UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM S-4 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

BIOGEN INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \square

Exchange Act Rule 13e-4(i) (Cross Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross Border Third-Party Tender Offer)

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

2836 (Primary Standard Industrial Classification Code Number) 33-0112644 (I.R.S. Employer Identification No.)

225 Binney Street, Cambridge, MA 02142 (617) 679-2000

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Susan H. Alexander, Esq.
Executive Vice President and Chief Legal Officer
Biogen Inc.
225 Binney Street
Cambridge, Massachusetts 02142
(617) 679-2000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:

Thomas B. Draper, Esq. John D. Hancock, Esq. Foley Hoag LLP Scaport West 155 Seaport Boulevard Boston, Massachusetts 02210 (617) 832-1000

	(617) 832-1000		
Approximate date of	commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes	s effective.	
If the securities being sollowing box. □	registered on this Form are being offered in connection with the formation of a holding company and there is comp	bliance with General Instruction G, check	the:
	register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following or effective registration statement for the same offering. \Box	box and list the Securities Act registratio	n
	ffective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Se n statement for the same offering. \Box	ecurities Act registration statement number	er of
	k whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting cerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the		See
arge accelerated filer		Accelerated filer	
Non-accelerated filer		Smaller reporting company	
		Emerging growth company	
f an emerging growth compar	ry, indicate by check mark if the registrant has elected not to use the extended transition period for complying with	any new or revised financial accounting	Į.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not complete the exchange offer or issue these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated May 17, 2022

PRELIMINARY PROSPECTUS



Biogen Inc. Offer to Exchange

up to \$700,731,000 of our outstanding unregistered 3.250% Senior Notes due 2051 for a like principal amount of 3.250% Senior Notes due 2051 that have been registered under the Securities Act of 1933, as amended

Biogen Inc. is offering \$700,731,000 aggregate principal amount of new 3.250% Senior Notes due 2051 (the "New Notes") in exchange for an equal amount of outstanding 3.250% Senior Notes due 2051 (the "Old Notes").

- The exchange offer expires at 5:00 p.m., New York City time, on , 2022, unless extended (such date and time is referred to herein as the "expiration date"). We do not currently intend to extend the expiration date.
- Tenders of Old Notes may be withdrawn at any time before the expiration date.
- All Old Notes that are properly tendered and not properly withdrawn before the expiration date will be exchanged.
- The exchange of Old Notes for New Notes generally will not be a taxable exchange for U.S. federal income tax purposes.
- We will not receive any proceeds from the exchange offer.
- The terms of the New Notes to be issued in the exchange offer are substantially the same as the terms of the Old Notes, except that the offer and exchange of the New Notes are registered under the Securities Act of 1933, as amended (the "Securities Act"), and the New Notes generally have no transfer restrictions, rights to additional interest or registration rights.
- The New Notes will not be listed on any securities exchange. A public market for the New Notes may not develop, which could make selling the New Notes difficult.

Each broker-dealer that receives New Notes for its own account pursuant to the exchange offer must acknowledge that it will deliver a prospectus in connection with any resale of the New Notes. The letter of transmittal accompanying this prospectus states that, by so acknowledging and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of New Notes received in exchange for Old Notes where such Old Notes were acquired by such broker-dealer as a result of market-making activities or other trading activities. We have agreed that, for a period ending on the earlier of (i) 90 days from the date on which this registration statement is declared effective and (ii) the date on which no participating broker-dealer is required to deliver a prospectus in connection with market-making or other trading activities, we will make this prospectus available to any broker-dealer for use in connection with any such resale. See "Plan of Distribution."

Investing in the New Notes to be issued in the exchange offer involves certain risks. See "<u>Risk Factors</u>" beginning on page 9.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2022

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You should rely only on the information contained in, or incorporated by reference into, this prospectus or to which we have referred you. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. You should not assume that the information contained in this prospectus is accurate as of any date other than the date of this prospectus. Also, you should not assume that there has been no change in the affairs of Biogen Inc. since the date of this prospectus. Any information incorporated by reference herein is accurate only as of the date of the document incorporated by reference.

This prospectus incorporates important business and financial information about us that is not included in or delivered with this prospectus. See "Where You Can Find More Information and Incorporation by Reference." You may request a copy of any document incorporated by reference in this prospectus at no cost by calling us at (617) 464-2442 or writing us at the following address:

Biogen Inc.
Attn: Investor Relations
225 Binney Street
Cambridge, Massachusetts 02142
(617) 464-2442

To ensure timely delivery of these documents, any request should be made no later than , 2022 to receive them before the expiration of the exchange offer described herein.

Unless otherwise indicated or unless the context requires otherwise, all references in this prospectus to the "Company," "Biogen," "we," "us" and "our" refer to Biogen Inc. References in this prospectus to "U.S. dollars," "U.S. \$" or "\$" are to the currency of the United States of America.

PROSPECTUS SUMMARY

This summary highlights selected information contained or incorporated by reference in this prospectus and may not contain all of the information that is important to you. For a more complete understanding of our business, you should read the entire prospectus and the documents incorporated by reference in this prospectus carefully, particularly the risks discussed under the heading "Risk Factors" in this prospectus and in the documents incorporated by reference in this prospectus, as well as our consolidated financial statements and the respective notes to those statements incorporated by reference herein.

Biogen Inc.

Overview

We are a global biopharmaceutical company focused on discovering, developing and delivering worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases as well as related therapeutic adjacencies. We have a leading portfolio of medicines to treat multiple sclerosis ("MS"), have introduced the first approved treatment for spinal muscular atrophy ("SMA") and are providing the first and only approved treatment to address a defining pathology of Alzheimer's disease. We also commercialize biosimilars of advanced biologics and focus on advancing our pipeline in neuroscience and specialized immunology. Lastly, we are focused on accelerating our efforts in digital health to support our commercial and pipeline programs while also creating opportunities for potential digital therapeutics. We support our drug discovery and development efforts through the commitment of significant resources to discovery, research and development programs and business development opportunities.

Our marketed products include TECFIDERA, VUMERITY, AVONEX, PLEGRIDY, TYSABRI and FAMPYRA for the treatment of MS; SPINRAZA for the treatment of SMA; ADUHELM for the treatment of Alzheimer's disease; and FUMADERM for the treatment of severe plaque psoriasis. We 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 and relapsing MS; and other potential anti-CD20 therapies, including mosunetuzumab, pursuant to our collaboration arrangements with Genentech, Inc., a wholly-owned member of the Roche Group.

Our innovative drug development and commercialization activities are complemented by our biosimilar business that expands access to medicines and reduces the cost burden for healthcare systems. Through our collaboration with Samsung Bioepis Co., Ltd., we market and sell BENEPALI, an etanercept biosimilar referencing ENBREL, IMRALDI, an adalimumab biosimilar referencing HUMIRA, and FLIXABI, an infliximab biosimilar referencing REMICADE, in certain countries in Europe. We have also secured the exclusive rights to commercialize BYOOVIZ, a ranibizumab biosimilar referencing LUCENTIS, which was approved in the U.S., the European Union. and the United Kingdom during the third quarter of 2021.

Corporate Information

We were formed as a corporation in the State of California in 1985 under the name IDEC Pharmaceuticals Corporation and reincorporated as a Delaware corporation in 1997. In 2003 we acquired Biogen, Inc. and changed our corporate name to Biogen Idec Inc. In March 2015 we changed our corporate name to Biogen Inc. Our principal executive offices are located at 225 Binney Street, Cambridge, Massachusetts 02142, and our telephone number at our principal executive offices is (617) 679-2000. You may visit us at our website located at http://www.biogen.com. The contents of our website have not been, and shall not be deemed to be, incorporated by reference into, and do not form a part of, this prospectus.

AVONEX®, PLEGRIDY®, RITUXAN®, RITUXAN HYCELA®, SPINRAZA®, TECFIDERA®, TYSABRI® and VUMERITY® are registered trademarks of Biogen. ADUHELMTM, BENEPALITM, BYOOVIZTM, FLIXABITM, FUMADERMTM, and IMRALDITM are trademarks of Biogen. CIMZIA®, ENBREL®, EYLEA®, FAMPYRATM, GAZYVA®, HUMIRA®, LUCENTIS®, OCREVUS®, REMICADE® and other trademarks referenced in this prospectus are the property of their respective owners.

The Exchange Offer

The following is a brief summary of the exchange offer. For a more complete description of the exchange offer, see "The Exchange Offer."

Background

On February 16, 2021, we consummated a private offer to exchange Old Notes pursuant to exemptions from the registration requirements of the Securities Act (the "private exchange") for our 5.200% Senior Notes due 2045. We issued \$700,731,000 aggregate principal amount of Old Notes in the private exchange.

In connection with the private exchange, we entered into a Registration Rights Agreement (as defined in "The Exchange Offer") in which we agreed, among other things, to complete this exchange offer. Under the terms of the exchange offer, you are entitled to exchange outstanding Old Notes for New Notes evidencing the same indebtedness and having substantially identical terms to the Old Notes, except that the offer and exchange of the New Notes will be registered under the Securities Act, and the New Notes generally have no transfer restrictions, rights to additional interest or registration rights. You should read the discussion under the heading "Description of the New Notes" for further information regarding the New Notes.

The Exchange Offer

We are offering to exchange New Notes for a like principal amount of the Old Notes. Subject to the satisfaction or waiver of the conditions of the exchange offer, all Old Notes that are properly tendered and not properly withdrawn before the expiration date will be accepted by us and exchanged. No alternative, conditional or contingent tenders will be accepted.

As of the date of this prospectus, \$700,731,000 aggregate principal amount of the Old Notes are outstanding.

Interest

Interest on the New Notes will be payable in cash and will accrue at a rate of 3.250% per annum. Interest on the New Notes will accrue from the last interest date on which interest was paid on your Old Notes. Any Old Notes not exchanged will remain outstanding and continue to accrue interest according to their terms.

Interest Payment Dates

Interest on the New Notes will be payable semiannually on February 15 and August 15 of each year, beginning August 15, 2021 (or, if later, the first interest payment date after issuance of the New Notes).

Denominations of New Notes

Tendering holders of Old Notes must tender Old Notes in minimum denominations of \$2,000 in principal amount and integral multiples of \$1,000 in excess thereof (the "Authorized Denominations"). Holders who tender less than all of their Old Notes must continue to hold the Old Notes in at least the minimum Authorized Denomination of \$2,000 in principal amount. New Notes will be issued only in the Authorized Denominations.

Expiration Date

the expiration date. Settlement Date The settlement date of the exchange offer will be promptly after the expiration date of the exchange offer. Withdrawal of Tenders Tenders of Old Notes may be withdrawn at any time before the expiration date. See "The Exchange Offer-Withdrawal Rights." Conditions to the Exchange Offer Our obligation to consummate the exchange offer is subject to certain conditions, which we may assert or waive. See "The Exchange Offer-Conditions to the Exchange Offer." Procedures for Tendering If you hold Old Notes through The Depository Trust Company ("DTC") and wish to participate in the exchange offer, you may follow the automatic tender offer program ("ATOP") procedures established by DTC for tendering the Old Notes that are held in book-entry form. The ATOP procedures require that (i) the exchange agent receive, before the expiration date of the exchange offer, a computer-generated message known as an "agent's message" that is transmitted through ATOP and (ii) DTC confirm that: • DTC has received instructions to exchange your Old Notes; and • you agree to be bound by the terms of the letter of transmittal. For more details, please read "The Exchange Offer—Procedures for Tendering Old Notes." If you elect to have Old Notes exchanged pursuant to this exchange offer, you must properly tender your Old Notes before the expiration date. All Old Notes properly tendered and not properly withdrawn before the expiration date will be accepted for exchange. Consequences of Failure to Exchange If we complete the exchange offer and you do not participate in it, then: • your Old Notes will continue to be subject to the existing restrictions upon their transfer; • certain interest rate provisions will no longer apply to your Old Notes; we will have no further obligation to provide for the registration under the Securities Act of those Old Notes except under certain limited circumstances; and • the liquidity of the market for your Old Notes could be adversely affected. The exchange pursuant to the exchange offer generally will not be a taxable event for U.S. **Taxation** federal income tax purposes. See "Certain U.S. Federal Income Tax Considerations." 4

The exchange offer will expire at 5:00 p.m., New York City time, on

unless we extend the exchange offer, in which case "expiration date" will mean the latest date and time to which we extend the exchange offer. We do not currently intend to extend

, 2022,

Use of Proceeds	We will not receive any cash proceeds from the issuance of the New Notes in this exchange offer. In exchange for issuing the New Notes, we will receive the tendered Old Notes. The Old Notes surrendered in the exchange offer will be retired and cancelled.
Exchange Agent	Global Bondholder Services Corporation (the "exchange agent") is the exchange agent for the exchange offer.
Appraisal Rights	Holders of Old Notes do not have any appraisal or dissenters' rights in connection with the exchange offer.
Risk Factors	See "Risk Factors" for a discussion of factors that should be considered before exchanging Old Notes in the exchange offer.

The New Notes

The terms of the New Notes offered in the exchange offer are identical in all material respects to the Old Notes, except that:

- the offer and exchange of the New Notes are registered under the Securities Act and therefore the New Notes will generally not be subject to restrictions on transfer under the Securities Act;
- the New Notes will not be subject to provisions relating to additional interest;
- the New Notes will bear different CUSIP numbers and ISINs; and
- the New Notes generally will not entitle their holders to registration rights.

The following is a brief summary of the terms of the New Notes. For a more complete description of the New Notes, see "Description of the New Notes."

Issuer Biogen Inc.

Securities Offered Up to \$700,731,000 aggregate principal amount of New Notes.

Maturity The New Notes will mature on February 15, 2051.

Interest on the New Notes will be payable in cash and will accrue at a rate of 3.250% per

annum. Interest on the New Notes will accrue from the last interest date on which interest was paid on your Old Notes. Any Old Notes not exchanged will remain outstanding and

continue to accrue interest according to their terms.

Interest Payment Dates Interest on the New Notes will be payable semiannually on February 15 and August 15 of

each year, beginning August 15, 2021 (or, if later, the first interest payment date after

issuance of the New Notes).

Optional Redemption We may redeem some or all of the New Notes at any time before August 15, 2050 at the

redemption prices described in this prospectus. From and after such date, we may redeem the New Notes at 100% of principal amount plus accrued interest. See "Description of the

New Notes—Optional Redemption."

Repurchase upon a Change of Control Upon the occurrence of a Change of Control Triggering Event (as defined in "Description

of the New Notes—Change of Control"), unless we have exercised our option to redeem the New Notes, we will be required to make an offer to purchase the New Notes at a price equal to 101% of their principal amount, plus accrued and unpaid interest to the date of

repurchase. See "Description of the New Notes—Change of Control."

Covenants

The indenture (as defined in "Description of the New Notes") governing the New Notes contains covenants that, among other things, limit our ability and the ability of our subsidiaries to:

- issue, assume or guarantee debt secured by Property (as defined in "Description of the New Notes—Definitions");
- enter into certain sale and leaseback transactions; and
- consolidate, merge or transfer all or substantially all of our assets and the assets of our subsidiaries on a consolidated basis.

These covenants are subject to important exceptions and qualifications, as described in the sections titled "Description of the New Notes—Limitation on Liens," "Description of the New Notes—Limitation on Sale and Leaseback Transactions" and "Description of the New Notes—Merger, Consolidation or Sale of Assets."

The New Notes will be our senior unsecured obligations and will rank equal in right of payment with our other existing and future senior unsecured obligations that are not, by their terms, expressly subordinated in right of payment to the New Notes (including Old Notes that remain outstanding after the exchange offer, if any), and senior in right of payment to any of our future subordinated indebtedness. The New Notes will be effectively subordinated to all of our existing and future secured indebtedness and other secured liabilities to the extent of the value of the assets securing such indebtedness and liabilities and to all indebtedness and other liabilities of our subsidiaries. As of March 31, 2022, neither we nor our subsidiaries had any secured debt outstanding, and our subsidiaries had total liabilities of approximately \$5.3 billion.

We may from time to time, without notice to or the consent of the holders or beneficial owners of the New Notes, create and issue additional notes having the same ranking and the same interest rate, maturity and other terms as the New Notes. Any additional notes having such similar terms, together with the New Notes, could be considered part of the same series of notes under the indenture, provided that if the additional notes are not fungible with the New Notes for U.S. federal income tax purposes, the additional notes will have a separate CUSIP number.

We will issue the New Notes in the form of one or more fully registered global notes registered in the name of the nominee of DTC. Beneficial interests in the New Notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in DTC. Euroclear and Clearstream Luxembourg (each as defined in "The Exchange Offer—Book-Entry Transfer") will hold interests on behalf of their participants through their respective U.S. depositaries, which, in turn, will hold such interests in accounts as participants of DTC. Except in the limited circumstances described under "Global Notes;

Ranking

Further Issuances

Denomination and Form

Book-Entry System," owners of beneficial interests in the New Notes will not be entitled to have the New Notes registered in their names, will not receive or be entitled to receive the New Notes in definitive form and will not be considered holders of the New Notes under the indenture. The New Notes will be issued in minimum denominations of \$2,000 in principal amount and integral multiples of \$1,000 principal amount in excess thereof.

Trustee U.S. Bank Trust Company, National Association.

Governing Law New York.

Certain U.S. Federal Income Tax Considerations

You should consult your tax advisors concerning the U.S. federal income tax consequences

of owning the New Notes in light of your own specific situation as well as consequences arising under the laws of any other taxing jurisdiction. See "Certain U.S. Federal Income

Tax Considerations."

RISK FACTORS

Participating in the exchange offer involves risks. You should carefully consider the following risk factors as well as the other information contained or incorporated by reference in this prospectus, including the discussion of risk factors in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, which is incorporated by reference into this prospectus, before making a decision to participate in the exchange offer. Some of these factors relate principally to our business and the industry in which we operate. Other factors relate principally to your participation in the exchange offer. If any of the matters described in such risk factors were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially adversely affected. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also materially adversely affect our business, financial condition, results of operations, cash flows or prospects. If any of these risks were to materialize, our ability to pay interest on the New Notes when due or to repay the New Notes at maturity could be adversely affected, and the trading prices of the New Notes could decline substantially.

Risks Related to the New Notes

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

We currently have indebtedness and significant contingent liabilities, including milestone and royalty payment obligations. We may also incur additional debt in the future. For example, we have the ability to draw down our \$1.0 billion revolving credit facility in the ordinary course, which would have the effect of increasing our indebtedness. This indebtedness 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.

The New Notes are effectively junior to the existing and future liabilities of our subsidiaries, which include substantially all of our operating liabilities, and to any secured debt we may incur to the extent of the assets securing that debt.

Our subsidiaries, which generate the substantial majority of our revenues and carry substantially all of our operating liabilities, are separate and distinct legal entities. Biogen Inc., the issuer of the New Notes, is primarily a holding company with limited operations of its own. Accordingly, we depend on our subsidiaries' earnings and advances or loans made by our subsidiaries to us to provide funds necessary to meet our obligations, including the payments of principal and interest on the New Notes. If we are unable to access the cash flows of our subsidiaries, we would be unable to meet our debt obligations. Our subsidiaries have no obligation to pay any amounts due on the New Notes. In addition, any payment of dividends, loans or advances to us by our subsidiaries could be subject to statutory or contractual restrictions. Payments to us by our subsidiaries will also be contingent upon the subsidiaries' earnings and business considerations. Our right to receive any assets of any of our subsidiaries upon its bankruptcy, liquidation or reorganization, and therefore the right of the holders of the New Notes to participate in those assets, will be effectively subordinated to the claims of that subsidiary's creditors, including trade creditors. In addition, even if we are a creditor of any of our subsidiaries, our right as a

creditor would be subordinate to any security interest in the assets of our subsidiaries and any indebtedness of our subsidiaries senior to that held by us. As of March 31, 2022, neither we nor our subsidiaries had any secured debt outstanding, and our subsidiaries had total liabilities of approximately \$5.3 billion.

The New Notes are our senior unsecured obligations and will rank equal in right of payment with our other existing and future senior unsecured obligations that are not, by their terms, expressly subordinated in right of payment to the New Notes, including \$1.0 billion aggregate principal amount of our 3.625% Senior Notes due September 15, 2022, \$1.75 billion aggregate principal amount of our 4.050% Senior Notes due September 15, 2025, \$1.5 billion aggregate principal amount of our 2.250% Senior Notes due May 1, 2030, \$1.125 billion aggregate principal amount of our 5.200% Senior Notes due September 15, 2045, and \$1.5 billion aggregate principal amount of our 3.150% Senior Notes due May 1, 2050, as well as any outstanding Old Notes that may remain outstanding after the consummation of the exchange offer. The New Notes are not secured by any of our assets. Claims of secured lenders with respect to assets securing their loans will have priority over any claim of the holders of the New Notes with respect to those assets. See "Description of the New Notes—Ranking."

An active trading market may not develop for the New Notes.

The New Notes constitute a new issue of securities with no established trading market. We do not intend to apply for listing of the New Notes on any national securities exchange or for inclusion of the New Notes on any automated dealer quotation system. Holders of Old Notes have no obligation to exchange their Old Notes for New Notes, and the exchange offer does not impose a condition regarding the minimum aggregate principal amount of Old Notes that must be tendered for exchange in order for the exchange offer to proceed. Accordingly, we cannot predict the aggregate principal amount of New Notes that we will issue in the exchange offer, and that aggregate principal amount might be small. We cannot ensure the liquidity of any trading market for the New Notes or that an active public market for the New Notes will develop. If an active public trading market for the New Notes does not develop, the market price and liquidity of the New Notes will be adversely affected. If the New Notes are traded, they may trade at a discount from their initial issuance price, depending on prevailing interest rates, the market for similar securities, our operating performance and financial condition, general economic conditions and other factors.

Changes in our credit ratings or the debt markets could adversely affect the trading price of the New Notes.

The trading price for the New Notes will depend on many factors, including:

- our credit ratings with major credit rating agencies;
- the prevailing interest rates being paid by other companies similar to us;
- · our financial condition, financial performance and future prospects; and
- the overall condition of the financial markets.

The condition of the financial markets and prevailing interest rates have fluctuated significantly in the past and are likely to fluctuate in the future. Such fluctuations could have an adverse effect on the trading prices of the New Notes.

In addition, credit rating agencies continually review their ratings for the companies that they follow, including us. A negative change in our rating could have an adverse effect on the trading price of the New Notes.

Risks Related to the Exchange Offer

If you fail to exchange your Old Notes, they will continue to be restricted securities and may become less liquid.

After the exchange offer, any Old Notes that you do not tender or that we do not accept will remain restricted securities and may not be offered or sold except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable state securities laws.

If a large aggregate principal amount of Old Notes are exchanged for New Notes in the exchange offer, we expect that the liquidity of the market for any Old Notes remaining after the exchange offer will be substantially limited. Any Old Notes tendered and exchanged in the exchange offer will reduce the aggregate principal amount of the Old Notes outstanding. After the exchange offer, if you do not tender your Old Notes, you generally will not have any further registration rights, and your Old Notes will continue to be subject to certain transfer restrictions. Accordingly, the liquidity of the market for the Old Notes could be adversely affected.

Late deliveries of Old Notes and other required documents could prevent a holder from exchanging its Old Notes.

Holders are responsible for complying with all exchange offer procedures. The issuance of New Notes in exchange for Old Notes will only occur upon completion of the procedures described in this prospectus under "The Exchange Offer." Therefore, holders of Old Notes who wish to exchange them for New Notes should allow sufficient time for timely completion of the exchange offer procedures. Neither we nor the exchange agent are obligated to extend the offer or notify you of any failure to follow the proper procedures or waive any defect if you fail to follow the proper procedures.

If you are a broker-dealer, your ability to transfer the New Notes may be restricted.

