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 January, 2023

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): ☐

Spokespersons of Ascendis Pharma A/S (the "Company") plan to present the information in the presentation slides attached hereto as Exhibit 99.1 at various investor and analyst meetings scheduled during the week of January 9, 2023.

The furnishing of the attached presentation and press release is not an admission as to the materiality of any information therein. The information contained in the presentation and press release 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. 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 or through other public disclosures.

Exhibits

99.1 Company Presentation dated January 9, 2023.

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: January 9, 2023

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

Exhibit 99.1

Ascendis Pharma A/S

41st Annual J.P. Morgan Healthcare Conference

January 9, 2023

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 prospective product candidates; clinical trial results; the expected timing of future clinical trial results; the scope, progress, results and costs of developing our product candidates or any other future product candidates; timing and likelihood of success; plans and objectives of management for future operations; and future results of current and anticipated products and product candidates 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 2, 2022 particularly in the sections titled “Risk Factors” and “Operating and Financial Review and Prospects.” 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, changed circumstances 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.

Our Values Drive Sustainable Value Creation

Making a meaningful difference in patients' lives:

- Addressing real unmet medical needs
- Creating new products with best-in-class potential based on strong scientific rationale
- Uncompromising focus on execution

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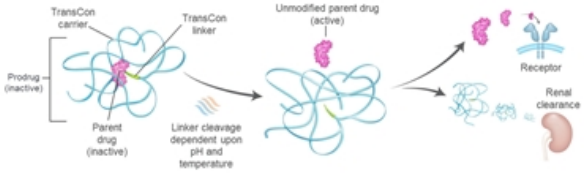
Positioned to Reach Patients Across the Globe

A fully integrated biopharma company with an expanding global presence

- Founded in 2007 in Copenhagen, Denmark
- Publicly listed on NASDAQ since 2015 (ASND)
- TransCon hGH approved in the US and Europe
- Financials: ~ €935 million cash, cash equivalents and marketable securities as of September 30, 2022

Predictable Release of Unmodified Parent Drug from TransCon Prodrug

Sustained Systemic Release

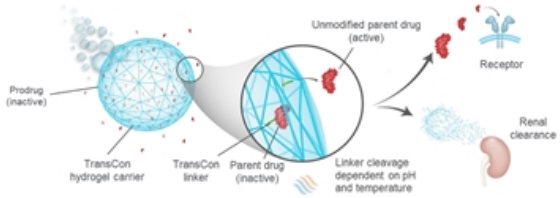


Parent drug is transiently bound to a TransCon linker-soluble carrier moiety, which inactivates and shields parent drug from clearance

Following injection, the linker is designed to autocleave at a specific rate to predictably release unmodified parent drug

Designed to distribute released molecule like the parent drug; linker-carrier is cleared renally

Sustained Localized Release



Parent drug is transiently bound to TransCon linker-hydrogel carrier, which inactivates, shields parent drug and prevents clearance

Following injection, the linker is designed to autocleave at a specific rate to predictably release unmodified parent drug

Designed to provide sustained high local drug levels with low systemic exposure; hydrogel degrades into small polymers that are renally cleared

Potential to improve drug safety, efficacy, tolerability, and convenience

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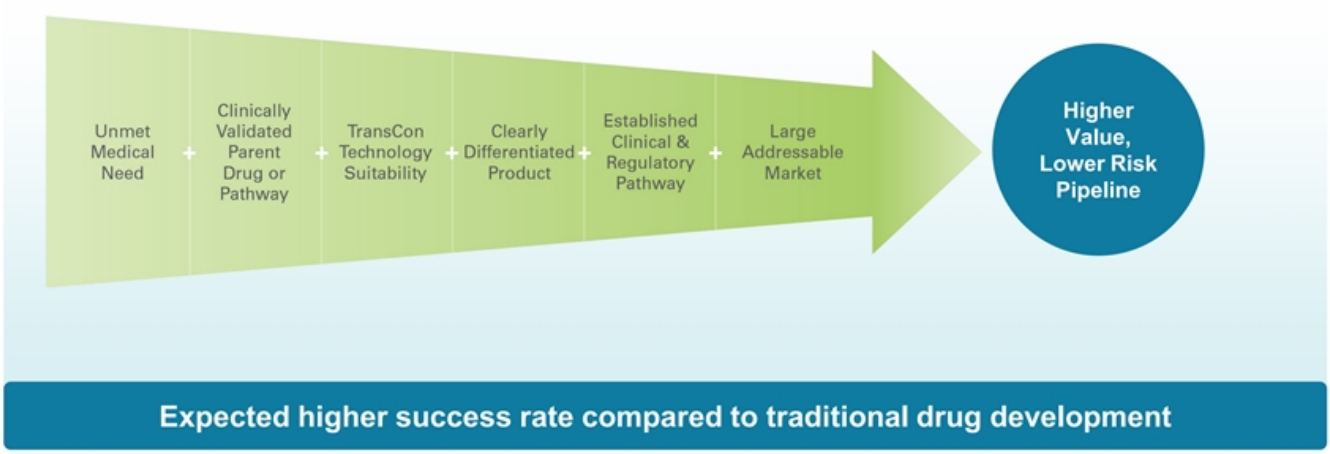
Strategic Approach for Product Innovation

A unique algorithm for designing clearly differentiated product candidates



Expected higher success rate compared to traditional drug development

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Approved Products & Clinical-Stage Product Candidates

APPROVED PRODUCTS	
Endocrinology rare diseases	**Pediatric Growth Hormone Deficiency**

U.S.: **SKYTROFA®** (lonapegsomatropin-tcgd) **EUROPE**: **SKYTROFA®** (lonapegsomatropin)[1]

