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 April, 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): ☐

Spokespersons of Ascendis Pharma A/S (the "Company") presented the information in the presentation slides attached hereto as Exhibit 99.1 in a webcast on April 3, 2017.

The furnishing of the attached presentation is not an admission as to the materiality of any information therein. The information contained in the presentation is summary information that is intended to be considered in the context of more complete information included in the Company's filings with the Securities and Exchange Commission (the "SEC") and other public announcements that the Company has made and may make from time to time by press release or otherwise. The Company undertakes no duty or obligation to update or revise the information contained in this report, although it may do so from time to time as its management believes is appropriate. Any such updating may be made through the filing or furnishing of other reports or documents with the SEC, through press releases or through other public disclosures.

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: April 3, 2017

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

EXHIBIT INDEX

Exhibit No.	Description
99.1	Company Presentation.

Exhibit 99.1


ascendis
pharma
Ascendis Pharma A/S
ENDO Data Review
April 3, 2017

Cautionary Note On Forward-Looking Statements

This presentation contains forward-looking statements. All statements other than statements of historical facts contained in this presentation, such as statements regarding our future results of operations and financial position, including our business strategy, prospective products, availability of funding, clinical trial results, product approvals and regulatory pathways, collaborations, timing and likelihood of success, plans and objectives of management for future operations, and future results of current and anticipated products, are forward-looking statements. These forward-looking statements are based on our current expectations and beliefs, as well as assumptions concerning future events. These statements involve known and unknown risks, uncertainties and other factors that could cause our actual results to differ materially from the results discussed in the forward-looking statements. These risks, uncertainties and other factors are more fully described in our reports filed with or submitted to the Securities and Exchange Commission, including, without limitation, our most recent Annual Report on Form 20-F filed with the SEC on March 22, 2017, particularly in the sections titled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” In light of the significant uncertainties in our forward-looking statements, you should not place undue reliance on these statements or regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all.

Any forward-looking statement made by us in this presentation speaks only as of the date of this presentation and represents our estimates and assumptions only as of the date of this presentation. Except as required by law, we assume no obligation to update these statements publicly, whether as a result of new information, future events or otherwise after the date of this presentation.

This presentation concerns product candidates that are or have been under clinical investigation and which have not yet been approved for marketing by the U.S. Food and Drug Administration, European Medicines Agency or other foreign regulatory authorities. These product candidates are currently limited by U.S. Federal law to investigational use, and no representations are made as to their safety or effectiveness for the purposes for which they are being investigated.

Agenda: ENDO 2017 Data Review

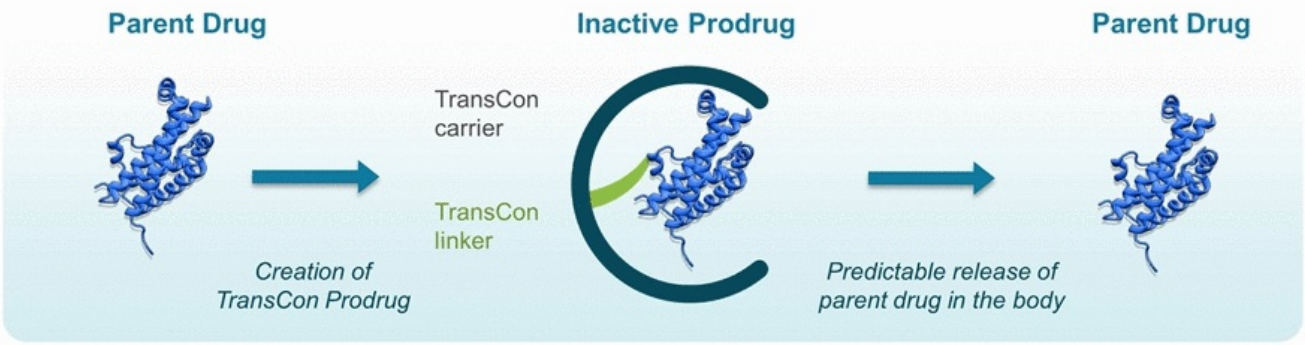
Introduction – Jan Mikkelsen, *Chief Executive Officer*

