

Agreement to acquire shares of Orchard Therapeutics

協和キリン株式会社

 **KYOWA KIRIN**

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These uncertain factors include, but are not limited to, potential risks of the business activities in the pharmaceutical industry in Japan and overseas, intellectual property risks, risk of side effects, regulatory risks, product defect risks, risks of changes to the prices for raw materials, risks of changes to market prices, as well as risks of changes to foreign exchange rates and financial markets.

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Agenda

Agreement to acquire shares of Orchard Therapeutics

Director of the Board, Senior Managing Executive officer and Chief Medical Officer **Takeyoshi Yamashita, Ph.D.**

Q&A

Director of the Board, Senior Managing Executive officer and Chief Medical Officer **Takeyoshi Yamashita, Ph.D.**

Managing Executive Officer, Head of Finance **Motohiko Kawaguchi**

Transaction Summary

Items	Summary
Target	<ul style="list-style-type: none"> ■ Orchard Therapeutics plc (London) — Listed on NASDAQ
Purchase Price*	<ul style="list-style-type: none"> ■ \$16.00 per ADS / approx. \$387.4 million (approx. JPY 57.3 billion) — Orchard shareholders will hold additional contingent value rights (CVR) of \$1.00 per ADS. — Additional \$1.00 CVR will be paid for a total of \$17.00 per ADS, or approximately \$477.6 million (approx. JPY 70.7 billion) if OTL-200 is approved by the U.S. Food and Drug Administration for the commercial marketing and sale in the U.S.
Funding Method	<ul style="list-style-type: none"> ■ Cash on balance sheet
Financial Impact	<ul style="list-style-type: none"> ■ To be announced once allocation of goodwill and intangible assets are determined
Transaction Structure and Process	<ul style="list-style-type: none"> ■ Scheme of Arrangement (SoA) — Requires the approval by Orchard's shareholder meeting, UK court, and regulatory authorities — Closing is expected in 2024Q1 through implementation of SoA

*Refers to the amount required to make payments related to all outstanding Orchard common shares, ADS purchases, options, Restricted Stock Units, and other instruments.

Strategic Rationale of The Transaction

Our New Vision toward 2030

Kyowa Kirin will realize the successful creation and delivery of life-changing value* that ultimately makes people smile, as a Japan-based Global Specialty Pharmaceutical company built on the diverse team of experts with shared passion for innovation.

* Make patient smile through dramatic improvement in quality of life by identifying the unmet medical needs of people battling with medical conditions and by creating and supplying new drugs or services that help them overcome those challenges

Our purpose of the acquisition:

- To enrich our pipeline to address the UMNs* for which there is still no cure
- To obtain capabilities in Cell Gene Therapy R&D to address the future UMNs

* Unmet medical needs

- Strengthen the business following Crysvida and Poteligeo as a Global Specialty Pharmaceutical company
- Enhance ability to address UMNs in the future by combining with our strength in biologics
- Commitment to life by providing not only pharmaceuticals but also treatments