PRODUCT CANDIDATES	PHASE 1	PHASE 2	PHASE 3	REGULATORY
Endocrinology rare diseases				
TransCon hGH	Pediatric Growth Hormone Deficiency (Japan)[2]			
	Adult Growth Hormone Deficiency (Global)[3]			
	Turner Syndrome (U.S.)[4]			
TransCon PTH	Adult Hypoparathyroidism (U.S. and Europe)[5]			
	Adult Hypoparathyroidism (Japan)[6]			
TransCon CNP	Achondroplasia (Global)[7]			
Oncology				
TransCon TLR7/8 Agonist	Solid Tumors (including indication specific cohorts)[8]			
TransCon IL-2 β/γ	Solid Tumors[9]			

1. Not yet marketed in the EU. 2. Japanese riGHt Trial. 3. Global foresiGHt Trial. 4. New InsiGHTS Trial. 5. NDA submitted to the FDA; PDUFA action date April 30, 2023, European MAA submitted November 2022, decision anticipated Q4 2023. 6. Japanese PaTHway Japan Trial. 7. Global ApproaCH Trial. 8. transcendIT-101 Trial includes four indication-specific cohorts currently enrolling patients. 9. IL-2elle;e Trial.

Vision 3x3: Building a Leading Global Biopharma Company

Our goal is to achieve sustainable growth through multiple approaches

- **Obtain regulatory approval for three independent Endocrinology Rare Disease products**
  - TransCon hGH for pediatric growth hormone deficiency
  - TransCon PTH for adult hypoparathyroidism
  - TransCon CNP for achondroplasia
- **Grow Endocrinology Rare Disease pipeline through**
  - Global clinical reach
  - Pursuing 9 total indications, label optimization, and life cycle management
  - New endocrinology products
- **Establish global commercial presence for our Endocrinology Rare Disease area**
  - Build integrated commercial organization in North America and select European countries
  - Establish global commercial presence through partners with local expertise and infrastructure
- **Advance a high-value oncology pipeline with one IND or similar filing each year**
- **Create a third independent therapeutic area with a diversified pipeline**

Ascendis Pharma's 2020 - 2025 strategic roadmap

TransCon hGH

Once-weekly growth hormone replacement therapy

Approved as SKYTROFA® in the U.S. and Europe

Growth Hormone Supports Overall Endocrine Health

Growth hormone deficiency may lead to multiple health complications

1. de Boer, H. et al. J. Clin. Endocrinol. Metab. 1997; 82(7): 2032-2036. **2.** Rutherford, O. M. et al. Clin. Endocrinol 1991; 34(6): 469-475. **3.** Colle, M., J. Auzerie. Horm. Res. 1993; 39(5-6): 192-196.
4. Johannsson, G., et al. J. Clin. Endocrinol. Metab. 1999; 84(12): 4516-4524. **5.** Stabler, B. et al. Horm. Res. 1996; 45(1-2) 30-33. **6.** Leonga, G., Johannsson, G. Horm. Res. 2003; 60(suppl1): 78-85.
7. Colao, A. et al. J. Clin. Endocrinol. Metab. 2002; 87(8): 3650-3655. **8.** Bex, M., Bouillon, R. Horm. Res. 2003; 60(suppl3): 80-86.

Commercially Launched in the U.S.

Once-weekly

Skytrofa®

lonapegsomatropin-tcgd

- First FDA-approved once-weekly treatment for pediatric growth hormone deficiency (GHD)
  - Room temperature storage
  - Small 31G needle
  - Single low-volume (<0.60mL) injection for patients ≤60kg
  - No waste due to empty-all design
  - Device lifespan at least 4 years
- First FDA-approved product utilizing TransCon™ technology

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SKYTROFA (lonapegsomatropin-tcgd)

Selected Highlights of U.S. Prescribing Information

INDICATION & USAGE	SKYTROFA is a human growth hormone indicated for the treatment of pediatric patients 1 year and older who weigh at least 11.5 kg and have growth failure due to inadequate secretion of endogenous growth hormone (GH).
DOSAGE & ADMINISTRATION	SKYTROFA should be administered subcutaneously into the abdomen, buttock, or thigh with regular rotation of the injection sites. The recommended dose is 0.24 mg/kg body weight once-weekly. See full prescribing information for instructions on preparation and administration of drug.
CONTRAINDICATIONS	• Acute critical illness • Hypersensitivity to somatropin or any of the excipients in SKYTROFA • Children with closed epiphyses • Active malignancy • Active proliferative or severe non-proliferative diabetic retinopathy • Children with Prader-Willi syndrome who are severely obese, have a history of upper airway obstruction or sleep apnea or have severe respiratory impairment due to the risk of sudden death
ADVERSE REACTIONS	Most common adverse reactions (≥5%) in pediatric patients include: viral infection, pyrexia, cough, nausea and vomiting, hemorrhage, diarrhea, abdominal pain, and arthralgia and arthritis.

Reference: SKYTROFA® (lonapegsomatropin-tcgd) prescribing information, Ascendis Pharma / skytrofa_pi.pdf (ascendispharma.us)

► **To report SUSPECTED ADVERSE REACTIONS**, contact Ascendis Pharma, Inc. at 1-844-442-7236 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

