favorable prices.

From time to time our Board of Directors authorizes share repurchase programs, including most recently a program to repurchase up to $3.5 billion of our common stock that was authorized by our Board of Directors in August 2018 (the "2018 Share Repurchase Program"). The amount and timing of share repurchases are subject to capital availability and our determination that share repurchases are in the best interest of our shareholders and are in compliance with all respective laws and our agreements applicable to the repurchase of shares. Our ability to repurchase shares will depend upon, among other factors, our cash balances and potential future capital requirements for strategic transactions, our results of operations, our financial condition and other factors beyond our control that we may deem relevant. A reduction in repurchases under, or the completion of, our 2018 Share Repurchase Program could have a negative effect on our stock price. We can provide no assurance that we will repurchase shares at favorable prices, if at all.

Some of our collaboration agreements contain change in control provisions that may discourage a third party from attempting to acquire us.

Some of our collaboration agreements include change in control provisions that could reduce the potential acquisition price an acquirer is willing to pay or discourage a takeover attempt that could be viewed as beneficial to shareholders. Upon a change in control, some of these provisions could trigger reduced milestone, profit or royalty payments to us or give our collaboration partner rights to terminate our collaboration agreement, acquire operational control or force the purchase or sale of the programs that are the subject of the collaboration.

GENERAL INFORMATION

Responsibility for Contents of the Prospectus

Biogen Inc., whose principal executive offices are located at 225 Binney Street, Cambridge, Massachusetts 02142, U.S.A., assumes responsibility for the contents of this prospectus pursuant to section 5 paragraph 4 of the German Securities Prospectus Act (*Wertpapierprospektgesetz*) and declares the information contained in this prospectus, to the best of its knowledge, is accurate and does not contain any material omissions, and that Biogen Inc. has taken all reasonable care to ensure that the information contained in this prospectus, to the best of its knowledge, is accurate and does not contain any material omissions.

References in this prospectus to "Biogen" or the "Company", as well as "we," "us," and "our," shall mean Biogen Inc. and its consolidated subsidiaries, unless the context indicates otherwise.

Information contained on our website is not part of this prospectus.

Subject Matter of the Offering

This prospectus relates to the offering of shares of Biogen's common stock each with a par value of $0.0005 under the ESPP.

Forward-Looking Statements

This prospectus contains forward-looking statements that are based on the Company's current beliefs and expectations. These forward-looking statements may be accompanied by such words as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "intend," "may," "plan," "potential," "possible," "will," "would" and other words and terms of similar meaning. Reference is made in particular to forward-looking statements regarding: future financial performance, results of operations and working capital; the incidence, timing, outcome and impact of litigation; proceedings related to patents and other intellectual property and proprietary rights; tax assessments and other legal proceedings; the outcome and impact of healthcare reform efforts and cost reduction measures; the development and commercialization of the Company's pipeline products; the Company's outlook relating to its marketed and pipeline products, regulatory filings and actions, research and development investments and manufacturing operations; and the anticipated timing to complete certain business development transactions. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including those risks and uncertainties that are described in the "Risk Factors" section of this prospectus. Forward-looking statements speak only as of the date of this prospectus. You should not place undue reliance on these statements. The Company does not undertake any obligation to publicly update any forward-looking statements, whether as a result of new information, future developments or otherwise.

Currency References

In this prospectus and any documents included herein, unless otherwise indicated, all dollar amounts and references to "U.S.$" or "$" are to U.S. dollars.

Trademarks

AVONEX®, PLEGRIDY®, RITUXAN®, RITUXAN HYCELA®, SPINRAZA®, TECFIDERA®, TYSABRI® and ZINBRYTA® are registered trademarks of Biogen. BENEPALI™, FLIXABI™, FUMADERM™ and IMRALDI™ are trademarks of Biogen. ENBREL®, FAMPYRA™, GAZYVA®, HUMIRA®, OCREVUS®, REMICADE® and other trademarks referenced in this prospectus are the property of their respective owners.

Documents Available for Inspection

The Company's internet address is www.biogen.com. The following documents, along with all other reports and amendments filed with or furnished to the U.S. Securities and Exchange Commission (the "SEC"), are publicly available free of charge during the entire validity period of this prospectus on the Investors section of Biogen's website at http://investors.biogen.com/financials/sec-filings:

- the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, including its audited consolidated financial statements (the "2018 10-K"), also available on the SEC website at https://www.sec.gov/Archives/edgar/data/875045/000087504519000006/0000875045-19-000006-index.htm;
- the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, including its audited consolidated financial statements (the "2017 10-K"), also available on the SEC website at https://www.sec.gov/Archives/edgar/data/875045/000087504518000005/0000875045-18-000005-index.htm; and

- the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, including its audited consolidated financial statements, also available on the SEC website at https://www.sec.gov/Archives/edgar/data/875045/000087504517000009/0000875045-17-000009-index.htm.

This prospectus can be downloaded on Biogen's website at https://www.biogen.com/en_us/careers/disclaimer-disclosure.html.

The Company's certificate of incorporation and bylaws are available on file at the Company's headquarters in Cambridge, Massachusetts, U.S.A. Hard copies of the Company's certificate of incorporation and bylaws will be furnished to investors without charge upon written request to: Investor Relations, Biogen Inc., 225 Binney Street, Cambridge, Massachusetts 02142, U.S.A. or via oral request to: Investor Relations, Biogen Inc. at (+1) (781) 464-2442. They are further available online at the Corporate Governance subsection of the Investor section of the Company's website at www.biogen.com.

THE OFFERING

Eligible Employees (as defined in "—Eligible Employees" below) have the opportunity to acquire shares of Biogen's common stock under the ESPP.

Information Concerning the Shares to be Offered

The shares offered under the ESPP are shares of Biogen's common stock. The shares offered under the ESPP are registered under the U.S. Securities Act of 1933, as amended. The Company's common stock is listed on the Nasdaq Global Select Market ("Nasdaq"), under the symbol "BIIB." The stock is quoted on Nasdaq in U.S. dollars. The International Securities Identification Number (the "ISIN") for the Company's common stock is US09062X1037. The U.S. security identification number (the "CUSIP number") for the Company's common stock is 09062X103. The German Securities Code Number (*Wertpapier-Kenn-Nummer*) is 789617. In Germany, the stock is traded in the Open Market (*Freiverkehr*) on the exchanges in Frankfurt, Stuttgart, Berlin, Düsseldorf, Hamburg and Munich as well as on Tradegate under the symbol "IDP".

The par value of each share of the Company's common stock is $0.0005. All issued and outstanding shares of Biogen's common stock are fully paid and non-assessable. Substantially all of the outstanding shares of common stock are registered and freely transferable. Each issued and outstanding share of common stock entitles the holder to one vote on all matters presented to the shareholders in annual or special meetings of the Company.

Biogen is authorized to issue up to 1,000,000,000 shares of common stock. As of February 1, 2019, the Company had 196,708,784 shares of common stock issued and outstanding.

A Participant (as defined in "—Purchase Rights and Purchase Price" below) shall have no interest or voting right in the shares covered by his or her Purchase Right until the shares are purchased on the Participant's behalf and the Participant has become a holder of record of the purchased shares.

The Offering Under the ESPP

General Information

The ESPP was adopted by the Board of Directors on December 10, 2014, and approved by the Company's shareholders on June 10, 2015, at which time the ESPP became effective. The ESPP is intended to enable Eligible Employees to use payroll deductions to acquire common stock in the Company at a discount to current market trading prices. The ESPP fosters broad-based stock ownership among Biogen employees.

Administration of the ESPP

The ESPP is administered by the Compensation and Management Development Committee of the Board of Directors (referred to as the "Plan Administrator"). The Plan Administrator has full authority to interpret and determine eligibility under the ESPP, prescribe forms, rules and procedures relating to the ESPP and otherwise do all things necessary or appropriate to carry out the purposes of the ESPP. Decisions of the Plan Administrator are final and binding on all parties having interest in the ESPP.

The Company has designated Fidelity Investments® ("Fidelity"), as the ESPP services provider. Fidelity assists the Company with the administration of the ESPP.

Eligible Employees

An employee of Biogen or any of its designated subsidiaries who (i) customarily works more than 5 months per calendar year, (ii) customarily works 20 hours or more per week and (iii) satisfies the requirements in the ESPP, including the requirement to timely complete and submit the enrollment forms (including a payroll deduction authorization form), is eligible to participate in the ESPP ("Eligible Employee"). The Plan Administrator may establish additional eligibility requirements for offering periods that have not yet commenced.

Shares Available for Award

The maximum aggregate number of shares of common stock that have been authorized for issuance and are available for purchase under the ESPP is 5,733,528.

If any Purchase Right (as defined in "—Purchase Rights and Purchase Price" below) granted under the ESPP expires or terminates for any reason without having been exercised in full or ceases for any reason to be exercisable in whole or in part, the unpurchased shares of common stock will again be available for purchase pursuant to offerings under the ESPP.

In the event of any change in the Company's outstanding common stock by reason of a stock dividend, stock split, reverse stock split, split-up, recapitalization, merger, consolidation, reorganization or other capital change, the aggregate number and type of shares available for purchase under the ESPP, the number and type of shares

granted or purchasable during an offering period and the purchase price per share under an outstanding Purchase Right will be appropriately adjusted.

If the total number of shares for which Purchase Rights are to be exercised exceeds the number of shares at the time available for issuance under the ESPP, then the Plan Administrator will make a pro-rata allocation of the available shares on a uniform and non-discriminatory basis, and any payroll deductions not applied to the purchase of the available shares will be refunded to the Participant.

Terms and Conditions

Offering Period

Unless otherwise determined by the Plan Administrator, shares of the Company's common stock are offered for purchase under the ESPP through a series of successive three-month offering periods commencing on the first business day of each calendar quarter and ending on the last business day of each calendar quarter (each, an "Offering Period"). The Plan Administrator may change the commencement date, the ending date and the duration of the Offering Periods to the extent permitted by law.

The German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*; "BaFin") reviews the prospectus for completeness, consistency and comprehensibility. After approval of this prospectus by BaFin, this prospectus will cover the current Offering Period, the Offering Period from April 1, 2019 to June 30, 2019 and part of the Offering Period from July 1, 2019 to September 30, 2019.

On July 21, 2019, the EU Prospectus Regulation (the "Prospectus Regulation") will enter into force, superseding the current EU Prospectus Directive. Under the Prospectus Regulation, the ESPP, like other employee offerings made by non-EU issuers, will no longer be subject to the requirement of an approved prospectus, provided the conditions of the employee share scheme exemption or another exemption or exclusion are met. For Offering Periods subsequent to the effectiveness of the Prospectus Regulation, we expect that we will rely on the employee share scheme exemption and publish an information document.

Purchase Rights and Purchase Price

On the first day of an Offering Period, each participating Eligible Employee (a "Participant") automatically will be granted a right to purchase common stock (a "Purchase Right") on the last business day of each Offering Period (each, a **"**Purchase Date"). However, no employee may be granted a Purchase Right under the ESPP if, immediately after the Purchase Right is granted, the employee would own (or, under applicable statutory attribution rules, would be deemed to own) stock possessing 5% or more of the total combined voting power or value of all classes of stock of the Company or any of its subsidiaries.

The purchase price of shares of common stock issued pursuant to the exercise of a Purchase Right on the Purchase Date of an applicable Offering Period will be eighty-five percent (85%) of the lesser of (a) the Fair Market Value (as defined below) of a share of common stock on the first business day of the Offering Period and (b) the Fair Market Value of a share of common stock on the Purchase Date (the "Purchase Price"). The "Fair Market Value" is the closing price of Biogen common stock as reported on Nasdaq on the applicable date. If such day is not a trading day, the Fair Market Value will be the reported closing price for the immediately preceding day that is a trading day. The information on the offering prices can be downloaded on Biogen's website at https://www.biogen.com/en_us/careers/disclaimer-disclosure.html.

Exercise of Purchase Right

Each Purchase Right is automatically exercised on the Purchase Date and shares of the Company's common stock are accordingly purchased on behalf of each Participant on each such Purchase Date. The Purchase Dates during the validity of the prospectus are March 31, 2019, June 30, 2019, September 30, 2019 and December 31, 2019.

The purchase shall be effected by applying the Participant's payroll deductions for the Offering Period ending on such Purchase Date to the purchase the greatest number of shares of the Company's common stock, including fractional shares, that can be purchased with the Participant's accumulated payroll deductions (subject to the limitation on the maximum number of shares purchasable per Participant on any one Purchase Date), at the Purchase Price for that Purchase Date.

Purchase Price Payment – Payroll Deduction

In general, the Purchase Price is paid by way of automatic deduction from the Participant's payroll and used to purchase shares of the Company's common stock at the end of each Offering Period. The Participant authorizes the Company to make a payroll deduction up to a maximum of ten percent (10%), in one percent (1%)

increments, of after-tax income per pay period. After-tax income includes regular base salary, overtime, shift differentials, annual bonuses, commissions and other sales incentives.

A Participant's payroll deduction authorization will remain in effect for subsequent Offering Periods unless the Participant's participation in the ESPP terminates or the Participant cancels the authorization or submits a new payroll deduction authorization form within the time specified by the Plan Administrator prior to the start of the subsequent Offering Period. During an Offering Period, a Participant may reduce the amount of his or her payroll deduction authorization one time, but may not increase it. If, during an Offering Period, a Participant reduces his or her payroll deduction authorization to zero percent (0%), payroll deductions previously accumulated during that Offering Period will be applied to purchase shares of common stock on the Purchase Date for that Offering Period and the Participant's participation in the ESPP will then terminate.

Any amount of payroll deductions that are not used for the purchase of shares of common stock, whether because of the Participant's withdrawal from participation in an Offering Period or for any other reason will be returned to the Participant, without interest, as soon as administratively practicable after such withdrawal or other event, as applicable.

A Participant may view an individual account balance and a detailed purchase history by contacting Fidelity, Biogen's dedicated stock plan service provider, at (+1) 800-544-9354 or by going online to www.netbenefits.fidelity.com.

Purchase Limitations

A Participant may purchase up to – but not more than – $25,000 in Fair Market Value of the Company's common stock per calendar year under the ESPP. The $25,000 limit includes Biogen's company contribution via the discount, so each Participant's maximum annual contribution amount is $21,250. Should a Participant reach the calendar year purchase limit, any payroll deductions in excess of the limit not used to purchase shares will be returned to the Participant, without interest, as soon as administratively practicable and future contributions will be stopped until the next calendar year. In addition to the $25,000 per calendar year purchase limit, each Participant is limited to purchasing no more than 2,500 shares on any Purchase Date. Should a Participant reach the 2,500 shares limit on any Purchase Date, any payroll deductions in excess of the limit not used to purchase shares will be returned to the Participant, without interest, as soon as administratively practicable. Contributions will continue in the next Offering Period, if the $25,000 annual purchase limit has not yet been met.

Delivery

Each Purchase Right is automatically exercised on the Purchase Date. The purchase shall be effected by applying the Participant's payroll deductions for the Offering Period, ending on such Purchase Date to the purchase of shares of the Company's common stock. Hence, in general, the Purchase Price is paid by way of automatic deduction from the participating Eligible Employees' payroll. As soon as practicable after each Purchase Date, which is generally within seven (7) to ten (10) days of the Purchase Date, the purchased shares will be delivered.

Shares issuable to employees within and outside the U.S. upon exercise of Purchase Rights are deposited into a designated brokerage account with Fidelity maintained on behalf of the Participant and held in "street name", unless otherwise designated by the Plan Administrator.

Corporate Transactions

In the event of a consolidation, merger or similar transaction, a sale or transfer of all or substantially all of the Company's assets or a dissolution or liquidation of the Company, the Plan Administrator may, in its discretion, provide that each outstanding Purchase Right will be assumed or substituted for a right granted by the acquiror or successor corporation or by a parent or subsidiary of such entity, or will be cancelled with accumulated payroll deductions returned to each Participant, or that the Offering Period will end before the date of the proposed sale, merger or similar transaction.