A broker-dealer that purchased Old Notes for its own account as part of market-making or trading activities must comply with the prospectus delivery requirements of the Securities Act when it sells the New Notes. Our obligation to make this prospectus available to broker-dealers is limited. Consequently, we cannot guarantee that a proper prospectus will be available to broker-dealers wishing to resell their New Notes. See "Plan of Distribution."

Some holders who exchange their Old Notes may be deemed to be underwriters, and these holders will be required to comply with the registration and prospectus delivery requirements in connection with any resale transaction.

Some holders who exchange their Old Notes in the exchange offer for the purpose of participating in a distribution of the Old Notes may be deemed to have received securities that are not freely transferable and, if so, will be required to comply with the registration and prospectus delivery requirements of the Securities Act in connection with any resale transaction.

FORWARD-LOOKING STATEMENTS

This prospectus contains or incorporates by reference "forward-looking statements" about our financial condition, results of operations, business and other matters. These forward-looking statements may be identified 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:

- the anticipated amount, timing and accounting of revenue; contingent, milestone, royalty and other payments under licensing, collaboration, acquisition or divestiture agreements; tax positions and contingencies; collectability of receivables; pre-approval inventory; cost of sales; research and development costs; compensation and other selling, general and administrative expense; amortization of intangible assets; foreign currency exchange risk; estimated fair value of assets and liabilities; and impairment assessments;
- expectations, plans and prospects relating to sales, pricing, growth and launch of our marketed and pipeline products;
- the potential impact of increased product competition in the markets in which we compete, including increased competition from new originator therapies, generics, prodrugs and biosimilars of existing products and products approved under abbreviated regulatory pathways, including generic or biosimilar versions of our products;
- patent terms, patent term extensions, patent office actions and expected availability and period of regulatory exclusivity;
- our plans and investments in our portfolio as well as implementation of our corporate strategy;
- the drivers for growing our business, including our plans and intention to commit resources relating to discovery, research and
 development programs and business development opportunities as well as the potential benefits and results of, and the anticipated
 completion of, certain business development transactions;
- the expectations, development plans and anticipated timelines, including costs and timing of potential clinical trials, filings and approvals, of our products, drug candidates and pipeline programs, including collaborations with third parties, as well as the potential therapeutic scope of the development and commercialization of our and our collaborators' pipeline products;
- the timing, outcome and impact of administrative, regulatory, legal and other proceedings related to our patents and other proprietary and intellectual property rights, tax audits, assessments and settlements, pricing matters, sales and promotional practices, product liability and other matters;
- our ability to finance our operations and business initiatives and obtain funding for such activities;
- adverse safety events involving our marketed products, generic or biosimilar versions of our marketed products or any other products from the same class as one of our products;
- the direct and indirect impact of the COVID-19 pandemic on our business and operations, including sales, expense, reserves and allowances, the supply chain, manufacturing, cyber-attacks or other privacy or data security incidents, research and development costs, clinical trials and employees;
- the current and potential impacts of the conflict in Ukraine, including impacts on our operations, sales and the possible disruptions or delays in our plans to conduct clinical trial activities in affected regions;
- the potential impact of healthcare reform in the United States and measures being taken worldwide designed to reduce healthcare costs and limit the overall level of government expenditures, including the impact of pricing actions and reduced reimbursement for our products;
- our manufacturing capacity, use of third-party contract manufacturing organizations, plans and timing relating to changes in our manufacturing capabilities, activities in new or existing manufacturing

facilities and the expected timeline for the Solothurn manufacturing facility to begin manufacturing products or product candidates and for the gene therapy manufacturing facility in Research Triangle Park, North Carolina to be operational;

- the impact of the continued uncertainty of the credit and economic conditions in certain countries and our collection of accounts receivable in such countries;
- · lease commitments, purchase obligations and the timing and satisfaction of other contractual obligations; and
- the impact of new laws (including tax), regulatory requirements, judicial decisions and accounting standards.

These forward-looking statements involve risks and uncertainties, including those that are described in the "Risk Factors" section of this prospectus and those in the "Risk Factors" section of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, which is incorporated by reference into this prospectus, any of which could cause actual results to differ materially from those reflected in such statements. The risks and uncertainties include our dependence on sales from our products; uncertainty of long-term success in developing, licensing, or acquiring other product candidates or additional indications for existing products; risks that uncertainty as to whether the anticipated benefits of the transaction with Samsung Biologics can be achieved; uncertainty as to whether the anticipated benefits of the cost-reduction and productivity measures can be achieved; failure to compete effectively due to significant product competition in the markets for our products; failure to successfully execute or realize the anticipated benefits of our strategic and growth initiatives; difficulties in obtaining and maintaining adequate coverage, pricing, and reimbursement for our products; our dependence on collaborators, joint venture partners, and other third parties for the development, regulatory approval, and commercialization of products and other aspects of our business, which are outside of our full control; risks associated with current and potential future healthcare reforms; risks related to commercialization of biosimilars; failure to obtain, protect, and enforce our data, intellectual property, and other proprietary rights and the risks and uncertainties relating to intellectual property claims and challenges; the risk that positive results in a clinical trial may not be replicated in subsequent or confirmatory trials or success in early stage clinical trials may not be predictive of results in later stage or large scale clinical trials or trials in other potential indications; risks associated with clinical trials, including our ability to adequately manage clinical activities, unexpected concerns that may arise from additional data or analysis obtained during clinical trials, regulatory authorities may require additional information or further studies, or may fail to approve or may delay approval of our drug candidates; the occurrence of adverse safety events, restrictions on use with our products, or product liability claims; risks relating to the distribution and sale by third parties of counterfeit or unfit versions of our products; risks relating to the use of social media for our business; risks relating to technology failures or breaches; risks relating to management and key personnel changes, including attracting and retaining key personnel; failure to comply with legal and regulatory requirements; the risks of doing business internationally, including currency exchange rate fluctuations; risks relating to investment in our manufacturing capacity; problems with our manufacturing processes; fluctuations in our effective tax rate; the direct and indirect impacts of the ongoing COVID-19 pandemic on our business, results of operations, and financial condition; fluctuations in our operating results; risks related to investment in properties; the market, interest, and credit risks associated with our investment portfolio; risks relating to share repurchase programs; risks relating to access to capital and credit markets; risks related to indebtedness; change in control provisions in certain of our collaboration agreements; environmental risks; and any other risks and uncertainties that are described in other reports we have filed with the U.S. Securities and Exchange Commission (the "SEC").

We caution holders of Old Notes not to place undue reliance on the forward-looking statements contained or incorporated by reference in this prospectus. Each statement speaks only as of the date of this prospectus or, in the case of the documents incorporated by reference, the date of the applicable document (or any earlier date indicated in the statement). Unless required by law, we undertake no obligation to update or revise any of these statements, whether as a result of new information, future developments or otherwise.

THE EXCHANGE OFFER

Pursuant to the Registration Rights Agreement (as defined below), we agreed to prepare and file with the SEC a registration statement on an appropriate form under the Securities Act with respect to a proposed offer to the holders of the Old Notes (CUSIP Nos. 09062X AJ2 and U0901X AA2 and ISIN Nos. US09062XAJ28 and USU0901XAA29) to issue and deliver to such holders of Old Notes, in exchange for their Old Notes, a like aggregate principal amount of New Notes (CUSIP No. 09062X AK9 and ISIN No. US09062XAK90) that are identical in all material respects to the Old Notes, except for certain transfer restrictions on the Old Notes, provisions relating to additional interest, provisions relating to registration rights and certain other differences described below. See "Registration Rights."

General

On February 16, 2021, pursuant to exemptions from the registration requirements of the Securities Act, we consummated a private offer to exchange (the "private exchange") any and all of our outstanding 5.200% Senior Notes due 2045 for Old Notes and cash. We issued \$700,731,000 aggregate principal amount of Old Notes in the private exchange.

In connection with the private exchange, we entered into the Registration Rights Agreement (the "Registration Rights Agreement") with Deutsche Bank Securities Inc. and Citigroup Global Markets Inc., as dealer managers for the private exchange. Pursuant to the Registration Rights Agreement, we agreed that (1) we would use commercially reasonable efforts to consummate an exchange offer to exchange the Old Notes for registered notes containing terms substantially identical to the Old Notes, except that the offer and exchange of the New Notes are registered under the Securities Act, and the New Notes generally have no transfer restrictions, rights to additional interest or registration rights, and evidencing the same indebtedness as the Old Notes and (2) if we determine that a registered exchange offer is not available or other specified circumstances occur, we would use commercially reasonable efforts to have a shelf registration statement declared effective providing for resales of the Old Notes. If we fail to satisfy the foregoing obligations under the Registration Rights Agreement within 365 days of the issue date of the Old Notes, we will be required to pay additional interest to the holders of the Old Notes under certain circumstances.

Terms of the Exchange Offer; Period for Tendering Old Notes

This prospectus and the accompanying letter of transmittal (the "letter of transmittal") contain the terms and conditions of the exchange offer (together, the "exchange offer"). Upon the terms and subject to the conditions included in this prospectus and the letter of transmittal, we will accept for exchange Old Notes which are properly tendered on or before 5:00 p.m., New York City time, on , 2022, unless extended (the "expiration date"), unless you have previously withdrawn them. No alternative, conditional or contingent tenders will be accepted.

When you tender Old Notes as provided below, our acceptance of the Old Notes will constitute a binding agreement between you and us upon the terms and subject to the conditions in this prospectus and the letter of transmittal. In tendering Old Notes, you should note the following important information:

- You may only tender Old Notes in minimum denominations of \$2,000 in principal amount and any integral multiple of \$1,000 in excess thereof.
- We will keep the exchange offer open for at least 20 business days from the date on which notice of the exchange offer is mailed to holders of the Old Notes. We are sending this prospectus, together with the letter of transmittal, on , 2022 to all registered holders of Old Notes at their addresses listed in the security registrar's security register with respect to the Old Notes.
- The exchange offer expires at 5:00 p.m., New York City time, on extend the period of time for which the exchange offer is open.

- The exchange offer is not conditioned upon any minimum principal amount of Old Notes being tendered.
- Our obligation to accept Old Notes for exchange in the exchange offer is subject to the conditions described under "—Conditions to the Exchange Offer."
- We expressly reserve the right, at any time, to extend the period of time during which the exchange offer is open, and thereby delay acceptance of any Old Notes, by giving oral (promptly followed in writing) or written notice of an extension to the exchange agent and notice of that extension to the holders of Notes as described below. During any extension, all Old Notes previously tendered will remain subject to the exchange offer unless withdrawal rights are exercised as described under "—Withdrawal Rights." Any Old Notes not accepted for exchange for any reason will be returned without expense to the tendering holder of Notes promptly after the expiration date or termination of the exchange offer.
- We expressly reserve the right to amend or terminate the exchange offer, and to not accept for exchange any Old Notes that we have not yet accepted for exchange, at any time before the expiration date. If we make a material change to the terms of the exchange offer, including the waiver of a material condition, we will, to the extent required by law, disseminate additional offer materials and extend the period of time during which the exchange offer is open.
- We will give oral (promptly followed in writing) or written notice of any extension, amendment, termination or non-acceptance described above to holders of the Old Notes as promptly as practicable. If we extend the expiration date, we will give notice by means of a press release or other public announcement no later than 9:00 a.m., New York City time, on the business day after the previously scheduled expiration date. Without limiting the manner in which we may choose to make any public announcement and subject to applicable law, we will have no obligation to publish, advertise or otherwise communicate any public announcement other than by issuing a release to an appropriate news agency. Such announcement may state that we are extending the exchange offer for a specified period of time.
- Holders of Old Notes do not have any appraisal or dissenters' rights in connection with the exchange offer.
- Old Notes that are not tendered for exchange, or that are tendered but not accepted, in the exchange offer will remain outstanding and will continue to be entitled to the benefits of the indenture, but generally will not be entitled to any further registration rights under the Registration Rights Agreement. See "Registration Rights."
- By executing, or otherwise becoming bound by, the letter of transmittal, you will be making to us the representations described under "— Resale of the New Notes."

Important Rules Concerning the Exchange Offer

You should note the following important rules concerning the exchange offer:

- All questions as to the validity, form, eligibility, time of receipt and acceptance of Old Notes tendered for exchange will be determined by
 us in our sole discretion, which determination shall be final and binding.
- We reserve the absolute right to reject any and all tenders of any particular Old Notes not properly tendered or to not accept any particular Old Notes if such acceptance might, in our judgment or the judgment of our counsel, be unlawful.
- We also reserve the absolute right to waive any defects or irregularities or conditions of the exchange offer as to any particular Old Notes either before or after the expiration date, including the right to waive the ineligibility of any holder who seeks to tender Old Notes in the exchange offer. Unless we

agree to waive any defect or irregularity in connection with the tender of Old Notes for exchange, you must cure any defect or irregularity within any reasonable period of time as we shall determine.

• Our interpretation of the terms and conditions of the exchange offer as to any particular Old Notes either before or after the expiration date shall be final and binding on all parties. Neither we, the exchange agent nor any other person shall be under any duty to notify you of any defect or irregularity with respect to any tender of Old Notes for exchange, nor shall any of them incur any liability for failing to so notify you.

Procedures for Tendering Old Notes

What to Submit and How

If you, as a holder of any Old Notes, wish to tender your Old Notes for exchange in the exchange offer, then on or before the expiration date:

- (1) You must transmit to the exchange agent either:
- (a) if Old Notes are tendered in accordance with the book-entry procedures described under "—Book-Entry Transfer," an agent's message, as defined below, through the automatic tender offer program ("ATOP") of The Depository Trust Company ("DTC"), or
- (b) a properly completed and duly executed letter of transmittal, or a facsimile copy thereof, to the exchange agent's address set forth below under "—Exchange Agent," including all other documents required by the letter of transmittal;

and, in each case,

(2) you must timely send, and the exchange agent must actually receive timely confirmation of, a book-entry transfer of Old Notes into the exchange agent's account at DTC using the procedure for book-entry transfer described under "—Book-Entry Transfer" (a "book-entry confirmation").

The term "agent's message" means a message, transmitted through ATOP by DTC, to, and received by, the exchange agent and forming a part of a book-entry confirmation, that states that DTC has received an express acknowledgement that the tendering holder has received and agrees to be bound by the letter of transmittal and that we may enforce the letter of transmittal against such holder.

If you are a beneficial owner whose Old Notes are registered in the name of a broker, dealer, commercial bank, trust company or other nominee and wish to tender your Old Notes, you should promptly instruct the registered holder to tender such Old Notes on your behalf and comply with the ATOP procedures for book-entry transfer described under "—Book-Entry Transfer" on or before the expiration date.

The method of delivery of Old Notes, letters of transmittal and all other required documentation, including delivery of Old Notes through bookentry transfer and transmission of agent's messages through DTC's ATOP, is at your election and risk. Delivery will be deemed made only when all required documentation is actually received by the exchange agent. Delivery of documents or instructions to DTC does not constitute delivery to the exchange agent. If delivery is by mail, we recommend that registered mail, properly insured, with return receipt requested, be used. In all cases, sufficient time should be allowed to assure timely delivery to the exchange agent. Holders tendering Old Notes or transmitting agent's messages through DTC's ATOP must allow sufficient time for completion of ATOP procedures during DTC's normal business hours. No Old Notes, agent's messages, letters of transmittal or any other required documentation should be sent to us.

How to Sign Your Letter of Transmittal and Other Documents

Signatures on a letter of transmittal or a notice of withdrawal, as the case may be, must be guaranteed, unless the Old Notes being surrendered for exchange are tendered:

- (1) by a registered holder of the Old Notes who has not completed the box entitled "Special Issuance Instructions" on the letter of transmittal, or
- (2) for the account of an "eligible guarantor" institution within the meaning of Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or a commercial bank or trust company having an office or correspondent in the United States that is a member in good standing of a medallion program recognized by the Securities Transfer Association Inc., including the Securities Transfer Agents Medallion Program, the Stock Exchanges Medallion Program and the New York Stock Exchange Medallion Signature Program (each, an "eligible institution").

If signatures on a letter of transmittal or a notice of withdrawal, as the case may be, are required to be guaranteed, the guarantees must be by an eligible institution.

If the letter of transmittal is signed by a person or persons other than the registered holder or holders of Old Notes, the Old Notes must be endorsed or accompanied by appropriate powers of attorney, in either case signed exactly as the name or names of the registered holder or holders appear on the Old Notes and with the signatures guaranteed.

If the letter of transmittal or any Old Notes or powers of attorney are signed by trustees, executors, administrators, guardians, attorneys-in-fact, officers of corporations or others acting in a fiduciary or representative capacity, the person should so indicate when signing and, unless waived by us, proper evidence satisfactory to us of such person's authority to so act must be submitted.

Acceptance of Old Notes for Exchange; Delivery of New Notes

Once all of the conditions to the exchange offer are satisfied or waived, we will accept all Old Notes properly tendered and not properly withdrawn, and will issue the New Notes, promptly after the expiration date. See "—Conditions to the Exchange Offer" below. For purposes of the exchange offer, our giving of oral (promptly followed in writing) or written notice of acceptance to the exchange agent will be considered our acceptance of the tendered Old Notes.

In all cases, we will issue New Notes in exchange for Old Notes that are accepted for exchange only after timely receipt by the exchange agent of:

- a book-entry confirmation or Old Notes in proper form for transfer,
- a properly transmitted agent's message or a properly completed and duly executed letter of transmittal, with any required signature guarantees, and
- all other required documentation.

If we do not accept any tendered Old Notes for any reason included in the terms and conditions of the exchange offer, we will return any unaccepted, non-exchanged or properly withdrawn Old Notes, as the case may be, without expense to the tendering holder. In the case of Old Notes tendered by book-entry transfer into the exchange agent's account at DTC using the book-entry transfer procedures described below, unaccepted, non-exchanged or properly withdrawn Old Notes will be credited to an account maintained with DTC. We will have the Old Notes credited to the DTC account promptly after the expiration or termination of the exchange offer.

Book-Entry Transfer

The exchange agent will make a request to establish an account with respect to the Old Notes at DTC for purposes of the exchange offer promptly after the date of this prospectus. Any financial institution that is a participant in DTC's systems, including Euroclear Bank, S.A./N.V., as operator of the Euroclear System ("Euroclear"), or Clearstream Luxembourg, société anonyme ("Clearstream Luxembourg"), may make book-entry delivery of Old Notes by causing DTC to transfer Old Notes into the exchange agent's account at DTC in accordance with DTC's ATOP procedures for transfer. However, the exchange for the Old Notes so tendered will only be made after timely confirmation of book-entry transfer of Old Notes into the exchange agent's account, and timely receipt by the exchange agent of an agent's message and all other documents required by the letter of transmittal. Only participants in DTC may deliver Old Notes by book-entry transfer.

Although delivery of Old Notes may be effected through book-entry transfer into the exchange agent's account at DTC, the letter of transmittal, or a facsimile copy thereof, properly completed and duly executed, with any required signature guarantees, or an agent's message, with all other required documentation, must in any case be transmitted to and received by the exchange agent at its address listed under "—Exchange Agent" on or before the expiration date. Please note that delivery of documents or instructions to DTC does not constitute delivery to the exchange agent, and we will not be able to accept your tender of Old Notes until the exchange agent actually receives from DTC the information and documentation described under "—Acceptance of Old Notes for Exchange; Delivery of New Notes."

Withdrawal Rights

You can withdraw your tender of Old Notes at any time on or before 5:00 p.m., New York City time, on the expiration date.

For a withdrawal to be effective, a written notice of withdrawal must be actually received by the exchange agent before such time, properly transmitted either through DTC's ATOP or to the exchange agent at the address listed below under "—Exchange Agent." Any notice of withdrawal must.

- specify the name of the person having tendered the Old Notes to be withdrawn;
- specify the principal amount of the Old Notes to be withdrawn;
- contain a statement that the tendering holder is withdrawing its election to have such Old Notes exchanged for New Notes;
- except in the case of a notice of withdrawal transmitted through DTC's ATOP system, be signed by the holder in the same manner as the original signature on the letter of transmittal by which the Old Notes were tendered, including any required signature guarantees, or be accompanied by documents of transfer to have the security registrar with respect to the Old Notes register the transfer of the Old Notes in the name of the person withdrawing the tender; and
- specify the name and number of the account at DTC from which the Old Notes were tendered and the name and number of the account at DTC to be credited with the withdrawn Old Notes, and otherwise comply with the procedures of DTC.

Please note that all questions as to the validity, form, eligibility and time of receipt of notices of withdrawal will be determined by us, and our determination shall be final and binding on all parties. Any Old Notes so withdrawn will be considered not to have been properly tendered for exchange for purposes of the exchange offer. New Notes will not be issued in exchange for such withdrawn Old Notes unless the Old Notes so withdrawn are properly re-tendered.

If you have properly withdrawn Old Notes and wish to re-tender them, you may do so by following one of the procedures described under "— Procedures for Tendering Old Notes" above at any time on or before the expiration date.

Any Old Notes that have been tendered for exchange, but which are not exchanged for any reason, will be credited to an account maintained with DTC for the Old Notes promptly after withdrawal, rejection of tender or termination of the exchange offer.

Conditions to the Exchange Offer

Notwithstanding any other provisions of the exchange offer, we will not be required to accept for exchange, or to issue New Notes in exchange for, any Old Notes and may terminate or amend the exchange offer, if we determine in our reasonable judgment at any time before the expiration date that:

- the exchange offer would violate applicable law or any applicable interpretation of any court or governmental, regulatory or administrative authority, agency or instrumentality, including the SEC or its staff;
- there shall have been instituted, threatened in writing, or be pending, any action or proceeding before or by any court or governmental, regulatory or administrative authority, agency or instrumentality, or by any other person, in connection with the exchange offer, that is, or is reasonably likely to be, in our reasonable judgment, materially adverse to our business, operations, properties, condition, assets, liabilities or prospects, or that would or would be reasonably likely to, in our reasonable judgment, prohibit, prevent, restrict or delay the consummation of the exchange offer or materially impair the contemplated benefits to us of the exchange offer;
- a statute, rule, regulation, executive order, stay, decree, judgment, order or injunction shall have been proposed, enacted, entered, issued, promulgated, enforced or deemed applicable by any court or governmental, regulatory or administrative authority, agency or instrumentality, or there shall have occurred any development, in connection with the exchange offer, that is, or is reasonably likely to be, in our reasonable judgment, materially adverse to our business, operations, properties, condition, assets, liabilities or prospects, or that would or would be reasonably likely to, in our reasonable judgment, prohibit, prevent, restrict or delay consummation of the exchange offer or materially impair the contemplated benefits to us of the exchange offer;
- there shall have occurred:
 - any general suspension of trading in, or general limitation on prices for, securities in U.S. or European securities or financial markets;
 - a declaration of a banking moratorium or any suspension of payments in respect to banks in the U.S. or the European Union;
 - any limitation (whether or not mandatory) by any government or governmental, regulatory or administrative authority, agency or
 instrumentality or other event that, in our reasonable judgment, would or would be reasonably likely to affect the extension of credit
 by banks or other lending institutions; or
 - a commencement or significant worsening of a war or armed hostilities or other national or international calamity, including but not limited to, catastrophic terrorist attacks against the U.S. or its citizens.

The foregoing conditions are for our sole benefit and may be waived by us regardless of the circumstances giving rise to any condition. Our failure at any time to exercise the foregoing rights shall not be considered a waiver by us of that right. The rights described in the prior paragraph are ongoing rights which we may assert at any time and from time to time.

In addition, we will not accept for exchange any Old Notes tendered, and no New Notes will be issued in exchange for any such Old Notes, if at any time any stop order is threatened or in effect with respect to the

registration statement of which this prospectus constitutes a part or the qualification of the indenture under the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act").

We reserve the right to terminate or amend the exchange offer at any time before the expiration date upon the occurrence of any of the foregoing events.