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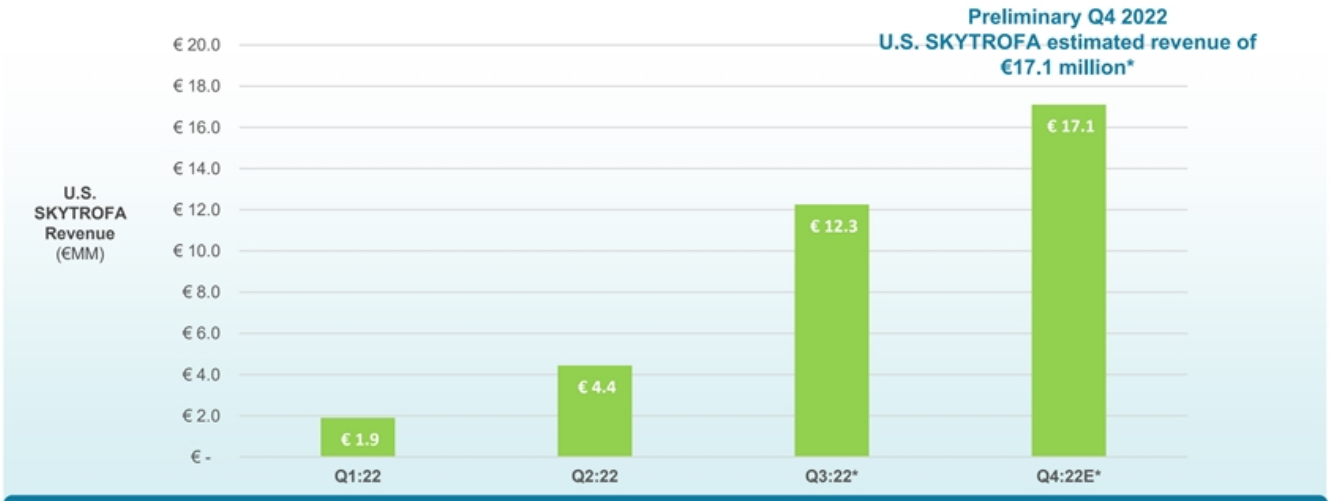
2022 U.S. SKYTROFA Revenue (€) Ramp



Q4 revenue provides the foundation for growth in 2023 and beyond

**Preliminary Q4 revenue based on internal estimates of unaudited preliminary financial results. This includes an estimated negative foreign currency translation impact of €0.4 million, compared to a benefit of €0.5 million in the third quarter of 2022.*

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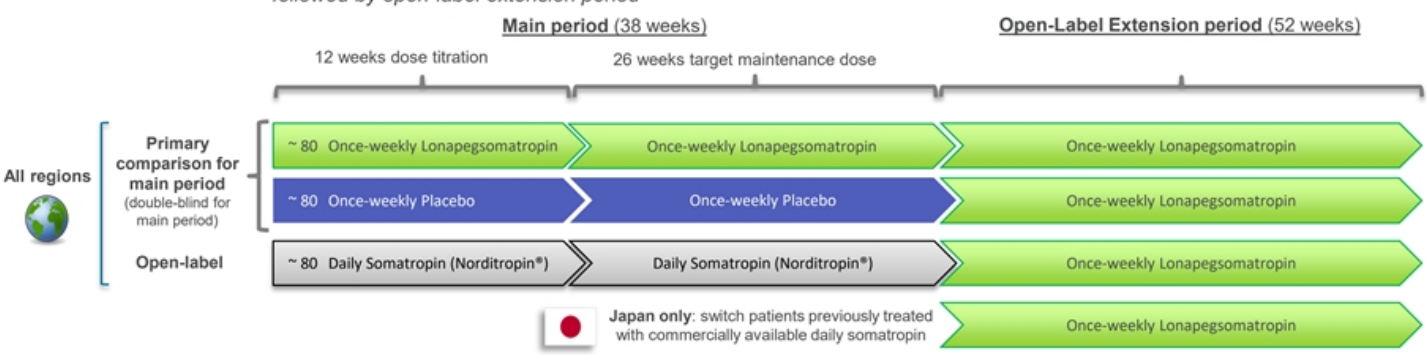
Adult GHD Trial Primary Objective - Body Composition

Phase 3, double-blind, placebo-controlled main period with open-label daily somatropin arm, followed by open-label extension period



Primary Objective
Demonstrate efficacy compared to placebo

Primary Efficacy Endpoint
Change from baseline in trunk % fat at Week 38

Key Eligibility Criteria
- Adults with GHD
- Ages 23-80 years
- GH treatment-naïve or no GH therapy in past 12 months
- IGF-1 SDS ≤ -1.0 at screening

Norditropin® is a trademark of Novo Nordisk Healthcare.

Building a Leading Global Growth Hormone Brand in Value

Pricing discipline built around product strengths has allowed us to expand overall market value

UNITED STATES
- SKYTROFA® positioned to be the leading growth hormone brand in value

EUROPE
- First European launch planned for Germany in Q3 2023

LABEL EXPANSION
- Global adult GHD Phase 3 enrollment completed
- Turner Syndrome trial underway
- Combination with TransCon CNP

ASIA
- Phase 3 pediatric GHD data in China, consistent w/ heiGHt Trial
- Phase 3 pediatric GHD continues in Japan

Ascendis aspires to become the global leader in growth hormone and growth disorders

TransCon hGH: Summary & Next Steps

Building a leading global growth hormone brand in value

- U.S. Q4 revenue provides foundation for growth in 2023 and beyond
- Building integrated commercial organization in select European countries
  - First European launch in Germany expected Q3 2023
- Label and geographic expansion underway:
  - Adult GHD – Topline data from the global Phase 3 foresiGHt Trial expected in Q4 2023
  - Turner Syndrome – Complete enrollment of Phase 2 New InsiGHTS Trial planned for Q3 2023
  - Pediatric GHD – Enrollment continues in the Phase 3 riGHt Trial in Japan
- Evaluating TransCon hGH in combination with TransCon CNP

TransCon hGH has potential to grow size of the estimated $4B* global growth hormone market

**Ascendis Pharma estimate of the 2021 hGH market.*

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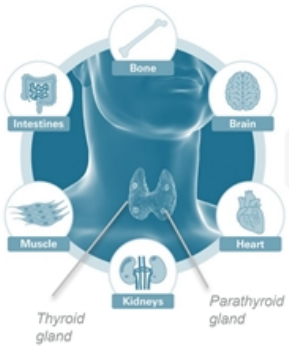
TransCon PTH

Investigational PTH replacement therapy for adult hypoparathyroidism

Hypoparathyroidism: One Disease, Multiple Consequences[1-4]

Absence or deficiency of parathyroid hormone (PTH) is linked to multi-organ manifestations.[5,6]



CENTRAL NERVOUS SYSTEM
- Seizures
- Basal ganglia calcifications
- Parkinsonism or dystonia