Termination of Participation

The Participant may terminate his or her participation in the ESPP by delivering a notice to the Plan Administrator in accordance with the procedures established by, and in a form acceptable to, the Plan Administrator. To be effective with respect to an upcoming Purchase Date, the cancellation notice must be submitted no later than five (5) business days before such Purchase Date (or such other time specified by the Plan Administrator). Upon a termination, the Participant's accumulated payroll deductions will be returned to the Participant, without interest, as soon as administratively practicable.

The termination of such Purchase Right is irrevocable, and the Participant may not subsequently rejoin the Offering Period for which the terminated Purchase Right was granted. In order to resume participation in any subsequent Offering Period, such individual must re-enroll in the ESPP (by making a timely filing of the

prescribed enrollment forms). A Participant who reduces his or her withholding rate for future payroll periods to zero percent (0%) will be deemed to have terminated his or her participation in future Offering Periods, unless the Participant re-enrolls in the ESPP.

Termination of Eligibility

Upon the termination of the Participant's employment for any reason (including death) during an Offering Period, or in the event he or she ceases to qualify as an Eligible Employee, the Participant ceases to be a Participant, any Purchase Right will be canceled, the accumulated payroll deductions are returned to the Participant (or to his or her estate or designated beneficiary in the event of death) without interest, as soon as administratively practicable thereafter, and the Participant will have no further rights under the ESPP. Should the Participant cease to remain in active service by reason of an approved leave of absence, the effect of such leave on a Participant will be determined in accordance with applicable regulations under Section 423 of the U.S. Internal Revenue Code.

Duration, Termination and Amendment

The Board of Directors of the Company may, at any time or times, suspend or terminate the ESPP. If the ESPP is suspended or terminated, the Board of Directors may provide that outstanding Purchase Rights will be exercisable either on the Purchase Date of the applicable Offering Period or on such earlier date as the Board of Directors may specify, or that the Participant's accumulated payroll deductions will be returned to the Participant without interest.

The ESPP will terminate and no Purchase Rights will be granted after the earliest to occur of the ESPP's termination by the Company, the issuance of all shares of common stock available for issuance under the ESPP or June 9, 2025.

The Board of Directors may at any time amend the ESPP to any extent and in any manner as it may deem advisable. Shareholder approval may be required for certain amendments by the terms of the ESPP, the U.S. Internal Revenue Code, the rules of Nasdaq or the rules of the SEC.

Transferability of Purchase Rights

Purchase Rights granted under the ESPP are not assignable or transferable by the Participant other than by will or by the laws of descent and distribution following the Participant's death, and during the Participant's lifetime the Purchase Right shall be exercisable only by the Participant. Any transfer or attempt to transfer the rights under the ESPP will result in the termination of the Purchase Rights and, upon the return of the accumulated payroll deductions, without interest, all rights under the ESPP will terminate.

Enrollment

The ESPP is a voluntary plan and requires Eligible Employees to enroll in order to participate. Prior to each Offering Period, Eligible Employees are notified of the enrollment deadlines by internal postings on the Company's intranet. Enrollments completed after the enrollment deadline will take effect in the next following Offering Period.

The plan document for the ESPP is available on the Company's intranet in the Human Resources business area and in the enrollment area of Fidelity's website at www.netbenefits.fidelity.com. To enroll in the ESPP, the Eligible Employee is required to access Fidelity's website at www.netbenefits.fidelity.com.

REASONS FOR THE OFFERING AND USE OF PROCEEDS

Purpose of the ESPP

The ESPP is intended to enable Eligible Employees to use payroll deductions to acquire common stock in the Company at a discount to current market trading prices.

Proceeds and Use of Proceeds

On March 21, 2019, the closing price of a share of the Company's common stock as quoted on Nasdaq was $226.88. As of December 31, 2018, we had approximately 7,800 employees worldwide. Assuming that each eligible employee purchases 110.19 shares, the maximum annual amount of shares offered under the ESPP in the 12 months following the date of the prospectus assuming a purchase price of $192.85, which is 85% of the common stock's fair market value as of March 21, 2019, then the gross proceeds to the Company would be approximately $165,750,000. The costs of this offering consist of legal expenses in an amount of approximately $50,000. After deduction of such costs the net proceeds, based on the above assumptions, would be approximately $165,700,000.

The Company may use the proceeds from the issuance and exercise of Purchase Rights under the ESPP for any corporate purpose.

DILUTION

The book value of the shareholders' equity of the Company (defined as total assets less total liabilities) as reflected in the combined consolidated financial statements amount to approximately $13,039,600,000 as of December 31, 2018. This is equivalent to approximately $66.29 per share (calculated on the basis of 196,708,784 outstanding shares at February 1, 2019).

If the Company had obtained net proceeds in the amount of $165,700,000 as of the date of this prospectus, the book value of the shareholders' equity at that time would have been about $13,205,300,000 or $66.84 per share (based on the increased number of 197,568,260 shares after the purchase of 859,476.28 shares, assuming a purchase price of $192.85, which is 85% of the common stock's fair market value as of March 21, 2019). Consequently, under the above-mentioned assumptions, the implementation of the offering would lead to a direct increase in the book value of shareholders' equity to $66.84 per share and existing shareholders will enjoy an increase of the book value of their shares by $0.55 per share, or approximately 0.83%. Eligible employees who acquire shares at the purchase price of $192.85 will be diluted by $126.01 per share, or by approximately 65.34%.

DIVIDEND POLICY

Biogen has not historically paid cash dividends, and does not currently intend to pay dividends in the foreseeable future.

CAPITALIZATION

Capitalization and Indebtedness

The following information is based on the Company's audited consolidated financial statements for the fiscal year ended December 31, 2018, as published in the 2018 10-K, which can be accessed as described in the section "Documents Available for Inspection" of this prospectus. The Company's consolidated financial statements were prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

The following table shows our capitalization at December 31, 2018 (in U.S.$ millions):

Total current debt	**$ –**
Guaranteed	–
Secured	–
Unguaranteed/unsecured	–
Total non-current debt (excluding current portion of long-term debt)[1]	**$ 5,936.5**
Guaranteed	–
Secured	–
Unguaranteed/unsecured	5,936.5
Shareholder's equity:	
a. Share capital[2]	(2,977.0)
b. Legal reserve	–
c. Other reserves[3]	16,008.6
Total shareholders'equity	13,031.6
Total capitalization	**$ 18,968.1**

(1) Recorded on our balance sheet as "notes payable".
(2) Unaudited. Consists of (i) common stock ($0.1) and (ii) treasury stock at cost (-$2,977.1).
(3) Unaudited. Consists of (i) accumulated other comprehensive loss (-$240.4); (ii) retained earnings (16,257.0) and (iii) non controlling interests (-$8.0).

The following table shows our net indebtedness in the short term and in the medium-long term as of December 31, 2018 (in U.S.$ millions). The table does not include non-financial debt from normal operations such as accounts payable, taxes payable, deferred tax liability, accrued expenses and long term liabilities other than bank debt or notes payable.

A. +B. Cash and cash equivalents [1]	$ 1,224.6
C. Trading securities	–
D. Liquidity (A)+(B)+(C)	1,224.6
E. Current financial receivable	–
F. Current bank debt	–
G. Current portion of non-current debt	–
H. Other current financial debt	–
I. Current financial debt (F)+(G)+(H)	–
J. Net current financial indebtedness (I)-(E)-(D)	(1,224.6)
K. Non-current bank loans	–
L. Bonds issued[2]	5,936.5
M. Other non-current financial indebtedness	–
N. Non-current financial indebtedness (K)+(L)+(M)	5,936.5
O. Net financial indebtedness (J)+(N)	$ 4,711.9

(1) We do not separately report cash and cash equivalents in our financial statements.
(2) Recorded on our balance sheet as "notes payable".

Commitments and Contingencies

TYSABRI Contingent Payments

In 2013 we acquired from Elan Pharma International Ltd. ("Elan"), an affiliate of Elan Corporation plc, full ownership of all remaining rights to TYSABRI that we did not already own or control. Under the acquisition agreement, we are obligated to make contingent payments to Elan of 18% on annual worldwide net sales up to $2.0 billion and 25% on annual worldwide net sales that exceed $2.0 billion. Royalty payments to Elan and other third parties are recorded as cost of sales in our consolidated statements of income. Elan was acquired by Perrigo Company plc ("Perrigo") in December 2013, and Perrigo subsequently sold its rights to these payments to a third-party effective January 2017.

SPINRAZA Contingent Payments

In the third quarter of 2016 we exercised our option to develop and commercialize SPINRAZA from Ionis Pharmaceuticals, Inc. ("Ionis"). Under our agreement with Ionis, we make royalty payments to Ionis on annual worldwide net sales of SPINRAZA using a tiered royalty rate between 11% and 15%, which are recorded as cost of sales in our consolidated statements of income.

Contingent Consideration related to Business Combinations

In connection with our acquisitions of Convergence Pharmaceuticals Ltd. ("Convergence"), Stromedix Inc. ("Stromedix") and Biogen International Neuroscience GmbH ("BIN"), we agreed to make additional payments based upon the achievement of certain milestone events.

As the acquisitions of Convergence, Stromedix and BIN occurred after January 1, 2009, we recognized the contingent consideration liabilities associated with these transactions at their fair value on the acquisition date and revalue these obligations each reporting period. We may pay up to approximately $1.0 billion in remaining milestones related to these acquisitions.

Fumapharm AG

In 2006 we acquired Fumapharm AG. As part of this acquisition we acquired FUMADERM and TECFIDERA (together, the "Fumapharm Products"). We paid $220.0 million upon closing of the transaction and agreed to pay an additional $15.0 million if a Fumapharm Product was approved for MS in the U.S. or EU. In the second quarter of 2013 TECFIDERA was approved in the U.S. for MS by the FDA and we made the $15.0 million contingent payment. We are also required to make additional contingent payments to former shareholders of Fumapharm AG and holders of their rights based on the attainment of certain cumulative sales levels of Fumapharm Products and the level of total net sales of Fumapharm Products in the prior 12-month period, as defined in the acquisition agreement, until such time as the cumulative sales level reached $20.0 billion, at which time no further contingent payments are due. These payments are accounted for as an increase to goodwill as incurred, in accordance with the accounting standard applicable to business combinations when we acquired Fumapharm AG. Any portion of the payment that is tax deductible was recorded as a reduction to goodwill. Payments are due within 60 days following the end of the quarter in which the applicable cumulative sales level was reached.

During 2018 we paid $1.5 billion in contingent payments as we reached the $15.0 billion and $16.0 billion cumulative sales levels related to the Fumapharm Products in the fourth quarter of 2017 and the $17.0 billion, $18.0 billion and $19.0 billion cumulative sales levels related to the Fumapharm Products in the first, second and third quarters of 2018, respectively. In the fourth quarter of 2018 we achieved the $20.0 billion cumulative sales level threshold and accrued our last $300.0 million contingent payment related to the Fumapharm Products, which will be paid in the first quarter of 2019.

Contingent Development, Regulatory and Commercial Milestone Payments

Based on our development plans as of December 31, 2018, we could make potential future milestone payments to third parties of up to approximately $5.0 billion, including approximately $0.7 billion in development milestones, approximately $1.8 billion in regulatory milestones and approximately $2.5 billion in commercial milestones, as part of our various collaborations, including licensing and development programs. Payments under these agreements generally become due and payable upon achievement of certain development, regulatory or commercial milestones. Because the achievement of these milestones was not considered probable as of December 31, 2018, such contingencies have not been recorded in our financial statements. Amounts related to contingent milestone payments are not considered contractual obligations as they are contingent on the successful achievement of certain development, regulatory approval or commercial milestones.

Provided various development, regulatory or commercial milestones are achieved, we anticipate that we may pay approximately $250.0 million of milestone payments in 2019.

Other Funding Commitments

As of December 31, 2018, we have several ongoing clinical studies in various clinical trial stages. Our most significant clinical trial expenditures are to CROs. The contracts with CROs are generally cancellable, with notice, at our option. We recorded accrued expenses of approximately $27.0 million in our consolidated balance sheet for expenditures incurred by CROs as of December 31, 2018. We have approximately $655.0 million in cancellable future commitments based on existing CRO contracts as of December 31, 2018.

Tax Related Obligations

We exclude liabilities pertaining to uncertain tax positions from our summary of contractual obligations as we cannot make a reliable estimate of the period of cash settlement with the respective taxing authorities. As of December 31, 2018, we have $117.7 million of net liabilities associated with uncertain tax positions.

As of December 31, 2018 and 2017, we have accrued income tax liabilities of $697.0 million and $989.6 million, respectively, under the Transition Toll Tax. Of the amounts accrued as of December 31, 2018, no amounts are expected to be paid within one year due to a $150.0 million overpayment of taxes in the current year. The Transition Toll Tax will be paid in installments over an eight-year period, which started in 2018, and will not accrue interest.

Solothurn, Switzerland Manufacturing Facility

We are building a large-scale biologics manufacturing facility in Solothurn, Switzerland. We expect this facility to be operational by the end of 2020. As of December 31, 2018, we had contractual commitments of $111.0 million related to the construction of this facility.

Other Off-Balance Sheet Arrangements

We do not have any relationships with entities often referred to as structured finance or special purpose entities that were established for the purpose of facilitating off-balance sheet arrangements. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationships. We consolidate variable interest entities if we are the primary beneficiary.

Leases

We rent laboratory and office space and certain equipment under non-cancelable operating leases. These lease agreements contain various clauses for renewal at our option and, in certain cases, escalation clauses typically linked to rates of inflation. Rental expense, net of sublease income under these leases, which terminate at various dates through 2028, amounted to $64.5 million, $65.3 million and $68.7 million in 2018, 2017 and 2016, respectively. In addition to rent, the leases may require us to pay additional amounts for taxes, insurance, maintenance and other operating expenses.

As of December 31, 2018, minimum rental commitments under non-cancelable leases, net of income from subleases, for each of the next five years and total thereafter were as follows:

	2019	2020	2021	2022	2023	There-after	Total
			(in U.S.$ millions)				
Minimum lease payments	$ 87.0	$ 80.7	$ 75.9	$ 71.7	$ 71.0	$ 215.3	$ 601.6
Less: income from subleases[(1)]	(26.8)	(25.6)	(23.7)	(24.0)	(24.3)	(58.4)	(182.8)
Net minimum lease payments	$ 60.2	$ 55.1	$ 52.2	$ 47.7	$ 46.7	$ 156.9	$ 418.8

(1) Represents sublease income expected to be received for the vacated manufacturing facility in Cambridge, Massachusetts, the vacated portion of our Weston, Massachusetts facility and other facilities throughout the world.

Under certain of our lease agreements, we are contractually obligated to return leased space to its original condition upon termination of the lease agreement. At the inception of a lease with such conditions, we record an asset retirement obligation liability and a corresponding capital asset in an amount equal to the estimated fair value of the obligation. In subsequent periods, for each such lease, we record interest expense to accrete the asset retirement obligation liability to full value and depreciate each capitalized asset retirement obligation asset, both over the term of the associated lease agreement. Our asset retirement obligations were not significant as of December 31, 2018 or 2017.

Guarantees

As of December 31, 2018 and 2017, we did not have significant liabilities recorded for guarantees.

We enter into indemnification provisions under our agreements with other companies in the ordinary course of business, typically with business partners, contractors, clinical sites and customers. Under these provisions, we generally indemnify and hold harmless the indemnified party for losses suffered or incurred by the indemnified party as a result of our activities. These indemnification provisions generally survive termination of the underlying agreement. The maximum potential amount of future payments we could be required to make under these indemnification provisions is unlimited. However, to date we have not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the estimated fair value of these agreements is minimal. Accordingly, we have no liabilities recorded for these agreements as of December 31, 2018 and 2017.

Litigation Commitments and Contingencies

See "Legal and Arbitration Proceedings".

Working Capital Statement

Biogen believes that its working capital (i.e., its ability to access cash and other available liquid resources) is sufficient to meet its present requirements for at least the next 12 months from the date of this prospectus.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated statements of income data for the years ended December 31, 2018, 2017 and 2016, below are derived from the Company's audited consolidated financial statements as published in the 2018 10-K. The selected consolidated balance sheets data at December 31, 2018 and 2017, are derived from the Company's audited consolidated financial statements as published in the 2018 10-K, and the selected consolidated balance sheets data at December 31, 2016, are derived from the Company's audited consolidated financial statements as published in the 2017 10-K. You can access the 2018 10-K and the 2017 10-K as described in the section "Documents Available for Inspection" of this prospectus. The Company's audited consolidated financial statements were prepared in accordance with U.S. GAAP.