Exchange Agent

Global Bondholder Services Corporation has been appointed as the exchange agent for the exchange offer. All executed letters of transmittal, notices of withdrawal and any other required documentation should be directed to the exchange agent at the address set forth below. Questions and requests for assistance, requests for additional copies of this prospectus or of the letter of transmittal should be directed to the exchange agent, addressed as follows:

By Regular, Registered or Certified Mail, By Overnight Courier or By Hand:

By Facsimile (For Eligible Institutions only): (212) 430-3775 Attention: Corporate Actions 65 Broadway – Suite 404 New York, New York 10006 Attention: Corporate Actions Banks and Brokers Call: (212) 430-3774 (collect) All Others Call Toll-Free: (866) 470-3900 E-mail: contact@gbsc-usa.com

Delivery to an address other than the address of the exchange agent as listed above or transmission of instructions via facsimile other than as listed above does not constitute a valid delivery.

Fees and Expenses

The principal solicitation is being made by mail; however, additional solicitation may be made by facsimile, email, telephone or in person by our officers, regular employees or affiliates. We will not pay any additional compensation to any of our officers or employees who engage in soliciting tenders. We will not make any payment to brokers, dealers or others soliciting acceptances of the exchange offer. However, we will pay the exchange agent reasonable and customary fees for its services and will reimburse it for its reasonable out-of-pocket expenses in connection with the exchange offer.

The expenses to be incurred in connection with the exchange offer, including legal, accounting, SEC filing, printing and exchange agent expenses, will be paid by us.

Accounting Treatment

We will record the New Notes at the same carrying value as the Old Notes, as reflected in our accounting records on the date of the exchange. Accordingly, we will not recognize any gain or loss for accounting purposes. Payments made to third parties in connection with the exchange offer will be expensed as incurred in accordance with U.S. generally accepted accounting principles.

Transfer Taxes

Holders who tender their Old Notes for exchange will not be obligated to pay any transfer taxes in connection therewith, except that holders who instruct us to register New Notes in the name of, or request that Old Notes not tendered or not accepted in the exchange offer be returned to, a person other than the registered tendering holder will be responsible for the payment of any applicable transfer tax.

Resale of the New Notes

Under existing interpretations of the staff of the SEC contained in several no-action letters to third parties, the New Notes would in general be freely transferable by holders thereof, other than our affiliates (as defined below), after the exchange offer without further registration under the Securities Act (subject to certain representations required to be made by each holder of Old Notes participating in the exchange offer, as set forth below). The relevant no-action letters include the Exxon Capital Holdings Corporation letter, which was made available by the SEC on May 13, 1988, the Morgan Stanley & Co. Incorporated letter, which was made available by the SEC on June 5, 1991, the K-III Communications Corporation letter, which was made available by the SEC on July 2, 1993. We have not entered into any arrangement or understanding with any person who will receive New Notes in the exchange offer to distribute those securities following completion of the exchange offer. To our knowledge, each person eligible to participate in the exchange offer is (i) neither an affiliate of ours within the meaning of Rule 405 under the Securities Act (an "affiliate"), nor a broker-dealer acquiring New Notes in exchange for Old Notes acquired directly from us for its own account, (ii) acquiring New Notes in the ordinary course of its business, and (iii) is not engaged in, and does not intend to engage in, a distribution of the New Notes to be received in the exchange offer.

However, any person participating in the exchange offer who is an affiliate of ours, who is not acquiring New Notes in the ordinary course of its business or who intends to acquire New Notes for the purpose of distributing them:

- cannot rely on the SEC staff's interpretations in these no-action letters; and
- must comply with the registration and prospectus delivery requirements of the Securities Act in order to resell New Notes and be identified as an underwriter in the relevant prospectus (unless such resale is made pursuant to an exemption from those requirements).

We acknowledge that such secondary resale transactions should be covered by an effective registration statement containing the selling security holder information required by Item 507 of Regulation S-K promulgated under the Securities Act.

By executing, or otherwise becoming bound by, the letter of transmittal, each tendering holder of Old Notes will generally represent that:

- any New Notes to be received by it will be acquired in the ordinary course of its business;
- it is not engaged in, and does not intend to engage in, a distribution (within the meaning of the Securities Act) of the New Notes to be received in the exchange offer;
- it is not engaged in, does not intend to engage in, and has no arrangement or understanding with any person to participate in the
 distribution (within the meaning of the Securities Act) of the New Notes in violation of the provisions of the Securities Act; and
- it is not an "affiliate" (within the meaning of Rule 405 under the Securities Act) of ours.

We have not sought, and do not intend to seek, a no-action letter from the SEC with respect to the effects of the exchange offer, and there can be no assurance that the SEC staff would make a similar determination with respect to the New Notes as it has made in previous no-action letters.

In addition, in connection with any resales of New Notes acquired in the exchange offer, any broker-dealer receiving New Notes for its own account in exchange for Old Notes acquired by such broker-dealer as a result of market-making activities or other trading activities must acknowledge that it may be a statutory underwriter and that it must deliver a prospectus meeting the requirements of the Securities Act to purchasers in connection with

any resale of such New Notes. See "Plan of Distribution." By making such acknowledgement and delivering such a prospectus in connection with any such resale, a broker-dealer does not thereby admit that it is an underwriter within the meaning of the Securities Act with respect to such resale.

The SEC has taken the position in the Shearman & Sterling no-action letter, which it made available on July 2, 1993, that broker-dealers may fulfill their prospectus delivery requirements with respect to the New Notes, other than a resale of New Notes received in exchange for an unsold allotment from the original sale of the Old Notes, by delivery of the prospectus contained in the exchange offer registration statement.

USE OF PROCEEDS

The exchange offer is intended to satisfy our obligations under the Registration Rights Agreement we entered into in connection with the private exchange of the Old Notes. We will not receive any cash proceeds from the issuance of the New Notes under the exchange offer. In consideration for issuing the New Notes as contemplated by this prospectus, we will receive Old Notes in like principal amounts, the terms of which are identical in all material respects to the New Notes, subject to limited exceptions. Old Notes surrendered in exchange for New Notes will be retired and cannot be reissued. Accordingly, the issuance of the New Notes will not result in any increase in our indebtedness.

DESCRIPTION OF THE NEW NOTES

The Old Notes were issued on February 16, 2021 in a private exchange offer exempt from the registration requirements of the Securities Act.

The New Notes are a series of debt securities to be issued under an indenture, dated as of September 15, 2015, between the Company and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association), as trustee, as supplemented by the supplemental indenture under which the Old Notes were also issued on February 16, 2021, between the Company and the trustee. We refer to this indenture, as so supplemented, as the "indenture." The terms of the New Notes include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act. A copy of the indenture is available for inspection at the corporate trust office of the trustee.

The New Notes will be treated as a single class with any Old Notes that remain outstanding after the completion of the exchange offer. In determining whether holders of the requisite percentage of aggregate principal amount of debt securities of a series have given any notice, consent or waiver or taken any other action permitted under the indenture, any Old Notes that remain outstanding after the completion of the exchange offer will be aggregated with the New Notes, and the holders of these Old Notes and New Notes will vote together as a single class for all such purposes. Accordingly, all references in this "Description of the New Notes" to specified percentages in aggregate principal amount of outstanding notes mean, at any time after the completion of the exchange offer, such percentage in aggregate principal amount of the Old Notes and the New Notes then outstanding. We refer to the New Notes and any Old Notes outstanding after the completion of the exchange offer as the "Notes."

As used in this "Description of the New Notes," the terms "the Company," "we," "our," "us" and other similar references refer only to Biogen Inc. and not to any of its subsidiaries.

General

There will be no accrued interest paid on the settlement date of the exchange offer. The Notes will mature and become due and payable, together with any accrued and unpaid interest thereon, on February 15, 2051. Interest will be payable semiannually on February 15 and August 15 of each year, beginning August 15, 2021 (or, if later, the first interest payment date after issuance of the New Notes). Interest on the Notes will be paid to holders of record at the close of business on February 1 or August 1, whether or not a business day, immediately before the applicable interest payment date. The amount of interest payable on the Notes will be computed on the basis of a 360-day year consisting of twelve 30-day months.

The Notes will be issued only in fully registered form, without coupons, in minimum denominations of \$2,000 in principal amount and integral multiples of \$1,000 in excess thereof.

If any interest payment date or the maturity date of the Notes is not a business day, then the related payment of interest and/or principal payable on such date will be paid on the next succeeding business day with the same force and effect as if made on such interest payment date or maturity date and no further interest will accrue in respect of the delay. The term "business day" means any day other than a Saturday, a Sunday or any other day on which banking institutions in The City of New York are authorized or required by law, regulation or executive order to close.

Further Issues

We may from time to time, without notice to or the consent of the holders or beneficial owners of the Notes, create and issue additional notes having the same ranking and the same interest rate, maturity and other terms as the Notes. Any additional notes having such similar terms could be considered part of the same series of notes under the indenture, provided that if the additional notes are not fungible with the Notes for U.S. federal income tax purposes, the additional notes will have a separate CUSIP number.

Ranking

The New Notes will be our senior unsecured obligations and will rank equal in right of payment with the Old Notes and our other existing and future senior unsecured obligations that are not, by their terms, expressly subordinated in right of payment to the New Notes, and senior in right of payment to any of our future subordinated indebtedness.

The New Notes will be effectively subordinated to all of our existing and future secured indebtedness and other secured liabilities to the extent of the value of the assets securing such indebtedness and liabilities. The indenture limits the amount of secured indebtedness that we or our Subsidiaries (as defined below) may incur pursuant to the covenant described under the heading "—Limitation on Liens." This covenant is subject to important exceptions described under such heading. As of March 31, 2022, we had no secured debt outstanding.

We conduct substantially all of our operations through subsidiaries, which generate a substantial portion of our operating income and cash. As a result, distributions or advances from our subsidiaries are a major source of funds necessary to meet our debt service and other obligations. Contractual provisions, laws or regulations, as well as any subsidiary's financial condition and operating requirements, may limit our ability to obtain cash required to service our debt obligations, including making payments on the Notes.

The New Notes will be structurally subordinated to all existing and future obligations of our subsidiaries, including claims with respect to trade payables. This means that holders of the New Notes will have a junior position to the claims of creditors of our direct and indirect subsidiaries on the assets and earnings of such subsidiaries. The indenture does not limit the amount of debt that our subsidiaries are permitted to incur. As of March 31, 2022, neither we nor our subsidiaries had any secured debt outstanding, and our subsidiaries had total liabilities of approximately \$5.3 billion.

Optional Redemption

At any time prior to the Par Call Date (as defined below), from time to time, the Notes are redeemable, as a whole or in part, at our option, on at least 10 days, but not more than 60 days, prior notice mailed to the registered address of each holder of the Notes to be redeemed (or otherwise delivered in accordance with the applicable procedures of DTC), at a redemption price equal to the greater of:

- 100% of principal amount of the Notes to be redeemed, or
- the sum of the present values of the remaining scheduled payments (through the Par Call Date assuming for such purpose that the Notes matured on the Par Call Date) of interest and principal thereon (exclusive of interest accrued and unpaid to, but not including, the date of redemption) discounted to the date of redemption on a semiannual basis, assuming a 360-day year consisting of twelve 30-day months, at the Treasury Rate (as defined below) plus 25 basis points,

plus accrued and unpaid interest to, but not including, the date of redemption.

In addition, at any time on or after the Par Call Date, the Notes may be redeemed, as a whole or in part, at our option, on at least 10 days, but not more than 60 days, prior notice mailed to the registered address of each holder of the Notes to be redeemed (or otherwise delivered in accordance with the applicable procedures of DTC), at a redemption price equal to 100% of the principal amount of the Notes to be redeemed on the redemption date plus accrued and unpaid interest to, but not including, the date of redemption.

"Comparable Treasury Issue" means the U.S. Treasury security or securities selected by an Independent Investment Banker (as defined below) as having an actual or interpolated maturity comparable to the remaining term of the Notes ("Remaining Life") to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of a comparable maturity to the remaining term of the Notes.

"Comparable Treasury Price" means, with respect to any Notes on any redemption date, (A) the average of the Reference Treasury Dealer Quotations (as defined below) for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (B) if the Independent Investment Banker obtains fewer than four such Reference Treasury Dealer Quotations, the average of all such quotations.

"Independent Investment Banker" means one of the Reference Treasury Dealers (as defined below) appointed by us.

"Par Call Date" means August 15, 2050 (six months prior to the maturity date of the Notes).

"Reference Treasury Dealer" means each of Deutsche Bank Securities Inc. and Citigroup Global Markets Inc. or their respective affiliates, which are primary U.S. Government securities dealers in The City of New York, and their respective successors plus three other primary U.S. Government securities dealers in The City of New York selected by us; provided, however, that if any of the foregoing or their affiliates shall cease to be a primary U.S. Government securities dealer in The City of New York (a "Primary Treasury Dealer"), we will substitute therefor another Primary Treasury Dealer.

"Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Independent Investment Banker, of the bid and asked prices for the applicable Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Independent Investment Banker by the Reference Treasury Dealers at 3:30 p.m. New York time on the third business day preceding such redemption date.

"Treasury Rate" means, with respect to a redemption date: (1) the rate per annum equal to the yield, under the heading which represents the average for the immediately preceding week, appearing in the most recently published statistical release designated "H.15(519)" or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded U.S. Treasury securities adjusted to constant maturity under the caption "Treasury Constant Maturities" for the maturity corresponding to the Comparable Treasury Issue; provided that, if no maturity is within three months before or after the Remaining Life of the Notes to be redeemed, yields for the two published maturities most closely corresponding to the Comparable Treasury Issue shall be determined and the Treasury Rate shall be interpolated or extrapolated from those yields on a straight-line basis, rounding to the nearest month; or (2) if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per year equal to the semiannual equivalent yield to maturity or interpolated (on a day count basis) of the Comparable Treasury Issue, assuming a price for the applicable Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the applicable Comparable Treasury Price for such redemption date. The Treasury Rate shall be calculated on the third business day preceding the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion thereof called for redemption, unless we default in the payment of the redemption price. On or before the redemption date, we will deposit with a paying agent, or the trustee, funds sufficient to pay the redemption price of and accrued and unpaid interest on the Notes to be redeemed on such date. If less than all of the Notes are to be redeemed, the Notes to be redeemed will be selected by DTC in accordance with its standard procedures. If the Notes to be redeemed are not global notes then held by DTC, or DTC prescribes no method of selection, the trustee will select the Notes to be redeemed on a pro rata basis, by lot, or by any other method the trustee deems fair and appropriate and subject to and otherwise in accordance with the procedures of DTC. Any redemption or notice of redemption may, at our discretion, be subject to one or more conditions precedent, and, at our discretion, the redemption date may be delayed until such time as any or all such conditions shall be satisfied. We will provide written notice to the trustee prior to the close of business two business days prior to the redemption date if any such redemption has been rescinded or delayed, and upon receipt the trustee shall provide such notice to each holder of the Notes in the same manner in which the notice of redemption was given.

Change of Control

If a Change of Control Triggering Event occurs, unless we have exercised our option to redeem the Notes as described above, we will be required to make an offer (the "Change of Control Offer") to each holder of the Notes to repurchase all or any part (equal to \$2,000 in principal amount or an integral multiple of \$1,000 in excess thereof) of that holder's Notes on the terms set forth in the Notes. In the Change of Control Offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of Notes repurchased, plus accrued and unpaid interest, if any, on the Notes repurchased to but not including the date of repurchase (the "Change of Control Payment"). Within 30 days following any Change of Control Triggering Event or, at our option, prior to any Change of Control, but after public announcement of the transaction that constitutes or may constitute the Change of Control, a notice will be mailed (or otherwise delivered in accordance with the applicable procedures of DTC) to holders of the Notes describing the transaction that constitutes or may constitute the Change of Control Triggering Event and offering to repurchase the Notes on the date specified in the notice, which date will be no earlier than 10 days and no later than 60 days from the date such notice is mailed (or otherwise delivered in accordance with the applicable procedures of DTC) or, if the notice is mailed (or otherwise delivered) prior to the Change of Control, no earlier than 10 days and no later than 60 days from the date on which the Change of Control Triggering Event occurs (the "Change of Control Payment Date"). The notice will, if mailed (or otherwise delivered) prior to the date of consummation of the Change of Control, state that the offer to purchase is conditioned on the Change of Control Triggering Event occurring on or prior to the Change of Control Payment Date.

On the Change of Control Payment Date, we will, to the extent lawful:

- accept for payment all Notes or portions of Notes properly tendered and not properly withdrawn pursuant to the Change of Control Offer;
- deposit with the paying agent an amount equal to the Change of Control Payment in respect of all Notes or portions of Notes properly tendered and not properly withdrawn; and
- deliver or cause to be delivered to the trustee the Notes properly accepted together with an officers' certificate stating the aggregate principal amount of Notes or portions of Notes being repurchased.

We will not be required to make a Change of Control Offer upon the occurrence of a Change of Control Triggering Event if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for an offer made by us and the third party repurchases all Notes properly tendered and not withdrawn under its offer. In addition, we will not repurchase any Notes if there has occurred and is continuing on the Change of Control Payment Date an event of default under the indenture, other than a default in the payment of the Change of Control Payment upon a Change of Control Triggering Event.

We will comply with the requirements of Rule 14e-1 under the Exchange Act, and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the Notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any such securities laws or regulations conflict with the Change of Control Offer provisions of the Notes, we will comply with those securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control Offer provisions of the New Notes by virtue of any such conflict.

For purposes of the Change of Control Offer provisions of the Notes, the following terms will be applicable:

"Change of Control" means the occurrence of any of the following: (1) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any "person" (as that term is used in Section 13(d) of the Exchange Act) (other than us or one of our Subsidiaries) becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of our Voting Stock (as defined below) or other Voting Stock into which our Voting Stock is reclassified, consolidated, exchanged or changed, measured by voting power rather than number of shares; provided.

however, that a Person (as defined below) shall not be deemed beneficial owner of, or to own beneficially, (A) any securities tendered pursuant to a tender or exchange offer made by or on behalf of such Person or any of such Person's affiliates until such tendered securities are accepted for purchase or exchange thereunder, or (B) any securities if such beneficial ownership (i) arises solely as a result of a revocable proxy delivered in response to a proxy or consent solicitation made pursuant to the applicable rules and regulations under the Exchange Act, and (ii) is not also then reportable on Schedule 13D (or any successor schedule) under the Exchange Act; (2) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or more series of related transactions, of all or substantially all of our assets and the assets of our Subsidiaries, taken as a whole, to one or more "persons" (as that term is used in Section 13(d) of the Exchange Act) (other than to us or one of our Subsidiaries) (a "Transferee"), provided, however, that none of the circumstances in this clause (2) will be a Change of Control if the persons that beneficially own our Voting Stock immediately prior to the transaction own, directly or indirectly, shares representing a majority of the total Voting Stock as measured by voting power rather than number of shares of the Transferee; (3) we consolidate with, or merge with or into, any "person" (as that term is used in Section 13(d) of the Exchange Act) or any such Person consolidates with, or merges with or into, us, in either case, pursuant to a transaction in which any of our outstanding Voting Stock or the Voting Stock of such other Person is converted into or exchanged for cash, securities or other property, other than pursuant to a transaction in which shares of our Voting Stock outstanding immediately prior to the transaction constitute, or are converted into or exchanged for, a majority of the Voting Stock of the surviving Perso

"Change of Control Triggering Event" means the occurrence of both a Change of Control and a Rating Event (as defined below).

"Fitch" means Fitch Inc., or any successor thereto.

"Investment Grade Rating" means a rating equal to or higher than Baa3 (or the equivalent) by Moody's (as defined below) and BBB- (or the equivalent) by S&P (as defined below) or Fitch, and the equivalent investment grade credit rating from any additional rating agency or Rating Agencies (as defined below) selected by the Company.

"Moody's" means Moody's Investors Service, Inc., or any successor thereto.

"Rating Agencies" means (1) each of Fitch, Moody's and S&P and (2) if any of Fitch, Moody's and S&P ceases to rate the Notes or fails to make a rating of the Notes publicly available for reasons outside of our control, a "nationally recognized statistical rating organization" within the meaning of Section 3(a)(62) of the Exchange Act selected by us (as certified by a resolution of our board of directors) and which is reasonably acceptable to the trustee as a replacement agency for Fitch, Moody's or S&P, or all of them, as the case may be.

"Rating Event" means the rating on the Notes is lowered by at least two of the three Rating Agencies and the Notes are rated below an Investment Grade Rating by at least two of the three Rating Agencies, on any day during the period commencing on the earlier of the date of the first public notice of the occurrence of a Change of Control or our intention to effect a Change of Control and ending 60 days following consummation of such Change of Control (which period will be extended so long as the rating of the Notes is under publicly announced consideration for a possible downgrade by any of the Rating Agencies).

"S&P" means Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business, or any successor thereto.

"Voting Stock" means, with respect to any specified "person" (as that term is used in Section 13(d) of the Exchange Act) as of any date, the capital stock of such person that is at the time entitled to vote generally in the election of the board of directors of such person.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of "all or substantially all" of our assets and the assets of our Subsidiaries, taken as a whole. Although there is a limited body of case law interpreting the phrase "substantially all," there is no precise, established definition of the phrase under applicable law. Accordingly, the applicability of the requirement that we offer to repurchase the Notes as a result of the sale, lease, transfer, conveyance or other disposition of less than all of our assets and the assets of our Subsidiaries, taken as a whole, to one or more "persons" (as that term is used in Section 13(d) of the Exchange Act) (other than to us or one of our Subsidiaries) may be uncertain.

Sinking Fund

The Notes will not be entitled to the benefit of any sinking fund.

Limitation on Liens

Other than as provided under "—Exempted Liens and Sale and Leaseback Transactions," we will not, and will not permit any Subsidiary of ours to, create or assume any Indebtedness secured by any Lien on any of our or their respective Properties unless the Notes are secured by such Lien equally and ratably with, or prior to, the Indebtedness secured by such Lien. This restriction does not apply to Indebtedness that is secured by:

- Liens existing on the date of the issuance of the Old Notes;
- Liens securing only the Notes;
- Liens on Property or shares of stock in respect of Indebtedness of a Person existing at the time such Person becomes a Subsidiary of ours or is merged into or consolidated with, or its assets are acquired by, us or any Subsidiary of ours (provided that such Lien was not incurred in anticipation of such transaction and was in existence prior to such transaction) so long as such Lien does not extend to any other Property and the Indebtedness so secured is not increased;
- Liens to secure Indebtedness incurred for the purpose of all or any part of a Property's purchase price or cost of construction or additions, repairs, alterations, or other improvements; provided that (1) the principal amount of any Indebtedness secured by such Lien does not exceed 100% of such Property's purchase price or cost, (2) such Lien does not extend to or cover any other Property other than the Property so purchased, constructed or on which such additions, repairs, alterations or other improvements were so made and (3) such Lien is incurred prior to or within 270 days after the acquisition of such Property or the completion of construction or such additions, repairs, alterations or other improvements and the full operation of such Property thereafter;
- Liens in favor of the United States or any state thereof, or any instrumentality of either, to secure certain payments pursuant to any contract or statute;
- Liens for taxes or assessments or other governmental charges or levies which are not overdue for a period exceeding 60 days unless such Liens are being contested in good faith and for which adequate reserves are being maintained, to the extent required by generally accepted accounting principles;
- title exceptions, easements, licenses, leases and other similar Liens that are not consensual and that do not materially impair the use of the Property subject thereto;
- Liens to secure obligations under worker's compensation laws, unemployment compensation, old-age pensions and other social security benefits or similar legislation;
- Liens arising out of legal proceedings, including Liens arising out of judgments or awards;
- warehousemen's, materialmen's, carrier's, landlord's and other similar Liens for sums not overdue for a period exceeding 60 days unless
 such Liens are being contested in good faith and for which adequate reserves are being maintained, to the extent required by generally
 accepted accounting principles;

- Liens incurred to secure the performance of statutory obligations, surety or appeal bonds, performance or return-of-money bonds, insurance, self-insurance or other obligations of a like nature incurred in the ordinary course of business;
- Liens that are rights of set-off relating to the establishment of depository relations with banks not given in connection with the issuance of Indebtedness;
- Liens on the assets of a special purpose Subsidiary resulting from securitization transactions with respect to accounts receivable, royalties
 and similar assets included in such securitization transactions;
- Liens upon specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers'
 acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other
 goods;
- Liens securing reimbursement obligations with respect to letters of credit that encumber documents and other Property relating to such letters of credit and the products and proceeds thereof;
- Liens on key-executive life insurance policies granted to secure our Indebtedness against the cash surrender value thereof;
- Liens encumbering customary initial deposits and margin deposits and other Liens in the ordinary course of business, in each case securing Hedging Obligations and forward contract, option, futures contracts, futures options or similar agreements or arrangements designed to protect us or any of our Subsidiaries from fluctuations in interest rates, currencies or the price of commodities;
- Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into by us or any of our Subsidiaries in the ordinary course of business;
- Liens in our favor or the favor of any of our Subsidiaries; or
- Liens to secure any extension, renewal, refinancing or refunding (or successive extensions, renewals, refinancings or refundings), in whole or in part, of any Indebtedness secured by Liens referred to in the foregoing bullets or Liens created in connection with any amendment, consent or waiver relating to such Indebtedness, so long as such Lien does not extend to any other Property and the Indebtedness so secured does not exceed the fair market value (as determined by our board of directors) of the assets subject to such Liens at the time of such extension, renewal, refinancing or refunding, or such amendment, consent or waiver, as the case may be.