Presentation Highlights

- **TransCon Growth Hormone (4 posters)**
  Jonathan Leff, M.D. *Chief Medical Officer*
- **TransCon PTH (2 posters; one late-breaker)**
  David B. Karpf, M.D. *VP, Clinical Development*
- **TransCon CNP (2 posters; one late-breaker)**
  Kennett Sprogøe, PhD, *Senior Vice President, Product Innovation*

Q&A

TransCon Technology



- Predictable release of unmodified parent drugs
  - Parent drugs can be proteins, peptides or small molecules
  - Linker release only dependent on pH and temperature
  - TransCon carrier enables both systemic and localized drug exposure
- Maintains same mode-of-action of parent drug molecule
- Release of parent drug supporting up to half-yearly administration
- TransCon products eligible for new composition of matter IP claims

Building a Leading Company in Rare Diseases

Internal Rare Disease Endocrinology Pipeline

Product Candidate	Primary Indication	Development Stage	Potential WW Market[1]	WW Commercial Rights
TransCon Growth Hormone	Growth hormone deficiency	Phase 3	> $3 billion[2]	ascendis pharma
TransCon PTH	Hypoparathyroidism	Pre-IND	> $2 billion[3]	ascendis pharma
TransCon CNP	Achondroplasia	Pre-IND	> $1 billion	ascendis pharma

Current/Potential Strategic Collaborations

TransCon Ranibizumab	Ophthalmology	Not disclosed	> $7 billion	Genentech
TransCon Peptides	Diabetes	Not disclosed	> $1 billion	SANOFI
TransCon Treprostinil	PAH	Phase 1	> $1 billion	Partnering Opportunity

Endocrinology | Ophthalmology | CV

[1] Based on market data and company estimates.
[2] Includes all indications.
[3] Based on treatment of ~25% of the U.S. patient population of ~77,000 patients.

ascendis pharma

TransCon Growth Hormone: **Once-Weekly Replacement Therapy**

Jonathan Leff, M.D.
Chief Medical Officer

TransCon Growth Hormone Target Product Profile

- ✓ Efficacy
- ✓ Safety (including immunogenicity)
- ✓ Tolerability

=

Comparable to Daily Growth Hormone

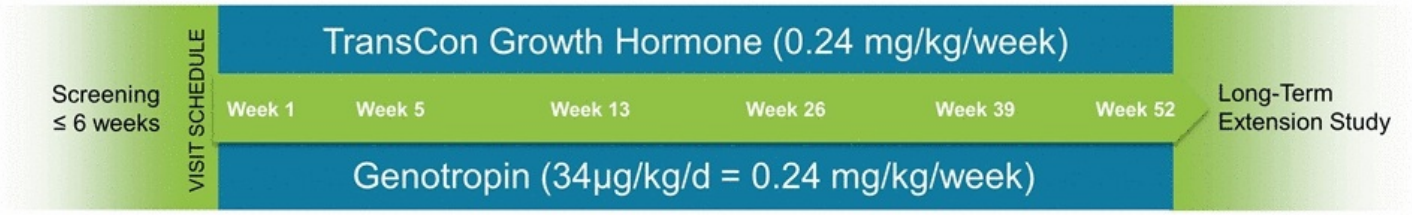
- ✓ Weekly subcutaneous administration
- ✓ Single injection/dose
- ✓ Convenience
  - ✓ 31G needle
  - ✓ Room temperature storage
- ✓ Device
  - ✓ Easy to use
  - ✓ Empty-all design (controlled substance)

ascendis pharma

Phase 3 Study - heiGHt Trial Ongoing

heIGHt TRIAL

~ 150 treatment-naïve children with GHD (2:1 randomization)



Key Inclusion Criteria

- Prepubertal children with GHD
- Height SDS ≤ -2.0
- IGF-1 SDS ≤-1.0
- GHD with 2 GH stim. tests (GH ≤10 ng/mL)
- Bone age ≥ 6 months behind chronological