At March 21, 2019, the exchange rate between the U.S. dollar and the euro, expressed as euros per dollar, was $1.0000 = €0.8791 (source: Bloomberg). We have provided this exchange rate information solely for illustrative purposes. We make no representation that any amount of U.S. dollars specified in the tables below has been, or could be, converted into euro at the rate indicated or any other rate.

Consolidated Statements of Income Data

	Year ended December 31,		
(In $ millions, except per share amounts)	**2018**	**2017**	**2016**
Results of Operations[1]			
Revenues:			
Product, net	$ 10,886.8	$ 10,354.7	$ 9,817.9
Revenues from anti-CD20 therapeutic programs	1,980.2	1,559.2	1,314.5
Other	585.9	360.0	316.4
Total revenues	13,452.9	12,273.9	11,448.8
Costs and expenses:			
Cost of sales, excluding amortization of acquired intangible assets	1,816.3	1,630.0	1,478.7
Research and development	2,597.2	2,253.6	1,973.3
Selling, general and administrative	2,106.3	1,933.9	1,946.6
Amortization and impairment of acquired intangible assets	747.3	814.7	385.6
Collaboration profit (loss) sharing	185.0	112.3	10.2
Acquired in-process research and development	112.5	120.0	—
Restructuring charges	12.0	0.9	33.1
(Gain) loss on fair value remeasurement of contingent consideration	(12.3)	62.7	14.8
TECFIDERA litigation settlement charge	—	—	454.8
Total cost and expenses	7,564.3	6,928.1	6,297.1
Income from operations	5,888.6	5,345.8	5,151.7
Other income (expense), net	11.0	(217.0)	(218.7)
Income before income tax expense and equity in loss of investee, net of tax	5,899.6	5,128.8	4,933.0
Income tax expense	1,425.6	2,458.7	1,237.3
Equity in loss of investee, net of tax	—	—	—
Net income	4,474.0	2,670.1	3,695.7
Net (loss) income attributable to non-controlling interests, net of tax	43.3	131.0	(7.1)
Net income attributable to Biogen Inc.	4,430.7	$ 2,539.1	$ 3,702.8
Net income per share ($):			
Basic earnings per share attributable to Biogen Inc.	$ 21.63	$ 11.94	$ 16.96
Diluted earnings per share attributable to Biogen Inc.	$ 21.58	$ 11.92	$ 16.93
Weighted-average shares used in calculating (Number in millions):			
Basic earnings per share attributable to Biogen Inc.	204.9	212.6	218.4
Diluted earnings per share attributable to Biogen Inc.	205.3	213.0	218.8

(1) On February 1, 2017, we completed the spin-off of our hemophilia business, Bioverativ, as an independent, publicly traded company. Our consolidated statements of income data reflect the financial results of our hemophilia business through January 31, 2017.

Consolidated Balance Sheets Data[1]

(In $ millions)	As of December 31, 2018	2017	2016
Assets			
Current assets:			
Cash and cash equivalents	$ 1,224.6	$ 1,573.8	$ 2,326.5
Marketable securities	2,313.4	2,115.2	2,568.6
Accounts receivable, net	1,958.5	1,787.0	1,441.6
Due from anti-CD20 therapeutic programs	526.9	532.6	300.6
Inventory	929.9	902.7	1,001.6
Other current assets	687.6	962.0	1,093.3
Total current assets	7,640.9	7,873.3	8,732.2
Marketable securities	1,375.9	3,057.3	2,829.4
Property, plant and equipment, net	3,601.2	3,182.4	2,501.8
Intangible assets, net	3,120.0	3,879.6	3,808.3
Goodwill	5,706.4	4,632.5	3,669.3
Deferred tax asset	2,153.9	595.9	—[2]
Investments and other assets	1,690.6	431.6	1,335.8
Total assets	$ 25,288.9	$ 23,652.6	$ 22,876.8
Liabilities and equity			
Current liabilities:			
Current portion of notes payable[3] and other financing arrangements	$ —	$ 3.2	$ 4.7
Taxes payable	63.5	68.2	231.9
Accounts payable	370.5	395.5	279.8
Accrued expenses and other	2,861.2	2,901.3	2,903.5
Total current liabilities	3,295.2	3,368.2	3,419.9
Notes payable and other financing arrangements[4]	5,936.5	5,935.0	6,512.7
Deferred tax liability	1,636.2	122.6	93.1
Other long-term liabilities	1,389.4	1,628.7	722.5
Total liabilities	12,257.3	11,054.5	10,748.2
Equity:			
Preferred stock, par value $0.001 per share	—	—	—
Common stock, par value $0.0005 per share	0.1	0.1	0.1
Additional paid-in capital	—	97.8	—
Accumulated other comprehensive loss	(240.4)	(318.4)	(319.9)
Retained earnings	16,257.0	15,810.4	15,071.6
Treasury stock, at cost; 23.8 million. 23.8 million and 22.6 million shares, respectively	(2,977.1)	(2,977.1)	(2,611,7)
Total Biogen Inc. shareholders' equity	13,039.6	12,612.8	12,140.1
Noncontrolling interests	(8.0)	(14.7)	(11.5)
Total equity	13,031.6	12,598.1	12,128.6
Total liabilities and equity	$ 25,288.9	$ 23,652.6	$ 22,876.8

(1) On February 1, 2017, we completed the spin-off of Bioverativ as an independent, publicly traded company. Our consolidated balance sheets data reflect the financial results of our hemophilia business through January 31, 2017.

(2) In October 2016 the Financial Accounting Standards Board issued Accounting Standards Update No. 2016-01, *Income Taxes (Topic 740): Intra-entity Transfer of Assets Other Than Inventory*. This new standard became effective for us on January 1, 2018. Upon adoption of this new standard we recorded additional deferred tax assets of approximately $2.0 billion. As a result, we presented "deferred tax assets" and "investments and other assets" as separate line items in the consolidated balance sheets included in our consolidated financial statements as published in the 2018 10-K. In the consolidated balance sheets included in our consolidated financial statements as published in the 2017 10-K, we included deferred tax assets within the "investments and other assets" line item.

(3) This line items appears as "current portion of notes payable and other financing arrangements" in the consolidated balance sheets included in our consolidated financial statements as published in the 2017 10-K.

(4) This line items appears as "notes payable and other financing arrangements" in the consolidated balance sheets included in our consolidated financial statements as published in the 2017 10-K.

Skyhawk Therapeutics, Inc.

In January 2019 we entered into a collaboration and research and development services agreement with Skyhawk Therapeutics, Inc. ("Skyhawk") pursuant to which the companies will leverage Skyhawk's SkySTAR technology

platform with the goal of discovering innovative small molecule treatments for patients with neurological diseases, including MS and SMA. We will be responsible for the development and potential commercialization of any therapies resulting from this collaboration.

In connection with this agreement, we made an upfront payment of $74.0 million to Skyhawk. We may also pay Skyhawk up to a total of approximately $2.0 billion in additional milestone payments as well as potential royalties on net commercial sales. We expect to record research and development expense of approximately $35.0 million in the first quarter of 2019 related to this collaboration.

Nightstar Therapeutics

In March 2019 we entered into an agreement to acquire Nightstar Therapeutics ("NST"), a U.K. based clinical-stage gene therapy company focused on adeno-associated virus treatments for inherited retinal disorders. Under the terms of the proposed acquisition, Biogen will pay $25.50 in cash for each NST share. It is intended that the proposed acquisition will be implemented by means of a U.K. Court-sanctioned scheme of arrangement under Part 26 of the U.K. Companies Act 2006. The closing of the proposed acquisition is subject to customary closing conditions, including approval by NST shareholders, the issuance of an order by the U.K. Court and receipt of regulatory approvals. Biogen expects to complete the acquisition by mid-year 2019.

FUJIFILM Corporation

In March 2019 we entered into a share purchase agreement pursuant to which FUJIFILM Corporation ("Fujifilm") will acquire the shares of Biogen (Denmark) New Manufacturing ApS, a Biogen subsidiary that holds Biogen's large-scale biologics manufacturing operations located in Hillerød, Denmark, for up to $890 million in cash, subject to minimum purchase commitment guarantees and other contractual terms. As part of the proposed transaction, we will enter into manufacturing services agreements under which Fujifilm will produce commercial products for Biogen, such as TYSABRI, as well as other third-party products. The closing of the proposed transaction is subject to customary closing conditions, including customary filings and clearances under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, in the U.S., the Danish Competition Act and the Korean Monopoly Regulation and Fair Trade Act. Biogen expects to complete the transaction in the second half of 2019.

Discontinued Program

In March 2019 we and our collaboration partner Eisai Co., Ltd. ("Eisai") announced that we are discontinuing the global Phase 3 trials, EMERGE and ENGAGE, designed to evaluate the efficacy and safety of aducanumab in patients with mild cognitive impairment due to AD and mild AD dementia.

Except as described above, no significant change in the Company's financial or trading position has occurred since December 31, 2018.

LEGAL AND ARBITRATION PROCEEDINGS

The following is a description of any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened which we are aware of) during the previous 12 months which may have, or have had in the recent past, significant effects on Biogen's financial position or profitability.

With respect to some loss contingencies, an estimate of the possible loss or range of loss cannot be made until management has further information, including, for example, (i) which claims, if any, will survive dispositive motion practice; (ii) information to be obtained through discovery; (iii) information as to the parties' damages claims and supporting evidence; (iv) the parties' legal theories; and (v) the parties' settlement positions.

The claims and legal proceedings in which we are involved also include challenges to the scope, validity or enforceability of the patents relating to our products, pipeline or processes, and challenges to the scope, validity or enforceability of the patents held by others. These include claims by third parties that we infringe their patents. An adverse outcome in any of these proceedings could result in one or more of the following and have a material impact on our business or consolidated results of operations and financial position: (i) loss of patent protection; (ii) inability to continue to engage in certain activities; and (iii) payment of significant damages, royalties, penalties and/or license fees to third parties.

IMRALDI Patent Matters

In September 2018 Fresenius Kabi Deutschland GmbH ("Fresenius Kabi") commenced proceedings for damages and injunctive relief against Biogen France SAS in the Tribunal de Grande Instance de Paris, alleging that IMRALDI, the adalimumab biosimilar product of Samsung Bioepis UK Limited that Biogen has commercialized in Europe, infringes the French counterpart of European Patent No. 3 148 510 (the "'510 Patent"), which was issued in June 2018 and expires in March 2035. In October 2018 Fresenius Kabi commenced preliminary injunction proceedings against Biogen (Denmark) Manufacturing ApS and Biogen Denmark A/S in Denmark's Maritime and Commercial High Court alleging infringement of Danish Utility Models. In November 2018 Fresenius Kabi commenced infringement proceedings for damages and injunctive relief against Biogen Italia S.R.L. in the District Court of Milan relating to the Italian counterpart of the '510 Patent, and against Biogen GmbH in the Dusseldorf Regional Court relating to the German counterpart of the '510 Patent. In the Denmark action, a hearing on the Fresenius Kabi preliminary injunction proceeding is scheduled to start on May 14, 2019. No merits hearings or trials have been set in the other proceedings.

In August 2018 Biogen Idec Ltd. ("Biogen UK") and Samsung Bioepis UK Limited filed an action in the United Kingdom Patents Court to revoke the United Kingdom counterpart of the '510 Patent. Fresenius Kabi has filed a counterclaim asserting infringement of the '510 Patent and seeking damages and an injunction to restrain infringement if the patent is found valid and infringed. A trial has been set for July 2019. In December 2018 Biogen B.V. and Samsung Bioepis UK Limited filed an action in the District Court of the Hague, Netherlands to revoke the Dutch counterpart of the '510 Patent. A trial has been set for October 2019. An estimate of the possible loss or range of loss in the above matters cannot be made at this time.

In October 2018 Gedeon Richter PLC asserted to Biogen and Samsung Bioepis UK Limited that IMRALDI infringes European Patent No. 3 212 667, which was issued in September 2018 and expires in October 2035. We dispute the assertion. An estimate of the possible loss or range of loss cannot be made at this time.

Qui Tam Litigation

In July 2015 a *qui tam* action filed by Michael Bawduniak on behalf of the United States and certain U.S. states was unsealed by the U.S. District Court for the District of Massachusetts. The action alleges sales and promotional activities in violation of the federal False Claims Act and state law counterparts and seeks single and treble damages, civil penalties, interest, attorneys' fees and costs. Our motion to dismiss was denied in part. No trial date has been set. The United States has not made an intervention decision. An estimate of the possible loss or range of loss cannot be made at this time.

In May 2018 we were served with a *qui tam* action filed by SMSF, LLC on behalf of the United States and certain U.S. states in the U.S. District Court for the District of Massachusetts alleging activities by nurse-educators in violation of the federal False Claims Act and state law counterparts. The U.S. government declined to intervene, and we, other defendants and the United States moved to dismiss. In December 2018 the court dismissed the case with prejudice against the relator and without prejudice as to the U.S. and states. The period for an appeal has lapsed and we consider the matter closed.

In July 2018 we and certain other drug manufacturers and pharmacy benefit managers were served with a *qui tam* action filed by John Borzilleri on behalf of the United States and certain U.S. states in the U.S. District Court for the District of Rhode Island. The case alleges agreements with pharmacy benefit managers in violation of the Federal False Claims Act and state law counterparts and seeks single and treble damages, civil penalties,

interest, attorneys' fees and costs. We, the other defendants and the United States have moved to dismiss the case and the motions are pending. No trial date has been set. An estimate of the possible loss or range of loss cannot be made at this time.

Securities Litigation

We and certain current and former officers are defendants in an action filed by a shareholder in October 2016 in the U.S. District Court for the District of Massachusetts alleging violations of federal securities laws under 15 U.S.C §78j(b) and §78t(a) and 17 C.F.R. §240.10b-5 and seeking a declaration of the action as a class action and an award of damages, interest and attorneys' fees. In March 2018 the court dismissed the complaint with prejudice. The plaintiff's appeal is pending. An estimate of the possible loss or range of loss cannot be made at this time.

Other Matters

Hatch-Waxman Act Litigation relating to TECFIDERA Orange-Book Listed Patents

In June and July 2017, January, March, April, August and December 2018, and in January and February 2019 we initiated patent infringement proceedings against multiple parties pursuant to the Hatch-Waxman Act in the U.S. District Courts.

Patent infringement proceedings pursuant to the Hatch-Waxman Act are pending against Accord Healthcare Inc., Alkem Laboratories Ltd., Amneal Pharmaceuticals LLC, Aurobindo Pharma U.S.A., Inc., Banner Life Sciences LLC, Cipla Limited, Glenmark Pharmaceuticals Ltd., Graviti Pharmaceuticals Pvt. Ltd., Hetero USA, Inc., Lupin Atlantis Holdings SA, Macleods Pharmaceuticals, Ltd., MSN Laboratories Pvt. Ltd., Pharmathen S.A., Prinston Pharmaceutical Inc., Sandoz Inc., Sawai USA, Inc., Shipla Medicare Limited, Slayback Pharma LLC, Torrent Pharmaceuticals Ltd., TWi Pharmaceuticals, Inc., Windlas Healthcare Pvt. Ltd. and Zydus Pharmaceuticals (USA) Inc. in the U.S. District Court for the District of Delaware, against Zydus Pharmaceuticals (USA) Inc. in the U.S. District Court for the District of New Jersey and against Mylan Pharmaceuticals Inc. in the U.S. District Court for the Northern District of West Virginia.

A trial has been set for December 2019 in the Delaware actions, and a trial date has been set for February 2020 in the West Virginia action. A trial date has not been set in the case against Banner Life Sciences LLC, the case against Hetero USA Inc. that was filed in January 2019 or the cases against Zydus Pharmaceuticals (USA) Inc. that were filed in February 2019.

Petitions for* Inter Partes *Review filed by Mylan Pharmaceuticals, Inc. and Sawai USA Inc. and Sawai Pharmaceutical Co. Ltd.

