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 March, 2018

Commission File Number: 001-36815

Ascendis Pharma A/S
(Exact Name of Registrant as Specified in Its Charter)

Tuborg Boulevard 12
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 333-228576, 333-203040, 333-210810, 333-211512, 333-213412, 333-214843 and 333-216883) and Form F-3 (Registration Numbers 333-209336,333-211511, 333-216882, 333-223134 and 333-225284) 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such registration statements) and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

On March 4, 2019, the Company announced positive top-line results from the phase 3 heiGHt Trial, a randomized, open-label, active-controlled trial that compared once-weekly TransCon Growth Hormone ("hGH") to a daily growth hormone (Genotropin®) in children with pediatric growth hormone deficiency ("GHD").

The trial met its primary objective, demonstrating that TransCon hGH was observed to be non-inferior and, additionally, superior to the daily hGH on the primary endpoint of annualized height velocity ("AHV") at 52 weeks. In the primary analysis of the intent-to-treat population using ANCOVA, TransCon hGH demonstrated an AHV of 11.2 cm/year compared to 10.3 cm/year for the daily hGH. The treatment difference was 0.86 cm/year with a 95 percent confidence interval of 0.22 to 1.50 cm/year. The AHV for TransCon hGH was significantly greater than the daily hGH (p=0.0088).

The AHV was greater for TransCon hGH than for the daily hGH at each visit, with the treatment difference reaching statistical significance from and including week 26 onward. The incidence of poor responders (AHV < 8.0 cm/year) was 4 percent and 11 percent in the TransCon hGH and daily hGH arms, respectively. All sensitivity analyses completed from the trial support the primary outcome, indicating the robustness of these results.

Results from the trial indicate that TransCon hGH was generally safe and well-tolerated, with adverse events consistent with the type and frequency observed with daily hGH therapy and comparable between arms of the trial. Key safety observations:

- No serious adverse events related to study drug were observed in either arm
- One serious adverse event was observed in each arm (representing 1.0 percent for TransCon hGH and 1.8 percent for daily hGH), both determined to be unrelated to study drug
- No treatment-emergent adverse events leading to discontinuation of study drug were observed in either arm

Additional preliminary analyses from the heiGHt Trial:

- No neutralizing antibodies detected, and low level (<10 percent) of low-titer non-neutralizing antibodies was similar between the two arms
- Height standard deviation score ("SDS") at 52 weeks increased over baseline by 1.05 for TransCon hGH and by 0.94 for the daily hGH, and the treatment difference in height SDS increased at each visit over 52 weeks
- Body Mass Index ("BMI") SDS was stable over 52 weeks and was -0.03 for TransCon hGH and -0.40 for the daily hGH at week 52
- Mean hemoglobin A1c values were generally stable over the course of the trial and remained within the normal range for both arms
- Observed peak and trough insulin-like growth factor-1 **(**"IGF-1") SDS values were 1.3 and -0.5 over 52 weeks, respectively, for TransCon hGH compared to an approximate average IGF-1 SDS of 0.0 for the daily hGH at week 52
- In a pre-defined subset of 11 subjects, IGF-1 levels were assessed during week 13 and results were similar to those reported in the TransCon hGH pediatric phase 2 trial
- Consecutive IGF-1 SDS values >2.0 were uncommon (<10 percent of subjects) and IGF-1 SDS >3.0 were rare (<3 percent of subjects)
- Adverse events leading to dose reduction (IGF-1 levels or clinical symptoms) occurred twice in the TransCon hGH arm (representing 1.9 percent) and once in the daily hGH arm (representing 1.8 percent)
- Two subjects in each treatment arm experienced mild injection site reactions that were considered adverse events

The heiGHt Trial evaluated 161 treatment-naïve children with GHD randomized in a 2:1 ratio to receive either once-weekly TransCon hGH (0.24 mg/kg/week subcutaneously, n=105) or daily Genotropin (34 µg/kg/day or 0.24 mg/kg/week subcutaneously, n=56) for 52 weeks. Of the 161 subjects, two subjects, one from each arm, withdrew from the trial prior to the final visit.

TransCon hGH is designed to deliver unmodified hGH, the same growth hormone used in daily therapies, at a predictable rate over one week. Currently in the U.S. and Europe, the only GHD treatment option for patients and their families is daily hGH injections. Patients receiving daily therapy endure thousands of injections over the course of many years. This often leads to missed doses and patients who fail to meet expected outcomes.

The TransCon hGH phase 3 program includes the heiGHt, fliGHt and enliGHten Trials. Top-line data for the fliGHt Trial, evaluating TransCon hGH in subjects who switch from daily hGH, are expected in the second quarter of 2019. The enliGHten Trial is a long-term extension that provides subjects from the heiGHt and fliGHt Trials with the opportunity to continue once-weekly TransCon hGH treatment.

The Company plans a clinical database lock for the TransCon hGH phase 3 program in the third quarter of 2019. Subsequently, the company intends to submit a Biologics License Application ("BLA") with the U.S. Food and Drug Administration for TransCon hGH to treat pediatric GHD in the first half of 2020.

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 (i) the timing of the Company's expected database lock and BLA submission for TransCon hGH and (ii) the timing of the topline data from the fliGHt 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 the Company's TransCon hGH, TransCon PTH and TransCon CNP or other development programs; unforeseen expenses related to the development of TransCon hGH, TransCon PTH and TransCon CNP or other development programs, general and administrative expenses, other research and development expenses and the Company's business generally; delays in the development of TransCon hGH, TransCon PTH and TransCon CNP or other development programs related to manufacturing, regulatory requirements, speed of patient recruitment or other unforeseen delays; dependence on third party manufacturers to supply study drug for planned clinical studies and potential commercial sale, if approved; and the Company's ability to obtain additional funding, if needed, to support the Company's 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 the Company's Annual Report on Form 20-F for the year ended December 31, 2017, which the Company filed with the SEC on March 28, 2018. Forward-looking statements do not reflect the potential impact of any future in-licensing, collaborations, acquisitions, mergers, dispositions, joint ventures, or investments the Company may enter into or make. The Company does not assume any obligation to update any forward-looking statements, except as required by law.

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.

Ascendis Pharma A/S

Date: March 4, 2019

By: /s/ Michael Wolff Jensen
Michael Wolff Jensen
Senior Vice President, General Counsel