UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO SECTION 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of December, 2017

Commission File Number: 001-36815

Ascendis Pharma A/S

(Exact Name of Registrant as Specified in Its Charter)

Tuborg Boulevard 5 DK-2900 Hellerup Denmark (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F 🗵 Form 40-F 🗆

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

INCORPORATION BY REFERENCE

This report on Form 6-K shall be deemed to be incorporated by reference into the registration statements on Form S-8 (Registration Numbers 333-203040, 333-210810, 333-211512, 333-213412, 333-214843 and 333-216883) and Form F-3 (Registration Numbers 333-209336, 333-211511 and 333-216882) of Ascendis Pharma A/S (the "Company") (including any prospectuses forming a part of such registration statements) and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

As of December 29, 2017, the Company has exceeded its target of 150 subjects enrolled in its phase 3 heiGHt Trial of TransCon Growth Hormone in pediatric growth hormone deficiency. The Company expects to complete final enrollment of subjects still in screening in the heiGHt Trial in early January 2018.

Forward Looking Statements

This report contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this report regarding the Company's future operations, plans and objectives of management are forward-looking statements. Examples of such statements include, but are not limited to, statements relating to the Company's expectations regarding the timing of its completion of final enrollment of subjects still in screening in the heiGHt Trial. The Company may not actually achieve the plans, carry out the intentions or meet the expectations or projections disclosed in the forward-looking statements and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that the Company makes, including the following: unforeseen safety or efficacy results in its heiGHt Trial; unforeseen expenses related to the development of TransCon Growth Hormone; delays in the development of TransCon Growth Hormone; related to manufacturing, regulatory requirements, speed of patient recruitment or other unforeseen issues; dependence on third party manufacturers to supply trial drug for planned clinical studies; and the Company's ability to obtain additional funding, if needed, to support its business activities. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the Company's business in general, see the Company's current and future reports filed with, or submitted to, the U.S. Securities and Exchange Commission ("SEC"), including its Annual Report on Form 20-F filed with the SEC on March 22, 2017. Forward-looking statements do not reflect the potential impact

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: December 29, 2017

Ascendis Pharma A/S

By: /s/ Michael Wolff Jensen

Michael Wolff Jensen Chairman and Senior Vice President, General Counsel