In July 2018 Mylan Pharmaceuticals, Inc. filed a petition with the U.S. Patent Trial and Appeal Board ("PTAB") seeking *inter partes* review of our U.S. Patent No. 8,399,514 (the "'514 Patent"). The '514 Patent includes claims covering the treatment of MS with 480 mg of dimethyl fumarate per day as provided for in our TECFIDERA label. On February 6, 2019, the U.S. Patent Trial and Appeal Board instituted *inter partes* review of the '514 Patent (the "Mylan IPR"). In March 2019, Sawai USA Inc. and Sawai Pharmaceutical Co. Ltd. filed a petition with the PTAB for *inter partes* review of the '514 Patent and a motion for joinder with the Mylan IPR, which is pending.

Interference Proceeding with Forward Pharma

In April 2015 the U.S. Patent and Trademark Office ("USPTO") declared an interference between Forward Pharma A/S' ("Forward Pharma") U.S. Patent Application No. 11,576,871 and the '514 Patent. The U.S. Court of Appeals for the Federal Circuit affirmed the March 2017 ruling of the USPTO in favor of Biogen and in January 2019 denied Forward Pharma's petition for rehearing.

European Patent Office Oppositions

In 2016 the European Patent Office ("EPO") revoked our European patent number 2 137 537 (the "'537 Patent"). We have appealed to the Technical Boards of Appeal of the EPO and the appeal is pending. The '537 Patent includes claims covering the treatment of MS with 480 mg of dimethyl fumarate as provided for in our TECFIDERA label.

In March 2018 the EPO revoked Forward Pharma's European Patent No. 2 801 355, which was issued in May 2015 and expires in October 2025. Forward Pharma has filed an appeal to the Technical Boards of Appeal of the EPO and the appeal is pending. The settlement and license agreement that we entered into with Forward Pharma in January 2017 did not resolve the issues pending in this proceeding and we and Forward Pharma intend to permit the Technical Boards of Appeal and the Enlarged Board of Appeal, if applicable, to make a final determination.

TYSABRI Patent Revocation Matters

In November 2017 Bioeq GMBH, affiliated with the Polpharma Group, brought an action to the Polish Patent Office seeking to revoke Polish Patent Number 215263 (the "Polish '263 Patent"), the Polish patent corresponding to our European Patent Number 1 485 127 (the "EU '127 Patent") ("Administration of agents to treat inflammation"). The Polish '263 Patent concerns administration of natalizumab (TYSABRI) to treat MS. The Polish '263 Patent was issued in 2013 and expires in February 2023. Swiss Pharma International AG, also affiliated with the Polpharma Group, filed actions in the District Court of The Hague (January 2016), the German Patents Court (March 2016) and the Commercial Court of Rome (November 2017) seeking to invalidate the Dutch, German and Italian counterparts of the EU '127 Patent, which was issued in 2011 and also concerns administration of natalizumab (TYSABRI) to treat MS. The EU '127 Patent expires in February 2023. The Dutch and German counterparts were ruled invalid and we have appealed. No date for a hearing on the merits has been set in the Polish and Italian actions.

'755 Patent Litigation

In May 2010 Biogen MA Inc. (formerly Biogen Idec MA Inc.) filed a complaint in the U.S. District Court for the District of New Jersey alleging infringement by Bayer Healthcare Pharmaceuticals Inc. ("Bayer") (manufacturer, marketer and seller of BETASERON and manufacturer of EXTAVIA), EMD Serono, Inc. ("EMD Serono") (manufacturer, marketer and seller of REBIF), Pfizer Inc. ("Pfizer") (co-marketer of REBIF) and Novartis Pharmaceuticals Corp. ("Novartis") (marketer and seller of EXTAVIA) of our U.S. Patent No. 7,588,755 (the "'755 Patent"), which claims the use of interferon beta for immunomodulation or treating a viral condition, viral disease, cancers or tumors. The complaint seeks monetary damages, including lost profits and royalties. Bayer had previously filed a complaint against us in the same court, on May 27, 2010, seeking a declaratory judgment that it does not infringe the '755 Patent and that the '755 Patent is invalid, and seeking monetary relief in the form of attorneys' fees, costs and expenses.

Bayer, Pfizer, Novartis and EMD Serono all filed counterclaims seeking declaratory judgments of patent invalidity and non-infringement, and seeking monetary relief in the form of costs and attorneys' fees.

In September 2018, following a trial against EMD Serono and Pfizer, the court granted Biogen's motion for judgment as a matter of law that the '755 Patent is infringed and valid and ordered a new trial on all damages issues. The court has not yet scheduled the trial on damages or a trial against Bayer and Novartis. In October 2018 EMD Serono and Pfizer filed an appeal from the judgment in the U.S. Court of Appeals for the Federal Circuit, which is pending.

Government Matters

We have learned that U.S. state and federal governmental authorities are investigating our sales and promotional practices and have received related subpoenas. We are cooperating with the government.

We have received subpoenas and other requests from the U.S. federal government for documents and information relating to our relationship with non-profit organizations that assist patients taking drugs sold by Biogen and Biogen's co-pay assistance programs. We are cooperating with the government.

In July 2016 we received civil investigative demands from the U.S. federal government for documents and information relating to our treatment of certain service agreements with wholesalers when calculating and reporting Average Manufacturer Prices in connection with the Medicaid Drug Rebate Program. We are cooperating with the government.

In July 2017 we learned that the Prosecution Office of Milan is investigating our interactions with certain healthcare providers in Italy. We are cooperating with the government.

Tax Matter

In the second quarter of 2018 the State Treasury of Goias, Brazil issued tax assessments for the period 2013 through February 2018 relating to tax on the circulation of goods and totaling approximately $70.0 million including interest and penalties. We dispute the assessments and have filed defenses with the Administrative Court of Appeals for the State of Goias, which are pending. We have not formed an opinion that an unfavorable outcome of the dispute is either probable or remote.

Product Liability and Other Legal Proceedings

We are also involved in product liability claims and other legal proceedings generally incidental to our normal business activities. While the outcome of any of these proceedings cannot be accurately predicted, we do not believe the ultimate resolution of any of these existing matters would have a material adverse effect on our business or financial condition.

SHAREHOLDINGS AND STOCK OPTIONS OF MEMBERS OF THE ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES

The following table and notes provide information about the beneficial ownership of the Company's issued and outstanding common stock as of March 20, 2019 (the "Ownership Date"), by (i) each of the Company's current executive officers; (ii) each of the Company's current directors; and (iii) all of the Company's current directors and executive officers as a group.

Except as otherwise noted, the persons identified have sole voting and investment power with respect to the shares of the Company's common stock beneficially owned. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting and investment power with respect to the shares.

	Common Stock Beneficially Owned		
	Shares owned[1]	Shares Subject to Exercisable Options and RSUs[2]	Percentage of Issued and Outstanding Shares[3]
Susan H. Alexander	31,976	0	*
Jeffrey D. Capello	917	0	*
Alexander J. Denner[4]	534,687	0	*
Caroline D. Dorsa	18,172	0	*
Michael D. Ehlers	6,742	0	*
Ginger Gregory	1,670	0	*
Chirfi Guindo	976	0	*
Daniel Karp	45	0	*
Robin C. Kramer	0	0	*
Nancy L. Leaming	10,063	0	*
Paul McKenzie	6,325	0	*
Richard C. Mulligan	10,029	0	*
Robert W. Pangia	17,707	0	*
Stelios Papadopoulos[5]	29,946	0	*
Brian S. Posner	6,015	0	*
Eric K. Rowinsky	14,144	0	*
Alfred Sandrock	10,410	0	*
Lynn Schenk[6]	10,097	0	*
Stephen A. Sherwin	4,284	12,278	*
Michel Vounatsos[7]	16,575	3,252	*
Executive officers and directors as a group (20 persons)[7][8][9]	730,777	15,530	*

* Represents beneficial ownership of less than 1% of the Company's issued and outstanding shares of common stock.

(1) Rounded up to the nearest whole share.

(2) Includes options that will become exercisable and restricted stock units ("RSUs") that will vest within 60 days of the Ownership Date.

(3) The calculation of percentages is based upon 196,708,784 shares issued and outstanding as of February 1, 2019, plus shares subject to options and RSUs held by the respective person that are currently exercisable or become exercisable within 60 days of the Ownership Date.

(4) Includes 383,858 shares beneficially owned by Sarissa Capital Offshore Master Fund LP, a Cayman Islands exempted limited partnership ("Sarissa Offshore"), 79,800 shares beneficially owned by Sarissa Capital Catapult Fund LLC, a Delaware limited liability company ("Sarissa Catapult") and 61,000 shares beneficially owned by Sarissa Capital Management LP, a Delaware limited partnership ("Sarissa Capital"). Sarissa Capital is the investment advisor to certain investment funds, including Sarissa Offshore and Sarissa Catapult. Alexander Denner, Ph.D., is the Chief Investment Officer of Sarissa Capital and controls the ultimate general partner of each of Sarissa Capital and Sarissa Offshore and the managing member of Sarissa Catapult. By virtue of the foregoing, Dr. Denner may be deemed to indirectly beneficially own (as that term is defined in Rule 13d-3 of the Securities Exchange Act of 1934, as amended) the shares that those entities beneficially own. Dr. Denner disclaims beneficial ownership of these shares except to the extent of any pecuniary interest therein.

(5) Includes 28,206 shares held in limited liability companies of which Dr. Papadopoulos is the sole manager.

(6) Includes 3,100 shares held in a trust of which Ms. Schenk is the trustee.

(7) Includes shares underlying RSUs that will vest within 60 days of the Ownership Date, assuming the maximum possible number of shares that are eligible for vesting on that date. The actual number of shares that will vest on each vesting date will be determined by comparing the price of Biogen common stock on such vesting date to the price on the grant date (i.e., number of vested shares = number of shares at target payout times the [30-day average closing stock price ending on the vesting date divided by the 30-day average closing stock price on the grant date]).

(8) Includes 555,964 shares held indirectly (through trust, funds or limited liability companies).

(9) Numbers may not foot due to rounding.

GENERAL INFORMATION ON BIOGEN

Company Name

The Company's legal and commercial name is Biogen Inc.

General Information on Biogen and its Business

Biogen is a global biopharmaceutical company focused on discovering, developing and delivering worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases, including in our core growth areas of multiple sclerosis ("MS") and neuroimmunology, Alzheimer's disease ("AD") and dementia, movement disorders, including Parkinson's disease, and neuromuscular disorders, including spinal muscular atrophy ("SMA") and amyotrophic lateral sclerosis ("ALS"). We are also focused on discovering, developing and delivering worldwide innovative therapies in our emerging growth areas of acute neurology, neurocognitive disorders, pain and ophthalmology. In addition, we are employing innovative technologies to discover potential treatments for rare and genetic disorders, including new ways of treating diseases through gene therapy in our core and emerging growth areas. We also manufacture and commercialize biosimilars of advanced biologics.

Our marketed products include TECFIDERA, AVONEX, PLEGRIDY, TYSABRI and FAMPYRA for the treatment of MS, SPINRAZA for the treatment of SMA and FUMADERM for the treatment of severe plaque psoriasis. We also have certain business and financial rights with respect to RITUXAN for the treatment of non-Hodgkin's lymphoma, chronic lymphocytic leukemia ("CLL") and other conditions, RITUXAN HYCELA for the treatment of non-Hodgkin's lymphoma and CLL, GAZYVA for the treatment of CLL and follicular lymphoma, OCREVUS for the treatment of primary progressive MS ("PPMS") and relapsing MS ("RMS") and other potential anti-CD20 therapies pursuant to our collaboration arrangements with Genentech, Inc. ("Genentech"), a wholly-owned member of the Roche Group. CD20 is an integral membrane protein expressed on the surface of B cells, a type of white blood cell that is part of the immune system. Anti-CD20 therapies cause B cell depletion and are used to treat certain cancers and autoimmune diseases.

We support our drug discovery and development efforts through the commitment of significant resources to discovery, research and development programs and business development opportunities. For over two decades we have led in the research and development of new therapies to treat MS, resulting in our leading portfolio of MS treatments. Now our research is focused on additional improvements in the treatment of MS, such as the development of next generation therapies for MS, with a goal to reverse or possibly repair damage caused by the disease. We are also applying our scientific expertise to solve some of the most challenging and complex diseases, including AD, progressive supranuclear palsy ("PSP"), Parkinson's disease, ALS, stroke, epilepsy, cognitive impairment associated with schizophrenia ("CIAS") and pain.

Our innovative drug development and commercialization activities are complemented by our biosimilar products that expand access to medicines and reduce the cost burden for healthcare systems. We are leveraging our manufacturing capabilities and know-how to develop, manufacture and market biosimilar products through Samsung Bioepis Co., Ltd. ("Samsung Bioepis"), our joint venture with Samsung BioLogics Co., Ltd. ("Samsung BioLogics"). Under our commercial agreement, we market and sell BENEPALI, an etanercept biosimilar referencing ENBREL, FLIXABI, an infliximab biosimilar referencing REMICADE, and IMRALDI, an adalimumab biosimilar referencing HUMIRA, in the EU.

The following is a summary of key developments affecting our business since the beginning of 2018.

Acquisitions, Collaborative and Other Relationships

BIIB100 Acquisition

In January 2018 we acquired BIIB100 (formerly known as KPT-350) from Karyopharm Therapeutics Inc. BIIB100 is a Phase 1 ready investigational oral compound for the treatment of certain neurological and neurodegenerative diseases, primarily in ALS. BIIB100 is a novel therapeutic candidate that works by inhibiting a protein known as XP01, with the goal of reducing inflammation and neurotoxicity, along with increasing neuroprotective responses.

BIIB104 Acquisition

In April 2018 we acquired BIIB104 (formerly known as PF-04958242) from Pfizer. BIIB104 is a first-in-class, Phase 2b ready AMPA receptor potentiator for CIAS, representing our first program in neurocognitive disorders. AMPA receptors mediate fast excitatory synaptic transmission in the central nervous system, a process which can be disrupted in a number of neurological and psychiatric diseases, including schizophrenia.

Neurimmune SubOne AG

In May 2018 we made a $50.0 million payment to Neurimmune SubOne AG ("Neurimmune") under the terms of our amended collaboration and license agreement with Neurimmune (as amended, the "Neurimmune Agreement") to reduce the previously negotiated royalty rates payable on potential commercial sales of products developed under the Neurimmune Agreement by 5%.

Ionis Pharmaceuticals, Inc.

In June 2018 we closed a 10-year exclusive agreement with Ionis to develop novel antisense oligonucleotide drug candidates for a broad range of neurological diseases (the "2018 Ionis Agreement"). We have the option to license therapies arising out of the 2018 Ionis Agreement and will be responsible for the development and potential commercialization of such therapies.

TMS Co., Ltd. Option Agreement

In June 2018 we entered into an exclusive option agreement with TMS Co., Ltd. granting us the option to acquire TMS-007, a plasminogen activator with a novel mechanism of action associated with breaking down blood clots, which is in Phase 2 development in Japan, and backup compounds for the treatment of stroke.

Samsung Bioepis

In June 2018 we exercised our option under our joint venture agreement with Samsung BioLogics to increase our ownership percentage in Samsung Bioepis from approximately 5% to approximately 49.9%. The share purchase transaction was completed in November 2018.

BIIB110 Acquisition

In July 2018 we acquired BIIB110 (formerly known as ALG-801) (Phase 1a) and ALG-802 (preclinical) from AliveGen Inc. BIIB110 and ALG-802 represent novel ways of targeting the myostatin pathway. We initially plan to study BIIB110 in multiple neuromuscular indications, including SMA and ALS.

BIIB067 Option Exercise

In December 2018 we exercised our option with Ionis and obtained a worldwide, exclusive, royalty-bearing license to develop and commercialize BIIB067 (IONIS-SOD1Rx), an investigational treatment for ALS with superoxide dismutase 1 ("SOD1") mutations.

C4 Therapeutics

In December 2018 we entered into a collaborative research and license agreement with C4 Therapeutics ("C4T") to investigate the use of C4T's novel protein degradation platform to discover and develop potential new treatments for neurological diseases, such as AD and Parkinson's disease. We will be responsible for the development and potential commercialization of any therapies resulting from this collaboration.

Skyhawk Therapeutics, Inc.