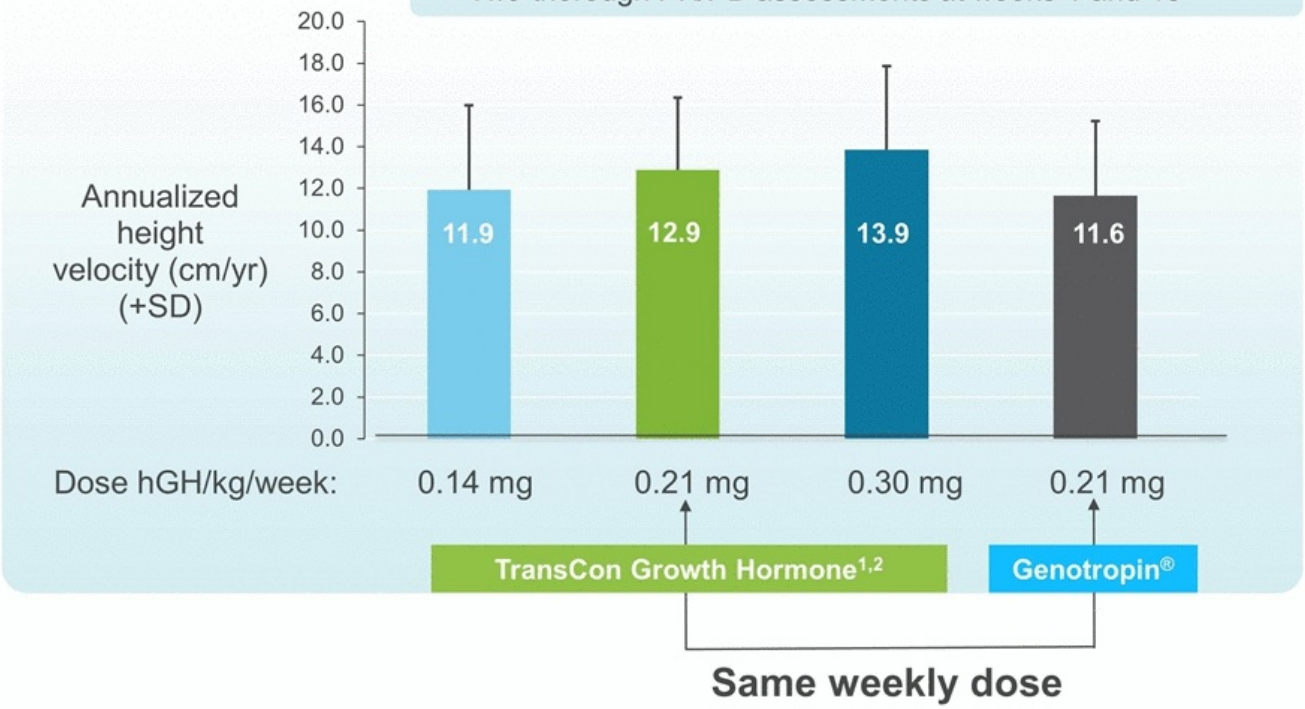
Key Endpoints

- Annualized height velocity (HV) at 52 weeks (primary endpoint)
- Annualized HV at earlier time points
- Change in HT SDS over 52 weeks
- Change in serum IGF-1/IGFBP-3 levels
- Change in IGF-1 SDS and IGFBP-3 SDS
- Normalization of IGF-1 SDS