RESPIRATORY
- Laryngospasm

CARDIOVASCULAR
- Vascular calcifications
- Cardiac arrhythmias
- Hypocalcemia-associated dilated cardiomyopathy

RENAL
- Nephrocalcinosis*
- Nephrolithiasis*
- Chronic kidney disease*

PERIPHERAL NERVOUS SYSTEM
- Paresthesia
- Muscle cramps
- Pain
- Tetany

NEUROPSYCHIATRIC
- Anxiety & depression
- Cognitive impairment ("brain fog")

OPHTHALMALOGICAL
- Cataracts
- Papilledema

DENTAL
- Altered tooth morphology

DERMATOLOGICAL
- Dry skin
- Thinning hair
- Brittle nails

MUSCULOSKELETAL
- Myopathy
- Spondylorthropathy

1. Underbjerg L, Sikjaer T, Mosekilde L, et al. Cardiovascular and renal complications to postsurgical hypoparathyroidism: a Danish nationwide controlled historic follow-up study. J Bone Miner Res. 2013;28(11):2277-2285. doi:10.1002/jbmr.1979. *2.* Underbjerg L, Sikjaer T, Mosekilde L, et al. The epidemiology of nonsurgical hypoparathyroidism in Denmark: a nationwide case finding study. J Bone Miner Res. 2015;30(9):1738-1744. doi:10.1002/jbmr.2501. *3.* Shoback DM, Bilezikian JP, Costa AG, et al. Presentation of hypoparathyroidism: etiologies and clinical features. J Clin Endocrinol Metab. 2016;101(6):2300-2312. doi:10.1210/jc.2015-3909. *4.* Underbjerg L, Sikjaer T, Mosekilde L, et al. The epidemiology of nonsurgical hypoparathyroidism in Denmark: a nationwide case finding study. J Bone Miner Res. 2015;30(9):1738-1744. doi:10.1002/jbmr.2501. *5.* Mannstadt M, Bilezikian JP, Thakker RV, et al. Hypoparathyroidism. Nat Rev Dis Primers. 2017;3:17055. doi:10.1038/nrdp.2017.55. *6.* Shoback DM, Bilezikian JP, Costa AG, et al. Presentation of hypoparathyroidism: etiologies and clinical features. J Clin Endocrinol Metab. 2016;101(6):2300-2312. doi:10.1210/jc.2015-3909.

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Diverse Etiologies of Disease Covered in Clinical Programs

	Phase 2 PaTH Forward (Global, OLE) at 6-months*	Phase 3 PaTHway (Global) (6 months)*	Phase 3 PaTHway Japan (6 months)	Total
	All TransCon PTH (n=59)	TransCon PTH Arm (n=61)	TransCon PTH (n=13)	TransCon PTH (n=133)
Cause of Hypoparathyroidism (HP)				
Acquired from neck surgery	47	52	5	104
Autoimmune disease	1	1	0	2
ADH1	0	1	1	2
Other genetic	0	3	1	4
Idiopathic disease	11	4	6	21

** The safety and efficacy of TransCon PTH have not been established and TransCon PTH is not currently approved by the FDA.*

Once-Daily TransCon PTH – Showed Consistent Impact

	Phase 2 PaTH Forward (Global, OLE) at 6-months*	Phase 3 PaTHway (Global)[3] (6-months)*	Phase 3 PaTHway Japan (6-months)
Number of patients who reached 6-month visit, n	58	60	13
Number of patients eliminating conventional therapy *(Defined as independence from active vitamin D and independence from therapeutic levels of calcium supplements[5])*	54 (93%)	57 (95%)	13 (100%)
Number of Patients Meeting Individual Components, n (%):			
Independence from active vitamin D	56 (100%)[4]	60 (100%)	13 (100%)
Independence from therapeutic doses of calcium supplements	52 (93%)[4]	57 (95%)	13 (100%)
Albumin-adjusted serum calcium within the normal range[1]	51 (91%)[4]	49 (82%)	12 (92%)
Number of patients meeting all three components, n (%) *(Defined as serum calcium in the normal range[1], independence from active vitamin D, independence from therapeutic levels of calcium supplements[2])*	48 (86%)[4]	48 (80%)	12 (92%)

* The safety and efficacy of TransCon PTH have not been established and TransCon PTH is not currently approved by the FDA.
1. The normal range for albumin-adjusted sCa is 8.3-10.6 mg/dL (2.07-2.64 mmol/L).
2. If needed to meet recommended dietary intake of calcium, it was permitted to take calcium supplements ≤600 mg/day as a nutritional supplement.
3. Patients with missing data on one or more of the criteria are considered as non-responders.
4. Percentage is based on the number of subjects who have data on all components at Month 6 (N=56).
5. Independence from therapeutic levels of calcium defined as calcium dose ≤600mg/day.

PaTHway Japan Trial: Topline Data at Week 26

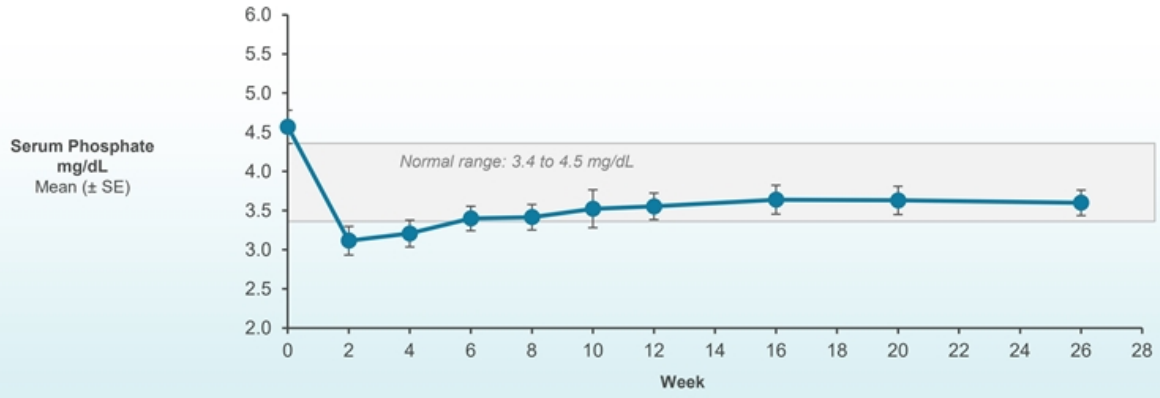
PaTHway Japan Trial achieved primary objectives