In January 2019 we entered into a collaboration and research and development services agreement with Skyhawk pursuant to which the companies will leverage Skyhawk's SkySTAR technology platform with the goal of discovering innovative small molecule treatments for patients with neurological diseases, including MS and SMA. We will be responsible for the development and potential commercialization of any therapies resulting from this collaboration.

Nightstar Therapeutics

In March 2019 we entered into an agreement to acquire NST, a U.K. based clinical-stage gene therapy company focused on adeno-associated virus treatments for inherited retinal disorders. Under the terms of the proposed acquisition, Biogen will pay $25.50 in cash for each NST share. It is intended that the proposed acquisition will be implemented by means of a U.K. Court-sanctioned scheme of arrangement under Part 26 of the U.K. Companies Act 2006. The closing of the proposed acquisition is subject to customary closing conditions, including approval by NST shareholders, the issuance of an order by the U.K. Court and receipt of regulatory approvals. Biogen expects to complete the acquisition by mid-year 2019.

FUJIFILM Corporation

In March 2019 we entered into a share purchase agreement pursuant to which Fujifilm will acquire the shares of Biogen (Denmark) New Manufacturing ApS, a Biogen subsidiary that holds Biogen's large-scale biologics manufacturing operations located in Hillerød, Denmark, for up to $890 million in cash, subject to minimum purchase commitment guarantees and other contractual terms. As part of the proposed transaction, we will enter into manufacturing services agreements under which Fujifilm will produce commercial products for Biogen,

such as TYSABRI, as well as other third-party products. The closing of the proposed transaction is subject to customary closing conditions, including customary filings and clearances under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, in the U.S., the Danish Competition Act and the Korean Monopoly Regulation and Fair Trade Act. Biogen expects to complete the transaction in the second half of 2019.

Other Key Developments

ZINBRYTA Withdrawal

In March 2018 we and AbbVie Inc. ("AbbVie") announced the voluntary worldwide withdrawal of ZINBRYTA for RMS.

IMRALDI

In October 2018 we began to recognize revenues on sales of IMRALDI, an adalimumab biosimilar referencing HUMIRA, to third parties in the EU. We and Samsung Bioepis previously entered into an agreement with AbbVie for the commercialization of IMRALDI. Under the terms of the agreement, AbbVie granted us and Samsung Bioepis patent licenses for the use and sale of IMRALDI in Europe, on a country-by-country basis, and we make royalty payments to AbbVie on behalf of Samsung Bioepis.

2018 Share Repurchase Program

In August 2018 our Board of Directors authorized a program to repurchase up to $3.5 billion of our common stock (the "2018 Share Repurchase Program"). Our 2018 Share Repurchase Program does not have an expiration date. All share repurchases under our 2018 Share Repurchase Program will be retired.

Discontinued Program

In March 2019 we and our collaboration partner Eisai announced that we are discontinuing the global Phase 3 trials, EMERGE and ENGAGE, designed to evaluate the efficacy and safety of aducanumab in patients with mild cognitive impairment due to AD and mild AD dementia.

Auditors

The Company's independent registered public accounting firm is PricewaterhouseCoopers LLP ("PwC"), 101 Seaport Boulevard, Boston, MA 02210, U.S.A.

PwC is an independent registered public accounting firm with the U.S. Public Company Accounting Oversight Board. PwC has been the Company's independent auditor since 2003. PwC audited the Company's consolidated financial statements for the fiscal years ended December 31, 2018, December 31, 2017 and December 31, 2016.

DESCRIPTION OF THE SECURITIES

Type and the Class of the Securities Being Offered, Including the Security Identification Code

The securities offered under the ESPP are Biogen's common stock with a par value of $0.0005 per share.

The Company's common stock is listed on Nasdaq under the symbol "BIIB". The CUSIP number of the shares is 09062X103. The CUSIP number is the U.S. equivalent of the ISIN.

Legislation under Which the Securities Have Been Created / Regulation of the Shares

The Shares were created under the General Corporation Law of the State of Delaware (United States). Except as otherwise expressly required under the laws of a country, the ESPP and all rights thereunder shall be governed by and construed in accordance with the laws of the State of Delaware.

Biogen's common stock is regulated by the U.S. Securities Exchange Act of 1934, as amended.

Form of Securities, Name and Address of the Entity in Charge of Keeping the Records

The Company's common stock is in registered form. In general, shareholders may hold shares of the Company's common stock, at their choosing, either in certificated form or in book-entry form. The records are kept by the Company's transfer agent, Computershare, Inc., who serves as the depository agent for the purpose of this offer if the shareholders decide to register as record holder and hold physical certificates. The address and telephone number of the depository agent is Computershare Trust Company NA, 462 South 4th Street, Suite 1600, Louisville, KY 40202, U.S.A., phone no: (+1) (781) 575-2879. The address for regular mail is PO Box 505000, Louisville, KY 40233-5000, U.S.A.

The Company's designated ESPP service provider is Fidelity. The shares issuable under the ESPP to Eligible Employees participating in the ESPP are deposited into a designated brokerage account at Fidelity. Participants may obtain information about their accounts online at www.netbenefits.fidelity.com or by calling a Fidelity representative at (+1) 800-544-9354.

Biogen serves as the paying agent for the purpose of this offer.

Commission

On sales of shares obtained upon exercise of the Purchase Rights a commission is charged by Fidelity and the SEC. Upon selling any shares, Fidelity charges Participants a fee equal to $15 for the sale of up to 250 shares and $0.06 for each additional share sold. In addition, the SEC currently charges $13.00 per $1,000,000 of aggregate sale proceeds (e.g., sale proceeds x $0.000013 = SEC regulatory fee).

Currency of the Securities Issue

The U.S. dollar is the currency of the security issue.

Rights Attached to the Securities

No Eligible Employee participating in the ESPP shall have any voting, dividend or other shareholder rights with respect to any offering under the ESPP until the shares are purchased pursuant to the ESPP on behalf of the Participant and the Participant has become a holder of the purchased shares. Following the purchase, the Eligible Employee participating in the ESPP shall be entitled to the rights attached to the shares, as further described below:

Dividend Rights

The Board of Directors may declare a dividend at any regular or special meeting out of funds legally available for dividends. The Board of Directors sets the record date and the payment date for dividend payments. Such dividends may be paid in cash, property or shares of stock. A holder of shares as of the record date for a dividend declaration has an inchoate property right to the dividend as of that record date, but may not actually attempt to enforce that right until the payment date. In general, dividends that are unclaimed for three years escheat to the State of Delaware.

However, Biogen has never paid any cash dividends and has no current intention to do so. There are no dividend restrictions and no special dividend procedures for shareholders resident in the EU and the European Economic Area.

Voting Rights

The holders of common stock are entitled to one vote for each share held on all matters as to which shareholders are entitled to vote. Any action required or permitted to be taken by the shareholders for the Company may be

effected by a duly called annual or special meeting of such holders or may be effected by consent in writing by such shareholders. Special meetings of the shareholders of the Company may be held upon call of the Chairman of the Board of Directors, the Chief Executive Officer, by the Board of Directors of the Company or, in accordance with the Company's Bylaws, holders of at least 25% of the Company's common stock.

Rights to Receive Liquidation Distributions

In the event of liquidation, dissolution or winding up of the Company, the holders of common stock are entitled to share ratably in all assets remaining after payment of or provisions for the Company's liabilities, subject to prior rights or preferred stock, if any, then outstanding.

No Preemptive, Redemptive, Profit or Conversions Provisions

The holders of the Company's common stock do not have preemptive rights to acquire shares of the Company's stock or securities convertible into the Company's stock. The Company's common stock is not subject to redemption and does not have any right to share in the Company's profits or any conversion rights.

Change of Shareholders' Rights

The rights of holders of the Company's common stock may be changed only by a formal amendment of the Company's certificate of incorporation or bylaws, except that the Company's Board of Directors may issue preferred stock from time to time in one or more series and may fix the rights, preferences, privileges and restrictions of each series of preferred stock. Any or all of the rights and preferences selected by the Company's Board of Directors for any series of preferred stock may be greater than the rights of the common stock. Some of the rights and preferences that the Board of Directors may designate include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms.

Transferability

The offering of shares under the ESPP has been registered in the United States with the SEC on a registration statement on Form S-8 and the issued and outstanding shares of common stock are generally freely transferable.

The ESPP is intended to provide shares for investment. The Company does not, however, intend to restrict or influence any employee in the conduct of his or her own affairs. A Participant, therefore, may sell shares purchased under the ESPP at any time he or she chooses, subject to compliance with any applicable securities laws, insider trading policies and applicable blackout periods, and the terms of the ESPP. The Participant assumes the risk of any market fluctuations in the price of the shares.

Applicable Squeeze-out and Sell-out Rules

Under Section 253 of the General Corporation Law of the State of Delaware, United States (the "DGCL"), a corporation owning at least 90% of the outstanding shares of each class of the stock of a subsidiary corporation may effect a "short form" merger in which the shares of the subsidiary held by minority stockholders are converted into cash, stock or other property and the subsidiary is merged with the parent corporation. A short form merger pursuant to Section 253 of the DGCL may be authorized by the board of directors of the parent corporation without a vote of the stockholders of the subsidiary corporation. The minority stockholders of the subsidiary corporation are, however, entitled to seek judicial appraisal of their shares in connection with short form merger transactions in accordance with Section 262 of the DGCL.

Share Based Compensation Plans

Biogen has three share-based compensation plans pursuant to which awards are currently being made: (i) the Biogen Inc. 2006 Non-Employee Directors Equity Plan ("2006 Directors Plan"); (ii) the Biogen Inc. 2017 Omnibus Equity Plan ("2017 Omnibus Plan"); and (iii) the ESPP.

Directors Plan

In May 2006 the Company's shareholders approved the 2006 Directors Plan for share-based awards to the Company's directors. Awards granted from the 2006 Directors Plan may include stock options, shares of restricted stock, restricted stock units, stock appreciation rights and other awards in such amounts and with such terms and conditions as may be determined by a committee of the Company's Board of Directors, subject to the provisions of the plan. Biogen has reserved a total of 1.6 million shares of common stock for issuance under the 2006 Directors Plan. The 2006 Directors Plan provides that awards other than stock options and stock appreciation rights will be counted against the total number of shares reserved under the plan in a 1.5-to-1 ratio. In June 2015 the Company's stockholders approved an amendment to extend the term of the 2006 Directors Plan until June 10, 2025.

Omnibus Plans

In June 2017 our shareholders approved the 2017 Omnibus Plan for share-based awards to our employees. Awards granted from the 2017 Omnibus Plan may include stock options, shares of restricted stock, RSUs, performance shares, stock appreciation rights and other awards in such amounts and with such terms and conditions as may be determined by a committee of our Board of Directors, subject to the provisions of the plan. Shares of common stock available for grant under the 2017 Omnibus Plan consist of 8.0 million shares reserved for this purpose, plus shares of common stock that remained available for grant under our 2008 Omnibus Equity Plan ("2008 Omnibus Plan") as of June 7, 2017, or that could again become available for grant if outstanding awards under the 2008 Omnibus Plan as of June 7, 2017, are cancelled, surrendered or terminated in whole or in part. The 2017 Omnibus Plan provides that awards other than stock options and stock appreciation rights will be counted against the total number of shares available under the plan in a 1.5-to-1 ratio.

We have not made any awards pursuant to the 2008 Omnibus Plan since our shareholders approved the 2017 Omnibus Plan, and do not intend to make any awards pursuant to the 2008 Omnibus Plan in the future, except that unused shares under the 2008 Omnibus Plan have been carried over for use under the 2017 Omnibus Plan.

Stock Repurchase Programs

In August 2018 our Board of Directors authorized our 2018 Share Repurchase Program, which is a program to repurchase up to $3.5 billion of our common stock. Our 2018 Share Repurchase program does not have an expiration date. All share repurchases under our 2018 Share Repurchase Program will be retired. Under our 2018 Share Repurchase Program, we repurchased and retired approximately 4.3 million shares of our common stock at a cost of approximately $1.4 billion during the year ended December 31, 2018.

In July 2016 our Board of Directors authorized a program to repurchase up to $5.0 billion of our common stock (the "2016 Share Repurchase Program"), which was completed as of June 30, 2018. All share repurchases under our 2016 Share Repurchase Program were retired. Under our 2016 Share Repurchase Program, we repurchased and retired approximately 10.5 million shares of common stock at a cost of approximately $3.0 billion during the year ended December 31, 2018.

In February 2011 our Board of Directors authorized a program to repurchase up to 20.0 million shares of our common stock (the "2011 Share Repurchase Program"), which was completed as of March 31, 2017. Share repurchases under our 2011 Share Repurchase Program were principally used to offset common stock issuances under our share-based compensation programs. Under our 2011 Share Repurchase Program, we repurchased approximately 1.2 million shares of common stock at a cost of $365.4 million during the year ended December 31, 2017.

INFORMATION ON THE GOVERNING BODIES OF BIOGEN

The Company's Directors as of the Date of this Prospectus

The Company's Board of Directors currently consists of the following directors, each serving a one-year term:

Stelios Papadopoulos	Alexander J. Denner, Ph.D.	Caroline D. Dorsa
Nancy L. Leaming	Richard C. Mulligan, Ph.D.	Robert W. Pangia
Brian S. Posner	Eric K. Rowinsky, M.D.	The Hon. Lynn Schenk
Stephen A. Sherwin, M.D.		Michel Vounatsos

Stelios Papadopoulos, 70, has served on our Board of Directors since 2008 and was appointed as our independent Chairman in June 2014. He is a member of our Audit Committee, Finance Committee and Science and Technology Committee. Dr. Papadopoulos is the Chairman of the Board of Directors of Exelixis, Inc., a drug discovery and development company that he co-founded in 1994. He is also the Chairman of Regulus Therapeutics, Inc., a biopharmaceutical company. Previously, he was an investment banker with Cowen & Co., LLC, a financial services company, focusing on the biotechnology and pharmaceutical sectors, from 2000 until his retirement as Vice Chairman in August 2006. Prior to joining Cowen & Co., Dr. Papadopoulos served for 13 years as an investment banker at PaineWebber, Inc., a financial services company, where he was most recently Chairman of PaineWebber Development Corp., a PaineWebber subsidiary focusing on biotechnology.

Alexander J. Denner, 49, joined our Board of Directors in 2009. Dr. Denner serves as Chair of our Corporate Governance Committee and is a member of our Finance Committee. Dr. Denner is a founding partner and Chief Investment Officer of Sarissa Capital Management LP, a registered investment advisor, which he founded in 2012. Sarissa Capital focuses on improving the strategies of companies to enhance stockholder value. From 2006 to 2011 Dr. Denner served as a Senior Managing Director at Icahn Capital. Prior to that, he served as a portfolio manager at Viking Global Investors, a private investment fund, and Morgan Stanley Investment Management, a global asset management firm, a biopharmaceutical company. Dr. Denner is also a director of The Medicines Company.

Caroline D. Dorsa, 59, joined our Board of Directors in 2010. Ms. Dorsa serves as Chair of our Audit Committee and is a member of our Risk Committee. Ms. Dorsa served as Executive Vice President and Chief Financial Officer of Public Service Enterprise Group, Inc., a diversified energy company, from April 2009 until her retirement in October 2015, and served on its Board of Directors from February 2003 to April 2009. From February 2008 to April 2009, she served as Senior Vice President, Global Human Health, Strategy and Integration at Merck & Co., Inc. ("Merck)", a pharmaceutical company. From November 2007 to January 2008 Ms. Dorsa served as Senior Vice President and Chief Financial Officer of Gilead Sciences, Inc., a life sciences company. From February 2007 to November 2007 she served as Senior Vice President and Chief Financial Officer of Avaya, Inc., a telecommunications company. From 1987 to January 2007 Ms. Dorsa held various financial and operational positions at Merck, including Vice President and Treasurer, Executive Director of U.S. Customer Marketing and Executive Director of U.S. Pricing and Strategic Planning. Ms. Dorsa also serves as a director of Intellia Therapeutics, Inc., and Illumina, Inc., both of which are biotechnology companies, and as a Trustee of the Goldman Sachs ETF Trust, the Goldman Sachs MLP and Energy Renaissance Fund and the Goldman Sachs MLP Income Opportunities Fund, investment funds within the Goldman Sachs fund complex.