Limitation on Sale and Leaseback Transactions

Other than as provided under "—Exempted Liens and Sale and Leaseback Transactions," we will not, and will not permit any of our Subsidiaries to, enter into any Sale and Leaseback Transaction with respect to any of our or their respective Properties, the acquisition or completion of construction and commencement of full operations of which has occurred more than 270 days prior thereto, unless:

- such transaction was entered into prior to the first issue date of the Old Notes;
- such transaction was for the sale and leasing back to us of any Property by one of our Subsidiaries;
- we or such Subsidiary would be entitled to incur Indebtedness secured by a mortgage on the Property to be leased in an amount equal to the Attributable Debt with respect to such Sale and Leaseback Transaction without equally and ratably securing the Notes pursuant to the first paragraph of "—Limitation on Liens" above;
- the lease is for a period not in excess of five years, including renewal rights; or

- we or the Subsidiary, prior to or within 270 days after the sale of such Property in connection with the Sale and Leaseback Transaction is completed, applies the net cash proceeds of the sale of the Property leased to:
- (1) the retirement of the Notes or debt of ours ranking equally with the Notes or to the retirement of any debt of a Subsidiary of ours, or
- (2) the acquisition of different property, facilities or equipment or the expansion of our existing business, including the acquisition of other businesses.

Exempted Liens and Sale and Leaseback Transactions

Notwithstanding the restrictions described under the headings "—Limitation on Liens" or "—Limitation on Sale and Leaseback Transactions," we or any Subsidiary of ours may create or assume any Liens or enter into any Sale and Leaseback Transactions not otherwise permitted as described above, if the sum of the following does not exceed 10% of Consolidated Total Assets (as defined below):

- the outstanding Indebtedness secured by such Liens (not including any Liens permitted under "—Limitation on Liens" which amount does not include any Liens permitted under the provisions of this "—Exempted Liens and Sale and Leaseback Transactions"); plus
- all Attributable Debt in respect of such Sale and Leaseback Transaction entered into (not including any Sale and Leaseback Transactions permitted under "—Limitation on Sale and Leaseback Transactions" which amount does not include any Sale and Leaseback Transactions permitted under the provisions of this "—Exempted Liens and Sale and Leaseback Transactions"),

measured, in each case, at the time such Lien is incurred or any such Sale and Leaseback Transaction is entered into by us or such Subsidiary of ours.

Merger, Consolidation or Sale of Assets

We may merge or consolidate with another Person and may sell, transfer or lease all or substantially all of our assets to another Person if all the following conditions are met:

- the merger, consolidation or sale of assets must not cause an event of default. See "—Events of Default." An event of default for this purpose would also include any event that would be an event of default if the notice or time requirements were disregarded;
- if we are not the surviving entity, the Person we would merge or consolidate with, or sell all or substantially all of our assets to, must be organized under the laws of the U.S., any state thereof or the District of Columbia;
- if we are not the surviving entity, the Person we would merge or consolidate with, or sell all or substantially all of our assets to, must expressly assume by supplemental indenture all of our obligations under the Notes and the indenture; and
- we must deliver specific certification and documents to the trustee.

Events of Default

The term "event of default" means any of the following:

- we do not pay the principal of or any premium on the Notes on their due date;
- we do not pay interest on the Notes within 30 days of their due date whether at maturity, upon redemption or upon acceleration (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent for application to pay such interest prior to the expiration of the 30-day period);

- we remain in breach of a covenant in respect of the Notes for 90 days after we receive a written notice of default in accordance with the provisions of the indenture stating we are in breach and requiring that we remedy the breach; or
- certain events of bankruptcy, insolvency or reorganization occur with respect to us or any significant Subsidiary of ours.

If an event of default (other than due to certain events in bankruptcy, insolvency or reorganization) has occurred and has not been cured, the trustee or the holders of at least 25% in aggregate principal amount of the Notes may, by a notice in writing to us (and to the trustee if given by the holders), declare the entire principal amount (and premium, if any) of, and all the accrued and unpaid interest on the Notes to be due and immediately payable. This is called a declaration of acceleration of maturity. If an event of default occurs because of certain events in bankruptcy, insolvency or reorganization relating to us, the principal amount of the Notes will be automatically accelerated, without any action by the trustee or any holder. Holders of a majority in aggregate principal amount of the Notes may also waive certain past defaults under the indenture on behalf of all of the holders of the Notes. A declaration of acceleration of maturity may be canceled, under specific circumstances, by the holders of at least a majority in aggregate principal amount of the Notes.

If any securities are outstanding under the indenture, the indenture requires us, within 120 days after the end of each fiscal year, to furnish to the trustee a statement as to our compliance with the indenture. The trustee will generally give the holders of Notes notice within 90 days of the occurrence of an event of default known to the trustee.

Except in cases of default, where the trustee has some special duties, the trustee is not required to take any action under the indenture at the request of any of the holders unless the holders offer the trustee indemnity and/or security satisfactory to it. If indemnity and/or security satisfactory to the trustee is provided, the holders of a majority in aggregate principal amount of the Notes may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. The trustee may refuse to follow those directions in certain circumstances. No delay or omission in exercising any right or remedy will be treated as a waiver of the right, remedy or event of default.

Before you are allowed to bypass the trustee and bring a lawsuit or other formal legal action or take other steps to enforce your rights or protect your interests relating to the Notes, the following must occur:

- you must give the trustee written notice that an event of default has occurred and remains uncured;
- the holders of at least 25% in aggregate principal amount of the outstanding Notes must make a written request that the trustee take action because of the default and must offer the trustee indemnity and/or security satisfactory to it against the cost and other liabilities of taking that action:
- the trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity and/or security; and
- holders of a majority in aggregate principal amount of the Notes must not have given the trustee a direction inconsistent with the above notice.

However, you are entitled at any time to bring a lawsuit for the payment of money due on your Notes on or after the due date.

Defeasance

Full Defeasance. If the Internal Revenue Service (the "IRS") issues a ruling or there is a change in applicable U.S. federal tax law, as described below, we can legally release ourselves from any payment or other

obligations on the Notes, called "full defeasance," if we put in place the following other arrangements for you to be repaid:

- we must deposit in trust for your benefit and the benefit of all other registered holders of the Notes, money, U.S. government or U.S. government agency notes or bonds or a combination thereof that will generate enough cash to make interest, principal and any other payments on the Notes on their various due dates including, possibly, their earliest redemption date; and
- we must deliver to the trustee a legal opinion confirming that you will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the full defeasance and that you will not be taxed on the Notes any differently than if the full defeasance had not occurred.

If we accomplish full defeasance, as described above, you would have to rely solely on the trust deposit for repayment on the Notes. You could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

Covenant Defeasance. We can be released from the restrictive covenants in the Notes if we make the arrangements described below. This is called "covenant defeasance." In that event, you would lose the protection of those restrictive covenants but would gain the protection of having money and securities set aside in trust to repay the Notes. In order to achieve covenant defeasance, we must do the following:

- we must deposit in trust for your benefit and the benefit of all other registered holders of the Notes, money, U.S. government or U.S. government agency notes or bonds or a combination thereof that will generate enough cash to make interest, principal and any other payments on the Notes on their various due dates, including their earliest possible redemption date; and
- we must deliver to the trustee a legal opinion confirming that under current U.S. federal income tax law you will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the covenant defeasance and that you will not be taxed on the Notes any differently than if the covenant defeasance had not occurred.

If we accomplish covenant defeasance, the following provisions of the indenture and the Notes would no longer apply unless otherwise specified:

- our promises regarding conduct of our business and other matters and any other covenants applicable to the Notes; and
- the portion of the definition of an event of default relating to a breach of such covenants.

If we accomplish covenant defeasance, you can still look to us for repayment of the Notes if there were a shortfall in the trust deposit. In fact, if one of the remaining events of default occurred (such as our bankruptcy) and the Notes become immediately due and payable, there may be such a shortfall. Depending on the event causing the default, of course, you may not be able to obtain payment of the shortfall.

In order to exercise either full defeasance or covenant defeasance, we must comply with certain conditions, and no event or condition can exist that would prevent us from making payments of principal, premium and interest, if any, on the Notes on the date the irrevocable deposit is made or at any time during the period ending on the 91st day after the deposit date.

Notices

With respect to the Notes, we and the trustee will send notices regarding the Notes only to registered holders, using their addresses as listed in the list of registered holders.

Modification or Waiver

We generally may modify and amend the indenture with respect to the Notes with the consent of the holders of at least a majority in aggregate principal amount of the outstanding Notes. However, we may not make any modification or amendment without the consent of each holder of the Notes if such action would:

- change the stated maturity of, or the principal of or premium or interest on, the Notes;
- reduce any amounts due on the Notes or payable upon acceleration of the maturity of the Notes following a default;
- adversely affect any right of repayment at the holder's option;
- change the place (except as otherwise described in this prospectus) or currency of payment on the Notes;
- modify the Notes to contractually subordinate the Notes in right of payment to other Indebtedness;
- reduce the percentage of holders of Notes whose consent is needed to modify or amend the indenture;
- reduce the percentage of holders of Notes whose consent is needed to waive compliance with certain provisions of the indenture or to waive certain defaults; and
- modify any other aspect of the provisions of the indenture dealing with modification and waiver except to increase the voting requirements.

Except for certain specified provisions, the holders of at least a majority in aggregate principal amount of the outstanding Notes may, on behalf of the holders of all the Notes, waive our compliance with certain provisions of the indenture. The holders of a majority in aggregate principal amount of the outstanding Notes may, on behalf of the holders of all the Notes, waive any past default under the indenture and its consequences, except a default in the payment of the principal of or premium or interest on any Notes or in respect of a covenant or provision which cannot be modified or amended without the consent of the holder of each outstanding note; provided, however, that the holders of a majority in aggregate principal amount of the outstanding Notes may rescind an acceleration and its consequences, including any payment default that resulted from such acceleration.

Notwithstanding the foregoing, without the consent of any holder of Notes, we may amend or supplement the indenture or the Notes to, among other reasons:

- cure any ambiguity, defect or inconsistency, provided such amendment or supplement does not adversely affect the rights of any holder of Notes;
- comply with the covenant described under "—Merger, Consolidation or Sale of Assets;"
- appoint a successor trustee with respect to the Notes and to add to or change any of the provisions of the indenture necessary to provide for the administration of the trusts in the indenture by more than one trustee;
- comply with the requirements of the SEC in order to maintain the qualification of the indenture under the Trust Indenture Act of 1939;
- make any change that would not adversely affect the rights of any holder of Notes;
- provide for the issuance of any additional Notes as permitted by the indenture; and
- conform the indenture or the Notes to the description thereof set forth in this prospectus.

Satisfaction and Discharge

The indenture will cease to be of further effect, and we will be deemed to have satisfied and discharged the indenture with respect to the Notes, when the following conditions have been satisfied:

- all Notes not previously delivered to the trustee for cancellation have become due and payable or will become due and payable at their stated maturity or on a redemption date within one year;
- we deposit with the trustee, in trust, funds sufficient to pay the entire indebtedness on the Notes that had not been previously delivered for cancellation for the principal and interest to the date of the deposit (for Notes that have become due and payable) or to the stated maturity or the redemption date, as the case may be (for Notes that have not become due and payable);
- we have paid or caused to be paid all other sums payable under the indenture; and
- we have delivered to the trustee an officers' certificate and opinion of counsel, each stating that we have complied with all these
 conditions.

We will remain obligated to provide for registration of transfer and exchange and to provide notices of redemption.

SEC Reports

We will file with the trustee, within 15 days after we are required to file the same with the SEC, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may prescribe) that we may be required to file with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act; provided that availability of such reports on a website maintained by the SEC shall be deemed to fulfill this requirement. If we are not required to file information, documents or reports pursuant to either of those sections, then we will file with the trustee and the SEC such reports as may be prescribed by the SEC at such time.

The Trustee

The trustee for the New Notes will be U.S. Bank Trust Company, National Association. U.S. Bank Trust Company, National Association also will be the initial paying agent and registrar for the New Notes.

The indenture provides that, except during the continuance of an event of default under the indenture, the trustee under the indenture will perform only such duties as are specifically set forth in the indenture. Under the indenture, the holders of a majority in outstanding aggregate principal amount of the Notes will have the right to direct the time, method and place of conducting any proceeding or exercising any remedy available to the trustee under the indenture, subject to certain exceptions. If an event of default has occurred and is continuing, the trustee under the indenture will exercise such rights and powers vested in it under the indenture and is obligated to use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

The indenture and provisions of the Trust Indenture Act incorporated by reference in the indenture contain limitations on the rights of the trustee under such indenture, should it become a creditor of our company, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The trustee under the indenture is permitted to engage in other transactions. However, if the trustee under the indenture acquires any prohibited conflicting interest, it must eliminate the conflict or resign.

The trustee may resign or be removed and a successor trustee may be appointed.

Governing Law

The indenture and the Notes will be governed by, and construed in accordance with, the laws of the State of New York.

Definitions

The following definitions are applicable to this Description of the New Notes:

"Attributable Debt" means, with respect to a Sale and Leaseback Transaction, an amount equal to the lesser of (1) the fair market value of the Property (as determined in good faith by our board of directors); and (2) the present value of the total net amount of rent payments to be made under the lease during its remaining term, discounted at the rate of interest set forth or implicit in the terms of the lease, compounded semi-annually. The calculation of the present value of the total net amount of rent payments is subject to adjustments specified in the indenture.

"Capitalized Lease" means any obligation of a Person to pay rent or other amounts incurred with respect to real property or equipment acquired or leased by such Person and used in its business that is required to be recorded as a capital lease in accordance with generally accepted accounting principles.

"Consolidated Total Assets" means, with respect to any Person as of any date, the amount of total assets as shown on the consolidated balance sheet of such Person for the most recent fiscal quarter for which financial statements have been filed with the Securities and Exchange Commission, prepared in accordance with accounting principles generally accepted in the United States.

"Hedging Obligations" means, with respect to any specified Person, the obligations of such Person under:

- (1) interest rate swap agreements (whether from fixed to floating or from floating to fixed), interest rate cap agreements and interest rate collar agreements;
 - (2) other agreements or arrangements designed to manage interest rates or interest rate risk; and
 - (3) other agreements or arrangements designed to protect such Person against fluctuations in currency exchange rates or commodity prices.

"Indebtedness" of any Person means, without duplication (1) any obligation of such Person for money borrowed, (2) any obligation of such Person evidenced by bonds, debentures, notes or other similar instruments, (3) any reimbursement obligation of such Person in respect of letters of credit or other similar instruments which support financial obligations which would otherwise become Indebtedness, and (4) any obligation of such Person under Capitalized Leases; provided, however, that "Indebtedness" of such Person shall not include any obligation of such Person to any Subsidiary of such Person or to any Person with respect to which such Person is a Subsidiary.

"Lien" means any pledge, mortgage, lien, encumbrance or other security interest.

"Person" means any individual, corporation, limited liability company, partnership, joint venture, association, joint stock company, trust, unincorporated organization or government or any agency or political subdivision thereof or other similar entity.

"Property" means any property or asset, whether real, personal or mixed, or tangible or intangible.

"Sale and Leaseback Transaction" means any arrangement with any Person providing for the leasing by us or any Subsidiary of ours of any Property that has been or is to be sold or transferred by us or such Subsidiary, as the case may be, to such Person.

"Subsidiary" of any Person means (1) a corporation, a majority of the outstanding Voting Stock of which is, at the time, directly or indirectly, owned by such Person or by one or more Subsidiaries of such Person, or by such Person and one or more Subsidiaries thereof or (2) any other Person (other than a corporation), including, without limitation, a partnership or joint venture, in which such Person, one or more Subsidiaries thereof or such Person and one or more Subsidiaries thereof, directly or indirectly, at the date of determination thereof, has at least majority ownership interest entitled to vote in the election of directors, managers or trustees thereof (or other Person performing similar functions).

GLOBAL NOTES: BOOK-ENTRY SYSTEM

The Global Notes

The New Notes will be represented by one or more fully registered global notes, without interest coupons, will be deposited upon issuance with the trustee as custodian for DTC, and registered in the name of Cede & Co. or its nominee, in each case, for credit to an account of a direct or indirect participant as described below.

Except as set forth below, the global notes may be transferred, in whole and not in part, only to another nominee of DTC or to a successor of DTC or its nominee. Beneficial interests in the global notes may not be exchanged for definitive notes in registered certificated form ("certificated notes") except in the limited circumstances described below. See "—Certain Book Entry Procedures for the Global Notes."

Transfers of beneficial interests in the global notes are subject to the applicable rules and procedures of DTC and its direct or indirect participants, which may change.

The New Notes may be presented for registration of transfer and exchange at the corporate trust offices of the trustee as set forth in the indenture.

Certain Book Entry Procedures for the New Notes

All interests in the global notes will be subject to the operations and procedures of DTC, Euroclear and Clearstream Luxembourg. The descriptions of the operations and procedures of DTC, Euroclear and Clearstream Luxembourg set forth below are provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to change by them from time to time. We obtained the information in this section and elsewhere in this prospectus concerning DTC, Euroclear and Clearstream Luxembourg and their respective book-entry systems from sources that we believe are reliable, but we take no responsibility for the accuracy of any of this information, and holders of Old Notes are urged to contact the relevant system or its participants directly to discuss these matters.

DTC. DTC has advised us that it is:

- a limited-purpose trust company organized under the laws of the State of New York;
- a "banking organization" within the meaning of the New York State Banking Law;
- a member of the Federal Reserve System;
- a "clearing corporation" within the meaning of the New York Uniform Commercial Code, as amended; and
- a "clearing agency" registered pursuant to Section 17A of the Exchange Act.

DTC was created to hold securities for its participants (collectively, the "participants") and to facilitate the clearance and settlement of securities transactions between its participants through electronic book-entry changes to the accounts of its participants, thereby eliminating the need for physical transfer and delivery of certificates. DTC's participants include securities brokers and dealers, banks and trust companies, clearing corporations and certain other organizations. Indirect access to DTC's system is also available to other entities such as Clearstream Luxembourg, Euroclear, banks, brokers, dealers and trust companies (collectively, the "indirect participants") that clear through or maintain a custodial relationship with a participant, either directly or indirectly. Investors who are not participants may beneficially own securities held by or on behalf of DTC only through participants or indirect participants in DTC.

Clearstream Luxembourg. Clearstream Luxembourg is incorporated under the laws of Luxembourg as a professional depositary. Clearstream Luxembourg holds securities for its participating organizations

("Clearstream Luxembourg Participants") and facilitates the clearance and settlement of securities transactions between Clearstream Luxembourg Participants through electronic book-entry changes in accounts of Clearstream Luxembourg Participants, thereby eliminating the need for physical movement of certificates. Transactions may be settled in Clearstream Luxembourg in any of various currencies, including U.S. dollars. Clearstream Luxembourg provides Clearstream Luxembourg Participants with, among other things, services for safekeeping, administration, clearance and establishment of internationally-traded securities and securities lending and borrowing. Clearstream Luxembourg interfaces with domestic markets in several countries. As a professional depositary, Clearstream Luxembourg is subject to regulation by the Luxembourg Monetary Institute. Clearstream Luxembourg Participants are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. Indirect access to Clearstream Luxembourg is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream Luxembourg Participant either directly or indirectly.

Distributions with respect to New Notes held beneficially through Clearstream Luxembourg will be credited to cash accounts of Clearstream Luxembourg Participants in accordance with its rules and procedures to the extent received by the U.S. depositary for Clearstream Luxembourg.

Euroclear. Euroclear was created in 1968 to hold securities for participants of Euroclear ("Euroclear Participants") and to clear and settle transactions between Euroclear Participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Transactions may be settled in any of various currencies, including U.S. dollars. Euroclear includes various other services, including securities lending and borrowing, and interfaces with domestic markets in several markets in several countries. Euroclear is operated by Euroclear Bank S.A./N.V. (the "Euroclear Operator"). All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts with the Euroclear Operator. Euroclear Participants include banks (including central banks), securities brokers and dealers and other professional financial intermediaries. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear Participant, either directly or indirectly.

The Euroclear Operator is regulated and examined by the Belgian Banking Commission. Distributions of principal and interest with respect to New Notes held through Euroclear will be credited to the cash accounts of Euroclear Participants in accordance with the relevant system's rules and procedures, to the extent received by such system's depositary.

Links have been established among DTC, Clearstream Luxembourg and Euroclear to facilitate the initial issuance of the New Notes and cross-market transfers of the New Notes associated with secondary market trading. DTC will be linked indirectly to Clearstream Luxembourg and Euroclear through the DTC accounts of their respective U.S. depositaries.

Book-Entry Procedures. We expect that, pursuant to procedures established by DTC:

- upon deposit of each global note, DTC will credit, on its book-entry registration and transfer system, the accounts of participants designated by the exchange agent with an interest in that global note; and
- ownership of beneficial interests in the global notes will be shown on, and the transfer of ownership interests in the global notes will be effected only through, records maintained by DTC (with respect to the interests of participants) and by participants and indirect participants (with respect to the interests of persons other than participants).

The laws of some jurisdictions may require that some recipients of securities take physical delivery of those securities in definitive form. Accordingly, the ability to transfer beneficial interests in New Notes represented by

a global note to those persons may be limited. In addition, because DTC can act only on behalf of its participants, who in turn act on behalf of persons who hold interests through participants, the ability of a Person holding a beneficial interest in a global note to pledge or transfer that interest to persons or entities that do not participate in DTC's system, or to otherwise take actions in respect of that interest, may be affected by the lack of a physical note in respect of that interest.

So long as DTC or its nominee is the registered owner of a global note, DTC or that nominee, as the case may be, will be considered the sole legal owner or holder of the New Notes represented by that global note for all purposes of the New Notes and the indenture. Except as provided below, owners of beneficial interests in a global note:

- will not be entitled to have the New Notes represented by that global note registered in their names;
- will not receive or be entitled to receive physical delivery of certificated notes; and
- will not be considered the owners or holders of the New Notes represented by that beneficial interest under the indenture for any purpose, including with respect to the giving of any direction, instruction or approval to the trustee.