- 92% of patients (12 of 13) met the primary composite endpoint[1]
- Results consistent across disease etiologies studied (post-surgical, genetic, or idiopathic)
- TransCon PTH was generally well-tolerated, with no discontinuations related to study drug
  - TEAEs consistent with prior trials: 77% (10 of 13) experienced Grade 1 or 2 TEAEs; no serious TEAEs reported.
  - All 13 subjects had normal 24-hour urine calcium excretion (≤250 mg/24hours) at Week 26.
- 12 patients continue in the ongoing 3-year extension

1. Defined as serum calcium levels in the normal range (8.3–10.6 mg/dL) and independence from conventional therapy (active vitamin D and >600 mg/day of calcium supplements).

Serum Phosphate PaTHway Japan

Released unmodified PTH is filtered by kidney, decreasing phosphate reabsorption



PaTHway Japan data showed TransCon PTH normalized serum phosphate independent of disease etiologies, consistent with EU and North American Trials

Diagnosed U.S. Chronic Hypopara Patient Population

~4,000-5,000[1] Previously treated with PTH therapy

~65,000-85,000[2] Currently treated with conventional therapy

~3,000/year[2] Newly diagnosed annually

1. Internal estimates and Symphony Metys data.
2. US prevalence literature review and epi meta-analysis (Powers, Clarke, Milliman project, ipm.ai claims project; HCUPnet, Healthcare Cost and Utilization Project. Agency for Healthcare Research and Quality, Rockville, MD. for surgical cohort projection).

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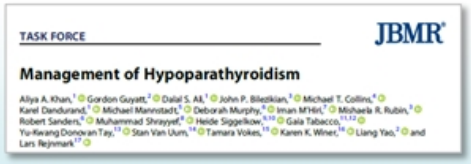
Latest Clinical Practice Guideline

- Consider PTH replacement therapy in patients not adequately controlled on conventional therapy
- Inadequate control is considered to be any one of the following:
  - Symptomatic hypocalcemia
  - Hyperphosphatemia
  - Renal insufficiency
  - Hypercalciuria
  - Poor quality of life
- In addition, individuals with poor compliance, malabsorption, or who are intolerant of large doses of calcium and active vitamin D may also benefit from PTH replacement therapy


TASK FORCE

JBMR®

Management of Hypoparathyroidism

Aliya A. Khan,[1] Gordon Guyatt,[2] Dalal S. Ali,[1] John P. Bilezikian,[3] Michael T. Collins,[4] Karel Dandurand,[1] Michael Mannstadt,[5] Deborah Murphy,[6] Iman M'Hiri,[7] Mishaela R. Rubin,[3] Robert Sanders,[8] Muhammad Shrayyef,[8] Heide Siggelkow,[9,10] Gala Tabacco,[11,12] Yu-Kwang Donovan Tay,[13] Stan Van Uum,[14] Tamara Vokes,[15] Karen K. Winer,[16] Liang Yao,[2] and Lars Rejnmark[17]

1. *Aliya A Khan et al, The Second International Workshop on the Evaluation and Management of Hypoparathyroidism, Journal of Bone and Mineral Research, 10.1002/jbmr.4671.*

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TransCon PTH: Summary & Next Steps

Potential new paradigm to treat the underlying cause of hypoparathyroidism

- Unmet medical need recognized by FDA Priority Review; PDUFA date April 30, 2023[1]
- Enrollment now open for U.S. Expanded Access Program
- First wave of dedicated TransCon PTH U.S. sales force already on board
- EU MAA decision anticipated Q4 2023
- Phase 3 PaTHway Japan trial topline results consistent with North American and EU trials
- 146 out of 154 patients continue in the open label extensions reaching up to 3 years of treatment [2]
- Once-weekly TransCon PTH in pre-clinical development for patients on stable daily PTH dosing

Ready to launch second endocrine rare disease product, in a $5B+ potential market[3]

1. The safety and efficacy of TransCon PTH have not been established and TransCon PTH is not currently approved by the FDA, EMA or any other regulatory body.
2. As of January 3, 2023; includes patients in the open label extension portions of PaTH forward, PaTHway, and PaTHway Japan.
3. Ascendis internal estimate.

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TransCon CNP

Investigational once-weekly growth treatment for achondroplasia

TransCon CNP is an investigational product candidate. For investor communication only. Not for use in product promotion. Not for further distribution.

Achondroplasia:
Primary Skeletal Manifestations and Key Complications[1-10]

Manifestations

- Short stature
- Short limbs & rhizomelia
- Narrowing of foramen magnum
- Midfacial hypoplasia
- Frontal bossing
- Trident hand

Complications

- Foramen magnum stenosis
- Spine deformities
- Spinal stenosis
- Sleep apnea
- Recurrent otitis media
- Pain
- Obesity

Interventions

- Cervicomedullary decompression
- Grommets
- Tonsillectomy/ Adenoidectomy
- Continuous positive airway pressure
- Bone lengthening surgery

