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 June, 2025

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 333-203040, 333-210810, 333-211512, 333-213412, 333-214843, 333-216883, 333-228576, 333-254101, 333-261550, 333-270088, 333-277519, 333-281916 and 333-285322) and Form F-3 (Registration Numbers 333-209336 and 333-282196) of Ascendis Pharma A/S (the "Company" or "Ascendis") (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such registration statements) and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.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 June 9, 2025, the Company announced Week 26 interim analysis results from its ongoing COACH Trial, the first clinical trial to evaluate combination treatment with once-weekly investigational TransCon CNP (navepegritide) and once-weekly TransCon hGH (lonapegsomatropin) in children with achondroplasia. Results demonstrated that TransCon hGH boosted treatment benefits of TransCon CNP, resulting in significant growth and proportionality improvements in children with achondroplasia after 26 weeks of combination treatment, with a safety and tolerability profile consistent with those observed for TransCon hGH and TransCon CNP monotherapies.

TransCon CNP, which is under priority review as a monotherapy for children with achondroplasia by the U.S. Food & Drug Administration ("FDA"), is an investigational prodrug of C-type natriuretic peptide ("CNP") administered once weekly, providing continuous exposure of active CNP to receptors on tissues throughout the body, including growth plates and skeletal muscle. TransCon hGH is a prodrug of somatropin administered once weekly, providing sustained release of active, unmodified somatropin. TransCon hGH is approved and marketed as SKYTROFA® for the treatment of pediatric growth hormone deficiency and is in development for other indications.

COACH Trial Design

The COACH Trial is an ongoing proof-of-concept prospective Phase 2 open-label trial to investigate the efficacy, safety, and tolerability of combined treatment with once-weekly TransCon CNP at 100 µg/kg/week and once-weekly TransCon hGH at 0.30 mg/kg/week in children with achondroplasia aged 2 to 11 years. The trial included a cohort of TransCon CNP treatment naïve children (N=12, mean age 4.67 years) and a cohort of TransCon CNP-treated children (N=9, mean age 7.89 years) who had received TransCon CNP (100 µg/kg/week) for a mean of 2.56 years in clinical trials. The trial population is representative of children with achondroplasia, except for the observed growth benefit in the TransCon CNP-treated cohort. The interim analysis will be followed by Week 52 data, expected in Q4 2025, and Ascendis plans to initiate a Phase 3 trial in Q4 2025.

Highlights of the Interim Topline Week 26 COACH Trial Results

- For TransCon CNP treatment-naïve children, mean annualized growth velocity ("AGV") was 9.14 cm/year, representing an increase from baseline at Week 26 of 4.23 cm/year, with an improvement in mean ACH height Z-score of +0.53 over 26 weeks.
- For TransCon CNP-treated children, mean AGV was 8.25 cm/year, representing an increase from baseline at Week 26 of 3.10 cm/year, with an improvement in mean ACH height Z-score of +0.44 over 26 weeks.
- Mean AGV with TransCon CNP and TransCon hGH combination treatment exceeded the 97th percentile of average-stature children.
- Children treated with TransCon hGH and TransCon CNP demonstrated accelerated improvement in body proportionality at Week 26, aligning with the increase in linear growth.
- Bone age advanced in line with chronologic age.

- Safety and tolerability data were consistent with those observed for TransCon hGH and TransCon CNP monotherapies; combination treatment was generally well tolerated, with generally mild TEAEs.

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 Ascendis' 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 expected timing of Week 52 data from the COACH Trial and Ascendis' plans to initiate a Phase 3 trial in Q4 2025. Ascendis 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 Ascendis makes, including the following: dependence on third party manufacturers, distributors and service providers for Ascendis' products and product candidates; unforeseen safety or efficacy results in Ascendis' development programs or on-market products; unforeseen expenses related to commercialization of any approved Ascendis products; unforeseen expenses related to Ascendis' development programs; unforeseen selling, general and administrative expenses, other research and development expenses and Ascendis' business generally; delays in the development of its programs related to manufacturing, regulatory requirements, speed of patient recruitment or other unforeseen delays; Ascendis' ability to obtain additional funding, if needed, to support its business activities; the impact of international economic, political, legal, compliance, social and business factors, including tariffs and trade policies. 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 Ascendis' business in general, see Ascendis' Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission ("SEC") on February 12, 2025, and Ascendis' other future reports filed with, or submitted to, the SEC. Forward-looking statements do not reflect the potential impact of any future licensing, collaborations, acquisitions, mergers, dispositions, joint ventures, or investments that Ascendis may enter into or make. Ascendis 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: June 9, 2025

By: /s/ Michael Wolff Jensen
Michael Wolff Jensen
Executive Vice President, Chief Legal Officer