Accordingly, each holder owning a beneficial interest in a global note must rely on the procedures of DTC and, if that holder is not a participant or an indirect participant, on the procedures of the participant through which that holder owns its interest, to exercise any rights of a holder of New Notes under the indenture or that global note. We understand that, under existing industry practice, in the event that we request any action of holders of New Notes, or a holder that is an owner of a beneficial interest in a global note desires to take any action that DTC, as the holder of that global note, is entitled to take, DTC would authorize the participants to take that action and the participants would authorize holders owning through those participants to take that action or would otherwise act upon the instruction of those holders. Neither we nor the trustee will have any responsibility or liability for any aspect of the records relating to or payments made on account of New Notes by DTC, or for maintaining, supervising or reviewing any records of DTC relating to the New Notes.

Beneficial interests in the global notes may not be exchanged for certificated notes. However, if DTC notifies us that it is unwilling to be a depositary for the global notes or ceases to be a clearing agency or if we so elect or if there is an event of default under the New Notes, DTC will exchange the global notes for certificated notes which it will distribute to its participants.

Payments with respect to the principal of and interest on a global note will be payable by the trustee to or at the direction of DTC or its nominee in its capacity as the registered holder of the global note under the indenture. Under the terms of the indenture, we and the trustee will treat the persons in whose names the New Notes, including the global notes, are registered as the owners thereof for the purpose of receiving payment thereon and for any and all other purposes whatsoever. Accordingly, neither we nor the trustee has or will have any responsibility or liability for the payment of those amounts to owners of beneficial interests in a global note.

Payments by the participants and the indirect participants to the owners of beneficial interests in a global note will be governed by standing instructions and customary industry practice and will be the responsibility of the participants and indirect participants and not of DTC.

Transfers between participants in DTC will be effected in accordance with DTC's procedures and will be settled in same-day funds. Transfers between participants in Euroclear or Clearstream Luxembourg will be effected in the ordinary way in accordance with their respective rules and operating procedures.

Cross-market transfers between the participants in DTC, on the one hand, and Euroclear Participants or Clearstream Luxembourg Participants, on the other hand, will be effected through DTC in accordance with DTC's rules on behalf of Euroclear or Clearstream Luxembourg, as the case may be, by its respective depositary.

However, those cross-market transactions will require delivery of instructions to Euroclear or Clearstream Luxembourg, as the case may be, by the counterparty in that system in accordance with the rules and procedures and within the established deadlines (Brussels time) of that system. If the transaction meets its settlement requirements, Euroclear or Clearstream Luxembourg, as the case may be, will deliver instructions to its respective depositary to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant global notes in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear Participants and Clearstream Luxembourg Participants may not deliver instructions directly to the depositaries for Euroclear or Clearstream Luxembourg.

Because of time zone differences, the securities account of a Euroclear Participant or Clearstream Luxembourg Participant that purchases an interest in a global note from a participant will be credited on the business day for Euroclear or Clearstream Luxembourg immediately following the DTC settlement date. Cash received in Euroclear or Clearstream Luxembourg from the sale of an interest in a global note to a DTC participant will be received with value on the DTC settlement date but will be available in the relevant Euroclear or Clearstream Luxembourg cash account as of the business day for Euroclear or Clearstream Luxembourg following the DTC settlement date.

Although we understand that DTC, Euroclear and Clearstream Luxembourg have agreed to the foregoing procedures to facilitate transfers of interests in the global notes among participants in DTC, Euroclear and Clearstream Luxembourg, they are under no obligation to perform or to continue to perform those procedures, and those procedures may be discontinued at any time. Neither we nor the trustee will have any responsibility for the performance by DTC, Euroclear or Clearstream Luxembourg or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

REGISTRATION RIGHTS

The following summary describes the material terms and conditions of the Registration Rights Agreement. This description is qualified in its entirety by reference to the terms and conditions of the Registration Rights Agreement. We urge you to read the Registration Rights Agreement in its entirety because it, not the following summary, will define your rights as a holder of Notes under that agreement. A copy of the Registration Rights Agreement was filed with the SEC and may also be obtained upon request at the address set forth under "Where You Can Find More Information and Incorporation by Reference."

In connection with the issuance of the Old Notes, we entered into the Registration Rights Agreement pursuant to which we agreed, for the benefit of the holders of Old Notes, to use our commercially reasonable efforts to (1) cause to be filed with the SEC an exchange offer registration statement on an appropriate registration form with respect to an offer to exchange the Old Notes for New Notes having substantially identical terms as the Old Notes and evidencing the same indebtedness as the Old Notes (except that the New Notes will be registered under the Securities Act, will not be subject to certain restrictions on transfer or contain provisions relating to additional interest, will bear different CUSIP numbers than the Old Notes, generally will not entitle their holders to registration rights and will be subject to terms relating to book-entry procedures and administrative terms relating to transfers that differ from those of the Old Notes, as discussed below) and (2) cause such registration statement to be declared effective under the Securities Act.

When the SEC declares the registration statement of which this prospectus forms a part effective, we will offer the New Notes in return for the Old Notes. The exchange offer will remain open for at least 20 business days after the date we send notice of such exchange offer to the holders of Old Notes. For each Old Note surrendered to us in such exchange offer, the holder will receive a New Note of equal principal amount. Interest on each New Note will accrue from the last interest payment date on which interest was paid on the Old Notes or, if no interest has been paid on the Old Notes, from February 16, 2021. Old Notes accepted for exchange will cease to accrue interest from and after the date of consummation of the exchange offer. Holders of Old Notes whose Old Notes are accepted for exchange will not receive any payment in respect of accrued interest on such Old Notes otherwise payable on any interest payment date the record date for which occurs on or after consummation of the exchange offer.

By executing, or otherwise becoming bound by, the letter of transmittal, each tendering holder of Old Notes will generally represent that:

- any New Notes to be received by it will be acquired in the ordinary course of its business;
- it is not engaged in, does not intend to engage in, and has no arrangement or understanding with any person to participate in the distribution (within the meaning of the Securities Act) of the New Notes in violation of the provisions of the Securities Act;
- it is not an "affiliate" (within the meaning of Rule 405 under the Securities Act) of ours; and
- if it is a broker-dealer that will receive New Notes for its own account in exchange for Old Notes that were acquired as a result of market-making or other trading activities, it will deliver (or, to the extent permitted by law, make available) the then-current prospectus (as then amended or supplemented) to purchasers in connection with any resale of such New Notes. By making such representation and delivering such a prospectus in connection with any such resale, a broker-dealer does not thereby admit that it is an underwriter within the meaning of the Securities Act with respect to such resale.

Under current SEC interpretations contained in several no-action letters to third parties, the New Notes will generally be freely transferable after the exchange offer without further registration under the Securities Act, except that any broker-dealer that participates in the exchange must deliver a prospectus meeting the requirements of the Securities Act when it resells the New Notes. See "The Exchange Offer—Resale of the New Notes." Old Notes not tendered in the exchange offer will continue to be subject to all the terms and conditions

specified in the indenture, including transfer restrictions, but will generally not retain any rights under the Registration Rights Agreement (including with respect to additional interest) after the consummation of the exchange offer.

If we determine that a registered exchange offer is not available or may not be completed because it would violate any applicable law or applicable interpretations of the staff of the SEC, or, if for any reason, a registered exchange offer is not completed within 365 days after February 16, 2021, or any holder shall so request following the consummation of a registered exchange offer with respect to any Old Notes held by it that were not eligible for exchange, we will use our commercially reasonable efforts to cause to become effective a shelf registration statement relating to resales of the Old Notes, and to keep that shelf registration statement effective until the earliest of (A) the time when any such Old Notes covered by the shelf registration statement can be sold pursuant to Rule 144 without any limitations by non-affiliates of ours under clause (d) of Rule 144, (B) the date on which all such Old Notes are disposed of in accordance with the shelf registration statement and (C) one year after the original effective date of the shelf registration statement. We will, in the event of such a shelf registration, provide to each holder of Old Notes copies of a prospectus, notify each holder of Old Notes when the shelf registration statement has become effective and take certain other actions to permit resales of the Old Notes. A holder that sells Old Notes under the shelf registration statement generally will be required to make certain representations to us (as described in the Registration Rights Agreement), to be named as a selling security holder in the related prospectus and to deliver a prospectus to purchasers, will be subject to certain of the civil liability provisions under the Securities Act in connection with those sales and will be bound by the provisions of the Registration Rights Agreement that are applicable to such a holder (including certain indemnification obligations). Holders of Old Notes will also be required to suspend their use of the prospectus included in the shelf registration statem

A "registration default" will occur if for any reason a registered exchange offer is not completed within 365 days after February 16, 2021 (or, if required, the applicable shelf registration statement is not declared effective by the SEC on or before the date that is 545 days after February 16, 2021 (or, in some cases, 180 days after the receipt of a request for a shelf registration statement), or if any registration statement required by the Registration Rights Agreement has been declared effective and thereafter either ceases to be effective or the related prospectus ceases to be usable at any time during the required effectiveness period (subject to certain exceptions), and such failure to remain effective or be usable exists for more than 90 days (whether or not consecutive) in any 12-month period. In that case, the annual interest rate borne by the relevant Old Notes will be increased by 0.25% per annum until the exchange offer is completed, the shelf registration statement is declared effective or such registration statement and related prospectus become effective or usable again (or, if earlier, when our obligation to maintain the shelf registration statement ends). Any additional interest due will be payable on the same interest payment dates as interest on the Old Notes is payable.

This summary of the provisions of the Registration Rights Agreement does not purport to be complete and is subject to, and is qualified in its entirety by reference to, all the provisions of the Registration Rights Agreement, copies of which are available from us upon request.

PLAN OF DISTRIBUTION

Each broker-dealer that receives New Notes for its own account pursuant to the exchange offer must acknowledge that it will deliver a prospectus in connection with any resale of such New Notes. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with the resale of New Notes received in exchange for Old Notes, where such Old Notes were acquired as a result of market-making activities or other trading activities. We have agreed that the registration statement will remain effective for a period ending on the earlier of (i) 90 days from the date on which the registration statement is declared effective and (ii) the date on which no participating broker-dealer is required to deliver a prospectus in connection with resales of New Notes issued in exchange for the Old Notes it acquired for its own account as a result of market-making or other trading activities.

We will not receive any proceeds from any sale of New Notes by broker-dealers. New Notes received by broker-dealers for their own account pursuant to the exchange offer may be sold from time to time, in one or more transactions, through the over-the-counter market, in negotiated transactions, through the writing of options on the New Notes or a combination of such methods of resale, at prevailing market prices at the time of resale, at prices related to such prevailing market prices or at negotiated prices. Any such resale may be made directly to purchasers or, alternatively, to or through brokers or dealers who may receive compensation in the form of commissions or concessions from any such broker-dealer or the purchasers of any such New Notes. Any broker-dealer that resells New Notes that were received by it for its own account pursuant to the exchange offer and any broker or dealer that participates in a distribution of such New Notes may be deemed to be an "underwriter" within the meaning of the Securities Act, and any profit on any such resale of New Notes and any commission or concessions received by any such persons may be deemed to be underwriting compensation under the Securities Act. The letter of transmittal states that, by acknowledging that it will deliver and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act. No broker-dealer participating in a distribution (within the meaning of the Securities Act) of the New Notes may use this prospectus.

For a period ending on the earlier of (i) 90 days from the date on which the registration statement is declared effective and (ii) the date on which no participating broker-dealer is required to deliver a prospectus in connection with resales of New Notes issued in exchange for the Old Notes it acquired for its own account as a result of market-making or other trading activities, we will promptly send additional copies of this prospectus and any amendment or supplement to this prospectus to any broker-dealer that requests such documents in the letter of transmittal. We have agreed to pay all expenses incident to the exchange offer (other than the expenses of counsel for the holders of the Old Notes), other than brokerage commissions and applicable transfer taxes, and will indemnify certain holders of the New Notes (including any broker-dealers) against certain liabilities, including liabilities under the Securities Act.

Based on interpretations by the staff of the SEC as set forth in no-action letters issued to third parties (including Exxon Capital Holdings Corporation (available May 13, 1988), Morgan Stanley & Co. Incorporated (available June 5, 1991), K-III Communications Corporation (available May 14, 1993) and Shearman & Sterling (available July 2, 1993)), we believe that the New Notes issued pursuant to the exchange offer may be offered for resale, resold and otherwise transferred by any holder of such New Notes, other than any such holder that is a broker-dealer or an affiliate of ours, without compliance with the registration and prospectus delivery provisions of the Securities Act, provided that:

- the New Notes are acquired in the ordinary course of business of such holder;
- such holder has no arrangement or understanding with any person to participate in a distribution of the New Notes; and
- such holder is not engaged in and does not intend to engage in a distribution of the New Notes.

We have not sought and do not intend to seek a no-action letter from the SEC with respect to the effects of the exchange offer, and there can be no assurance that the staff would make a similar determination with respect to the New Notes as it has in such no-action letters.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of certain U.S. federal income tax considerations of the exchange offer to holders of Old Notes and the ownership and disposition of the New Notes acquired in the exchange offer, but it does not purport to be a complete analysis of all the potential tax considerations relating to the exchange offer. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended (the "Code"), applicable U.S. Treasury Regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date of this prospectus. These authorities may be changed or subject to differing interpretations, possibly with retroactive effect, which may result in tax consequences different from those discussed below. We have not obtained, nor do we intend to obtain, a ruling from the IRS with respect to the statements made in this summary, and there can be no assurance that the IRS will agree with such statements or that a court would not sustain a challenge by the IRS.

This discussion assumes that the Old Notes and New Notes are held as "capital assets" within the meaning of Section 1221 of the Code (generally, property held for investment). This summary does not represent a detailed description of the U.S. federal income tax consequences to a holder of Old Notes or New Notes in light of such holder's particular circumstances and does not address the alternative minimum tax, Medicare tax on net investment income, U.S. federal estate or gift tax or the effects of any state, local or non-U.S. tax laws. It is not intended to be, and should not be construed to be, legal or tax advice to any particular holder of Old Notes or acquirer of New Notes in the exchange offer.

This summary does not address all tax considerations that may be relevant to a holder of Old Notes or New Notes that is subject to special tax treatment under the U.S. federal income tax laws, including, without limitation:

- brokers and dealers in securities or commodities;
- traders in securities that have elected the mark-to-market method of accounting for their securities holdings;
- holders (as defined in this section) whose functional currency is not the U.S. dollar;
- persons holding Old Notes or New Notes as part of a hedge, straddle, conversion or other "synthetic security" or integrated transaction;
- former U.S. citizens or long-term residents of the U.S.;
- banks and other financial institutions;
- insurance companies;
- regulated investment companies;
- real estate investment trusts:
- "controlled foreign corporations" within the meaning of the Code;
- "passive foreign investment companies" within the meaning of the Code;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- individual retirement accounts or other tax-deferred accounts;
- entities that are tax-exempt for U.S. federal income tax purposes; and
- partnerships, other pass-through entities and holders of interests therein.

If an entity or arrangement treated as a partnership or other pass-through entity for U.S. federal income tax purposes holds Old Notes or New Notes, the U.S. federal income tax treatment of a partner or other beneficial

owner in such partnership or other pass-through entity generally will depend upon the status of the partner or other beneficial owner and the activities of the partnership or other pass-through entity. If you are a partnership or other pass-through entity holding Old Notes or New Notes or a partner or other beneficial owner in such a partnership or other pass-through entity, you are urged to consult your own tax advisor about the U.S. federal income tax considerations with respect to the Exchange Offer.

EACH HOLDER SHOULD CONSULT ITS OWN TAX ADVISOR CONCERNING THE TAX CONSEQUENCES OF THE EXCHANGE OFFER AND OF OWNING THE NEW NOTES IN LIGHT OF EACH HOLDER'S PARTICULAR CIRCUMSTANCES UNDER U.S. FEDERAL TAX LAWS AND THE LAWS OF ANY STATE, LOCAL OR FOREIGN JURISDICTION.

Exchange Offer

The exchange of Old Notes for New Notes will not constitute a taxable exchange. As a result, (1) a holder of Old Notes should not recognize a taxable gain or loss as a result of exchanging such holder's Old Notes for New Notes, (2) the holding period of the New Notes received should include the holding period of the Old Notes exchanged therefor, and (3) the adjusted tax basis of the New Notes received should be the same as the adjusted tax basis of the Old Notes exchanged therefor immediately before such exchange. The U.S. federal income tax consequences of holding and disposing of your New Notes generally will be the same as those applicable to your Old Notes.

LEGAL MATTERS

The validity of the debt securities offered by this prospectus will be passed upon for us by Foley Hoag LLP, Boston, Massachusetts.

EXPERTS

The financial statements and management's assessment of the effectiveness of our internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2021, have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION AND INCORPORATION BY REFERENCE

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public from the SEC's web site at http://www.sec.gov.

The SEC's rules allow us to "incorporate by reference" the information we have filed with the SEC, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is a part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information included and/or incorporated by reference in this prospectus. We incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (excluding those portions of any Form 8-K that are deemed furnished and not filed in accordance with SEC rules), on or after the commencement of the exchange offer but before the expiration date:

- our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 3, 2022;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 3, 2022;
- the portions of our <u>Definitive Proxy Statement</u> dated as of April 29, 2022, filed with the SEC on April 29, 2022, that were incorporated by reference into our Annual Report on <u>Form 10-K</u> for the year ended December 31, 2021, filed with the SEC on February 3, 2022;
- our Current Report on <u>Form 8-K</u>, filed with the SEC on January 31, 2022; and
- Item 5.02 and Exhibit 10.1 of our Current Report on Form 8-K, filed with the SEC on May 3, 2022.

You may obtain documents incorporated by reference into this prospectus at no cost by requesting them in writing or telephoning us at the following address:

Biogen Inc. Attn: Investor Relations 225 Binney Street Cambridge, Massachusetts 02142 (617) 464-2442

Copies of these filings are also available, without charge, on our website at http://www.biogen.com. The contents of our website have not been, and shall not be deemed to be, incorporated by reference into, and do not form a part of, this prospectus.

Any statement contained in this prospectus or in a document incorporated by reference herein will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or therein, or in any other subsequently filed document that also is incorporated herein or therein by reference, modifies or supersedes such statement. Any such statement so modified or superseded will not be deemed to constitute a part of this prospectus except as so modified or superseded.



Biogen Inc.

Offer to Exchange

up to \$700,731,000 3.250% Senior Notes due 2051 that have been registered under the Securities Act of 1933, as amended, for any and all of our outstanding unregistered 3.250% Senior Notes due 2051

PROSPECTUS

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

ITEM 20. Indemnification of Directors and Officers

Article X of our certificate of incorporation provides for the elimination, to the maximum extent permitted by the General Corporation Law of the State of Delaware, as the same exists or may be hereafter amended (the "DGCL"), of personal monetary liabilities of our directors for any breach of their fiduciary duties. Section 102(b)(7) of the DGCL enables a corporation in its certificate of incorporation to eliminate or limit the personal liability of members of its board of directors to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that the corporation shall not eliminate or limit the liability of a director for: (i) breaching his or her duty of loyalty; (ii) failing to act in good faith, engaging in intentional misconduct or knowingly violating the law; (iii) paying an unlawful dividend or approving an illegal stock repurchase; or (iv) obtaining an improper personal benefit.

Section 145 of the DGCL provides that a Delaware corporation may indemnify any persons who were, are or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was illegal. Indemnification provided pursuant to Section 145 is not exclusive of any other rights to which those seeking indemnification may be entitled to under any bylaw, agreement, disinterested director vote, stockholder vote or otherwise. In addition, the statutes of Delaware contain provisions to the general effect that any director shall in the performance of his duties be fully protected in relying in good faith upon the books of account or records of the corporation or statements prepared by any official of the corporation. Our certificate of incorporation and bylaws provide that we shall indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by the law.

Our bylaws provide that we shall provide, to the fullest extent authorized by the DGCL, indemnification against all expense, liability and loss reasonably incurred or suffered by our directors, officers or any other person who is or was serving at our request as a director, officer, employee, fiduciary, representative, partner or agent of another related entity and shall advance expenses to such persons, in respect of any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was serving in such capacity. In addition, we maintain directors' and officers' liability insurance which insures against certain liabilities that our directors or officers may incur in such capacities.

We also have in place agreements with certain of our officers and directors which affirm our obligation to indemnify them to the fullest extent permitted by law and contain various procedural and other provisions which expand the protection afforded by our bylaws.

ITEM 21. Exhibits and Financial Statement Schedules

(a) Exhibits

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation, as amended. Filed as Exhibit 3.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2012.
3.2	Certificate of Amendment to the Certificate of Incorporation. Filed as Exhibit 3.1 to our Current Report on Form 8-K filed on March 27, 2015.
3.3	Certificate of Amendment of Biogen Inc.'s Amended and Restated Certificate of Incorporation, as amended. Filed as Exhibit 3.1 to our Current Report on Form 8-K filed on June 8, 2021.
3.4	Fourth Amended and Restated Bylaws. Filed as Exhibit 3.1 to our Current Report on Form 8-K filed on June 9, 2017.
4.1	Reference is made to Exhibit 3.1 for a description of the rights, preferences and privileges of our Series A Preferred Stock and Series X <u>Junior Participating Preferred Stock.</u>
4.2	Indenture between Biogen Inc. and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association), dated as of September 15, 2015. Filed as Exhibit 4.1 to our Current Report on Form 8-K filed on September 16, 2015.
4.3	First Supplemental Indenture between Biogen Inc. and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association), dated September 15, 2015. Filed as Exhibit 4.2 to our Current Report on Form 8-K filed on September 16, 2015.
4.4	Second Supplemental Indenture, dated April 30, 2020, between Biogen Inc. and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association), including the forms of Global Notes attached as Exhibit A and Exhibit B, respectively, thereto. Filed as Exhibit 4.2 to our Current Report on Form 8-K filed on April 30, 2020.
4.5	Third Supplemental Indenture, dated February 16, 2021, between Biogen Inc. and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association). Filed as Exhibit 4.2 to our Current Report on Form 8-K filed on February 16, 2021.
4.6	Registration Rights Agreement, dated February 16, 2021, between Biogen Inc. and Deutsche Bank Securities Inc. and Citigroup Global Markets, Inc. with respect to the 3.250% Senior Notes due 2051. Filed as Exhibit 4.5 to our Current Report on Form 8-K filed on February 16, 2021.
5.1	Opinion of Foley Hoag LLP as to legality of the debt securities, filed herewith.
23.1	Consent of PricewaterhouseCoopers LLP, the registrant's independent registered public accounting firm, filed herewith.
23.2	Consent of Foley Hoag LLP (included in Exhibit 5.1).
24.1	Power of Attorney of Biogen Inc. (included on signature pages to this Registration Statement).
25	Form T-1 Statement of Eligibility of Trustee under the Trust Indenture Act of 1939, as amended, of U.S. Bank Trust Company, National Association, as trustee, filed herewith.
99.1	Form of Letter of Transmittal, filed herewith.
107	Filing Fee Table, filed herewith.

ITEM 22. Undertakings

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) under the Securities Act if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.
- (2) That, for purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) under the Securities Act as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B under the Securities Act or other than prospectuses filed in reliance on Rule 430A under the Securities Act, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities: the undersigned registrant undertakes that, in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 under the Securities Act;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing

of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

- (7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of their counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by them is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (8) The undersigned registrant hereby undertakes to respond to requests for information that is incorporated by reference into the prospectus pursuant to Items 4, 10(b), 11 or 13 of this Form, within one business day of receipt of such request, and to send the incorporated documents by first-class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.
- (9) The undersigned registrant hereby undertakes to supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

SIGNATURES AND POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on May 17, 2022.

BIOGEN INC.

By: /s/ MICHEL VOUNATSOS

Name: Michel Vounatsos Title: Chief Executive Officer

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities indicated on May 17, 2022.