ascendis pharma

Phase 2 Data Provided Foundation for Phase 3

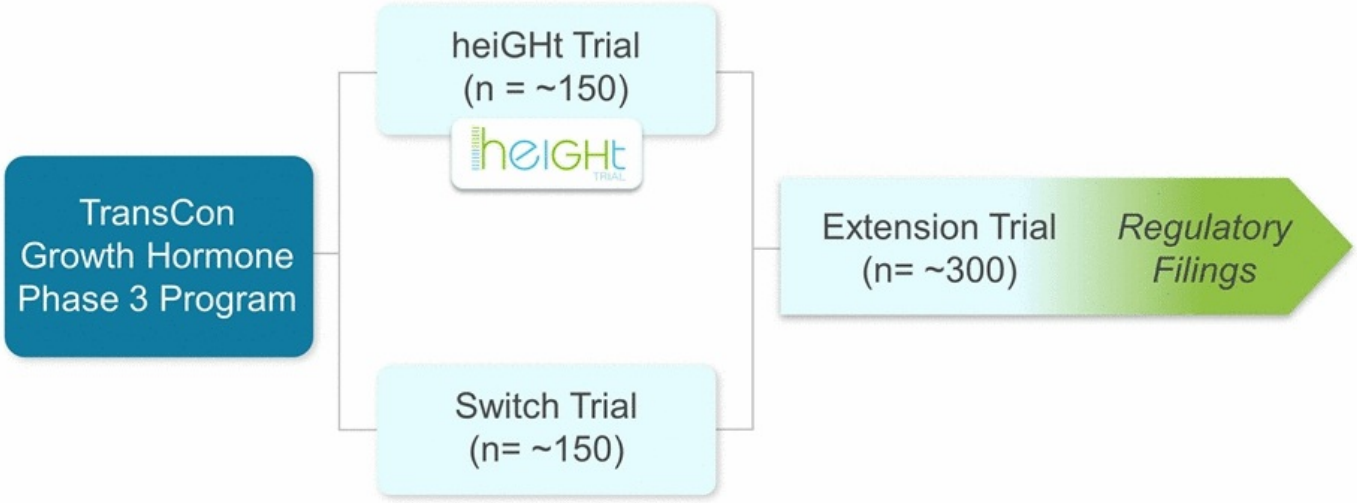
- 26-week treatment period
- Two thorough PK/PD assessments at weeks 1 and 13



[1] Intergroup differences not statistically significant.
[2] Conducted with a previous lower strength version of TransCon Growth Hormone.

ascendis pharma

TransCon Growth Hormone Phase 3 Program



- FDA supports size and scope of program for pediatric GHD filing
- Safety database to be >300 subjects at time of anticipated filing
- EMA discussions ongoing

Auto-Injector Designed to Optimize Adherence and Compliance

Key Features

- Simple operation with few user steps
- A single low-volume (<0.60 mL) injection for patients less than 60kg
- Small needle comparable to daily hGH (31G, 4mm)
- Room temperature storage
- No waste due to empty-all design
- Enabled for Bluetooth® connectivity to IT health care solutions
- Device lifetime at least 4 years

Auto-injector planned during extension study and for commercial launch

ascendis pharma

Extensive Development of Patient-Centric Device

- Device development driven by user feedback >70 subjects, caregivers, health care professionals
- Six human factor usability studies
- Single use cartridges in 20% dosing increments with a single small injection of <0.60 mL
- Built to be connected to future IT solutions for improved adherence in real world
- Expected to be available at launch

ascendis pharma

TransCon PTH:
Once-daily for Hypoparathyroidism

David B. Karpf, M.D.
VP, Clinical Development

Hypoparathyroidism - Not Only About Serum Calcium

Hypoparathyroidism (HP) affects 77,000 patients in the U.S.[1]

Patients suffer numerous comorbidities:

- Hypocalcemia and hypercalcemia
- Hypercalciuria (stones, nephrocalcinosis)
- Psychiatric disorders, depression
- Reduced cognition/QOL
- Basal ganglia/CNS calcifications
- Lenticular calcifications/cataracts
- Arterial calcifications/atherosclerosis

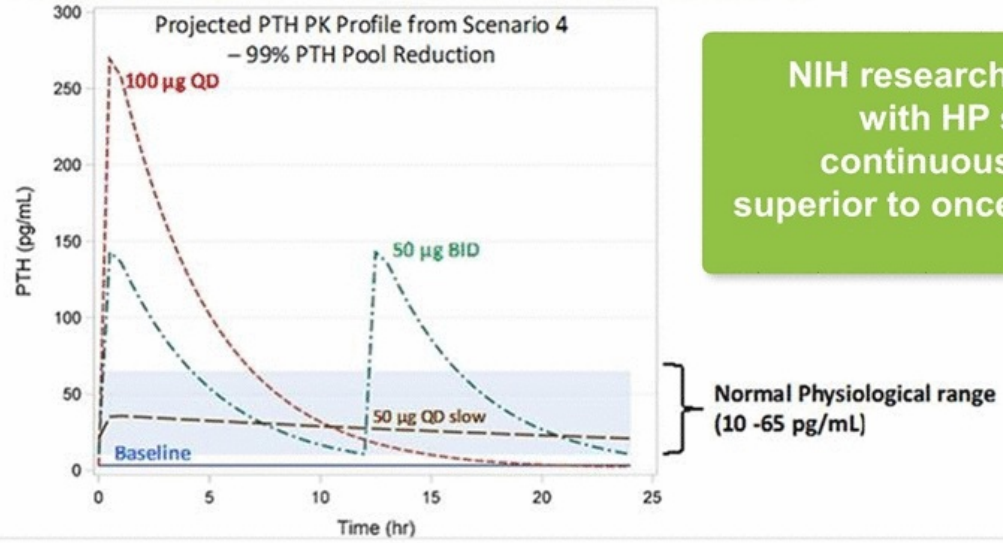
TransCon PTH designed to address limitations of current therapies
normalizing blood/urinary calcium levels,
serum phosphate and bone turnover