Overview of Orchard Therapeutics

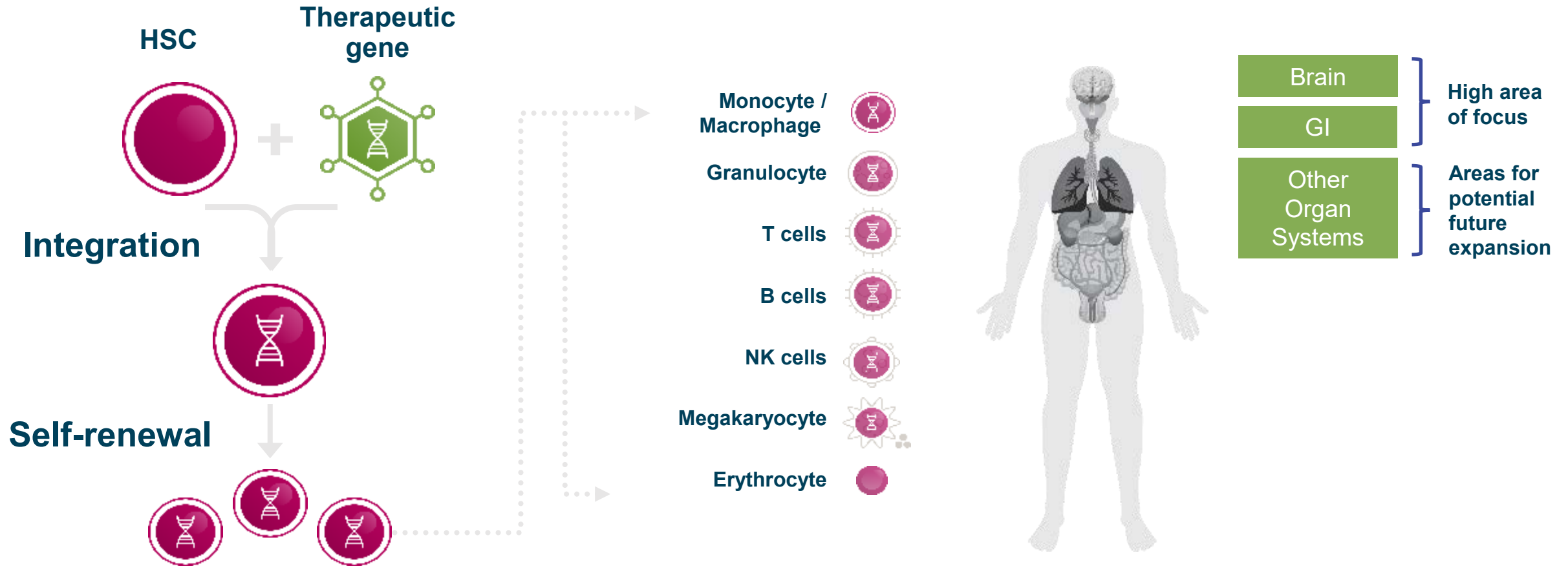
Orchard Therapeutics plc

Locations	United Kingdom (HQ), United States, Netherlands, France, Italy, Germany, Switzerland, Sweden
Business	Biopharmaceutical company with specialty in Hematopoietic Stem Cell Gene Therapy (HSC-GT)
Employees	166 employees (as of Dec. 2022)

Product & Clinical Pipelines

Clinical Asset	Target disease	Status	Next Catalyst	Expected timing of Catalyst
OTL-200 (Libmeldy®)	MLD	Launched in Europe Filed in US	FDA approval	PDUFA: March 18, 2024
OTL-203	MPS-IH	Ph1/2	Initiating pivotal study	Q4 2023
OTL-201	MPS-IIIA	Ph1/2	PoC data readout	Q1 2024

What is Hematopoietic Stem Cell Gene Therapy (HSC-GT)? -1



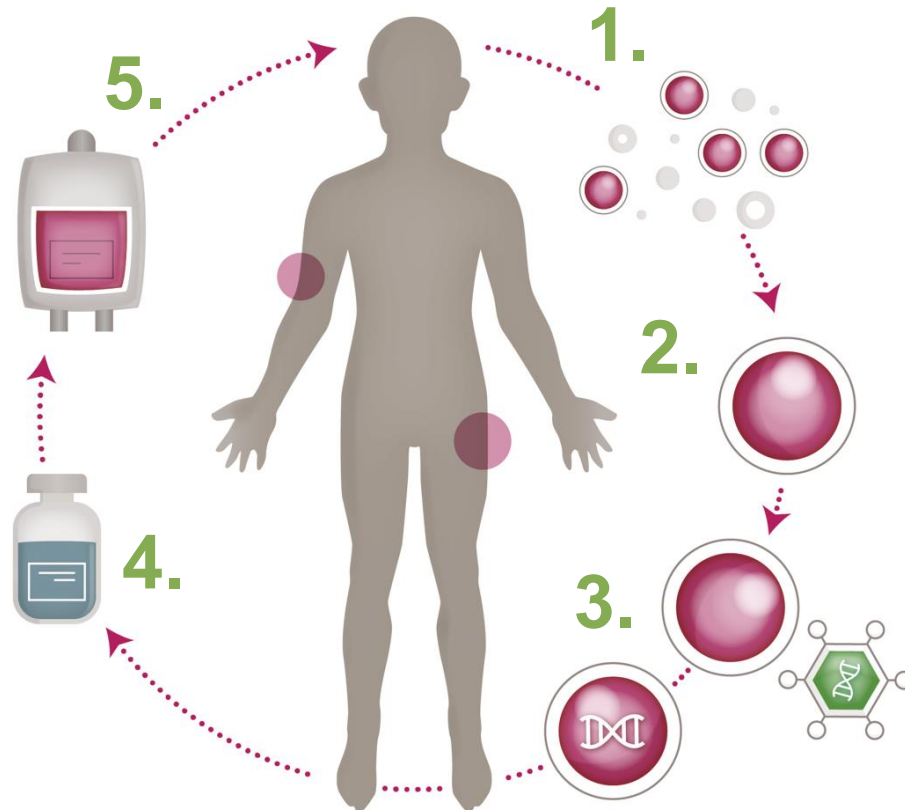
HSC-GT allows delivery of gene-modified blood/immune cells to any part of the body