Further, we, the undersigned officers and directors of the Company, hereby severally constitute and appoint Michel Vounatsos, Michael R. McDonnell, and Susan H. Alexander and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities as indicated, any and all amendments or supplements to this registration statement on Form S-4 of the Company, including post-effective amendments to the Registration Statement, or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462 under the Securities Act, and generally to do all such things in connection therewith in our name and on our behalf in our capacities as indicated to enable the Company to comply with the provisions of the Securities Act and all requirements of the SEC, hereby ratifying and confirming our signatures as they may be signed by our said attorneys or any of them, to any and all amendments.

<u>Name</u>	<u>Capacity</u>	<u>Date</u>
/s/ MICHEL VOUNATSOS Michel Vounatsos	Director and Chief Executive Officer (Principal Executive Officer)	May 17, 2022
/S/ MICHAEL R. MCDONNELL Michael R. McDonnell	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	May 17, 2022
/S/ ROBIN C. KRAMER Robin C. Kramer	Vice President and Chief Accounting Officer (Principal Accounting Officer)	May 17, 2022
/S/ STELIOS PAPADOPOULOS Stelios Papadopoulos	Director and Chairman of the Board of Directors	May 17, 2022
Alexander J. Denner	Director	May 17, 2022
/s/ CAROLINE D. DORSA Caroline D. Dorsa	Director	May 17, 2022

/s/ Maria C. Freire	Director	May 17, 2022
Maria C. Freire		
/S/ WILLIAM A. HAWKINS William A. Hawkins	Director	May 17, 2022
/S/ WILLIAM D. JONES William D. Jones	Director	May 17, 2022
/S/ NANCY L. LEAMING Nancy L. Leaming	Director	May 17, 2022
/S/ JESUS B. MANTAS Jesus B. Mantas	Director	May 17, 2022
/S/ RICHARD C. MULLIGAN Richard C. Mulligan	Director	May 17, 2022
/S/ BRIAN S. POSNER Brian S. Posner	Director	May 17, 2022
/s/ ERIC K. ROWINSKY Eric K. Rowinsky	Director	May 17, 2022
/S/ STEPHEN A. SHERWIN Stephen A. Sherwin	Director	May 17, 2022



Seaport West 155 Seaport Boulevard Boston, MA 02210-2600

617 832 1000 main 617 832 7000 fax

May 17, 2022

Biogen Inc. 225 Binney Street Cambridge, Massachusetts 02142

Re: Registration Statement on Form S-4

Ladies and Gentlemen:

We have acted as counsel for Biogen Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") on the date hereof of a registration statement on Form S-4 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), and the offer by the Company to issue pursuant to the Registration Statement \$700,731,000 in aggregate principal amount of the Company's 3.250% Senior Notes due 2051 (the "New Notes"), in exchange for a like principal amount of the Company's outstanding 3.250% Senior Notes due 2051 (the "Old Notes").

The New Notes are to be issued pursuant to the Indenture dated as of September 15, 2015 (the "Base Indenture") between the Company and U.S. Bank Trust Company, National Association (formerly U.S. Bank National Association), as trustee (the "Trustee"), as amended and supplemented by the Third Supplemental Indenture dated as of February 16, 2021 (together with the Base Indenture, the "Indenture") between the Company and the Trustee, as trustee.

In connection with this opinion, we have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the amended and restated certificate of incorporation of the Company, as amended to the date hereof and on file with the Secretary of State of the State of Delaware, (ii) the amended and restated by-laws of the Company, as amended to the date hereof, (iii) the Registration Statement, including the documents and information incorporated by reference therein, (iv) the Indenture, (v) the form of New Notes, (vi) the Form T-1 of the Trustee filed with the Commission with respect to the transaction, (vii) such records of the corporate proceedings of the Company as we have deemed material, and (viii) such other certificates, receipts, records and documents as we have deemed necessary or appropriate for purposes of this opinion.

ATTORNEYS AT LAW

BOSTON | NEW YORK | PARIS | WASHINGTON | FOLEYHOAG.COM

Biogen Inc. May 17, 2022 Page 2

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the conformity to authentic original documents of all documents submitted to us as copies. As to facts material to the opinions, statements and assumptions expressed herein, we have, with your consent, relied upon oral or written statements and representations of officers and other representatives, and other information, of the Company and others. We have not independently verified such factual matters.

Our opinion expressed below is qualified to the extent that (i) the enforceability or validity of any provision of any agreement, instrument or document or any rights granted thereunder may be subject to or affected by any bankruptcy, insolvency, reorganization, moratorium, preference, fraudulent conveyance, fraudulent transfer or similar law relating to or affecting the rights and remedies of creditors generally which may be in effect from time to time, (ii) the remedy of specific performance or any other equitable remedy may be unavailable in any jurisdiction or may be withheld as a matter of judicial discretion, (iii) equitable principles and principles of public policy may be applied in construing or enforcing any of the provisions of any agreement, instrument or document, (iv) the enforceability, validity or binding effect of any remedial provision of any agreement, instrument or document may be limited by applicable law, including, but not limited to, the application of principles of materiality, reasonableness, good faith and fair dealing, which may limit particular rights and remedies but not so as to interfere materially with the practical realization of the benefits intended to be provided by such agreement, instrument or document, and (v) rights to indemnification and contribution may be limited by federal and state securities laws or public policy.

In rendering the opinions set forth below, we have assumed that (i) the Trustee has at all relevant times been duly organized, validly existing and in good standing under the laws of its jurisdiction of organization, (ii) the Trustee had and has the requisite organizational and legal power and authority to execute and deliver and to perform its obligations under the Indenture, (iii) the Trustee has at all relevant times been duly qualified to engage in the activities contemplated by the Indenture, (iv) the Indenture has been duly authorized, executed and delivered by the Trustee and constitutes the legally valid and binding obligations of the Trustee, enforceable against the Trustee in accordance with its terms, and (v) the Trustee has at all relevant times been in compliance, generally and with respect to acting as a trustee under the Indenture, with all applicable laws and regulations.

We are opining herein only as to the federal laws of the United States, the internal laws of the State of New York and the Delaware General Corporation Law, and we express no opinion with respect to the laws of any other jurisdiction or, in the case of Delaware, any other laws, or as to any matters of municipal law or the laws of any other local agencies within any state.

On the basis of, and subject to, the foregoing, we are of the opinion that, when (a) the Registration Statement has become effective, (b) the Indenture has been duly qualified under the Trust Indenture Act of 1940, as amended, and (c) the New Notes have been duly executed by the Company and duly authenticated by the Trustee in accordance with the terms of the Indenture and issued and delivered in exchange for the Old Notes in the manner described in the Registration Statement, the New Notes will constitute binding obligations of the Company.

Biogen Inc. May 17, 2022 Page 3

This opinion is based upon currently existing statutes, rules and regulations and judicial decisions and is rendered as of the date hereof, and we disclaim any obligation to advise you of any change in any of the foregoing sources of law or subsequent developments in law or changes in facts or circumstances which might affect any matters or opinions set forth herein.

This opinion letter shall be interpreted in accordance with the Core Opinion Principles jointly issued by the Committee on Legal Opinions of the American Bar Association's Business Law Section and the Working Group on Legal Opinions Foundation as published in 74 Business Lawyer 815 (2019).

We consent to your filing this opinion as an exhibit to the Registration Statement and to the references to our firm in the prospectus constituting part of the Registration Statement under the heading "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

FOLEY HOAG LLP

By: /s/ John D. Hancock

A partner

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-4 of Biogen Inc. of our report dated February 3, 2022 relating to the financial statements, and the effectiveness of internal control over financial reporting, which appears in Biogen Inc.'s Annual Report on Form 10-K for the year ended December 31, 2021. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP Boston, Massachusetts May 17, 2022

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM T-1

STATEMENT OF ELIGIBILITY UNDER THE TRUST INDENTURE ACT OF 1939 OF A CORPORATION DESIGNATED TO ACT AS TRUSTEE

☐ Check if an Application to Determine Eligibility of a Trustee Pursuant to Section 305(b)(2)

U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION

(Exact name of Trustee as specified in its charter)

91-1821036 I.R.S. Employer Identification No.

800 Nicollet Mall
Minneapolis, Minnesota
(Address of principal executive offices)

55402 (Zip Code)

Laura S. Cawley
U.S. Bank Trust Company, National Association
One Federal Street
Boston, MA 02110
(617) 603-6452

(Name, address and telephone number of agent for service)

Biogen Inc. (Issuer with respect to the Securities)

Delaware (State or other jurisdiction of incorporation or organization) 33-0112644 (I.R.S. Employer Identification No.)

225 Binney St.
Cambridge, Massachusetts
(Address of Principal Executive Offices)

02142 (Zip Code)

3.250% Senior Notes Due 2051 (Title of the Indenture Securities)

FORM T-1

Item 1. GENERAL INFORMATION. Furnish the following information as to the Trustee.

- a) Name and address of each examining or supervising authority to which it is subject.

 Comptroller of the Currency

 Washington, D.C.
- b) Whether it is authorized to exercise corporate trust powers.
 Yes

Item 2. AFFILIATIONS WITH THE OBLIGOR. *If the obligor is an affiliate of the Trustee, describe each such affiliation.*

Items 3-15. Items 3-15 are not applicable because to the best of the Trustee's knowledge, the obligor is not in default under any Indenture for which the Trustee acts as Trustee.

Item 16. LIST OF EXHIBITS: List below all exhibits filed as a part of this statement of eligibility and qualification.

- 1. A copy of the Articles of Association of the Trustee, attached as Exhibit 1.
- 2. A copy of the certificate of authority of the Trustee to commence business, attached as Exhibit 2.
- 3. A copy of the certificate of authority of the Trustee to exercise corporate trust powers, attached as Exhibit 3.
- 4. A copy of the existing bylaws of the Trustee, attached as Exhibit 4.
- 5. A copy of each Indenture referred to in Item 4. Not applicable.
- 6. The consent of the Trustee required by Section 321(b) of the Trust Indenture Act of 1939, attached as Exhibit 6.
- 7. Report of Condition of the Trustee as of March 31, 2022 published pursuant to law or the requirements of its supervising or examining authority, attached as Exhibit 7.

SIGNATURE

Pursuant to the requirements of the Trust Indenture Act of 1939, as amended, the Trustee, U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, a national banking association organized and existing under the laws of the United States of America, has duly caused this statement of eligibility and qualification to be signed on its behalf by the undersigned, thereunto duly authorized, all in the City of Boston, State of Massachusetts on the 16th of May, 2022.

By: /s/ Laura S. Cawley
Laura S. Cawley
Vice President

Exhibit 1

ARTICLES OF ASSOCIATION OF U. S. BANK TRUST COMPANY, NATIONAL ASSOCIATION

For the purpose of organizing an association (the "Association") to perform any lawful activities of national banks, the undersigned enter into the following Articles of Association:

FIRST. The title of this Association shall be U. S. Bank Trust Company, National Association.

SECOND. The main office of the Association shall be in the city of Portland, county of Multnomah, state of Oregon. The business of the Association will be limited to fiduciary powers and the support of activities incidental to the exercise of those powers. The Association may not expand or alter its business beyond that stated in this article without the prior approval of the Comptroller of the Currency.

THIRD. The board of directors of the Association shall consist of not less than five nor more than twenty-five persons, the exact number to be fixed and determined from time to time by resolution of a majority of the full board of directors or by resolution of a majority of the shareholders at any annual or special meeting thereof. Each director shall own common or preferred stock of the Association or of a holding company owning the Association, with an aggregate par, fair market, or equity value of not less than \$1,000, as of either (i) the date of purchase, (ii) the date the person became a director, or (iii) the date of that person's most recent election to the board of directors, whichever is more recent. Any combination of common or preferred stock of the Association or holding company may be used.

Any vacancy in the board of directors may be filled by action of a majority of the remaining directors between meetings of shareholders. The board of directors may increase the number of directors up to the maximum pennitted by law. Terms of directors, including directors selected to fill vacancies, shall expire at the next regular meeting of shareholders at which directors are elected, unless the directors resign or are removed from office. Despite the expiration of a director's term, the director shall continue to serve until his or her successor is elected and qualified or until there is a decrease in the number of directors and his or her position is eliminated.

Honorary or advisory members of the board of directors, without voting power or power of final decision in matters concerning the business of the Association, may be appointed by resolution of a majority of the full board of directors, or by resolution of shareholders at any annual or special meeting. Honorary or advisory directors shall not be counted to determined the number of directors of the Association or the presence of a quorum in connection with any board action, and shall not be required to own qualifying shares.

FOURTH. There shall be an annual meeting of the shareholders to elect directors and transact whatever other business may be brought before the meeting. It shall be held at the main office or any other convenient place the board of directors may designate, on the day of each year specified therefor in the Bylaws, or if that day falls on a legal holiday in the state in which the

Association is located, on the next following banking day. If no election is held on the day fixed or in the event of a legal holiday on the following banking day, an election may be held on any subsequent day within 60 days of the day fixed, to be designated by the board of directors, or, if the directors fail to fix the day, by shareholders representing two-thirds of the shares issued and outstanding. In all cases, at least 10 days' advance notice of the meeting shall be given to the shareholders by first-class mail.

In all elections of directors, the number of votes each common shareholder may cast will be determined by multiplying the number of shares he or she owns by the number of directors to be elected. Those votes may be cumulated and cast for a single candidate or may be distributed among two or more candidates in the manner selected by the shareholder. On all other questions, each common shareholder shall be entitled to one vote for each share of stock held by him or her.

A director may resign at any time by delivering written notice to the board of directors, its chairperson, or to the Association, which resignation shall be effective when the notice is delivered unless the notice specifies a later effective date.

A director may be removed by the shareholders at a meeting called to remove him or her, when notice of the meeting stating that the purpose or one of the purposes is to remove him or her is provided, if there is a failure to fulfill one of the affirmative requirements for qualification, or for cause; provided, however, that a director may not be removed if the number of votes sufficient to elect him or her under cumulative voting is voted against his or her removal.

FIFTH. The authorized amount of capital stock of the Association shall be 1,000,000 shares of common stock of the par value of ten dollars (\$10) each; but said capital stock may be increased or decreased from time to time, according to the provisions of the laws of the United States. The Association shall have only one class of capital stock.

No holder of shares of the capital stock of any class of the Association shall have any preemptive or preferential right of subscription to any shares of any class of stock of the Association, whether now or hereafter authorized, or to any obligations convertible into stock of the Association, issued, or sold, nor any right of subscription to any thereof other than such, if any, as the board of directors, in its discretion, may from time to time determine and at such price as the board of directors may from time to time fix.

Transfers of the Association's stock are subject to the prior written approval of a federal depository institution regulatory agency. If no other agency approval is required, the approval of the Comptroller of the Currency must be obtained prior to any such transfers.

Unless otherwise specified in the Articles of Association or required by law, (1) all matters requiring shareholder action, including amendments to the Articles of Association must be approved by shareholders owning a majority voting interest in the outstanding voting stock, and (2) each shareholder shall be entitled to one vote per share.

Unless otherwise specified in the Articles of Association or required by law, all shares of voting stock shall be voted together as a class, on any matters requiring shareholder approval.

Unless otherwise provided in the Bylaws, the record date for determining shareholders entitled to notice of and to vote at any meeting is the close of business on the day before the first notice is mailed or otherwise sent to the shareholders, provided that in no event may a record date be more than 70 days before the meeting.

The Association, at any time and from time to time, may authorize and issue debt obligations, whether or not subordinated, without the approval of the shareholders. Obligations classified as debt, whether or not subordinated, which may be issued by the Association without the approval of shareholders, do not carry voting rights on any issue, including an increase or decrease in the aggregate number of the securities, or the exchange or reclassification of all or part of securities into securities of another class or series.

SIXTH. The board of directors shall appoint one of its members president of this Association and one of its members chairperson of the board and shall have the power to appoint one or more vice presidents, a secretary who shall keep minutes of the directors' and shareholders' meetings and be responsible for authenticating the records of the Association, and such other officers and employees as may be required to transact the business of this Association. A duly appointed officer may appoint one or more officers or assistant officers if authorized by the board of directors in accordance with the Bylaws.

The board of directors shall have the power to:

- (1) Define the duties of the officers, employees, and agents of the Association.
- (2) Delegate the performance of its duties, but not the responsibility for its duties, to the officers, employees, and agents of the Association.
- (3) Fix the compensation and enter into employment contracts with its officers and employees upon reasonable terms and conditions consistent with applicable law.
- (4) Dismiss officers and employees.
- (5) Require bonds from officers and employees and to fix the penalty thereof.
- (6) Ratify written policies authorized by the Association's management or committees of the board.
- (7) Regulate the manner in which any increase or decrease of the capital of the Association shall be made; provided that nothing herein shall restrict the power of shareholders to increase or decrease the capital of the Association in accordance with law, and nothing shall raise or lower from two-thirds the percentage required for shareholder approval to increase or reduce the capital.

- (8) Manage and administer the business and affairs of the Association.
- (9) Adopt initial Bylaws, not inconsistent with law or the Articles of Association, for managing the business and regulating the affairs of the Association
- (10) Amend or repeal Bylaws, except to the extent that the Articles of Association reserve this power in whole or in part to the shareholders.
- (11) Make contracts.
- (12) Generally perform all acts that are legal for a board of directors to perform.

SEVENTH. The board of directors shall have the power to change the location of the main office to any authorized branch within the limits of the city of Portland, Oregon, without the approval of the shareholders, or with a vote of shareholders owning two-thirds of the stock of the Association for a location outside such limits and upon receipt of a certificate of approval from the Comptroller of the Currency, to any other location within or outside the limits of the city of Portland, Oregon, but not more than thirty miles beyond such limits. The board of directors shall have the power to establish or change the location of any office or offices of the Association to any other location permitted under applicable law, without approval of shareholders, subject to approval by the Comptroller of the Currency.

EIGHTH. The corporate existence of this Association shall continue until termination according to the laws of the United States.

NINTH. The board of directors of the Association, or any shareholder owning, in the aggregate, not less than 25 percent of the stock of the Association, may call a special meeting of shareholders at any time. Unless otherwise provided by the Bylaws or the laws of the United States, or waived by shareholders, a notice of the time, place, and purpose of every annual and special meeting of the shareholders shall be given by first-class mail, postage prepaid, mailed at least 10, and no more than 60, days prior to the date of the meeting to each shareholder of record at his/her address as shown upon the books of the Association. Unless otherwise provided by the Bylaws, any action requiring approval of shareholders must be effected at a duly called annual or special meeting.

TENTH. These Articles of Association may be amended at any regular or special meeting of the shareholders by the affirmative vote of the holders of a majority of the stock of the Association, unless the vote of the holders of a greater amount of stock is required by law, and in that case by the vote of the holders of such greater amount; provided, that the scope of the Association's activities and services may not be expanded without the prior written approval of the Comptroller of the Currency. The Association's board of directors may propose one or more amendments to the Articles of Association for submission to the shareholders.

/s/ Jeffrey T. Grubb

Jeffrey T. Grubb

/s/ Robert D. Sznewajs

Robert D. Sznewajs

/s/ Dwight V. Board

Dwight V. Board

/s/ P. K. Chatterjee

P. K. Chatterjee

In witness whereof, we have hereunto set our hands this 11th of June, 1997.

/s/ Robert Lane Robert Lane



Washington, DC 20219

CERTIFICATE OF CORPORATE EXISTENCE

- I, Michael J. Hsu, Acting Comptroller of the Currency, do hereby certify that:
- 1. The Comptroller of the Currency, pursuant to Revised Statutes 324, et seq, as amended, and 12 USC 1, et seq, as amended, has possession, custody, and control of all records pertaining to the chartering, regulation, and supervision of all national banking associations.
- 2. "U.S. Bank Trust Company, National Association," Portland, Oregon (Charter No. 23412), is a national banking association formed under the laws of the United States and is authorized thereunder to transact the business of banking on the date of this certificate.

IN TESTIMONY WHEREOF, today, January 12, 2022, I have hereunto subscribed my name and caused my seal of office to be affixed to these presents at the U.S. Department of the Treasury, in the City of Washington, District of Columbia

Acting Comptroller of the Currency



2022-00335-C



Washington, DC 20219

CERTIFICATE OF FIDUCIARY POWERS

- I, Michael J. Hsu, Acting Comptroller of the Currency, do hereby certify that:
- The Office of the Comptroller of the Currency, pursuant to Revised Statutes 324, et seq, as amended, and 12 USC 1, et seq, as amended, has possession, custody, and control of all records pertaining to the chartering, regulation, and supervision of all national banking associations.
- 2. "U.S. Bank Trust Company, National Association," Portland, Oregon (Charter No. 23412), was granted, under the hand and seal of the Comptroller, the right to act in all fiduciary capacities authorized under the provisions of the Act of Congress approved September 28, 1962, 76 Stat. 668, 12 USC 92a, and that the authority so granted remains in full force and effect on the date of this certificate.

IN TESTIMONY WHEREOF, today, January 19, 2022, I have hereunto subscribed my name and caused my seal of office to be affixed to these presents at the U.S. Department of the Treasury, in the City of Washington, District of Columbia.

Acting Comptroller of the Currency



2022-00354-C

Exhibit 4

U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION

AMENDED AND RESTATED BYLAWS

ARTICLE I Meetings of Shareholders

Section 1.1. <u>Annual Meeting</u>. The annual meeting of the shareholders, for the election of directors and the transaction of any other proper business, shall be held at a time and place as the Chairman or President may designate. Notice of such meeting shall be given not less than ten (10) days or more than sixty (60) days prior to the date thereof, to each shareholder of the Association, unless the Office of the Comptroller of the Currency (the "OCC") determines that an emergency circumstance exists. In accordance with applicable law, the sole shareholder of the Association is permitted to waive notice of the meeting. If, for any reason, an election of directors is not made on the designated day, the election shall be held on some subsequent day, as soon thereafter as practicable, with prior notice thereof. Failure to hold an annual meeting as required by these Bylaws shall not affect the validity of any corporate action or work a forfeiture or dissolution of the Association.

- Section 1.2. <u>Special Meetings</u>. Except as otherwise specially provided by law, special meetings of the shareholders may be called for any purpose, at any time by a majority of the board of directors (the "Board"), or by any shareholder or group of shareholders owning at least ten percent of the outstanding stock. Every such special meeting, unless otherwise provided by law, shall be called upon not less than ten (10) days nor more than sixty (60) days prior notice stating the purpose of the meeting.
 - Section 1.3. Nominations for Directors. Nominations for election to the Board may be made by the Board or by any shareholder.
- Section 1.4. <u>Proxies</u>. Shareholders may vote at any meeting of the shareholders by proxies duly authorized in writing. Proxies shall be valid only for one meeting and any adjournments of such meeting and shall be filed with the records of the meeting.
- Section 1.5. Record Date. The record date for determining shareholders entitled to notice and to vote at any meeting will be thirty days before the date of such meeting, unless otherwise determined by the Board.
- Section 1.6. Quorum and Voting. A majority of the outstanding capital stock, represented in person or by proxy, shall constitute a quorum at any meeting of shareholders, unless otherwise provided by law, but less than a quorum may adjourn any meeting, from time to time, and the meeting may be held as adjourned without further notice. A majority of the votes cast shall decide every question or matter submitted to the shareholders at any meeting, unless otherwise provided by law or by the Articles of Association.

- Section 1.7. <u>Inspectors</u>. The Board may, and in the event of its failure so to do, the Chairman of the Board may appoint Inspectors of Election who shall determine the presence of quorum, the validity of proxies, and the results of all elections and all other matters voted upon by shareholders at all annual and special meetings of shareholders.
 - Section 1.8. Waiver and Consent. The shareholders may act without notice or a meeting by a unanimous written consent by all shareholders.
- Section 1.9. <u>Remote Meetings</u>. The Board shall have the right to determine that a shareholder meeting not be held at a place, but instead be held solely by means of remote communication in the manner and to the extent permitted by the General Corporation Law of the State of Delaware.