Nancy L. Leaming, 71, joined Biogen's Board of Directors in 2008. Ms. Leaming is a member of our Audit Committee and Risk Committee. She has been an independent consultant since 2005. From 2003 to 2005, she served as the Chief Executive Officer and President of Tufts Health Plan, a provider of healthcare insurance. From 1986 to 2003, Ms. Leaming served in several executive positions at Tufts Health Plan, including President, Chief Operating Officer and Chief Financial Officer. Ms. Leaming currently sits on the board of Rosie's Place, a not for profit, which was founded in 1974 as the first women's shelter in the United States.

Richard C. Mulligan, 64, joined our Board of Directors in 2009. Dr. Mulligan serves as Chair of our Science and Technology Committee and is a member of our Compensation and Management Development Committee. Dr. Mulligan is currently the Mallinckrodt Professor of Genetics, Emeritus, at Harvard Medical School, after serving as the Mallinckrodt Professor of Genetics and Director of the Harvard Gene Therapy Initiative from 1996 to 2013. Dr. Mulligan is the Executive Vice Chairman of the Board of Sana Biotechnology, a private biotechnology company. From March 2017 to October 2018 Dr. Mulligan served as a Portfolio Manager at Icahn Capital LP. Prior to that, Dr. Mulligan was a founding partner of Sarissa Capital Management LP, a registered investment advisor, from 2013 to 2016. Prior to Harvard, he was a Professor of Molecular Biology at the Massachusetts Institute of Technology, a member of the Whitehead Institute for Biomedical Research and the Chief Scientific Officer of Somatix Therapy Corporation, a drug discovery and development company that he founded. He was named a MacArthur Foundation Fellow in 1981.

Robert W. Pangia, 67, has served on our Board of Directors since 1997. Mr. Pangia serves as Chair of our Compensation and Management Development Committee and is a member of our Finance Committee. Mr. Pangia has been a partner in Ivy Capital Partners, LLC, the general partner of Ivy Healthcare Capital, L.P., a private equity fund specializing in healthcare investments, since 2003. From 2011 to 2016, he was also the Chief Executive Officer of Ivy Sports Medicine, LLC, a medical device company. From October 2007 to October 2009, he also served as the Chief Executive Officer of Highlands Acquisition Corp., a special-purpose acquisition company. From 1996 to 2003, Mr. Pangia was self-employed as an investment banker. From 1987 to 1996, he held various senior management positions at PaineWebber, a financial services company, including Executive Vice President and Director of Investment Banking for PaineWebber Incorporated of New York, member of the Board of Directors of PaineWebber, Inc., Chairman of PaineWebber Properties, Inc., and member of several of PaineWebber's executive and operating committees.

Brian S. Posner, 57, joined our Board of Directors in 2008. Mr. Posner serves as Chair of our Finance Committee and is a member of our Corporate Governance Committee and Audit Committee. Mr. Posner has been a private investor since March 2008 and is the founder and Managing Partner of Point Rider Group, LLC, a boutique consulting and advisory services firm that provides customized solutions to senior executives and boards of financial, bio-pharmaceutical and other services-related companies, as well as strategic investors that make direct and control investments in those sectors. From 2005 to March 2008 Mr. Posner served as the President, Chief Executive Officer and co-Chief Investment Officer of ClearBridge Advisors LLC, an asset management company and a wholly owned subsidiary of Legg Mason. Prior to that, Mr. Posner co-founded Hygrove Partners LLC, a private investment fund, in 2000 and served as its Managing Partner for five years. He served as a portfolio manager and an analyst at Fidelity Investments, a financial services company, from 1987 to 1996 and, from 1997 to 1999, at Warburg Pincus Asset Management/Credit Suisse Asset Management, where he also served as co-Chief Investment Officer and Director of Research. Mr. Posner is also a director of Arch Capital Group Ltd., a specialty insurance and reinsurance provider, and a Trustee of AQR Mutual Funds, an investment fund.

Eric K. Rowinsky, 62, has served on our Board of Directors since 2010. Dr. Rowinsky is a member of our Compensation and Management Development Committee, Corporate Governance Committee and Science and Technology Committee. Dr. Rowinsky has served as President of RGenix, Inc., a privately-held life sciences company, since November 2015 and as its Executive Chairman since December 2016. Since June 2016 Dr. Rowinsky has also been the Chief Scientific Officer of Clearpath Development Co., which rapidly advances development stage therapeutic assets to pre-defined human proof-of-concept milestones. From January 2012 to November 2015 Dr. Rowinsky was the Head of Research and Development and Chief Medical Officer of Stemline Therapeutics, Inc., a biotechnology company focusing on the discovery and development of therapeutics targeting cancer stem cells. Dr. Rowinsky is an Adjunct Professor of Medicine at New York University and has been an independent consultant since January 2010. Prior to that, he was the Chief Medical Officer of Primrose Therapeutics, Inc., a start-up biotechnology company focusing on the development of therapeutics for polycystic kidney disease, from August 2010 until its acquisition in September 2011. From 2005 to December 2009 he served as the Chief Medical Officer and Executive Vice President of ImClone Systems Incorporated, a life sciences company. From 1996 to 2004 Dr. Rowinsky held several positions at the Cancer Therapy & Research Center's Institute for Drug Development, including Director of the Institute and Director of Clinical Research. During that time, he held the SBC Endowed Chair for Early Drug Development and was Clinical Professor of Medicine at the University of Texas Health Science Center at San Antonio. From 1988 to 1996 Dr. Rowinsky was an associate professor of oncology at the Johns Hopkins School of Medicine and on the staff of the Johns Hopkins Hospital. Dr. Rowinsky is also a director of Fortress Biotech Inc. and Verastem, Inc., both biopharmaceutical companies, and Biophytis, a biotechnology company.

Lynn Schenk, 74, has served on Biogen's Board of Directors since 1995. She serves as Chair of the Risk Committee and is a member of our Compensation and Management Development Committee. Ms. Schenk is an attorney in private practice with extensive public policy and business experience. She is also a member of the Board of Overseers of the Scripps Research Institute, a director of the California High-Speed Rail Authority Board and a trustee of the University of California, San Diego Foundation. From 1999 to 2003,she served as Chief of Staff to the Governor of California, during which time she led the effort to create the Institutes for Science and Innovation at the University of California. She headed the State's Executive Branch risk management team post 9/11 and during the California energy crisis. From 1993 to 1995 Ms. Schenk was a Member of the United States House of Representatives, representing San Diego, California and served on the House Energy & Commerce Committee with a special emphasis on biotechnology. From 1980 to 1983 she was the California Secretary of Business, Transportation and Housing, during which time she formed the California Commission on Industrial Innovation. Ms. Schenk is a director of Sempra Energy, an energy services and development company, and serves on the Corporate Governance Committee, the Executive Committee and is the Chair of the Environmental Health, Safety and Technology Committee. Ms. Schenk is also a National

Association of Corporate Directors (NACD) Board Leadership Fellow, a member of the NACD Advisory Council on Risk Oversight and a Fellow of the UCLA Luskin School of Public Affairs. In 2017 Ms. Schenk was selected as an NACD Directorship 100 honoree.

Stephen A. Sherwin, 70, has served on Biogen's Board of Directors since 2010. Dr. Sherwin is a member of our Science and Technology Committee, Finance Committee and Risk Committee. Dr. Sherwin currently divides his time between advisory work in the life sciences industry and patient care and teaching in his specialty of medical oncology. He is a Clinical Professor of Medicine at the University of California, San Francisco, and a volunteer attending physician in hematology-oncology at the Zuckerberg San Francisco General Hospital. Dr. Sherwin also currently serves as a venture partner with Third Rock Ventures, LLC. Dr. Sherwin previously served as the Chairman of Ceregene, Inc., a life sciences company that he co-founded, from 2001 until its acquisition by Sangamo Biosciences, Inc. in 2013. He was also co-founder and chairman of Abgenix, Inc., an antibody company that was acquired by Amgen Inc. in 2006. From 1990 to October 2009 he served as the Chief Executive Officer of Cell Genesys, Inc., a life sciences company, and was its Chairman from 1994 until the company's merger with BioSante Pharmaceuticals, Inc. (now ANI Pharmaceuticals, Inc.) in October 2009. Prior to that, he held various positions at Genentech, Inc., a life sciences company, most recently as Vice President, Clinical Research. Dr. Sherwin is board certified in internal medicine and medical oncology. Dr. Sherwin is also a director of Aduro Biotech, Inc., Neurocrine Biosciences, Inc., and Neon Therapeutics, Inc., all of which are life sciences companies.

Michel Vounatsos, 57, is Chief Executive Officer of Biogen and has served in this position and as a member of the Board of Directors since January 2017. Prior to that, from April 2016 until his appointment as our Chief Executive Officer, he served as our Executive Vice President, Chief Commercial Officer. Prior to joining Biogen, Mr. Vounatsos spent 20 years at Merck, where he most recently served as President, Primary Care Business Line and Merck Customer Centricity. In this role, he led Merck's global primary care business unit, a role which encompassed Merck's cardiology-metabolic, general medicine, women's health and biosimilars groups and developed and instituted a strategic framework for enhancing the company's relationships with key constituents, including the most significant providers, payers and retailers and the world's largest governments. Mr. Vounatsos previously held leadership positions across Europe and in China for Merck. Prior to that, Mr. Vounatsos held management positions at Ciba-Geigy, a pharmaceutical company. Mr. Vounatsos received his C.S.C.T. certificate in Medicine from the Université Victor Segalen, Bordeaux II, France, and his M.B.A. from the HEC School of Management in Paris.

The Company's Executive Officers as of the Date of this Prospectus

As of the date of this prospectus the executive officers of the Company and their principal positions are as follows:

Name	Current Position	Age
Michel Vounatsos	Chief Executive Officer	57
Susan H. Alexander	Executive Vice President, Chief Legal Officer and Secretary	62
Jeffrey D. Capello	Executive Vice President and Chief Financial Officer	54
Michael D. Ehlers, M.D., Ph.D.	Executive Vice President, Research and Development	50
Ginger Gregory, Ph.D.	Executive Vice President and Chief Human Resources Officer	51
Chirfi Guindo	Executive Vice President and Head of Global Marketing, Market Access and Customer Innovation	53
Daniel Karp	Executive Vice President, Corporate Development	41
Robin C. Kramer	Vice President, Chief Accounting Officer	53
Paul McKenzie, Ph.D.	Executive Vice President, Pharmaceutical Operations and Technology	53
Alfred W. Sandrock, Jr., M.D., Ph.D.	Executive Vice President and Chief Medical Officer	61

For biographical information on Mr. Vounatsos, see "—The Company's Directors as of the Date of this Prospectus".

Susan H. Alexander has served as our Executive Vice President, Chief Legal Officer and Secretary since April 2018. Prior to that, from March 2017 to March 2018, Ms. Alexander served as our Executive Vice President, Chief Legal, Corporate Services and Secretary, from December 2011 to March 2017, as our Executive Vice

President, Chief Legal Officer and Secretary and from 2006 to December 2011, as our Executive Vice President, General Counsel and Corporate Secretary. Prior to joining Biogen, Ms. Alexander served as the Senior Vice President, General Counsel and Corporate Secretary of PAREXEL International Corporation, a biopharmaceutical services company, from 2003 to January 2006. From 2001 to 2003 Ms. Alexander served as General Counsel of IONA Technologies, a software company. From 1995 to 2001 Ms. Alexander served as Counsel at Cabot Corporation, a specialty chemicals and performance materials company. Prior to that, Ms. Alexander was a partner at the law firms of Hinckley, Allen & Snyder and Fine & Ambrogne. Ms. Alexander is also a director of Invacare Corporation, a medical and healthcare product company. Ms. Alexander received her B.A. from Wellesley College and her J.D. from Boston University School of Law.

Jeffrey D. Capello has served as our Executive Vice President and Chief Financial Officer since December 2017 and served as our Chief Accounting Officer from July 2018 to November 2018. Prior to joining Biogen, Mr. Capello served as the Chief Financial Officer of Beacon Health Options, Inc., a behavioral health company, with responsibility for finance, human resources, information technology, real estate and procurement, from October 2016 until November 2017. From July 2015 until September 2016 Mr. Capello was the founder and Chief Executive Officer of Monomoy Advisors, which focuses on helping companies drive shareholder value. From July 2014 until June 2015 Mr. Capello served as the Executive Vice President and Chief Financial Officer of Ortho-Clinical Diagnostics, an in-vitro diagnostics company that was acquired by the Carlyle Group from Johnson & Johnson ("J&J"), with responsibility for global finance and business development. From March 2010 to December 2013 Mr. Capello served as Chief Financial Officer and Executive Vice President of Boston Scientific Corporation ("Boston Scientific"), a medical device company, where he was responsible for the worldwide management of Boston Scientific's finance, information systems, business development and corporate strategy functions. Mr. Capello joined Boston Scientific in June 2008 and served as Senior Vice President and Chief Accounting Officer until March 2010. From 2006 to 2008 he was the Senior Vice President and Chief Financial Officer with responsibilities for global finance and business development at PerkinElmer, Inc. ("PerkinElmer"), a life sciences tool company. Previously, he served as PerkinElmer's Vice President of Finance, Corporate Controller, Treasurer and Chief Accounting Officer from 2001 to 2006. Prior to his tenure at PerkinElmer, Mr. Capello was a Partner at PricewaterhouseCoopers LLP, both in the U.S. and in the Netherlands. He holds a B.S. in Business Administration from the University of Vermont and an M.B.A. from Harvard Business School.

Michael D. Ehlers has served as our Executive Vice President, Research and Development since May 2016. Prior to joining Biogen, from August 2010 to April 2016, Dr. Ehlers served in leadership positions at Pfizer, a biopharmaceutical company, including Senior Vice President & Head BioTherapeutics R&D and Chief Scientific Officer, Neuroscience & Pain. Prior to that, Dr. Ehlers was the George Barth Geller Professor of Neurobiology and an Investigator of the Howard Hughes Medical Institute at Duke University Medical Center. He is the recipient of numerous awards, including the Eppendorf & Science Prize in Neurobiology, the John J. Abel Award in Pharmacology, the Society for Neuroscience Young Investigator Award, a National Institute of Mental Health MERIT Award, the National Alliance for Schizophrenia and Depression Distinguished Investigator Award and the Massachusetts Medical Society Honored Business Leader Award. In 2013 Dr. Ehlers became the 11th recipient of the Thudichum Medal of the Biochemical Society of the U.K. Past recipients include two Nobel laureates. Dr. Ehlers has authored over 100 scientific papers, has served on the Editorial Boards of Annual Reviews in Medicine, Annual Reviews in Pharmacology and Toxicology, the Journal of Neuroscience, the Journal of Biological Chemistry and the Journal of Molecular and Cellular Neuroscience and has sat on advisory committees of the National Institutes of Health. Dr. Ehlers earned his B.S. in chemistry from the California Institute of Technology. He holds M.D. and Ph.D. degrees from the Johns Hopkins University School of Medicine.

Ginger Gregory has served as our Executive Vice President and Chief Human Resources Officer since July 2017. Prior to joining Biogen, Dr. Gregory served as Executive Vice President and Chief Human Resources Officer at Shire PLC, a global specialty biopharmaceutical company, from February 2014 to April 2017. Prior to that, Dr. Gregory held executive-level human resources positions for several multinational companies across a variety of industries, including Dunkin' Brands Group Inc., a restaurant holding company, where she served as Chief Human Resource Officer; Novartis, AG, a pharmaceutical company, where she was the division head of Human Resources for Novartis Vaccines and Diagnostics, Novartis Consumer Health and Novartis Institutes of BioMedical Research from 2005 to 2012; and Novo Nordisk A/S, a pharmaceutical company, where she served as Senior Vice President, Corporate People & Organization at the company's headquarters in Copenhagen, Denmark. Earlier in her career, Dr. Gregory held a variety of human resources generalist and specialist positions at Bristol-Myers Squibb Company ("BMS"), a pharmaceutical company, and served as a consultant with Booz Allen & Hamilton, an information technology consulting company, in the area of organization change and effectiveness. Dr. Gregory earned her B.A. in psychology from the University of Massachusetts and holds a Ph.D. in psychology from The George Washington University.