Literature references: Alessia Capotondo, Rita Milazzo, Letterio Salvatore Politi, Angelo Quattrini, Alessio Palini, Tiziana Plati, Stefania Merella, Alessandro Nonis, Clelia di Serio, Eugenio Montini, Luigi Naldini, and Alessandra Biffi, PNAS September 11, 2012 109 (37) 15018-15023; <https://doi.org/10.1073/pnas.1205858109>; Tissue macrophages: heterogeneity and functions, Siamon Gordon and Annette Plüddemann, BMC Biology 2017 15:53, 29 June 2017

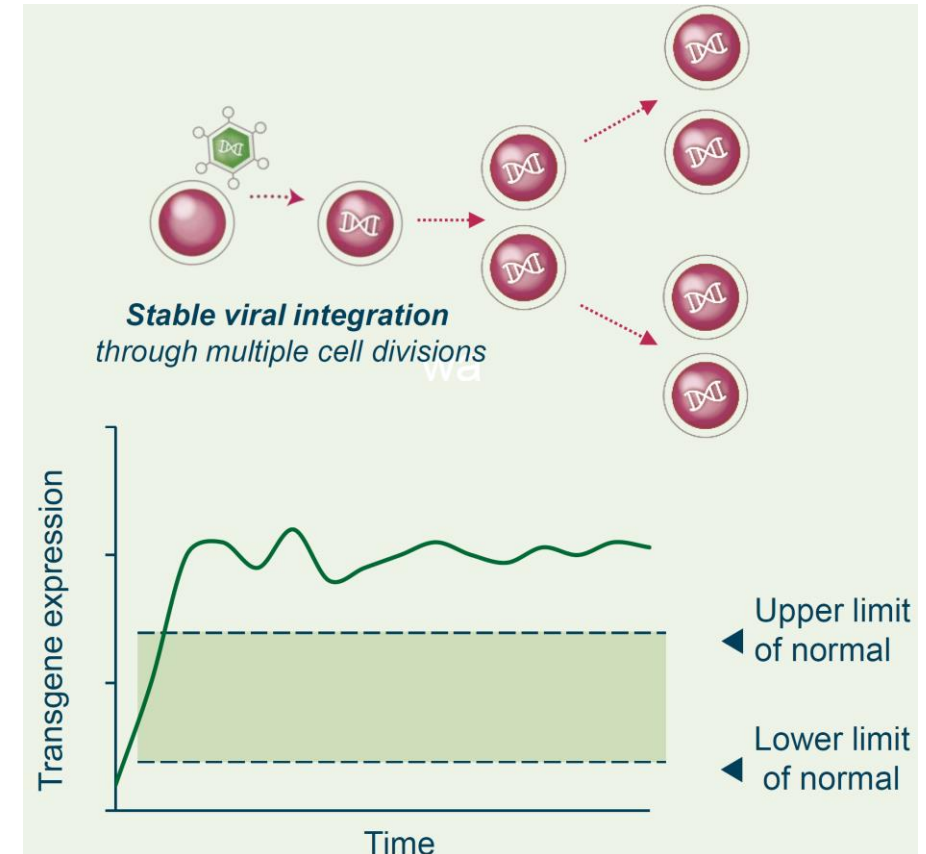
What is Hematopoietic Stem Cell Gene Therapy (HSC-GT)? -2