ARTICLE II Directors

- Section 2.1. <u>Board of Directors</u>. The Board shall have the power to manage and administer the business and affairs of the Association. Except as expressly limited by law, all corporate powers of the Association shall be vested in and may be exercised by the Board.
- Section 2.2. <u>Term of Office</u>. The directors of this Association shall hold office for one year and until their successors are duly elected and qualified, or until their earlier resignation or removal.
- Section 2.3. <u>Powers</u>. In addition to the foregoing, the Board shall have and may exercise all of the powers granted to or conferred upon it by the Articles of Association, the Bylaws and by law.
- Section 2.4. Number. As provided in the Articles of Association, the Board of this Association shall consist of no less than five nor more than twenty-five members, unless the OCC has exempted the Association from the twenty-five-member limit. The Board shall consist of a number of members to be fixed and determined from time to time by resolution of the Board or the shareholders at any meeting thereof, in accordance with the Articles of Association. Between meetings of the shareholders held for the purpose of electing directors, the Board by a majority vote of the full Board may increase the size of the Board but not to more than a total of twenty-five directors, and fill any vacancy so created in the Board; provided that the Board may increase the number of directors only by up to two directors, when the number of directors last elected by shareholders was fifteen or fewer, and by up to four directors, when the number of directors last elected by shareholders was sixteen or more. Each director shall own a qualifying equity interest in the Association or a company that has control of the Association in each case as required by applicable law. Each director shall own such qualifying equity interest in his or her own right and meet any minimum threshold ownership required by applicable law.
- Section 2.5. <u>Organization Meeting</u>. The newly elected Board shall meet for the purpose of organizing the new Board and electing and appointing such officers of the Association as may be appropriate. Such meeting shall be held on the day of the election or as soon thereafter as practicable, and, in any event, within thirty days thereafter, at such time and place as the Chairman or President may designate. If, at the time fixed for such meeting, there shall not be a quorum present, the directors present may adjourn the meeting until a quorum is obtained.

- Section 2.6. <u>Regular Meetings</u>. The regular meetings of the Board shall be held, without notice, as the Chairman or President may designate and deem suitable.
- Section 2.7. Special Meetings. Special meetings of the Board may be called at any time, at any place and for any purpose by the Chairman of the Board or the President of the Association, or upon the request of a majority of the entire Board. Notice of every special meeting of the Board shall be given to the directors at their usual places of business, or at such other addresses as shall have been furnished by them for the purpose. Such notice shall be given at least twelve hours (three hours if meeting is to be conducted by conference telephone) before the meeting by telephone or by being personally delivered, mailed, or electronically delivered. Such notice need not include a statement of the business to be transacted at, or the purpose of, any such meeting.
- Section 2.8. Quorum and Necessary Vote. A majority of the directors shall constitute a quorum at any meeting of the Board, except when otherwise provided by law; but less than a quorum may adjourn any meeting, from time to time, and the meeting may be held as adjourned without further notice. Unless otherwise provided by law or the Articles or Bylaws of this Association, once a quorum is established, any act by a majority of those directors present and voting shall be the act of the Board.
- Section 2.9. Written Consent. Except as otherwise required by applicable laws and regulations, the Board may act without a meeting by a unanimous written consent by all directors, to be filed with the Secretary of the Association as part of the corporate records.
- Section 2.10. <u>Remote Meetings</u>. Members of the Board, or of any committee thereof, may participate in a meeting of such Board or committee by means of conference telephone, video or similar communications equipment by means of which all persons participating in the meeting can hear each other and such participation shall constitute presence in person at such meeting.
- Section 2.11. <u>Vacancies</u>. When any vacancy occurs among the directors, the remaining members of the Board may appoint a director to fill such vacancy at any regular meeting of the Board, or at a special meeting called for that purpose.

ARTICLE III Committees

Section 3.1. <u>Advisory Board of Directors</u>. The Board may appoint persons, who need not be directors, to serve as advisory directors on an advisory board of directors established with respect to the business affairs of either this Association alone or the business affairs of a group of affiliated organizations of which this Association is one. Advisory directors shall have such powers and duties as may be determined by the Board, provided, that the Board's responsibility for the business and affairs of this Association shall in no respect be delegated or diminished.

Section 3.2. <u>Trust Audit Committee</u>. At least once during each calendar year, the Association shall arrange for a suitable audit (by internal or external auditors) of all significant fiduciary activities under the direction of its trust audit committee, a function that will be fulfilled by the Audit Committee of the financial holding company that is the ultimate parent of this Association. The Association shall note the results of the audit (including significant actions taken as a result of the audit) in the minutes of the Board. In lieu of annual audits, the Association may adopt a continuous audit system in accordance with 12 C.F.R. § 9.9(b).

The Audit Committee of the financial holding company that is the ultimate parent of this Association, fulfilling the function of the trust audit committee:

- (1) Must not include any officers of the Association or an affiliate who participate significantly in the administration of the Association's fiduciary activities; and
- (2) Must consist of a majority of members who are not also members of any committee to which the Board has delegated power to manage and control the fiduciary activities of the Association.
- Section 3.3. Executive Committee. The Board may appoint an Executive Committee which shall consist of at least three directors and which shall have, and may exercise, to the extent permitted by applicable law, all the powers of the Board between meetings of the Board or otherwise when the Board is not meeting.
- Section 3.4. <u>Trust Management Committee</u>. The Board of this Association shall appoint a Trust Management Committee to provide oversight of the fiduciary activities of the Association. The Trust Management Committee shall determine policies governing fiduciary activities. The Trust Management Committee or such sub-committees, officers or others as may be duly designated by the Trust Management Committee shall oversee the processes related to fiduciary activities to assure conformity with fiduciary policies it establishes, including ratifying the acceptance and the closing out or relinquishment of all trusts. The Trust Management Committee will provide regular reports of its activities to the Board.
- Section 3.5. Other Committees. The Board may appoint, from time to time, committees of one or more persons who need not be directors, for such purposes and with such powers as the Board may determine; however, the Board will not delegate to any committee any powers or responsibilities that it is prohibited from delegating under any law or regulation. In addition, either the Chairman or the President may appoint, from time to time, committees of one or more officers, employees, agents or other persons, for such purposes and with such powers as either the Chairman or the President deems appropriate and proper. Whether appointed by the Board, the Chairman, or the President, any such committee shall at all times be subject to the direction and control of the Board.

Section 3.6. <u>Meetings, Minutes and Rules</u>. An advisory board of directors and/or committee shall meet as necessary in consideration of the purpose of the advisory board of directors or committee, and shall maintain minutes in sufficient detail to indicate actions taken or recommendations made; unless required by the members, discussions, votes or other specific details need not be reported. An advisory board of directors or a committee may, in consideration of its purpose, adopt its own rules for the exercise of any of its functions or authority.

ARTICLE IV Officers

Section 4.1. Chairman of the Board. The Board may appoint one of its members to be Chairman of the Board to serve at the pleasure of the Board. The Chairman shall supervise the carrying out of the policies adopted or approved by the Board; shall have general executive powers, as well as the specific powers conferred by these Bylaws; and shall also have and may exercise such powers and duties as from time to time may be conferred upon or assigned by the Board.

Section 4.2. <u>President</u>. The Board may appoint one of its members to be President of the Association. In the absence of the Chairman, the President shall preside at any meeting of the Board. The President shall have general executive powers, and shall have and may exercise any and all other powers and duties pertaining by law, regulation or practice, to the office of President, or imposed by these Bylaws. The President shall also have and may exercise such powers and duties as from time to time may be conferred or assigned by the Board.

Section 4.3. <u>Vice President</u>. The Board may appoint one or more Vice Presidents who shall have such powers and duties as may be assigned by the Board and to perform the duties of the President on those occasions when the President is absent, including presiding at any meeting of the Board in the absence of both the Chairman and President.

Section 4.4. <u>Secretary</u>. The Board shall appoint a Secretary, or other designated officer who shall be Secretary of the Board and of the Association, and shall keep accurate minutes of all meetings. The Secretary shall attend to the giving of all notices required by these Bylaws to be given; shall be custodian of the corporate seal, records, documents and papers of the Association; shall provide for the keeping of proper records of all transactions of the Association; shall, upon request, authenticate any records of the Association; shall have and may exercise any and all other powers and duties pertaining by law, regulation or practice, to the Secretary, or imposed by these Bylaws; and shall also perform such other duties as may be assigned from time to time by the Board. The Board may appoint one or more Assistant Secretaries with such powers and duties as the Board, the President or the Secretary shall from time to time determine.

Section 4.5. Other Officers. The Board may appoint, and may authorize the Chairman, the President or any other officer to appoint, any officer as from time to time may appear to the Board, the Chairman, the President or such other officer to be required or desirable to transact the business of the Association. Such officers shall exercise such powers and perform such duties as pertain to their several offices, or as may be conferred upon or assigned to them by these Bylaws, the Board, the Chairman, the President or such other authorized officer. Any person may hold two offices.

Section 4.6. <u>Tenure of Office</u>. The Chairman or the President and all other officers shall hold office until their respective successors are elected and qualified or until their earlier death, resignation, retirement, disqualification or removal from office, subject to the right of the Board or authorized officer to discharge any officer at any time.

ARTICLE V Stock

Section 5.1. The Board may authorize the issuance of stock either in certificated or in uncertificated form. Certificates for shares of stock shall be in such form as the Board may from time to time prescribe. If the Board issues certificated stock, the certificate shall be signed by the President, Secretary or any other such officer as the Board so determines. Shares of stock shall be transferable on the books of the Association, and a transfer book shall be kept in which all transfers of stock shall be recorded. Every person becoming a shareholder by such transfer shall, in proportion to such person's shares, succeed to all rights of the prior holder of such shares. Each certificate of stock shall recite on its face that the stock represented thereby is transferable only upon the books of the Association properly endorsed. The Board may impose conditions upon the transfer of the stock reasonably calculated to simplify the work of the Association for stock transfers, voting at shareholder meetings, and related matters, and to protect it against fraudulent transfers.

ARTICLE VI Corporate Seal

Section 6.1. The Association shall have no corporate seal; provided, however, that if the use of a seal is required by, or is otherwise convenient or advisable pursuant to, the laws or regulations of any jurisdiction, the following seal may be used, and the Chairman, the President, the Secretary and any Assistant Secretary shall have the authority to affix such seal.

ARTICLE VII Miscellaneous Provisions

Section 7.1. Execution of Instruments. All agreements, checks, drafts, orders, indentures, notes, mortgages, deeds, conveyances, transfers, endorsements, assignments, certificates, declarations, receipts, discharges, releases, satisfactions, settlements, petitions, schedules, accounts, affidavits, bonds, undertakings, guarantees, proxies and other instruments or documents may be signed, countersigned, executed, acknowledged, endorsed, verified, delivered or accepted on behalf of the Association, whether in a fiduciary capacity or otherwise, by any officer of the Association, or such employee or agent as may be designated from time to time by the Board by resolution, or by the Chairman or the President by written instrument, which resolution or instrument shall be certified as in effect by the Secretary or an Assistant Secretary of the Association. The provisions of this section are supplementary to any other provision of the Articles of Association or Bylaws.

- Section 7.2. <u>Records</u>. The Articles of Association, the Bylaws as revised or amended from time to time and the proceedings of all meetings of the shareholders, the Board, and standing committees of the Board, shall be recorded in appropriate minute books provided for the purpose. The minutes of each meeting shall be signed by the Secretary, or other officer appointed to act as Secretary of the meeting.
- Section 7.3. <u>Trust Files</u>. There shall be maintained in the Association files all fiduciary records necessary to assure that its fiduciary responsibilities have been properly undertaken and discharged.
- Section 7.4. <u>Trust Investments</u>. Funds held in a fiduciary capacity shall be invested according to the instrument establishing the fiduciary relationship and according to law. Where such instrument does not specify the character and class of investments to be made and does not vest in the Association a discretion in the matter, funds held pursuant to such instrument shall be invested in investments in which corporate fiduciaries may invest under law.
- Section 7.5. Notice. Whenever notice is required by the Articles of Association, the Bylaws or law, such notice shall be by mail, postage prepaid, e-mail, in person, or by any other means by which such notice can reasonably be expected to be received, using the address of the person to receive such notice, or such other personal data, as may appear on the records of the Association. Except where specified otherwise in these Bylaws, prior notice shall be proper if given not more than 30 days nor less than 10 days prior to the event for which notice is given.

ARTICLE VIII Indemnification

Section 8.1. The Association shall indemnify such persons for such liabilities in such manner under such circumstances and to such extent as permitted by Section 145 of the Delaware General Corporation Law, as now enacted or hereafter amended. The Board may authorize the purchase and maintenance of insurance and/or the execution of individual agreements for the purpose of such indemnification, and the Association shall advance all reasonable costs and expenses (including attorneys' fees) incurred in defending any action, suit or proceeding to all persons entitled to indemnification under this Section 8.1. Such insurance shall be consistent with the requirements of 12 C.F.R. § 7.2014 and shall exclude coverage of liability for a formal order assessing civil money penalties against an institution-affiliated party, as defined at 12 U.S.C. § 1813(u).

Section 8.2. Notwithstanding Section 8.1, however, (a) any indemnification payments to an institution-affiliated party, as defined at 12 U.S.C. § 1813(u), for an administrative proceeding or civil action initiated by a federal banking agency, shall be reasonable and consistent with the requirements of 12 U.S.C. § 1828(k) and the implementing regulations thereunder; and (b) any indemnification payments and advancement of costs and expenses to an institution-affiliated party, as defined at 12 U.S.C. § 1813(u), in cases involving an administrative proceeding or civil action not initiated by a federal banking agency, shall be in accordance with Delaware General Corporation Law and consistent with safe and sound banking practices.

ARTICLE IX

Bylaws: Interpretation and Amendment

Section 9.1. These Bylaws shall be interpreted in accordance with and subject to appropriate provisions of law, and may be added to, altered, amended, or repealed, at any regular or special meeting of the Board.

Section 9.2. A copy of the Bylaws and all amendments shall at all times be kept in a convenient place at the principal office of the Association, and shall be open for inspection to all shareholders during Association hours.

ARTICLE X Miscellaneous Provisions

Section 10.1. <u>Fiscal Year</u>. The fiscal year of the Association shall begin on the first day of January in each year and shall end on the thirty-first day of December following.

Section 10.2. <u>Governing Law</u>. This Association designates the Delaware General Corporation Law, as amended from time to time, as the governing law for its corporate governance procedures, to the extent not inconsistent with Federal banking statutes and regulations or bank safety and soundness.

(February 8, 2021)

Exhibit 6

CONSENT

In accordance with Section 321(b) of the Trust Indenture Act of 1939, the undersigned, U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION hereby consents that reports of examination of the undersigned by Federal, State, Territorial or District authorities may be furnished by such authorities to the Securities and Exchange Commission upon its request therefor.

Dated: May 13, 2022

By: /s/ Laura S. Cawley

Laura S. Cawley Vice President

Exhibit 7 U.S. Bank Trust Company, National Association Statement of Financial Condition as of 3/31/2022

(\$000's)

		/31/2022
Assets		
Cash and Balances Due From Depository Institutions	\$	612,028
Securities		4,678
Federal Funds		0
Loans & Lease Financing Receivables		0
Fixed Assets		2,935
Intangible Assets		583,387
Other Assets		70,964
Total Assets	\$1.	,273,992
Liabilities		
Deposits	\$	0
Fed Funds		0
Treasury Demand Notes		0
Trading Liabilities		0
Other Borrowed Money		0
Acceptances		0
Subordinated Notes and Debentures		0
Other Liabilities		81,226
Total Liabilities	\$	81,226
Equity		
Common and Preferred Stock	\$	200
Surplus	1.	,171,635
Undivided Profits		20,931
Minority Interest in Subsidiaries		0
Total Equity Capital	\$1.	,192,766
Total Liabilities and Equity Capital	\$1.	,273,992

LETTER OF TRANSMITTAL FOR

BIOGEN INC.

OFFER TO EXCHANGE

ANY AND ALL OUTSTANDING 3.250% SENIOR NOTES DUE 2051 ISSUED ON FEBRUARY 16, 2021 FOR

A LIKE PRINCIPAL AMOUNT OF CORRESPONDING 3.250% SENIOR NOTES DUE 2051, WHICH HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED

THE EXCHANGE OFFER EXPIRES AT 5:00 P.M., NEW YORK CITY TIME, ON , 2022 UNLESS EXTENDED (SUCH DATE AND TIME, AS THE SAME MAY BE EXTENDED, IS REFERRED TO HEREIN AS THE "EXPIRATION DATE"). TENDERS MAY BE WITHDRAWN AT ANY TIME BEFORE THE EXPIRATION DATE.

The Exchange Agent for the Exchange Offer is:

Global Bondholder Services Corporation

By Regular, Registered or Certified Mail, By Overnight Courier or By Hand:

By Facsimile (For Eligible Institutions only): (212) 430-3775 Attention: Corporate Actions 65 Broadway – Suite 404 New York, New York 10006 Attention: Corporate Actions Banks and Brokers Call: (212) 430-3774 (collect) All Others Call Toll-Free: (866) 470-3900

E-mail: contact@gbsc-usa.com

DELIVERY OF THIS LETTER OF TRANSMITTAL TO AN ADDRESS, OR TRANSMISSION OF INSTRUCTIONS VIA FACSIMILE TO A NUMBER, OTHER THAN AS SET FORTH ABOVE, WILL NOT CONSTITUTE A VALID DELIVERY. THE INSTRUCTIONS ACCOMPANYING THIS LETTER OF TRANSMITTAL SHOULD BE READ CAREFULLY BEFORE THIS LETTER OF TRANSMITTAL IS COMPLETED. YOU MUST SIGN THIS LETTER OF TRANSMITTAL IN THE APPROPRIATE SPACE PROVIDED THEREFOR, WITH SIGNATURE GUARANTEE IF REQUIRED, AND COMPLETE THE ACCOMPANYING IRS FORM W-9 INCLUDED HEREIN OR PROVIDE AN APPROPRIATE IRS FORM W-8, AS APPLICABLE. SEE INSTRUCTION 7.

DESCRIPTION OF OLD NOTES (See Instruction 2.) List below the Old Notes (as defined below) to which this Letter of Transmittal relates.

	Principal
Name(s) and Address(es) of Registered	Amount
Owner(s) (Please Fill in, if blank, Exactly as	of Old Notes
Name(s) Appear(s) on the Old Note(s))	Tendered
Total Principal Amount	

The undersigned acknowledges that he, she or it has received the prospectus, dated , 2022 (as the same may be amended, supplemented or modified from time to time, the "**Prospectus**"), of Biogen Inc., a Delaware corporation (the "**Issuer**") and this Letter of Transmittal, or a facsimile thereof (the "**Letter of Transmittal**"), which together constitute the Issuer's offer (the "**Exchange Offer**") to exchange up to \$700,731,000 aggregate principal amount of its 3.250% Senior Notes due 2051 (the "**Old Notes**") for a like principal amount of its 3.250% Senior Notes due 2051 (the "**New Notes**"), which have been registered under the Securities Act of 1933, as amended (the "**Securities Act**"), from the registered holders thereof (each, a "**Holder**" and, collectively, the "**Holders**"), upon the terms and subject to the conditions of the Exchange Offer, as set forth in the Prospectus and this Letter of Transmittal.

In the event of any conflict between the Prospectus and the Letter of Transmittal, the Prospectus shall govern. Terms used but not defined herein have the same meanings given to them in the Prospectus.

The terms of the New Notes are substantially identical to the terms of the Old Notes, except that the offer and exchange of the New Notes will be registered under the Securities Act, and the New Notes generally have no transfer restrictions, rights to additional interest or registration rights.

For each Old Note accepted for exchange, the Holder of such Old Note will receive a New Note having a principal amount equal to that of the surrendered Old Note. Interest on the New Notes will accrue from the last date on which interest was paid on the Old Notes. Accordingly, registered holders of New Notes on the record date for the first interest payment date following the consummation of the Exchange Offer will receive interest accruing from the last interest payment date on which interest was paid on the Old Notes. Old Notes accepted for exchange will cease to accrue interest from and after the date of consummation of the Exchange Offer. Holders of Old Notes whose Old Notes are accepted for exchange will not receive any payment in respect of accrued interest on such Old Notes otherwise payable on any interest payment date the record date for which occurs on or after consummation of the Exchange Offer.

This Letter of Transmittal must be completed and submitted by a tendering Holder if (i) Old Notes are tendered to the account maintained by the Exchange Agent at The Depository Trust Company ("DTC") in accordance with the book-entry procedures set forth in the Prospectus under "The Exchange Offer—Book-Entry Transfer" and (ii) an Agent's Message (as defined below) is not delivered. See Instruction 1. DELIVERY OF DOCUMENTS TO DTC DOES NOT CONSTITUTE DELIVERY TO THE EXCHANGE AGENT.

BOOK-ENTRY TRANSFER

CHECK HERE IF TENDERED NOTES ARE BEING DELIVERED BY BOOK-ENTRY TRANSFER MADE TO THE ACCOUNT
MAINTAINED BY THE EXCHANGE AGENT WITH DTC AND COMPLETE THE FOLLOWING (ONLY PARTICIPANTS IN DTC MAY
DELIVER NOTES BY BOOK-ENTRY TRANSFER):
Name(s) of Tendering Institution(s)
Account Number(s)
Transaction Code Number(s)

By crediting the Old Notes to the Exchange Agent's account at the facilities of DTC and by complying with applicable DTC procedures with respect to the Exchange Offer, including transmitting to the Exchange Agent a computer-generated Agent's Message in which the holder of the Old Notes acknowledges and agrees to be bound by the terms of, and makes the representations and warranties contained in, the Letter of Transmittal, the participant in DTC confirms on behalf of itself and the beneficial owners of such Old Notes all provisions of this Letter of Transmittal (including all representations and warranties) applicable to it and such beneficial owner as fully as if it had completed the information required herein and executed and transmitted this Letter of Transmittal to the Exchange Agent.

NOTE: SIGNATURES MUST BE PROVIDED BELOW. PLEASE READ THE ACCOMPANYING INSTRUCTIONS CAREFULLY.

LADIES AND GENTLEMEN:

Upon the terms and subject to the conditions of the Exchange Offer, the undersigned hereby tenders to the Issuer the aggregate principal amount of Old Notes described above. Subject to, and effective upon, the acceptance for exchange of the Old Notes tendered hereby, the undersigned hereby sells, assigns and transfers to, or upon the order of, the Issuer all right, title and interest in and to such Old Notes as are being tendered hereby.

The undersigned hereby irrevocably constitutes and appoints the Exchange Agent as the undersigned's true and lawful agent, attorney-in-fact and proxy with respect to the Old Notes tendered hereby, with full power of substitution (such power of attorney being deemed to be an irrevocable power coupled with an interest), among other things, to cause the Old Notes to be assigned, transferred and exchanged.

The undersigned hereby represents and warrants that (a) the undersigned has full power and authority to tender, sell, assign and transfer the Old Notes and (b) when the Old Notes are accepted for exchange, the Issuer will acquire good and unencumbered title to such Old Notes, free and clear of all liens, restrictions, charges and encumbrances and not subject to any adverse claim, and such Old Notes will not have been transferred to the Issuer in violation of any contractual or other restriction on the transfer thereof.