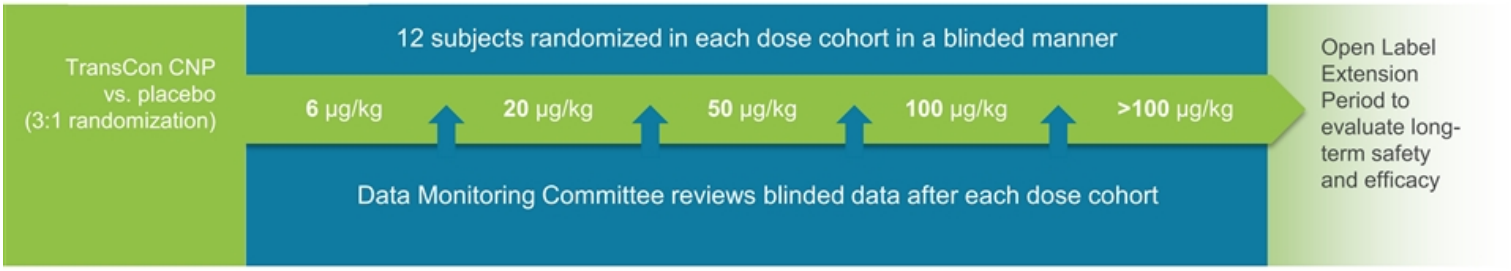
Life expectancy impacted by risk of infant death and increased mortality in adults

1. Pauli, R.M. *Orphanet J Rare Dis* 14. 2019; 14(1):1-49. **2** Langer Lo et al. Am J Roentgenol 1967 100: 12-26. **3.** Hunter AG et al. *J Med Genetic*. 1998; 35(9):705-12. **4.** Afsharpaiman S, et al., *Paediatr Respir Rev*. 2013;14(4):250-255. **5.** Reid CS, et al. *J Pediatr*. 1987;110(4):522-530. **6.** Schkrohowsky JG, et al. *J Pediatr Orthop*. 2007;27(2):119-122. **7.** Saleh M et al. Orthop Clin North Am. 1991; 22:589-99. **8.** Hecht JT et al. Am J Hum Genet. 1987; 41(3): 454–464. **9.** Wynn et al J, *Am J Med Genet*. 2007; 143A:2502-11. **10.** Hecht JT et al. *Am J Med Genet* 1988; 31:597-602.

TransCon CNP: Phase 2 Trial Design

ACcomplisH TRIAL

Up to 60 children (ages 2–10 years) with achondroplasia (ACH)



Primary Endpoint

- Annualized height velocity

Key Secondary/Additional Endpoints

- Change in body proportionality
- Patient reported outcome (PRO) measures
- Exploratory biomarkers evaluated

First-ever randomized, double-blind, placebo-controlled Phase 2 trial in children with achondroplasia

ClinicalTrials.gov. https://clinicaltrials.gov/ct2/show/NCT04085523?term=ACcomplisH&draw=2&rank=5. Accessed 05/23/2021.

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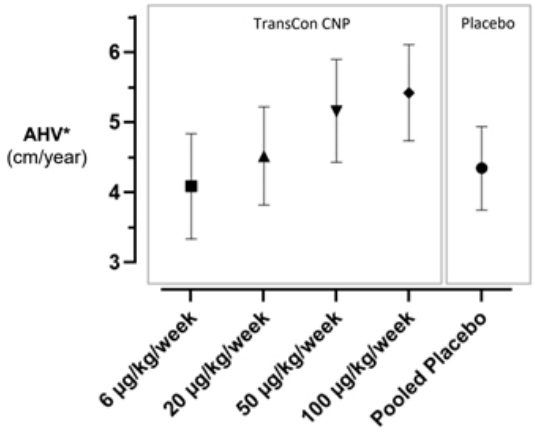
TransCon CNP 100 µg/kg/week Demonstrated Superiority in AHV Compared to Placebo

Treatment Group (TransCon CNP Dose Levels or Placebo)	AHV* (cm/year), n LS Mean [95% CI]	p-value (TransCon CNP vs. Pooled Placebo)
6 µg/kg/week	4.09, n=10 [3.34, 4.84]	0.6004
20 µg/kg/week	4.52, n=11 [3.82, 5.22]	0.7022
50 µg/kg/week	5.16, n=10 [4.43, 5.90]	0.0849
100 µg/kg/week	5.42, n=11 [4.74, 6.11]	0.0218
Pooled Placebo	4.35, n=15 [3.75, 4.94]	NA

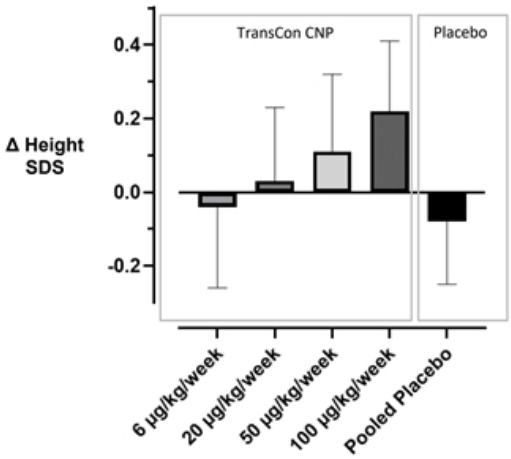


TransCon CNP demonstrated a dose-response in AHV across the four dose groups

Data on file, Ascendis Pharma 2022.
*ANCOVA model.

TransCon CNP 100 µg/kg/week Demonstrated Superiority in Change in ACH-Specific Height SDS Compared to Placebo

Treatment Group (TransCon CNP Dose Levels or Placebo)	Δ Height SDS*, n LS Mean [95% CI]	p-value (TransCon CNP vs. Pooled Placebo)
6 µg/kg/week	-0.04, n=10 [-0.26, 0.17]	0.8207
20 µg/kg/week	0.03, n=11 [-0.17, 0.23]	0.4107
50 µg/kg/week	0.11, n=10 [-0.10, 0.32]	0.1660
100 µg/kg/week	0.22, n=11 [0.02, 0.41]	0.0283
Pooled Placebo	-0.08, n=15 [-0.25, 0.10]	NA



TransCon CNP demonstrated a dose-dependent improvement in ACH-specific height SDS across all dose groups

Data on file, Ascendis Pharma 2022.

* Hoover-Fong JE, Schulze KJ, Alade AY, et al. Growth in achondroplasia including stature, weight, weight-for-height and head circumference from CLARITY. *Orphanet J Rare Dis*. 2021;16(1):522. ANCOVA model.