■ Treatment Process

1. Cells are collected from the patient
2. Blood stem cells are selected and purified
3. A working copy of the gene is inserted into the cells using a viral vector
Gene-corrected cells are frozen, or cryopreserved
4. The patient is conditioned to receive treatment
5. The gene-corrected cells are infused into the patient



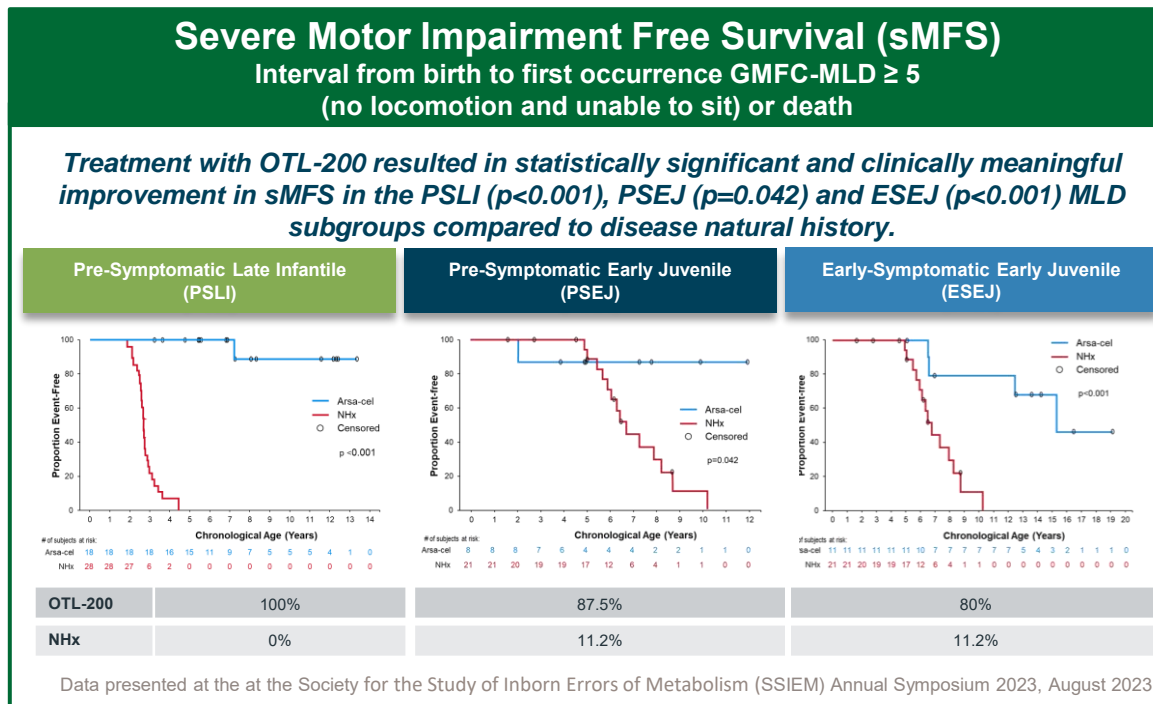
■ Durable Efficacy



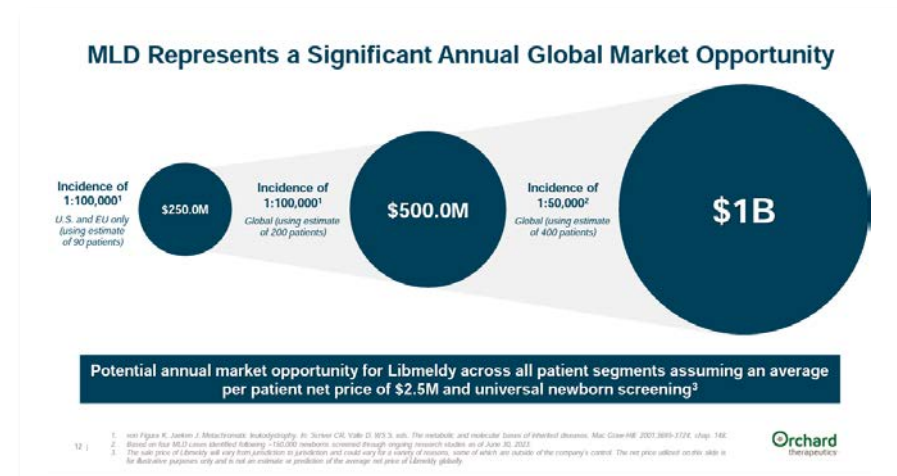
Potential for “One time treatment in life”