The undersigned, either as or on behalf of the beneficial holder of the Old Notes tendered hereby, acknowledges that the Exchange Offer is being made in reliance on existing interpretations of the staff of the U.S. Securities and Exchange Commission (the "SEC") contained in several no-action letters to third parties to the effect that new securities issued pursuant to a registered exchange offer (of the type contemplated by the Exchange Offer) in exchange for substantially identical outstanding securities would in general be freely transferable without further registration under the Securities Act by a holder thereof (other than a broker-dealer or an "affiliate" (within the meaning of Rule 405 of the Securities Act) of the Issuer), if such holder (a) is acquiring the new securities in the ordinary course of its business and (b) is not engaged in, and does not intend to engage in, a distribution (within the meaning of the Securities Act) of the new securities to be received in the registered exchange offer and has no arrangement or understanding with any person to participate in a distribution of the new securities. However, the Issuer has not sought, and does not intend to seek, a no-action letter from the SEC with respect to the effects of the Exchange Offer, and there can be no assurance that the SEC staff would make a similar determination with respect to the New Notes as it has made in previous no-action letters.

The undersigned, either as or on behalf of the beneficial holder of the Old Notes tendered hereby, represents, acknowledges and agrees that: (a) if such holder is not a broker-dealer or an "affiliate" of the Issuer, it is (i) acquiring New Notes in the ordinary course of its business and (ii) not engaged in, and does not intend to engage in, a distribution (within the meaning of the Securities Act) of the New Notes to be received in the Exchange Offer and has no arrangement or understanding with any person to participate in a distribution of the New Notes; (b) if such holder is a broker-dealer that will receive New Notes for its own account in exchange for Old Notes, the Old Notes to be exchanged for the New Notes (other than Old Notes acquired directly from the Issuer for its own account) were acquired by it as a result of market-making or other trading activities and that it will deliver (or, to the extent permitted by law, make available) a prospectus meeting the requirements of the Securities Act to purchasers in connection with any resale of such New Notes; however, by so acknowledging and by delivering a prospectus meeting the requirements of the Securities Act, the undersigned will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act; and (c) if such holder is (i) a broker-dealer that will receive New Notes in exchange for an unsold allotment from the original sale of the Old Notes, (ii) an affiliate of the Issuer or (iii) acquiring New Notes for the purpose of distributing them, it (A) cannot rely on the interpretations of the SEC staff expressed in the no-action letters described above and (B) must comply with the registration and prospectus delivery requirements of the Securities Act in order to resell such New Notes (or, in the case of an affiliate, any and all New Notes held by it) and be identified as an underwriter in the relevant prospectus. The undersigned is not acting on behalf of any person who could not truthfully make the foregoing representations and

The SEC has taken the position that broker-dealers may fulfill their prospectus delivery requirements with respect to the New Notes (other than a resale of New Notes received in exchange for an unsold allotment from the original sale of the Old Notes) with the Prospectus. The Prospectus, as it may be amended or supplemented from time to time, may be used by certain broker-dealers (as specified in the Registration Rights Agreement with respect to the Old Notes referenced in the Prospectus)

("Participating Broker-Dealers") for a period of time starting on the Expiration Date and ending on the earlier of (i) 90 days from the date on which the registration statement is declared effective and (ii) the date on which no Participating Broker-Dealer is required to deliver a prospectus in connection with resales of New Notes issued in exchange for the Old Notes it acquired for its own account as a result of market-making or other trading activities. The Issuer has agreed that, for such period of time, it will promptly send additional copies of the Prospectus and any amendment or supplement thereof to any Participating Broker-Dealer that requests such documents in the Letter of Transmittal. By tendering in the Exchange Offer, each broker-dealer that receives New Notes pursuant to the Exchange Offer acknowledges and agrees to notify the Issuer before using the Prospectus in connection with the sale or transfer of New Notes and agrees that, upon receipt of notice from the Issuer of the happening of any event during the period a Registration Statement is effective that makes any statement made in such Registration Statement or the Prospectus or any free writing prospectus with respect thereto untrue in any material respect or that requires the making of any changes in such Registration Statement or Prospectus with respect prospectus in order to make the statements therein not misleading, such broker-dealer will suspend use of the Prospectus until (i) the Issuer has amended or supplemented the Prospectus to correct such misstatement or omission and such broker-dealer has obtained a copy of such amended or supplemented Prospectus or (ii) such broker-dealer is advised in writing by the Issuer that the use of the Prospectus may be resumed, and has received copies of any additional or supplemental fillings that are incorporated by reference in the Prospectus. Except as described above, the Prospectus may not be used for or in connection with an offer to resell, a resale or any other retransfer of New Notes. No bro

The undersigned will, upon request, execute and deliver any additional documents deemed by the Issuer to be necessary or desirable to complete the sale, assignment and transfer of the Old Notes tendered hereby.

All authority conferred or agreed to be conferred in this Letter of Transmittal and every obligation of the undersigned hereunder shall be binding upon the successors, assigns, heirs, executors, administrators, trustees in bankruptcy and legal representatives of the undersigned and shall not be affected by, and shall survive, the death or incapacity of the undersigned.

Tenders of Old Notes may be withdrawn at any time before the Expiration Date, but tenders that are not withdrawn are irrevocable. See information described in the Prospectus under "The Exchange Offer—Withdrawal Rights."

The undersigned understands that a tender of Old Notes pursuant to any of the procedures described in the "The Exchange Offer—Procedures for Tendering Old Notes" section of the Prospectus and in the instructions hereto will constitute a binding agreement between the undersigned and the Issuer upon the terms and subject to the conditions set forth in the Prospectus and this Letter of Transmittal, including the undersigned's representation that the undersigned owns the Old Notes being tendered. The undersigned recognizes that, under certain circumstances set forth in the Prospectus, the Issuer may not be required to accept for exchange any of the Old Notes tendered hereby.

Unless otherwise indicated herein in the box entitled "Special Issuance Instructions" below, the New Notes will be credited to the account indicated above maintained at DTC.

THE UNDERSIGNED, BY COMPLETING THE BOX ENTITLED "DESCRIPTION OF OLD NOTES" ABOVE AND SIGNING THIS LETTER OF TRANSMITTAL, WILL BE DEEMED TO HAVE TENDERED THE OLD NOTES AS SET FORTH IN SUCH BOX ABOVE.

PLEASE SIGN HERE (TO BE COMPLETED BY ALL TENDERING HOLDERS)

Check all applicable boxes (unchecked boxes shall be deemed a representation that the applicable status does not apply):
☐ Affiliate of the Issuer
 □ Broker-Dealer □ Broker-Dealer Exchanging Unsold Allotment
☐ Broker-Dealer Requesting Copies of Prospectus
SIGNATURE(S) OF OWNER)
(Signature(s))
If a Holder is tendering an Old Note, this Letter of Transmittal must be signed by the registered Holder(s) exactly as the name(s) appear(s) on the certificate(s) for the Old Note or by any person(s) authorized to become registered Holder(s) by endorsements and documents transmitted herewith. If signature is by a trustee, executor, administrator, guardian, officer or other person acting in a fiduciary or representative capacity, please set forth full title. See Instruction 3.
Name(s):
(Please Print or Type)
Capacity (full title):
Capacity (full title):
Address:
Zip Code
Area Code and Telephone Number:
Tax Identification or Social Security Number:
Dated:
Dated
CHADANTEE OF CIONATUDE (C)
GUARANTEE OF SIGNATURE(S) (IF REQUIRED BY INSTRUCTION 3)
SIGNATURE(S) GUARANTEED BY AN ELIGIBLE INSTITUTION
(Authorized Signatures)
Name:
(Please Print or Type)
Capacity (full title):
Name of Firm:
Address:
Zip Code
Area Code and Telephone Number:

Dated:_____

(PLEASE COMPLETE ACCOMPANYING IRS FORM W-9 INCLUDED HEREIN OR PROVIDE AN APPROPRIATE IRS FORM W-8, AS APPLICABLE. SEE INSTRUCTION 7.)

	SPECIAL ISSUANCE INSTRUCTIONS						
	(See Instructions 3, 4 and 5)						
ppear(s) c	pleted ONLY if New Notes are to be issued in the name of and sent to someone other than the person or persons whose signon this Letter of Transmittal above, or if any Old Notes which are not accepted for exchange are to be returned by credit to a dat DTC other than the account indicated above.						
Issue: Name(s):	New Notes and/or Old Notes to:						
varie(3).	(PLEASE TYPE OR PRINT)						
	(PLEASE TYPE OR PRINT)						
Address:							
		(Zip Code)					
		(P)					
	(Tax Identification or Social Security No.) (See IRS Form W-9 Included Herein)						
_	Credit New Notes or unexchanged Old Notes delivered by book-entry transfer to the DTC account set forth below:						
	(DTC ACCOUNT NUMER(S) IF APPLICABLE)						

IMPORTANT: THIS LETTER OF TRANSMITTAL, OR A FACSIMILE COPY HEREOF, AND ALL OTHER REQUIRED DOCUMENTS MUST BE RECEIVED BY THE EXCHAGE AGENT BEFORE 5:00 P.M., NEW YORK CITY TIME, ON THE EXPIRATION DATE.

INSTRUCTIONS

FORMING PART OF THE TERMS AND CONDITIONS OF THE OFFER TO EXCHANGE ANY AND ALL OUTSTANDING 3.250% SENIOR NOTES DUE 2051, ISSUED ON FEBRUARY 16, 2021 FOR

A LIKE PRINCIPAL AMOUNT OF CORRESPONDING 3.250% SENIOR NOTES DUE 2051, WHICH HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED

1. Delivery of this Letter of Transmittal and Notes. This Letter of Transmittal must be completed by a tendering Holder only if (i) Old Notes are tendered to the account maintained by the Exchange Agent at DTC in accordance with the book-entry procedures set forth in the Prospectus under "The Exchange Offer—Book-Entry Transfer" and (ii) an Agent's Message is not delivered. A Book-Entry Confirmation for such Old Notes, as well as a properly completed and duly executed Letter of Transmittal, or a facsimile copy thereof, and all other documents required by this Letter of Transmittal, must be received by the Exchange Agent at the address set forth herein on or before the Expiration Date. Old Notes tendered hereby must be in minimum denominations of \$2,000 in principal amount and integral multiples of \$1,000 in excess thereof. Tenders by book-entry transfer may also be made by delivering an Agent's Message in lieu of this Letter of Transmittal. "Agent's Message" means a message transmitted by DTC to, and received by, the Exchange Agent and forming a part of a Book-Entry Confirmation, that states that DTC has received an express acknowledgment that such participant has received and agrees to be bound by the Letter of Transmittal, and that we may enforce the Letter of Transmittal against such participant. "Book-Entry Confirmation" means a timely confirmation of book-entry transfer of Old Notes into the Exchange Agent's account at DTC using the procedure for book-entry transfer described in the Prospectus under "The Exchange Offer—Book-Entry Transfer."

THE METHOD OF DELIVERY OF THIS LETTER OF TRANSMITTAL, THE OLD NOTES AND ALL OTHER REQUIRED DOCUMENTS IS AT THE ELECTION AND RISK OF THE TENDERING HOLDERS, BUT THE DELIVERY WILL BE DEEMED MADE ONLY WHEN ACTUALLY RECEIVED OR CONFIRMED BY THE EXCHANGE AGENT. IF OLD NOTES ARE SENT BY MAIL, IT IS RECOMMENDED THAT THE MAILING BE BY REGISTERED OR CERTIFIED MAIL, PROPERLY INSURED, WITH RETURN RECEIPT REQUESTED, MADE SUFFICIENTLY IN ADVANCE OF THE EXPIRATION DATE TO PERMIT DELIVERY TO THE EXCHANGE AGENT BEFORE 5:00 P.M., NEW YORK CITY TIME, ON THE EXPIRATION DATE. THE ISSUER WILL NOT ACCEPT ANY ALTERNATIVE, CONDITIONAL OR CONTINGENT TENDERS. EACH TENDERING HOLDER, BY EXECUTION OF A LETTER OF TRANSMITTAL (OR FACSIMILE THEREOF OR AGENT'S MESSAGE IN LIEU THEREOF), WAIVES ANY RIGHT TO RECEIVE ANY NOTICE OF THE ACCEPTANCE OF SUCH TENDER.

- 2. *Inadequate Space*. If the space provided in the box captioned "Description of Old Notes" above is inadequate, the principal amount of Notes and any other required information should be listed on a separate signed schedule and such schedule should be attached to this Letter of Transmittal.
- 3. Signatures on this Letter of Transmittal; Bond Powers and Endorsements. If this Letter of Transmittal is signed by the registered Holder(s) of the Notes tendered hereby, the signature(s) must correspond exactly with the name(s) so registered without any change whatsoever. If any of the Old Notes tendered hereby are owned of record by two or more joint owners, all such owners must sign this Letter of Transmittal. If any of the Old Notes are registered in different name(s), it will be necessary to complete, sign and submit as many separate Letters of Transmittal (or facsimiles thereof or Agent's Messages in lieu thereof) as there are different registrations.

Signatures on this Letter of Transmittal must be guaranteed, unless the Old Notes being surrendered for exchange are tendered (i) by a registered Holder of the Old Notes who has not completed the box entitled "Special Issuance Instructions" on the Letter of Transmittal, or (ii) for the account of an "eligible guarantor" institution within the meaning of Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or a commercial bank or trust company having an office or correspondent in the United States that is a member in good standing of a medallion program recognized by the Securities Transfer Association Inc., including the Securities Transfer Agents Medallion Program, the Stock Exchanges Medallion Program and the New York Stock Exchange Medallion Signature Program (each, an "Eligible Institution"). If signatures on this Letter of Transmittal are required to be guaranteed, the guarantees must be by an Eligible Institution.

If this Letter of Transmittal is signed by a person or persons other than the registered holder or holders of Old Notes, the Old Notes must be endorsed or accompanied by appropriate powers of attorney, in either case signed exactly as the name or names of the registered holder or holders appear on the Old Notes and with the signatures guaranteed.

If this Letter of Transmittal or any Old Notes or powers of attorney are signed by trustees, executors, administrators, guardians, attorneys-in-fact, officers of corporations or others acting in a fiduciary or representative capacity, the person should so indicate when signing and, unless waived by us, proper evidence satisfactory to us of such person's authority to so act must be submitted.

- 4. Special Issuance Instructions. Tendering Holders of Old Notes should indicate in the applicable box the name and address to which New Notes issued pursuant to the Exchange Offer are to be issued, if different from the name or address of the person(s) signing this Letter of Transmittal. In the case of issuance in a different name, the employer identification or social security number(s) of the person(s) named must also be indicated. Holders tendering Old Notes may request that Old Notes not exchanged be credited to such account maintained at DTC as such Holder may designate herein. If no such instructions are given, such Old Notes not exchanged will be returned to the name and address of the person(s) signing this Letter of Transmittal.
- 5. Transfer Taxes. Except as otherwise provided in this Instruction 5, the Issuer will pay any transfer taxes with respect to the transfer of Old Notes to it or its order pursuant to the Exchange Offer. If, however, New Notes or substitute Old Notes not exchanged are to be delivered to or registered or issued in the name of, any person other than the registered Holder(s) of the Old Notes tendered hereby, or if tendered Old Notes are registered in the name of any person other than the person(s) signing this Letter of Transmittal, or if a transfer tax is imposed for any reason other than the transfer of Old Notes to the Issuer or its order pursuant to the Exchange Offer, the amount of any such transfer taxes (whether imposed on the registered Holder(s) or any other person) payable on account of the transfer to such person will be payable by the Holder(s) tendering hereby. If satisfactory evidence of payment of such taxes or exemption therefrom is not submitted herewith, the amount of such transfer taxes will be billed directly to such tendering Holder(s).
- 6. Waiver of Conditions. The Issuer reserves the absolute right to waive satisfaction of any or all conditions enumerated in the Prospectus.
- 7. Taxpayer Identification Number; Backup Withholding; IRS Form W-9. U.S. federal income tax laws generally require that a tendering Holder that is a U.S. person (including a resident alien) provides the Exchange Agent with such Holder's correct Taxpayer Identification Number ("TIN") on IRS Form W-9, Request for Taxpayer Identification Number and Certification, below (the "IRS Form W-9"), which in the case of a Holder who is an individual, is his or her social security number. If the tendering Holder is a non-resident alien or a foreign entity, other requirements (as described below) will apply. If the Exchange Agent is not provided with the correct TIN or an adequate basis for an exemption from backup withholding, such tendering Holder may be subject to a \$50 penalty imposed by the Internal Revenue Service (the "IRS"). In addition, failure to provide the Exchange Agent with the correct TIN or an adequate basis for an exemption from backup withholding may result in backup withholding on payments made to the tendering Holder pursuant to the Exchange Offer at a current rate of 24%. If withholding results in an overpayment of taxes, the Holder may obtain a refund from the IRS.

Exempt Holders of the Notes (including, among others, all corporations) are not subject to these backup withholding and reporting requirements. See the Instructions for the Requester of Form W-9 (the "W-9 Guidelines") for additional instructions, which may be obtained via the IRS website at www.irs.gov.

To prevent backup withholding, each tendering Holder that is a U.S. person (including a resident alien) must provide its correct TIN by completing the IRS Form W-9 set forth below, certifying, under penalties of perjury, that such Holder is a U.S. person (including a resident alien), that the TIN provided is correct (or that such Holder is awaiting a TIN) and that (i) such Holder is exempt from backup withholding, (ii) such Holder has not been notified by the IRS that such Holder is subject to backup withholding as a result of a failure to report all interest or dividends, or (iii) the IRS has notified such Holder that such Holder is no longer subject to backup withholding. If the Old Notes are in more than one name or are not in the name of the actual owner, such Holder should consult the W-9 Guidelines for information on which TIN to report. If such Holder does not have a TIN, such Holder should consult the W-9 Guidelines for instructions on applying for a TIN, write "Applied For" in the space reserved for the TIN, as shown on IRS Form W-9. Note: Writing "Applied For" on the IRS Form W-9 means that such Holder has already applied for a TIN or that such Holder intends to apply for one in the near future. If such Holder does not provide its TIN to the Exchange Agent within 60 days, backup withholding will begin and continue until such Holder furnishes its TIN to the Exchange Agent.

A tendering Holder that is a non-resident alien or a foreign entity must submit the appropriate completed IRS Form W-8 to avoid backup withholding. The appropriate form may be obtained via the IRS website at www.irs.gov or by contacting the Exchange Agent at the address on the face of this Letter of Transmittal.

FAILURE TO COMPLETE THE APPROPRIATE FORM MAY RESULT IN BACKUP WITHHOLDING ON ANY PAYMENTS MADE TO YOU PURSUANT TO THE EXCHANGE OFFER.

8. Withdrawal Rights. Except as otherwise provided herein, tenders of Old Notes may be withdrawn at any time before 5:00 P.M., New York City time, on the Expiration Date. For a withdrawal to be effective, a written notice of withdrawal must be actually received by the Exchange Agent at the address set forth above before 5:00 P.M., New York City time, on the Expiration Date. Any notice of withdrawal must (i) specify the name(s) of the person(s) having tendered the Old Notes to be withdrawn, (ii) specify the principal amount of the Old Notes to be withdrawn, (iii) contain a statement that the tendering Holder(s) is (are) withdrawing the election to have such Old Notes exchanged for New Notes and (iv) specify the name and number of the account at DTC from which the Old Notes were tendered and the name and account number of the account at DTC to be credited with the withdrawn Old Notes, and otherwise comply with the procedures of DTC.

All questions as to the validity, form, eligibility and time of receipt of such notices of withdrawal will be determined by the Issuer, whose determination shall be final and binding on all parties. Any Old Notes so withdrawn will be considered not to have been properly tendered for exchange for purposes of the Exchange Offer. New Notes will not be issued in exchange for such withdrawn Old Notes unless the Old Notes so withdrawn are properly re-tendered.

Any Old Notes that have been tendered for exchange, but which are not exchanged for any reason, will be credited to an account maintained with DTC for the Old Notes promptly after withdrawal, rejection of tender or termination of the Exchange Offer.

9. Requests For Assistance and Additional Copies. Questions and requests for assistance regarding this Letter of Transmittal, as well as requests for additional copies of the Prospectus, this Letter of Transmittal and other related documents may be directed to the Exchange Agent at its address and telephone number set forth on the front of this Letter of Transmittal.

IMPORTANT: THIS LETTER OF TRANSMITTAL, OR A FACSIMILE COPY HEREOF, AND ALL OTHER REQUIRED DOCUMENTS MUST BE RECEIVED BY THE EXCHANGE AGENT BEFORE 5:00 P.M., NEW YORK CITY TIME, ON THE EXPIRATION DATE.

FORM W-9

Form W-9

Sign

Here

Signature of

U.S. person >

(Rev. October 2018) Department of the Treasury Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Go to www.irs.gov/FormW9 for instructions and the latest information.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

Give Form to the requester. Do not send to the IRS.

2	Bus	siness name/disregarded entity name, if different from above						
Print or type. Specific Instructions on page 3.		Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check following seven boxes. Individual/sole proprietor or Corporation Scorporation Partnership single-member LLC Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership)* Note: Check the appropriate box in the line above for the tax classification of the single-member owner, the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC the from the owner should check the appropriate box for the tax classification of its owner. Other (see instructions) *	estate eck LLC if	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) Exemption from FATCA reporting code (if any) (Applies to accounts maintained outside the U.S.)				
Prin See Speci		Address (number, street, and apt. or suite no.) See instructions. City, state, and ZIP code	ster's name a	nd address (optional)				
Taxpayer Identification Number (TIN) Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see How to get a TIN, later.								
		e: If the account is in more than one name, see the instructions for line 1. Also see What Name there is a considerable of the Requester for guidelines on whose number to enter.	identification number					
Pa								
Und	er p	enalties of perjury, I certify that:						
2. [The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and							
3. 1	am	a U.S. citizen or other U.S. person (defined in the instructions); and						
4.								
beca paid payr	use ac nen	ation instructions. You must cross out item 2 above if you have been notified by the IRS the eyou have failed to report all interest and dividends on your tax return. For real estate transal quisition or abandonment of secured property, cancellation of debt, contributions to an individute the other than interest and dividends, you are not required to sign the certification, but you must ater.	ictions, ite dual retir	em 2 does n ement arran	ot apply. For mortgage interest gement (IRA), and generally,			

NOTE: FAILURE TO COMPLETE AND RETURN THIS IRS FORM W-9 MAY RESULT IN U.S. FEDERAL BACKUP WITHHOLDING OF 24% OF ANY PAYMENTS MADE TO YOU.

Date >

Please visit the IRS website at http://www.irs.gov/instructions/iw9/index.html for instructions on completing this form.

Questions and requests for assistance may be directed to the Exchange Agent at its address and telephone number set forth below. Additional copies of the Prospectus, this Letter of Transmittal or other materials related to the Exchange Offer may be obtained from the Exchange Agent or from brokers, dealers, commercial banks or trust companies.

The Exchange Agent for the Exchange Offer is:

Global Bondholder Services Corporation

By Facsimile (For Eligible Institutions only): (212) 430-3775 Attention: Corporate Actions 65 Broadway – Suite 404 New York, New York 10006 Attention: Corporate Actions Banks and Brokers Call:
(212) 430-3774 (collect)
All Others Call Toll-Free:
(866) 470-3900
E-mail: contact@gbsc-usa.com

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial effective date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
		·		Newly Registe	ered Sec	urities	·					
Fees to Be Paid		3.250% Senior Notes due 2051	Other1	\$700,731,000	N/A	\$700,731,000	.0000927	\$64,958				
Fees Previously Paid	N/A	N/A	N/A	N/A	N/A	N/A		N/A				
- ****	1 1/ 1 1	Carry Forward Securities										
Carry Forward				Curry 1 or wa	ira seca	THOS						
Securities	N/A	N/A	N/A	N/A		N/A			N/A	N/A	N/A	N/A
	Total Offering Amounts			\$700,731,000		\$64,958						
	Total Fees Previously Paid						\$0					
	Total Fee Offsets							\$0				
	Net Fee Due							\$64,958				

⁽¹⁾ Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(f)(1) under the Securities Act of 1933, as amended, based on the market value of \$700,731,000 of outstanding 3.250% Senior Notes due 2051 to be canceled in the offer to exchange described in this registration statement.