Overview of TEAEs (Double-Blind Period)

	TransCon CNP 6 µg/kg/week (n=10)	TransCon CNP 20 µg/kg/week (n=11)	TransCon CNP 50 µg/kg/week (n=10)	TransCon CNP 100 µg/kg/week (n=11)	Total Placebo (n=15)
Subjects with TEAEs* n (%)	9 (90.0)	11 (100.0)	10 (100.0)	10 (90.9)	14 (93.3)
Grade 1 (mild) n (%)	9 (90.0)	11 (100.0)	10 (100.0)	9 (81.8)	14 (93.3)
Grade 2 (moderate) n (%)	3 (30.0)	3 (27.3)	3 (30.0)	1 (9.1)	5 (33.3)
Serious TEAEs n (%)	1 (10.0)	0	1 (10.0)	0	0
Treatment-Related TEAEs n (%)	3 (30.0)	2 (18.2)	3 (30.0)	2 (18.2)	5 (33.3)
Achondroplasia-Related TEAEs** n (%)	3 (30.0)	4 (36.4)	5 (50.0)	1 (9.1)	9 (60.0)

Data on file, Ascendis Pharma 2022.
** No reported Grade 3 (severe) or Grade 4 (life-threatening) TEAEs.*
***Adverse events reported by investigator as related to underlying disease.*

Treatment-Related Adverse Events (Double-Blind Period)

	TransCon CNP 6 µg/kg/week (n=10)	TransCon CNP 20 µg/kg/week (n=11)	TransCon CNP 50 µg/kg/week (n=10)	TransCon CNP 100 µg/kg/week (n=11)	Total Placebo (n=15)
Subjects with at Least One Treatment-Related TEAE n (%)	3 (30.0)	2 (18.2)	3 (30.0)	2 (18.2)	5 (33.3)
Injection site reactions (ISRs)* n (%)	2 (20.0)	1 (9.1)	3 (30.0)	2 (18.2)	2 (13.3)
Abdominal pain upper n (%)	0	1 (9.1)	0	0	0
Overdose n (%)	0	0	0	0	1 (6.7)
Dizziness n (%)	0	0	0	0	1 (6.7)
Sleep terror n (%)	0	0	0	0	1 (6.7)
Urticaria n (%)	1 (10.0)	0	0	0	0

Injections were generally well tolerated with low frequency of injection site reactions
11 mild ISRs (in 8 patients) out of >2,000 injections

Data on file, Ascendis Pharma 2022.
** Injection site reactions includes preferred terms of Injection site reaction, Injection site pain, Injection site erythema, Injection site discoloration, Injection site hemorrhage, and Injection site swelling.*

Safety Results Summary (Double-Blind Period)

- TransCon CNP was generally well tolerated, with no discontinuations
  - Frequency of TEAEs in each dose group was similar to placebo
- No serious AEs (SAEs) related to treatment were reported
  - Two unrelated SAEs were reported (febrile convulsion and viral infection)
- 95% of TransCon CNP patients and 93% of placebo patients reported TEAEs
  - 95% of TransCon CNP TEAEs were assessed as mild (Grade 1) in severity
- Injections were generally well tolerated with low frequency of injection site reactions
- No reported events of symptomatic hypotension
- For body proportionality, induced growth was proportional across all groups at Week 52

Observed safety results support continued development of TransCon CNP for children with achondroplasia

Data on file, Ascendis Pharma 2022.
TEAE: Treatment emergent adverse event.

TransCon CNP: Summary & Next Steps

ACcomplisH Trial suggested best-in-class potential in children down to 2 years of age

- Safety: TEAEs comparable to placebo; ACH related TEAEs numerically lower in TransCon CNP comparing to placebo prompting further investigation
- Efficacy: AHV at Week 52 demonstrated superiority of TransCon CNP at 100 µg/kg/week compared to placebo (p=0.0218)
- Tolerability: low frequency of injection site reactions; all 57 randomized children continued in the open-label extension
- Convenience: once-weekly dosing

- Phase 2b ApproaCH study expected to complete enrollment in Q2:23

100% patient retention in the ACcomplisH Trial, with treatment duration up to 3 years

Data on file, Ascendis Pharma 2022.

Oncology

Potential to improve immunotherapy safety and efficacy

Oncology: Evaluating Multiple Indication-Specific Cohorts

TransCon TLR7/8 Agonist

- Enrollment underway in four indication-specific cohorts (transcendIT-101)

TransCon IL-2 β/γ

- Enrollment continues in the dose escalation portion (IL-βelieγe)

Upcoming 2023 milestones:

- Topline results from monotherapy dose escalation cohorts for TransCon IL-2 β/γ
- Dose first patient in TransCon TLR7/8 Agonist and TransCon IL-2 β/γ combination cohort
- Declare RP2D from both TransCon IL-2 β/γ monotherapy and combo-therapy with CPI cohorts
- Enroll first patient in randomized Phase 2 trial of patients with head & neck squamous cell carcinomas
- transcendIT-101 and IL-βelieγe Trial updates

Designed to enhance anti-tumor effects and potentially transform cancer therapy

Ophthalmology

Primed for disruption with TransCon Technology

TransCon RBZ is an investigational product candidate. For investor communication only. Not for use in product promotion. Not for further distribution.