[1] J Clin Endocrinol Metab 2016, 101(6): 2284-2299

Defined PK Profile for PTH Replacement Therapy from FDA[1] and NIH[2-4]

U.S. Food and Drug Administration
Protecting and Promoting Public Health
www.fda.gov

Altering Regimen (QD to BID) or Release Profile Bring PTH Levels Close to the Physiological Levels



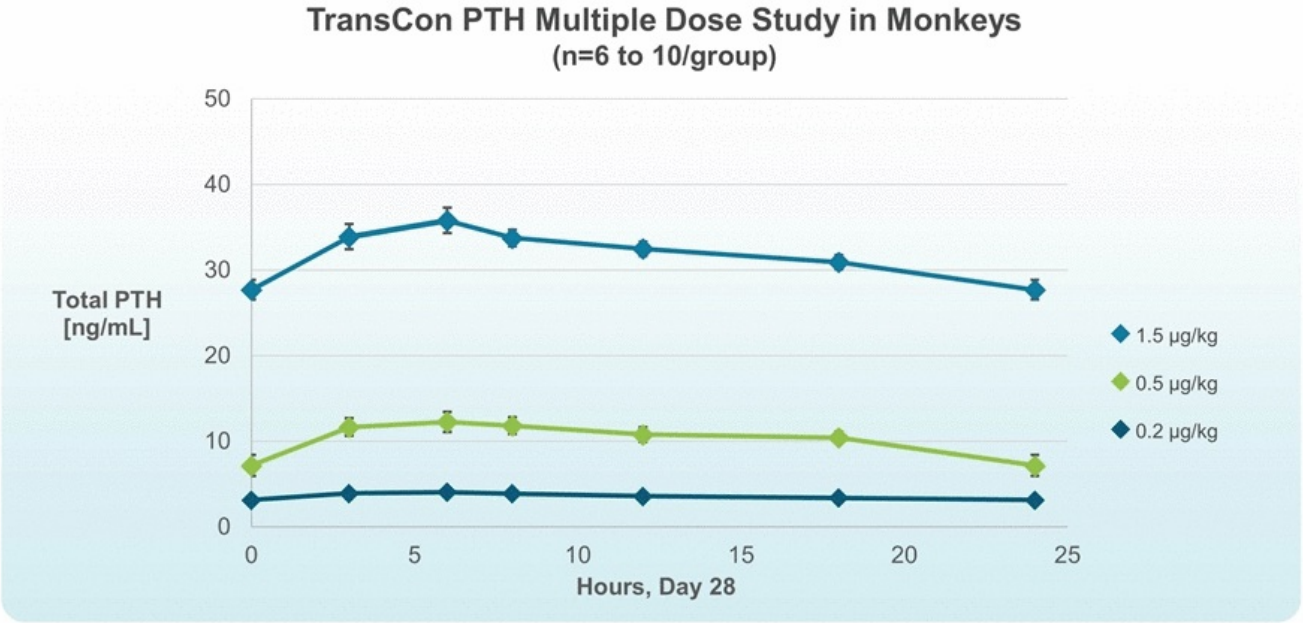
NIH research in patients with HP shows: continuous infusion superior to once or twice daily