Chirfi Guindo has served as our Executive Vice President and Head of Global Marketing, Market Access and Customer Innovation since November 2017. Prior to joining Biogen, Mr. Guindo has spent 27 years in the global pharmaceutical industry and has held several leadership positions at Merck in Canada, the U.S., France, Africa and the Netherlands. He worked in several disciplines including Finance, Sales & Marketing, General Management and Global Strategy/Product Development in specialty, acute and hospital care. Most recently Mr. Guindo was Vice President and Managing Director and President and Managing Director of Merck Canada from October 2014 to November 2017. From January 2011 to October 2014, he was Vice President and General Manager, Global HIV Franchise at Merck. Mr. Guindo holds a degree in Engineering from the École Centrale de Paris (France) and obtained an MBA in Finance/Economics from New York University's Stern School of Business.

Daniel Karp has served as our Executive Vice President, Corporate Development since June 2018. Prior to joining Biogen, Mr. Karp held a number of positions of increasing responsibility at Pfizer, including as Vice President, Worldwide Business Development and Head of Business Development for Worldwide Research and Development from May 2016 to June 2018, as Vice President, Worldwide Business Development and BD Lead for Pfizer Vaccines, Oncology and Consumer Healthcare from January 2014 to May 2016, as Senior Director, Worldwide Business Development from December 2010 to December 2013, as Director, Worldwide Business Development from January 2008 to December 2010, as Senior Manager, Worldwide Business Development from May 2007 to December 2007 and as Manager, U.S. Business Development from July 2006 to April 2007. Prior to that, Mr. Karp held roles in healthcare and life sciences strategy consulting. He holds a B.S. in biology from Duke University and an MBA from the Wharton School of the University of Pennsylvania.

Robin C. Kramer has served as our Vice President, Chief Accounting Officer since November 2018. Prior to joining Biogen, Ms. Kramer served as the Senior Vice President and Chief Accounting Officer of Hertz Global Holdings, Inc., a car rental company, from May 2014 to November 2018. Prior to that, Ms. Kramer was an audit partner at Deloitte & Touche LLP ("Deloitte"), a professional services firm, from 2007 to 2014, including serving in Deloitte's National Office Accounting Standards and Communications Group from 2007 to 2010. From 2005 to 2007, Ms. Kramer served as Chief Accounting Officer of Fisher Scientific International, Inc., a laboratory supply and biotechnology company, and from 2004 to 2005 Ms. Kramer served as Director, External Reporting, Accounting and Control for the Gillette Company, a personal care company. Ms. Kramer also held partner positions in the public accounting firms of Ernst & Young LLP and Arthur Anderson LLP. Ms. Kramer is a licensed certified public accountant in Massachusetts. She is a member of the Massachusetts Society of CPAs and the American Institute of CPAs and served as a Board Member for the Massachusetts State Board of Accountancy from September 2011 to December 2015. She holds a B.B.A. in accounting from Salem State University.

Paul McKenzie has served as our Executive Vice President, Pharmaceutical Operations and Technology since July 2016. Prior to that, from February 2016 to June 2016, he served as our Senior Vice President for Global Biologics Manufacturing & Technical Operations. Prior to joining Biogen, beginning in 2008, Dr. McKenzie held a number of positions of increasing responsibility at J&J, including Vice President of R&D for J&J's Ethicon business and Global Head of Pharmaceutical Manufacturing and Technical Operations, where he led the manufacturing and technical operations team responsible for internal and external manufacturing of Janssen's pharmaceutical portfolio. He also ran global Development for Janssen R&D, helping to manage pipeline activities from discovery through clinical development and commercialization. Prior to J&J, Dr. McKenzie also held various R&D and manufacturing positions at BMS and Merck. He holds a B.S. in chemical engineering from the University of Pennsylvania and a Ph.D. in chemical engineering from Carnegie Mellon University.

Alfred W. Sandrock, Jr. has served as our Executive Vice President and Chief Medical Officer since October 2017. Prior to that, Dr. Sandrock served as our Executive Vice President, Chief Medical Officer Neurology and Neurodegeneration from October 2015 to October 2017, as our Chief Medical Officer and Group Senior Vice President from April 2013 to October 2015 and as our Chief Medical Officer and Senior Vice President of Development Sciences from February 2012 to April 2013. Prior to that, Dr. Sandrock held several other senior executive positions since joining Biogen in 1998, including Senior Vice President of Neurology Research and Development and Vice President of Clinical Development, Neurology. Dr. Sandrock received his B.A. in human biology from Stanford University, an M.D. from Harvard Medical School and a Ph.D. in neurobiology from Harvard University. He completed an internship in medicine, a residency and chief residency in neurology and a clinical fellowship in Neuromuscular Disease and Clinical Neurophysiology (electromyography) at Massachusetts General Hospital.

Good Standing of Directors and Executive Officers

For at least the previous five years none of the directors or executive officers of Biogen has been associated with any bankruptcy, receivership or liquidation of a company when acting in their capacity as members of the administrative, management or supervisory board or senior manager of this Company or has been subject to any

official public incrimination and/or sanctions by statutory or regulatory authorities (including designated professional bodies). None of the directors or executive officers of the Company has ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of an issuer or from acting in the management or conduct of the affairs of any issuer or has been convicted in relation to fraudulent offences.

The Company's directors and executive officers may be contacted at the Company's business address, 225 Binney Street, Cambridge, Massachusetts 02142, U.S.A.

Potential Conflicts Between Any Duties to the Issuer of Directors or Executive Officers of the Company and Their Private Interests and/or Other Duties

The Company's Code of Business Conduct (Values in Action) and Corporate Governance Principles, both of which are posted on the Company's corporate website, www.biogen.com under the "Corporate Governance" subsection of the Investor section of the site, together with the Company's Conflict of Interest Policy and Related Person Transactions Policy, set forth the Company's policies and procedures for the review and approval of transactions with related persons, including transactions that would be required to be disclosed in a Proxy Statement for an Annual Meeting in accordance with SEC rules. In circumstances where one of the Company's directors or officers, or a family member, has a direct or indirect interest in a transaction involving the Company, the Corporate Governance Committee must review and approve all such proposed transactions or courses of dealing. There are no such relationships or transactions that are required to be disclosed in a Proxy Statement for an Annual Meeting under SEC rules. Further, there are no conflicts of interest between duties to the issuer and the private interests of the Company's directors and executives that require disclosure under the European Prospectus Directive, the German Securities Prospectus Act (*Wertpapierprospektgesetz*)) and this prospectus. Indeed, the Company's Code of Business Conduct, which sets forth legal and ethical guidelines for all of the Company's directors and employees, states that directors, executive officers and employees must avoid relationships or activities that might impair that person's ability to make objective and fair decisions while acting in their Company roles, and the Company's Corporate Governance Principles state that the Company's Board of Directors must approve any waivers of any ethics policy for any director or officer.

There are no family relationships between any of the Company's directors and/or executive officers.

Disposal Restrictions Agreed by Directors and Executive Officers of the Company

Directors and executive officers may only sell Company stock pursuant to predetermined written trading plans. Furthermore, these trading plans may only be entered into during trading windows that open after public announcements of quarterly or year-end earnings when the director or executive officer is not aware of any material, non-public information about the Company. The Company also has share ownership guidelines that specify certain levels of ownership of Company stock to be maintained by directors and executive officers.

TAXATION IN THE FEDERAL REPUBLIC OF GERMANY

The following is a general summary description of the tax consequences of your participation in the ESPP.

This description is based on the tax and other laws concerning equity awards in effect in Germany as of the date of this prospectus. Such laws are often complex and change frequently. As a result, the information contained in this supplement may be out of date at the time you are granted an award, acquire shares or sell shares you acquire under the ESPP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to your particular tax or financial situation, and Biogen is not in a position to assure you of any particular tax result. **Accordingly, you are strongly advised to seek appropriate professional advice as to how the tax or other laws in your country apply to your specific situation. You are also advised to seek advice with respect to U.S. inheritance and/or estate taxes as you may be subject to those with respect to shares acquired under the ESPP.**

If you are a citizen or resident of a country other than Germany, the information contained in this description may not be applicable to you.

Note: The particular terms of any awards granted to you under the ESPP are set forth in the applicable plan and award agreement ("Plan Documents"). If there is an inconsistency between the description below and your Plan Documents, the Plan Documents will take precedence. As stated in your Plan Documents, the ability to participate in the ESPP is neither a contract nor a guarantee of continued employment; employment is and always will be on the basis as provided for in your employment agreement. The ESPP is not part of your salary and will not be included in calculations of any severance payments that may be payable upon termination of employment.

Enrollment in the ESPP

You are not subject to tax when a Purchase Right is granted to you under the ESPP (i.e., when you enroll in the ESPP or are offered participation in the ESPP).

Purchase of Shares

When shares are purchased, you will be subject to income tax (plus solidarity surcharge and church tax, if applicable). According to the official position of German tax authorities, the taxable amount is the difference (or discount) between the fair market value of the shares on the date of purchase and the purchase price. You also will be subject to social insurance contributions on the discount to the extent you have not already exceeded your applicable contribution ceiling.

A tax free amount of €360 might be available if the ESPP meets certain requirements. The availability of the tax free amount, in principle, requires that the participation in the ESPP is offered to all employees of the German subsidiary, who have been employed for one year or more at the time when the participation in the ESPP is offered. Whether or not the tax free amount of €360 is available in the case at hand requires a more detailed analysis of the ESPP and its implementation. The Company recommends that you confirm the availability of the tax-free amount with your personal tax advisor.

Sale of Shares

When you subsequently sell the shares that you purchased under the ESPP, any capital gain, (i.e., the difference between the sale price and the fair market value of the shares at the time of purchase, less costs directly related to the sale) will in principle be subject to a withholding tax on income from capital investments at a flat rate of 25% (plus solidarity surcharge and church tax, if applicable). The withholding at source, however, only applies if the shares were held in a deposit of securities at a German bank or other German financial institution. Biogen does not assume any responsibility to withhold German income tax, etc. on the capital gain. An annual tax-free amount for the entire investment income, including inter alia dividends and capital gains from the sale of shares, of €801 applies for single taxpayers or €1,602 for married taxpayers and for partners within the meaning of the registered partnership law (*Gesetz über die Eingetragene Lebenspartnerschaft*) filing jointly, respectively. If the flat tax rate exceeds your personal income tax rate, you may elect a personal assessment to apply your personal income tax rate. If the capital gain is not subject to the flat rate withholding tax on investment income, e.g., because the shares are not held in a deposit of securities at a German bank or other German financial institution, you have to declare the capital gain in your personal income tax return as taxable income and pay the arising tax yourself. The capital gain is, however, subject to the same tax rates as if the flat rate withholding taxation had applied. If you hold the shares which you purchased under the ESPP as business assets or if you own 1% or more of the Company's stated capital (or have owned 1% or more at any time in the last five years), 60% of the capital gain is subject to taxes at your personal income tax rate.

Dividends

Any dividend payments that you receive are in principle subject to a flat rate tax of 25% on the full amount of the dividend payment (plus solidarity surcharge and church tax, if applicable). As a matter of principle, the flat tax is to be withheld at the source. Biogen does not assume any responsibility to withhold German income tax on dividends, etc. at source. The annual tax-free amount for investment income, including inter alia dividends and capital gains from the sale of shares, amounts to €801 for single taxpayers or €1,602 for married taxpayers and for partners within the meaning of the registered partnership law (*Gesetz über die Eingetragene Lebenspartnerschaft*) filing jointly, respectively. If the flat tax rate exceeds your personal income tax rate, you may elect a personal assessment to apply your personal income tax rate. The withholding at source, however, only applies if the dividend income is paid out by a German bank or other German financial institution, e.g., because the shares are held on a deposit of securities at a German bank or other German financial institution. If the dividend payment is not subject to the flat rate withholding tax on investment income, you have to declare the dividend income in your personal income tax return as taxable income and pay the arising tax yourself. The dividend income is, however, subject to the same tax rates as if the flat rate withholding taxation had applied. Dividends may also be subject to U.S. federal income tax withholding at source. U.S. federal tax withholding taxes on the dividends may be credited. The Company does not assume any responsibility to withhold taxes at source.

Withholding and Reporting

Your employer will withhold income tax, solidarity surcharge and church tax, if applicable on the discount upon the purchase of shares. However, you are responsible for paying any difference between the actual tax liability and the amount withheld. It is your responsibility to pay and report any taxes due when you sell shares acquired under the ESPP or when you receive dividends, unless the flat rate withholding tax on investment income does apply.

Social Security

Your employer will withhold social insurance contributions (to the extent that you have not exceeded your applicable ceiling for social insurance contributions) when shares are purchased for you under the ESPP.

TAXATION IN THE UNITED KINGDOM

The following is a general summary description of the tax consequences of your participation in the ESPP.

This description assumes that you are always resident and domiciled in the U.K. The tax implications may differ if you are not always resident and domiciled in the U.K.

This description is based on the tax and other laws concerning equity awards in effect in the U.K. as of the date of this prospectus. Such laws are often complex and change frequently. As a result, the information contained in this supplement may be out of date at the time you are granted an award, acquire shares or sell shares you acquire under the ESPP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to your particular tax or financial situation, and Biogen is not in a position to assure you of any particular tax result and this description does not constitute tax advice. **Accordingly, you are strongly advised to seek appropriate professional advice as to how the tax or other laws in your country apply to your specific situation. You are also advised to seek advice with respect to U.S. inheritance and/or estate taxes as you may be subject to those with respect to shares acquired under the ESPP.**

If you are a citizen or resident of a country other than the U.K., the information contained in this description may not be applicable to you.

Note: The particular terms of any awards granted to you under the ESPP are set forth in the applicable plan and award agreement (the "Grant Documents"). If there is an inconsistency between the description below and your Grant Documents, the Grant Documents will take precedence. As stated in your Grant Documents, the ability to participate in the ESPP is neither a contract nor a guarantee of continued employment; employment is and always will be on the basis as provided for in your employment agreement. The ESPP is not part of your salary and will not be included in calculations of any severance payments that may be payable upon termination of employment.

Enrollment in the ESPP

You are not subject to tax when an option is granted to you under the ESPP (*i.e.*, when you enroll in the ESPP or are offered participation in the ESPP).

Purchase of Shares

You will be subject to income tax on the amount by which the market value of the shares on the purchase date exceeds the purchase price (the "spread"). Income tax will be due on the spread at your marginal income tax rate, depending on your cumulative annual earnings. In addition, you will be subject to employee's national insurance contributions ("NICs") on the spread. For the tax year 6 April 2019 to 5 April 2020, employee NICs are due at a rate of 12% to the extent that your earnings exceed £166 per week, up to the upper earnings limit of £962 per week. To the extent you have exceeded the upper earnings limit, you will be subject to employee's NICs at a rate of 2% for the tax year 2019/2020.

You are ultimately responsible for the payment of any income tax and employee's NICs due. Your employer will calculate the income tax and employee's NICs due when shares are purchased for you under the ESPP and will account for these amounts to HM Revenue & Customs ("HMRC"). You are required to reimburse your employer for the amounts accounted by it to HMRC. Your employer may withhold these amounts from your monthly salary. If the total amount of income tax and employee's NICs due when shares are purchased exceeds your salary, you will have to make up for the difference either through the sale of shares or use of other funds. Alternatively, the Company may sell or arrange for the sale of the shares that you acquire under the ESPP to cover these amounts. To the extent that there is no or insufficient withholding, you must reimburse your employer for the income tax due within 90 days after the end of the U.K. tax year in which the shares were purchased. If you fail to pay this amount to your employer within the time limit, you may be deemed to have received a benefit in kind equal to the amount of any income tax not recovered from you and you may have to pay further income tax and employee's NICs on this benefit in kind. The Company may refuse to deliver your shares until all such amounts have been repaid or recovered.

Sale of Shares

When you subsequently sell your shares acquired under the ESPP, you will be subject to capital gains tax on any increase in the value of the shares between the date of purchase of the shares and the date of sale, subject to your personal annual exemption.

Capital gains tax is payable on gains from all sources in excess of the personal annual exemption in any tax year. The personal annual exempt amount is £12,000 for the tax year 2019/2020.