Ophthalmology - Primed for Disruption

Ophthalmology intravitreal treatments (IVT) represent an established, well-understood, and high-value therapeutic area, characterized by high unmet medical need

- Leverage TransCon hydrogel technology to create highly differentiated products:
  - Continuous local release - Over months with potential for improved efficacy
  - Clinically validated parent drug and pathway – Lower development risk
- Potential to increase market size due to improved efficacy and twice-yearly dosing

$10B+ established market[1] potential in under-treated indications

1. Ascendis internal estimate.

ascendis pharma

TransCon RBZ (Ranibizumab)

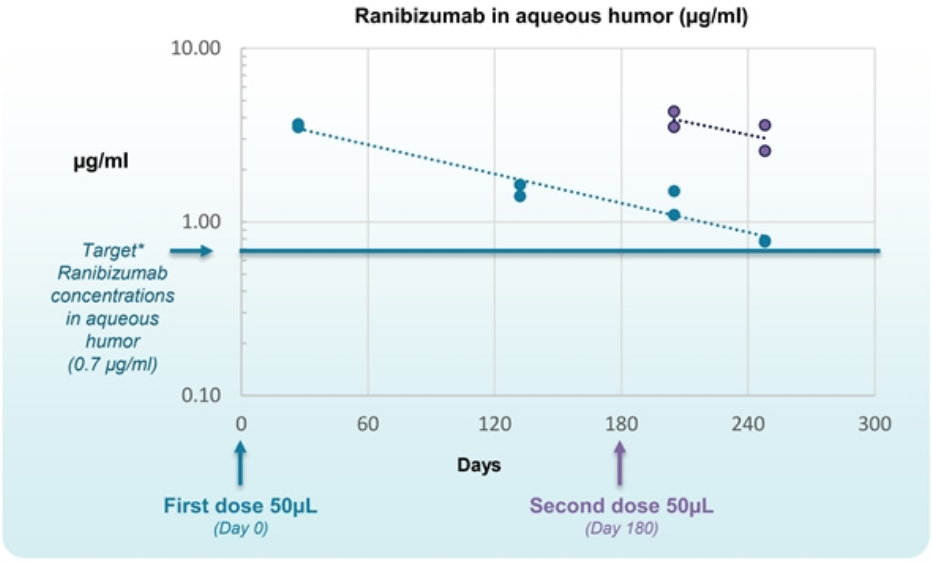
Anti-VEGF market is established, well-understood, and a high-value therapeutic area

- Vision loss caused by abnormal blood vessel growth and/or fluid build-up in the back of eye
  - Leading cause of blindness in industrialized nations
- Poor patient outcomes correlated to anti-VEGF exposure/treatment adherence
  - Many patients have difficulties adhering to frequent injections
  - Retinal specialists identify longer acting agents as highest unmet medical need
- TransCon RBZ target product characteristics
  - Clinically validated biology – Lucentis® (ranibizumab) approved by FDA in 2006 (U.S.)
  - Continuous local release over 6 months – to provide continuous anti-VEGF neutralization
  - Twice-yearly administration – to reduce treatment burden
- Estimated 2021 worldwide market for anti-VEGF treatment of >$10 billion[1]

TransCon RBZ designed for higher efficacy with 6-month dosing intervals

Lucentis® is a trademark of Genentech
1. Ascendis internal estimate.

TransCon RBZ
Exposure and Tolerability in Non-Human Primates



- Continuous local release of ranibizumab with half-life of ~100 days
- TransCon RBZ single 2mg intravitreal administration showed higher than target aqueous humor ranibizumab concentrations for > 6 months
- TransCon RBZ was generally well-tolerated on repeat intravitreal administrations

** Lucentis® (ranibizumab) C_{trough} in vitreous is 7 µg/mL. Concentration in aqueous humor is 10-fold below vitreous concentration (Journal of Controlled Release 345 (2022) 101–107; Ophthalmology 2007;114:2179–2182).*

Ophthalmology: Summary & Next Steps

TransCon Hydrogel Platform supports continuous local drug release over at least 6 months supporting twice yearly administration

- TransCon RBZ (ranibizumab) is in preclinical development for wet AMD (age-related macular degeneration) and other VEGF-related disorders
  - TransCon RBZ demonstrated higher than target ranibizumab concentration levels for > 6 months with a single injection in pre-clinical studies
  - Well-tolerated in NHPs after repeat administrations
  - IND or similar planned for Q4 2024 for first-in-human study in patients with wAMD
- Building a pipeline in Ophthalmology based on validated parent drugs and biology
  - Additional product opportunities in various stages of validation

TransCon Hydrogel Technology primed to disrupt and grow current $10B+ IVT market[1]

1. Ascendis internal estimate.

Sustainable, Profitable Global Biopharma Company

- **Promising product candidates in multiple high-value areas**
  - Endocrinology rare disease: Estimated $10B+ opportunity
  - Oncology & Ophthalmology: Estimated $25B+ addressable market
- **Growing pipeline each with best-in-class potential**
  - Highly differentiated product candidates with the potential to change treatment paradigms
- **Defined path to achieve positive cash flow**
  - Executing on commercial launches in multiple geographic regions, label optimization, and life cycle management

The Year Ahead

Selected Milestones Expected in 2023

Q1 2023

TransCon hGH
Pediatric GHD
Enroll first patient in U.S. Registry

TransCon IL-2 β/γ
Cancer Immunotherapy
Monotherapy topline results IL-βelieγe Trial

Q2 2023

TransCon PTH
Adult Hypopara
FDA decision

TransCon PTH
Adult Hypopara
U.S. commercial launch

TransCon CNP
Achondroplasia (age 2-11)
Complete enrollment Phase 2b ApproaCH Trial

Combo Cancer Immunotherapy
Dose first patient in TransCon TLR7/8 Agonist and TransCon IL-2 β/γ combination cohort

Q3 2023

TransCon hGH
Pediatric GHD
SKYTROFA launch in Germany

TransCon hGH
Turner Syndrome
Complete Phase 2 enrollment

TransCon CNP
Achondroplasia (age <2)
Submit IND or similar

TransCon IL-2 β/γ
Cancer Immunotherapy
Declare RP2D from combo-therapy with check point inhibitor

Combo Cancer Immunotherapy
Enroll 1st patient in randomized Phase 2 trial of patients with head & neck squamous cell carcinomas

Q4 2023

TransCon hGH
Adult GHD
Phase 3 topline results foresiGHt Trial

TransCon PTH
Adult Hypopara
European Commission decision

TransCon CNP
Achondroplasia (age 2-10)
One-year OLE follow-up data ACcomplisH Trial

Oncology
transcendIT-101 and IL-βelieγe trials updates


Thank you!