[1] FDA presentation Natpara Advisory Committee September 12, 2014
[2] JAMA 1996, 276(8): 631-636
[3] J Clin Endocrinol Metab 1998, 83(10): 3480-3486
[4] J Clin Endocrinol Metab 2013, 88(9): 4214-4220

ascendis pharma

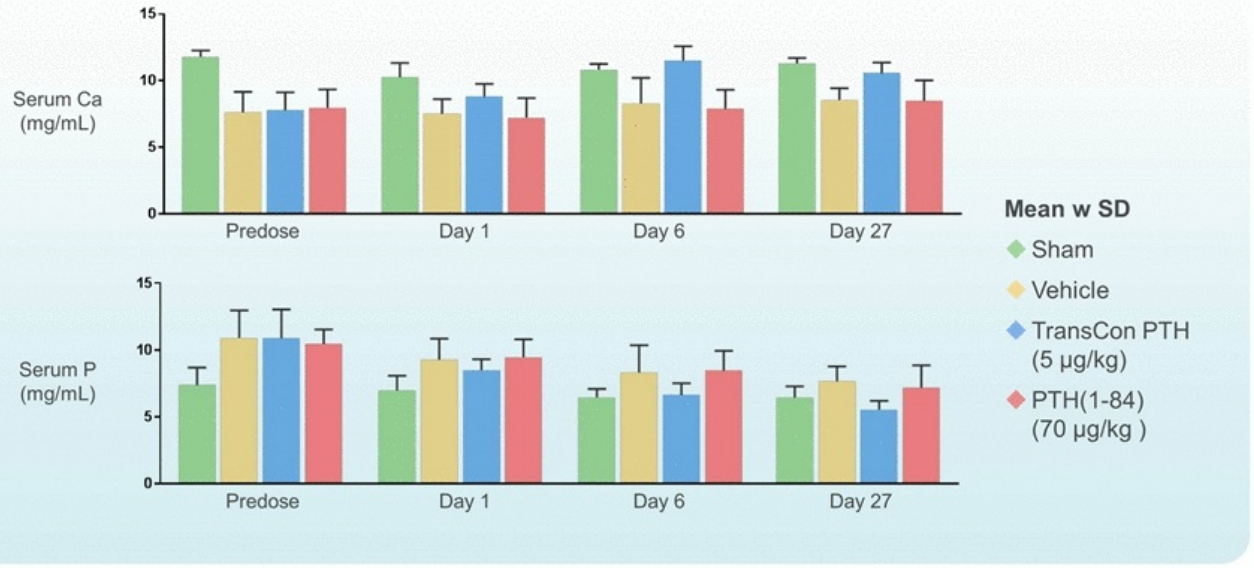
PK Mimics Physiological PTH Levels over 24 Hours

- Maintained a flat infusion-like profile with once-daily administration
- Low PTH peak to trough ratio with low variability



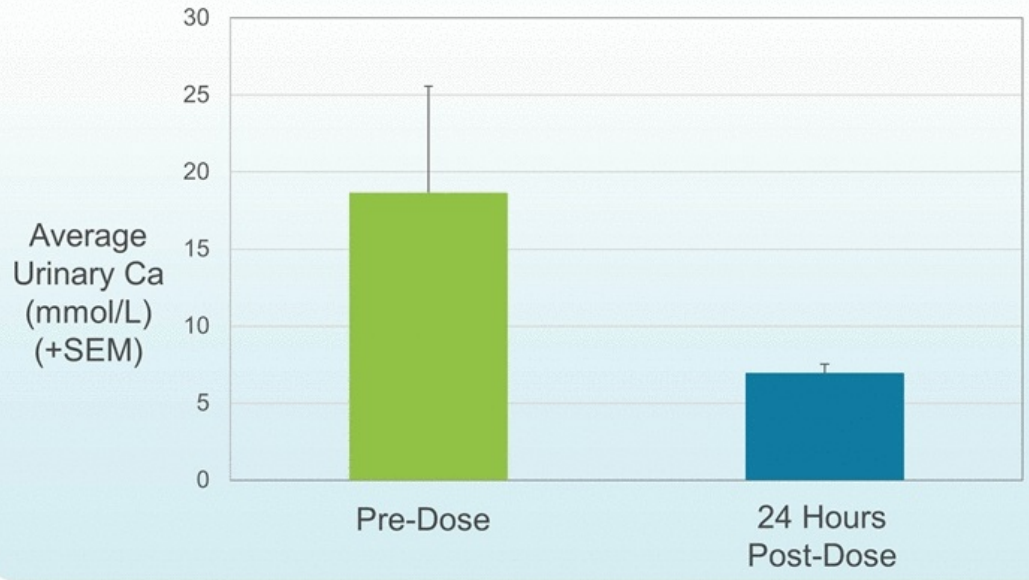
Positive PD Profile in Gold Standard Disease Model

