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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, DC 20549

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**POST-EFFECTIVE AMENDMENT NO. 1  
TO  
FORM S-4  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

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**BIOGEN INC.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2836**  
(Primary Standard Industrial  
Classification Code Number)

**33-0112644**  
(I.R.S. Employer  
Identification No.)

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

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

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**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)

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*With copies to:*

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

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**Approximate date of commencement of proposed sale to the public:** Not applicable.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, 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 standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

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

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

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

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## DEREGISTRATION OF UNSOLD SECURITIES

We are filing this post-effective amendment to deregister the 3.250% Senior Notes due 2051 (the “New Notes”) that remain unsold following the expiration of our offer to exchange (the “Exchange Offer”) up to \$700,731,000 of New Notes for an equal amount of our then-outstanding unregistered 3.250% Senior Notes due 2051 (the “Old Notes”). We registered the Exchange Offer pursuant to the Registration Statement on Form S-4 (File No. 333-265023) (the “Registration Statement”) filed with the Securities and Exchange Commission (the “Commission”) on May 17, 2022 and declared effective by the Commission on May 26, 2022. The Exchange Offer expired at 5:00 p.m., New York City time, on June 27, 2022, and we exchanged \$700,705,000 of New Notes for an equal amount of properly tendered Old Notes on June 28, 2022.

As a result of the expiration of the Exchange Offer and the acceptance for exchange of all Old Notes that were properly tendered, the offering of New Notes pursuant to the Registration Statement has terminated, and we hereby terminate the effectiveness of the Registration Statement. In accordance with our undertaking in the Registration Statement to remove from registration by means of a post-effective amendment any of the securities registered under the Registration Statement that remain unsold at the termination of the offering, we hereby remove from registration all New Notes that remained unsold at the termination of the offering.

**SIGNATURES**

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 July 6, 2022.

BIOGEN INC.

By: /s/ Michael R. McDonnell

Name: Michael R. McDonnell

Title: Executive Vice President and Chief Financial  
Officer

Pursuant to Rule 478(a)(4) under the Securities Act, no other person is required to sign this post-effective amendment to the Registration Statement.