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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-263671**  
*UNDER  
THE SECURITIES ACT OF 1933*

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**Decibel Therapeutics, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

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

**46-4198709**  
(I.R.S. Employer  
Identification Number)

1325 Boylston Street, Suite 500  
Boston, Massachusetts 02215  
(617) 370-8701

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

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Nouhad Hussein  
Managing Director  
Decibel Therapeutics, Inc.  
1325 Boylston Street, Suite 500  
Boston, Massachusetts 02215  
(617) 370-8701

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

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**Copy to:**

Andrew R. Brownstein, Esq.  
Victor Goldfeld, Esq.  
Wachtell, Lipton, Rosen & Katz  
51 West 52nd Street  
New York, NY 10019  
(212) 403-1000

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

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, 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, please 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(c) 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an 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

Non-accelerated filer

Accelerated filer

Smaller reporting 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.

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## DEREGISTRATION OF UNSOLD SECURITIES

This Post-Effective Amendment (this “Post-Effective Amendment”) relates to the Registration Statement on Form S-3 (File No. 333-263671) (the “Registration Statement”), originally filed by Decibel Therapeutics, Inc., a Delaware corporation (“Decibel”), with the U.S. Securities and Exchange Commission (the “Commission”) on March 18, 2022, and declared effective by the Commission on May 17, 2022, registering the issuance and sale by Decibel of up to \$200,000,000 in aggregate offering price of any combination of Decibel’s debt securities, common stock, preferred stock, units and/or warrants.

On September 25, 2023, pursuant to that certain Agreement and Plan of Merger, dated as of August 8, 2023 (the “Merger Agreement”), by and among Decibel, Regeneron Pharmaceuticals, Inc., a New York corporation (“Regeneron”), and Symphony Acquisition Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Regeneron (“Purchaser”), Purchaser merged with and into Decibel, with Decibel surviving as a wholly owned subsidiary of Regeneron.

As a result of the transactions contemplated by the Merger Agreement, Decibel has terminated all offerings of its securities pursuant to the Registration Statement. Decibel, by filing this Post-Effective Amendment, hereby terminates the effectiveness of the Registration Statement and removes from registration any and all securities registered but unsold under the Registration Statement as of the date hereof. The Registration Statement is hereby amended, as appropriate, to reflect the deregistration of such securities. After giving effect to this Post-Effective Amendment, there will be no securities registered by Decibel pursuant to the Registration Statement.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Tarrytown, New York, on this 25th day of September, 2023.

DECIBEL THERAPEUTICS, INC.

By: /s/ Nouhad Hussein

Name: Nouhad Hussein

Title: Managing Director

Pursuant to Rule 478 under the Securities Act of 1933, as amended, no other person is required to sign this Post-Effective Amendment.