- In contrast to daily PTH(1-84) treatment in TPTx rat model, TransCon PTH:
  - Normalized serum calcium and serum phosphorus
  - Did not cause abnormal increase in bone density



Reduction in Urinary Calcium Excretion

Urinary Ca following SC injections in cynomolgus monkeys
(TransCon PTH 1µg/kg, n=3)



TransCon PTH administration reduced urinary calcium excretion in cynomolgus monkeys

ascendis pharma

TransCon CNP:
Once-Weekly CNP for Achondroplasia

Kennett Sprogøe, PhD
Senior Vice President,
Product Innovation

Achondroplasia – A Serious and Disabling Disease

Autosomal dominant genetic disorder

- Most common form of human dwarfism
- Approximately 250,000 patients worldwide[1]
- 80% born to average-sized parents

Patients suffer numerous comorbidities

- Back/spine/cord compression
- Cardiovascular complications
- Dental complications
- Ear infections/sleep apnea
- Obesity
- Bowed legs

No FDA-approved therapy

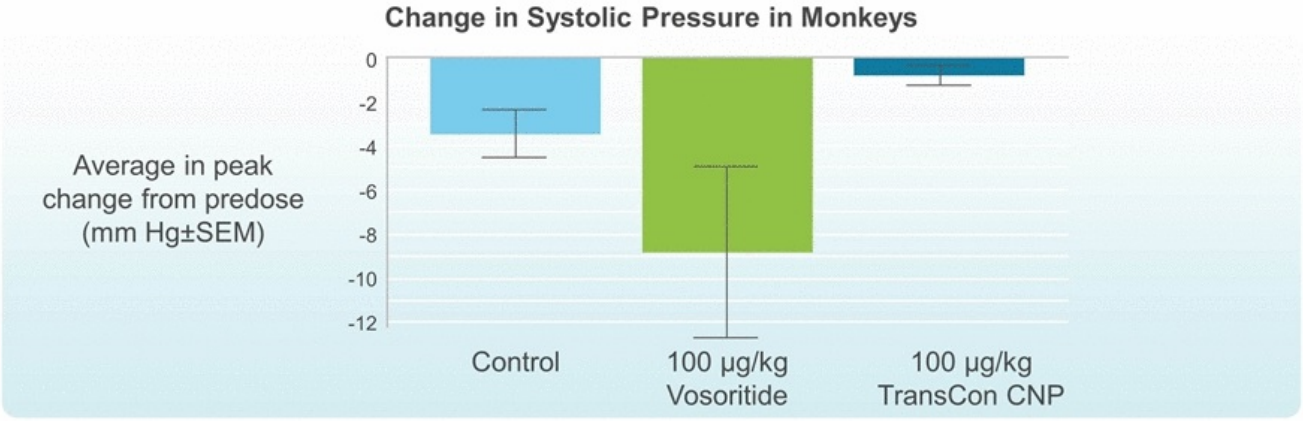
- Only option to improve height is surgical limb lengthening

