UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(B) OR (G) OF THE SECURITIES EXCHANGE ACT OF 1934

Orphazyme A/S

(Exact Name of Registrant as Specified in its Charter)

Denmark (State or Other Jurisdiction of Incorporation or Organization)

> Ole Maaløes Vej 3, DK-2200 Copenhagen N Denmark (Address of principal executive offices)

N/A (I.R.S. Employer Identification No.)

> N/A (Zip code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered American Depositary Shares, each representing 1 Ordinary Share Ordinary Shares, DKK 1 nominal value per share* Name of exchange on which each class is to be registered The Nasdaq Stock Market LLC The Nasdaq Stock Market LLC*

* Not for trading, but only in connection with the listing of the American Depositary Shares on The Nasdaq Stock Market LLC. The American Depositary Shares represent the right to receive the Ordinary Shares and are being registered under the Securities Act of 1933 pursuant to a separate Registration Statement on Form F-6. Accordingly, the American Depositary Shares are exempt from registration under Section 12(a) of the Securities Exchange Act of 1934 pursuant to Rule 12a-8 thereunder.

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c) or (e), check the following box. \boxtimes

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d) or (e), check the following box.

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box. \Box

Securities Act registration statement or Regulation A offering statement file number to which this form relates: 333-248607

Securities to be registered pursuant to Section 12(g) of the Act:

None

Item 1. Description of Registrant's Securities to be Registered.

The description of the securities of Orphazyme A/S (the "Registrant") being registered is set forth under "Description of Share Capital and Articles of Association" and "Description of American Depositary Shares" in the Registrant's registration statement on Form F-1 (File No. 333-248607), originally filed with the Securities and Exchange Commission (the "Commission") on September 4, 2020, as amended, including any form of prospectus subsequently filed by the Registrant with the Commission pursuant to Rule 424(b) under the Securities Act of 1933, which description and prospectus are incorporated herein by reference.

Item 2. Exhibits.

Pursuant to the Instructions as to Exhibits with respect to Form 8-A, no exhibits are required to be filed because no other securities of the Registrant are registered on The Nasdaq Stock Market LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

Orphazyme A/S

By: /s/ Kim Stratton

Name: Kim Stratton Title: Chief Executive Officer

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Date: September 22, 2020