A capital gains tax rate of 20% is payable on the amount of any gain (or any parts of gains) that exceeds the upper limit of the income tax basic rate band when aggregated with your cumulative taxable income and other chargeable gains in any tax year. For the 2019/2020 tax year, the upper limit of the income tax basic rate band is £37,500 (after the deduction of the annual income tax personal allowance). Below this limit, capital gains tax is payable at a rate of 10%.

If you have acquired shares in the Company at different times, whether pursuant to the ESPP or otherwise, all of the shares of the same class you have acquired will be treated as forming a single asset (a share pool). The base cost will then be calculated on a pro rata basis. One exception to this is that any shares acquired on the same day as you sell any shares and those acquired within the following 30 days will be treated as being disposed of first. Disposals are therefore taken to be made in the following order: (i) against acquisitions on the same day; (ii) against acquisitions within the 30 days following the disposal; and (iii) against shares in the share pool. **The capital gains tax rules are complex and their impact will vary according to your own circumstances. We recommend that you obtain independent tax advice before selling your shares.**

You will be responsible for reporting and paying any UK capital gains tax liability to HMRC through your annual self-assessment tax return.

Dividends

If you hold shares of Company stock and the Company declares a dividend on the shares, you will be subject to income tax at rates of between 7.5% and 38.1% on dividend payments that you receive to the extent the dividends you receive for the tax year exceed the annual dividend allowance (£2,000 for the 2019/2020 tax year). (No NICs are due on dividends.) Any dividends paid will be subject to U.S. federal tax withheld at source, although you may be able to arrange for dividends to be paid to you without U.S. federal tax being withheld. The Company will not withhold any U.K. income tax at source and you must account for U.K. income tax due through your annual U.K. self assessment tax return. You may be entitled to a tax credit against your U.K. income tax for any U.S. federal tax withheld, which you may apply to HMRC for through your annual self-assessment tax return.

Withholding and Reporting

As mentioned above, your employer is required to account for and report income tax and employee's NICs on the spread when shares are purchased under the ESPP. If the amount withheld is not sufficient to cover your actual liability, you will be responsible for paying the difference and should do so within 90 days after the end of the U.K. tax year in which the shares were purchased to avoid liability to additional income tax and employee's NICs (as discussed above). If you repay student loan via payroll deductions, the spread will be included in the basis used to calculate the amount of such student loan payment for the applicable pay period.

In addition, you will be responsible for paying directly to HMRC any taxes owed as a result of any dividends received or the sale of the shares.

You will also be required to report any dividends received and any capital gains tax that arises on the subsequent disposal of your shares to HMRC on your annual self-assessment tax return. You may also have an obligation to report your capital gains in other circumstances.

TAXATION IN FRANCE

The following is a general summary description of the tax and social security consequences of your participation in ESPP.

This description is based on the tax and other laws concerning equity awards in effect in France as of the date of this prospectus. Such laws are often complex and change frequently. As a result, the information contained in this supplement may be out of date at the time you are granted an award, acquire shares or sell shares you acquire under the ESPP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to your particular tax, social security contributions or financial situation, and Biogen is not in a position to assure you of any particular tax result. **Accordingly, you are strongly advised to seek appropriate professional advice as to how the tax or other laws in your country apply to your specific situation. You are also advised to seek advice with respect to U.S. inheritance and/or estate taxes as you may be subject to those with respect to shares acquired under the ESPP.**

If you are a citizen or resident of another country or transfer your tax residence out of France after your enrollment into the ESPP and/or if you are not subject to the French social security regime, the information contained in this description may not be applicable to you.

Enrollment in the ESPP

You are not subject to tax or to social security contributions when a Purchase Right is granted to you under the ESPP (i.e., when you enroll in the ESPP or are offered participation in the ESPP).

Purchase of Shares

When shares are purchased under the ESPP, you are subject to social security contributions, including CSG (*Contribution sociale généralisée*) and CRDS (*Contribution à la réduction de la dette sociale*), on the difference (the "gain") between the fair market value of the shares on the date of purchase and the purchase price. This gain is also subject to personal income tax at your marginal rate (up to 45% for 2018 income[1]), after deduction of the tax deductible social security contributions and if applicable, a surtax on high income of 3% and/or 4% (see below).

Dividends

For dividends received since January 1, 2018, you will be subject to income tax and social taxes at a combined flat rate of 30% with no allowance (or upon election, taxed at your progressive income tax rate after application of certain allowances, but please note that such election triggers consequences on taxation of other investments income[2]).

For dividends received since January 1, 2018, at the time of the payment, you will be subject to a prepayment of French personal income tax at a rate of 12.8% on the gross amount of dividends received and to payment of the French additional social taxes at a global rate of 17.2% also on the gross amount of dividends. Until the shares are held in the books of a non-French broker, you are personally responsible for paying and reporting any tax liabilities in that respect. In any case, you will have to directly report the dividends derived in your annual tax return due the year following payment of the dividends and you may pay additional income taxes (or be reimbursed in case of surplus of income tax prepaid). Biogen has no obligation in relation with these pre-payments.

In addition, you will be subject to U.S. income tax withholding at source, and may be entitled to a foreign tax credit for these amounts, if the formalities required pursuant to the August 31, 1994 tax treaty to eliminate double taxation, entered into between France and the U.S., as amended, are fulfilled. Such tax credit may be offset against the personal income tax when filing your annual tax return. Biogen does not assume any responsibility to withhold taxes at source. You are invited to consult your personal tax advisor to review whether and how you may be entitled to a tax credit in France.

[1] The scale of the French progressive income applicable to income realized in 2019 could be amended until the very end of 2019. As of today, the marginal rate is 45%. From 1 January 2019, French local employer is liable to withhold income tax on the salary income (and any income that qualifies as salary income) on a monthly basis according to the rate communicated by the French tax authorities to the employer and remit the amount of withheld income tax to the French tax authorities.

[2] The election to be taxed according to progressive rates, when made, is global and applies to all financial and investment income. It does not allow taxpayers to elect for it to apply to certain investment income only.

Sale of Shares

When the shares you acquired pursuant to the ESPP are later sold, the positive difference between the net sale price and the fair market value of the shares on the date of purchase (the "capital gain") is subject to income tax and social taxes.

For shares sold since January 1, 2018, the capital gain (if any) will be subject to income tax and social taxes at a combined flat rate of 30% (or upon election, at your progressive income tax rate, but please note that such election triggers other consequences on taxation of other income[3] irrespective of the duration of the holding period of the shares[4]).

You are invited to consult your personal tax advisor prior to selling your shares and filing the relevant personal income tax return to determine the taxable amount.

Specific surtax may apply - see below.

Surtax

A surtax (at rates of 3% and/or 4%, depending on your total income) applies to your annual income in excess of certain thresholds (€250,000 for single taxpayers and €500,000 for married taxpayers for the 3% and twice the amount for the 4%), including income realized upon the purchase or sale of shares. Please contact your personal tax advisor to determine if you will be subject to surtax and whether you qualify for any available surtax reductions.

Wealth Tax on real estate

Wealth tax has been abolished by the Finance Act for 2018 and replaced by a new wealth tax on real estate. Such tax may apply to any shares you acquire under the ESPP if Biogen holds directly or indirectly real estate. Indeed, the Biogen shares acquired could, in theory, be subject to the new real estate wealth tax. However, if, as a French tax resident, you hold less than 10% of the share capital of Biogen, several provisions of the real estate wealth tax regulations may allow not to include your Biogen shares in the taxable basis of real estate wealth tax. You must review with your personal tax advisor whether your Biogen shares fall within the scope of real estate wealth tax and whether your taxable wealth exceeds the threshold of € 1.3 million. If the net amount of your taxable personal estate (including you and your household) exceeds this threshold (€1.3 million for 2019), as valued on January 1 of each year, please consult with your personal tax advisor to determine whether shares acquired under the ESPP must be included in your wealth tax on real estate return and for which value.

Withholding and Reporting

As from January 1, 2019, your employer is required to withhold personal income tax when shares are purchased under the ESPP, from your pay, according to the rate communicated by the French tax authorities to the employer and remit the amount to the French tax authorities on a monthly basis.

Additionally, because the income realized upon the purchase of shares qualifies as additional salary under French tax and social security law, your employer is required to report this income on your pay slip and on its declaration of salaries, which is filed with the social authorities, the month following the purchase of the shares (or the month after). Also, your employer will pay the employer's portion of social security contributions and withhold your portion of social security contributions due at purchase from your pay.

Your employer is not required to withhold income tax when you subsequently sell shares purchased under the ESPP, provided that you are a French resident for tax purposes from grant to sale.

You are responsible for paying any taxes and additional social taxes resulting from the purchase, the sale of shares and the receipt of dividends under the ESPP. You are also responsible for reporting the additional salary, any capital gains/losses and dividends realized under the ESPP on your personal income tax return to be filed with the French tax administration in the year following the year of purchase, sale or receipt of dividends, as applicable. You are also responsible for reporting any paying any dividends and related taxes due by the 15th day of the month following payment of the dividends.

New withholding tax system on salary income since January 1, 2019

As mentioned above, on top of your portion of social security contributions, your employer will withhold income tax at your personal tax rate as computed and communicated to your employer by the French tax authorities (surtax is not concerned) on salary income (such as your regular salary income and the income you realize upon

[3] See note 2.

[4] For shares acquired prior to January 1, 2018, if you elect to be taxed according to the progressive income tax rates, certain allowances may remain available under specific conditions for income tax purpose only (not social taxes).

purchase of the shares under the ESPP) and remit the amount to the French tax authorities on a monthly basis. In any case, the year following the purchase of the shares, you will have to report your salary income in your annual income tax return and pay any surplus of income tax as the case may be. The new withholding tax system will not concern income you may realize upon payment of a dividend or upon sale of the shares.

TAXATION IN DENMARK

The following is a general summary description of the tax consequences of your participation in the ESPP.

This description is based on the tax and other laws concerning equity awards in effect in Denmark as of the date of this prospectus. Such laws are often complex and change frequently. As a result, the information contained in this supplement may be out of date at the time you are granted an award, acquire shares or sell shares you acquire under the ESPP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to your particular tax or financial situation, and Biogen is not in a position to assure you of any particular tax result. **Accordingly, you are strongly advised to seek appropriate professional advice as to how the tax or other laws in your country apply to your specific situation. You are also advised to seek advice with respect to U.S. inheritance and/or estate taxes as you may be subject to those with respect to shares acquired under the ESPP.**

If you are a citizen or resident of country other than Denmark, the information contained in this description may not be applicable to you.

Note: The particular terms of any awards granted to you under the ESPP are set forth in the applicable plan and award agreement ("Plan Documents"). If there is an inconsistency between the description below and your Plan Documents, the Plan Documents will take precedence. As stated in your Plan Documents, the ability to participate in the ESPP is neither a contract nor a guarantee of continued employment; employment is and always will be on the basis as provided for in your employment agreement. The ESPP are not part of your salary and will not be included in calculations of any severance payments that may be payable upon termination of employment.

Enrollment in the ESPP

You are not subject to tax when a Purchase Right is granted to you under the ESPP (i.e., when you enroll in the ESPP or are offered participation in the ESPP).

Purchase of Shares

When shares are purchased, you will be subject to personal income tax (of up to 52.05% in 2019) on the difference (or spread) between the fair market value of the shares on the date of purchase and the purchase price. You will also be subject to the Danish labor market contribution of 8%. The labor market contribution is deductible in your personal income, and the effective marginal tax rate is therefore 55.89% (in 2019).

Sale of Shares

Upon sale of shares, the gain is taxed as share income. Gains below DKK 54,000 (in 2019) are taxed at a rate of 27%, and gains above this amount are taxed at a rate of 42%. Married couples may use any unused threshold of the spouse.

Dividends

Dividends paid to individuals are taxed as share income at the rates listed above under "Sale of Shares". Biogen Inc. does not assume any responsibility to withhold tax at source.

Withholding and Reporting

The Danish employer company must report the value of any Purchase Rights exercised under the ESPP. There is no withholding of tax in connection with the exercise. You are therefore required to pay the applicable taxes yourself (and these will be calculated by the tax authorities).

When you subsequently sell the shares purchased under the ESPP, you must inform the tax authorities of any gain (and pay the applicable tax) in connection with the sale of the shares.

TAXES ON THE INCOME FROM THE SECURITIES WITHHELD AT SOURCE UNDER U.S. FEDERAL TAX LAWS

Fidelity requires all non-U.S. employees to certify their foreign status by completing a W8-BEN form at the time of account activation. The purpose of this form is to allow Fidelity to waive the U.S. Internal Revenue Service-required 24% backup tax withholding on the gross proceeds of any sale transaction. It also can lower the percent withheld on any cash dividends received to the specific tax treaty rate between the non-U.S. employee's country and the U.S. The form expires every three years on December 31, and while renewal is not mandatory, a recertification would need to be made prior to the expiration date of the form to allow Fidelity to waive the required backup tax withholding and to obtain the benefits of any applicable tax treaty. Participants can also update their certification status with Fidelity if their foreign status changes at any time.

The Company does not have any responsibility for the withholding of taxes at source.

RECENT DEVELOPMENTS AND TREND INFORMATION

Recent Developments

Skyhawk Therapeutics, Inc.

In January 2019 we entered into a collaboration and research and development services agreement with Skyhawk pursuant to which the companies will leverage Skyhawk's SkySTAR technology platform with the goal of discovering innovative small molecule treatments for patients with neurological diseases, including MS and SMA. We will be responsible for the development and potential commercialization of any therapies resulting from this collaboration.

In connection with this agreement, we made an upfront payment of $74.0 million to Skyhawk. We may also pay Skyhawk up to a total of approximately $2.0 billion in additional milestone payments as well as potential royalties on net commercial sales. We expect to record research and development expense of approximately $35.0 million in the first quarter of 2019 related to this collaboration.

Nightstar Therapeutics

In March 2019 we entered into an agreement to acquire NST, a U.K. based clinical-stage gene therapy company focused on adeno-associated virus treatments for inherited retinal disorders. Under the terms of the proposed acquisition, Biogen will pay $25.50 in cash for each NST share. It is intended that the proposed acquisition will be implemented by means of a U.K. Court-sanctioned scheme of arrangement under Part 26 of the U.K. Companies Act 2006. The closing of the proposed acquisition is subject to customary closing conditions, including approval by NST shareholders, the issuance of an order by the U.K. Court and receipt of regulatory approvals. Biogen expects to complete the acquisition by mid-year 2019.

FUJIFILM Corporation

In March 2019 we entered into a share purchase agreement pursuant to which Fujifilm will acquire the shares of Biogen (Denmark) New Manufacturing ApS, a Biogen subsidiary that holds Biogen's large-scale biologics manufacturing operations located in Hillerød, Denmark, for up to $890 million in cash, subject to minimum purchase commitment guarantees and other contractual terms. As part of the proposed transaction, we will enter into manufacturing services agreements under which Fujifilm will produce commercial products for Biogen, such as TYSABRI, as well as other third-party products. The closing of the proposed transaction is subject to customary closing conditions, including customary filings and clearances under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, in the U.S., the Danish Competition Act and the Korean Monopoly Regulation and Fair Trade Act. Biogen expects to complete the transaction in the second half of 2019.

Discontinued Program

In March 2019 we and our collaboration partner Eisai announced that we are discontinuing the global Phase 3 trials, EMERGE and ENGAGE, designed to evaluate the efficacy and safety of aducanumab in patients with mild cognitive impairment due to AD and mild AD dementia.

Except as described above, no significant change in the Company's financial or trading position has occurred since December 31, 2018.

Trend Information

In the period from December 31, 2018 through the date of this prospectus, Biogen's revenues have depended upon continued sales of its principal products as well as the financial rights it has in its anti-CD20 therapeutic programs, continuing a trend that has characterized Biogen's business in previous periods as well. Unless we develop, acquire rights to and/or commercialize new products and technologies, we will be substantially dependent on sales from our principal products and our financial rights in our anti-CD20 therapeutic programs for many years.

In the longer term, our revenue growth will depend upon the successful clinical development, regulatory approval and launch of new commercial products as well as additional indications for our existing products, our ability to obtain and maintain patents and other rights related to our marketed products, assets originating from our research and development efforts and/or successful execution of external business development opportunities.