[1] Lancet 2007, 370: 162-172

ascendis pharma

TransCon CNP Designed to Improve Efficacy and Safety

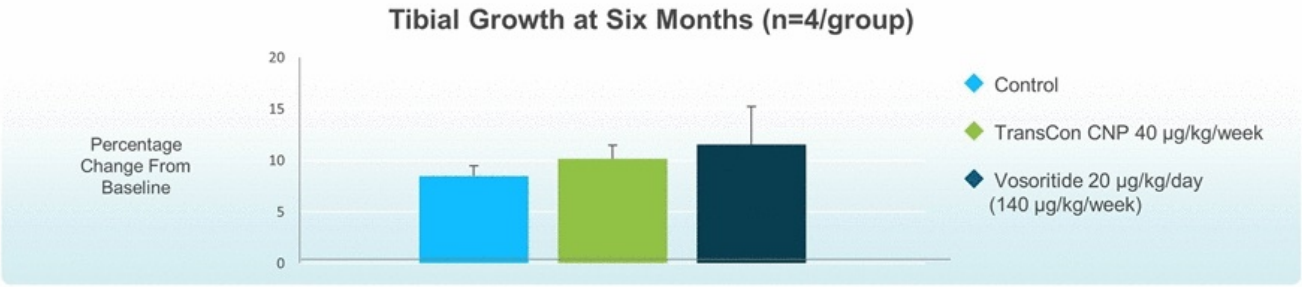
- TransCon CNP has a very long half-life (~80 hours) providing continuous exposure to CNP with weekly administration
- No adverse hemodynamic effects (hypotension) in cynomolgus monkeys or mice at levels exceeding the expected clinical dose
- Lack of adverse hemodynamic effect may widen therapeutic window, thereby enhancing efficacy



* "Vosoritide" refers to a synthesized molecule with the same amino acid sequence prepared by Ascendis Pharma.

Dose Response in Juvenile Healthy Monkeys

- Healthy monkeys showed dose dependent tibia bone growth compared to vosoritide[1]; ulna growth data consistent

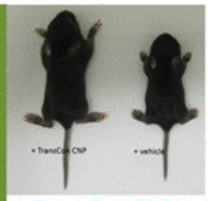


* "Vosoritide" refers to a synthesized molecule with the same amino acid sequence prepared by Ascendis Pharma.

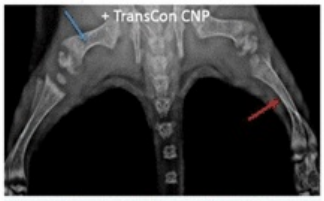
TransCon CNP in ACH Disease Model ($Fgfr3^{Y367C/+}$)

Linear and Skeletal Growth in ACH Mice

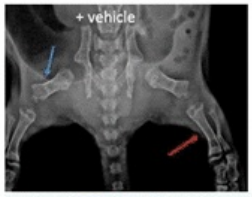
TransCon CNP reversed the phenotype, restoring growth



TransCon CNP/ Vehicle



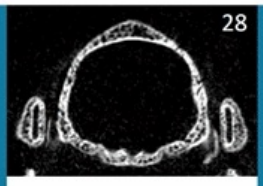
TransCon CNP

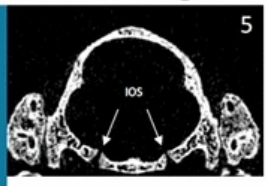


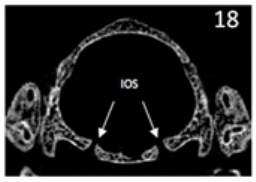
Vehicle

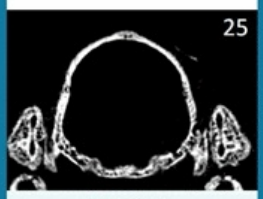
Preventing Premature Fusion of Synchondroses of Foramen Magnum

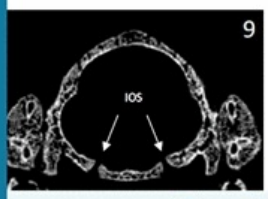
TransCon CNP may ameliorate most disabling ACH traits, including stenosis of the foramen magnum

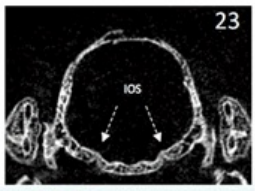












Vehicle

TransCon CNP

ascendis pharma

ENDO Conference Highlights

TransCon Growth Hormone

- Only long-acting GH in clinical development that delivers *unmodified* GH, achieving same distribution and effects as hGH
- Phase 3 heiGHt Trial on track to complete enrollment 4Q 2017

TransCon PTH

- Infusion-like profile potentially addresses all aspects of hypoparathyroidism
- Regulatory filing planned in Australia during 2Q 2017; Phase 1 to begin 3Q 2017

TransCon CNP

- Efficacy without potential dose-limiting cardiovascular adverse effects; once-weekly dosing in ACH
- IND or equivalent filing expected 4Q 2017

ascendis pharma


ascendis
pharma
Q&A