Libmeldy® (OTL-200, atidarsagene autotemcel)

- MLD (Metachromatic Leukodystrophy)
 - Fatal genetic CNS disorder
 - Rapid and irreversible loss of motor and cognitive function
 - In its most severe form, most children pass away within five years of symptom onset¹



Ref.) Orchard Therapeutics plc, Q2 2023 Financial Results and Webcast <https://ir.orchard-tx.com/static-files/9fed8b65-2fd9-491a-97c0-69bf6595c0c3>



Potential annual market opportunity for Libmeldy® across all patient segments assuming an average per patient net price of \$2.5M and universal newborn screening²

1. van Rappard DF, Boelens JJ, Wolf NI. Metachromatic leukodystrophy: disease spectrum and approaches for treatment. Best Pract Res Clin Endocrinol Metab 2015; 29: 261–73.
2. The sale price of Libmeldy® will vary from jurisdiction to jurisdiction and could vary for a variety of reasons, some of which are outside of the company's control. The net price utilized on this slide is for illustrative purposes only and is not an estimate or prediction of the average net price of Libmeldy® globally.

Development Pipelines: OTL-203, OTL-201

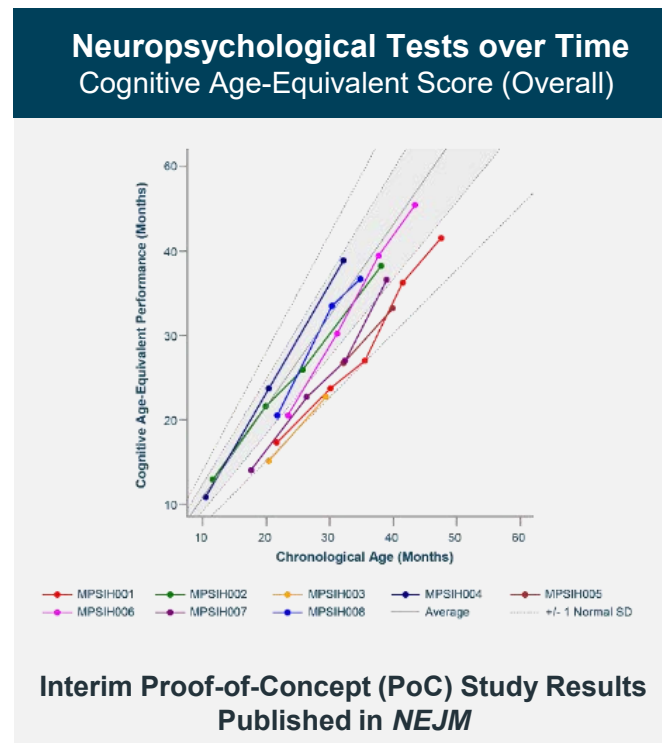
OTL-203

■ Indication: MPS-IH¹

- Multisystemic neurometabolic condition affecting cognition, growth and skeletal function
- ~1:100,000 live births; NBS² established in some geographies, incl. U.S.

■ Current Status

- Interim PoC results published in NEJM³
- Moving into a Pivotal (Ph3) study in 2H 2023



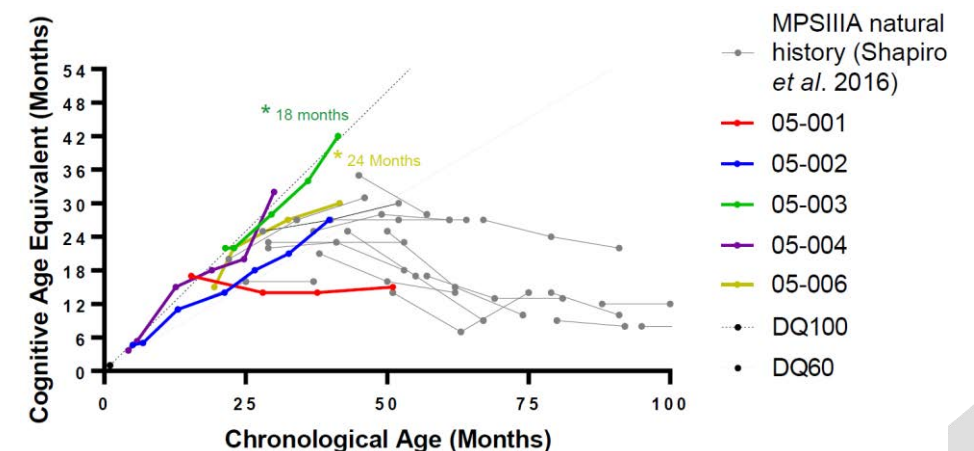
OTL-201

■ Indication: MPS-III A⁴

- Accumulation of substrate heparan sulfate leading to severe CNS degeneration w/ somatic manifestations
- Development slows from 3 years of age, followed by cognitive decline, behavioral disturbances, loss of skills and eventual death, No successful treatment options

■ Current Status

- PoC study (Ph1/2) is ongoing
- Biochemical/clinical data reported in 2023 ASGCT meeting



1. Mucopolysaccharidosis type I, Hurler syndrome; 2. Newborn Screening; 3. Engl J Med 2021; 385:1929-1940 DOI: 10.1056/NEJMoa2106596; 4. Mucopolysaccharidosis type IIIA (Sanfilippo Syndrome type A)

Expected Synergy

Further Development as a Global Specialty Pharmaceutical Company

- To be a Japan-based Global Specialty Pharmaceutical Company providing life-changing value to high unmet medical needs in concert with our existing business through Crysvita and Poteligeo

Reinforcement of New Drug Discovery & Development

Kyowa Kirin

- Experience and expertise of R&D and commercialization in Biologics and Antibody Drugs
- Proprietary next-generation antibody technology
- Continuous efforts to new modalities



Orchard Therapeutics

- Experience and know-how in the marketing HSC-GT¹ in EU
- High technology in HSC-GT¹ (Research, CMC, SCM, etc.)
- Patient access and collaboration with medical institutions
- Efforts and experience to new modalities

- A key step toward delivering advanced value to patients
 - Pursuing the potential for “One-time treatment in life”
 - Challenge to correct the underlying cause of a genetic disease
 - Personalized medicine / Precision medicine
 - Providing treatment beyond the existing drugs
- Address a broader range of UMNs

1. Hematopoietic Stem Cell Gene Therapy

Conclusion

- The acquisition of Orchard Therapeutics enables us to:
 - Enrich pipelines to address the UMN's for which there is still no cure
 - Gain capabilities in HSC-GT R&D to address the future UMN's

- Delivery of Gene-Corrected Cells to Multiple Organ Systems
- Durable efficacy, potential for "One Treatment in Life"

- It will be synergistic with the businesses of Crysvita and Poteligeo, contributing to further development as a Global Specialty Pharmaceutical company.
- Moreover, combining Kyowa Kirin's technology and experiences, represented by biologics, and Orchard's expertise in advanced HSC-GT will significantly enhance our drug discovery and development capability in the long term.

Kyowa Kirin will realize the successful creation and delivery of Life-changing value that ultimately makes people smile.



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Strategic Investment ~For successful creation and delivery of life-changing value

Licensing-in and M&A investments to strengthen the portfolio

- Development pipeline with synergies with Crysvisa and Poteligeo
 - ◆ Bone, Mineral ◆ Hematologic oncology
- Implementing the strengths of each region
 - ◆ Nephrology ◆ Hematology / Oncology
 - ◆ Immunology

Investment in science and technology to create new strengths

- Investments aimed at acquiring new drug discovery technologies and early pipelines and accelerating cooperation and collaborations
- VC investment and CVC activities for exploring and accessing information.

