News Release

July 2, 2025

JCR Pharmaceuticals Co., Ltd.

JCR Pharmaceuticals Announces the Achievement of Enrollment in the JR-141 Global Phase III Clinical Trial

Hyogo, Japan – July 2, 2025 – JCR Pharmaceuticals Co., Ltd. (TSE 4552; "JCR") announced that it achieved the enrollment of the target number of participants in the global Phase III clinical trial of JR-141 (INN: pabinafusp alfa), which is in development for the treatment of mucopolysaccharidosis type II (MPS II, also known as Hunter syndrome). The Phase III clinical trial is ongoing in the United States, Latin America, and Europe. (JR-141-GS31)

JR-141 is a recombinant fusion protein of an antibody against the human transferrin receptor and iduronate-2-sulfatase, the enzyme that is missing or malfunctioning in people with Hunter syndrome. JR-141 was developed using J-Brain Cargo®, JCR's proprietary blood-brain barrier (BBB)-penetrating technology, which is designed to deliver biotherapeutics across the BBB into the central nervous system (CNS) to address the neurological symptoms of Hunter syndrome.

"This achievement is a milestone in the JR-141 clinical development program, as the Hunter syndrome community needs a therapy that treats the cognitive symptoms of this devastating and life-threatening disease for which there are inadequate treatment options available," said Shin Ashida, Chairman, President and CEO of JCR Pharmaceuticals. "We are making good progress in this global Phase III clinical trial, and we look forward to sharing the clinical data as they are available. Thank you to all the participants who are part of this clinical trial."

In March 2021, the Ministry of Health, Labour and Welfare (MHLW) in Japan approved JR-141 (also known by the brand name IZCARGO®) for a lysosomal storage disorder. JR-141 is the first-ever approved ERT in the world that penetrates the BBB.

About JR-141

JR-141 (INN: pabinafusp alfa) is a recombinant fusion protein of an antibody against the human transferrin receptor and iduronate-2-sulfatase, the enzyme that is missing or malfunctioning in subjects with Hunter syndrome. It incorporates J-Brain Cargo®, JCR's proprietary blood-brain barrier (BBB)-penetrating technology, to cross the BBB through transferrin receptor-mediated transcytosis, and its uptake into cells is mediated through the mannose-6-phosphate receptor. This novel mechanism of action is expected to make JR-141 effective against the central nervous system (CNS) symptoms of Hunter syndrome.

In non-clinical trials, JCR has confirmed both high-affinity binding of pabinafusp alfa to transferrin receptors and passage across the BBB into neuronal cells. In addition, JCR has confirmed enzyme uptake in various brain tissues. The company has also confirmed a reduction of substrate accumulation in the CNS and peripheral organs in an animal model of Hunter syndrome.[1,2] In several clinical trials of pabinafusp alfa, JCR obtained evidence of reducing heparan sulfate concentrations in the cerebrospinal fluid, a biomarker for assessing effectiveness against CNS symptoms; these results were consistent with those obtained in pre-clinical studies.[3] Clinical studies have also demonstrated the positive effects of pabinafusp alfa on CNS symptoms.[4,5,6]

About Mucopolysaccharidosis Type II (Hunter Syndrome)

Mucopolysaccharidosis type II (MPS II, or Hunter syndrome) is an X-linked recessive lysosomal storage disorder caused by a deficiency of iduronate-2-sulfatase, an enzyme that breaks down complex carbohydrates called glycosaminoglycans (GAGs, also known as mucopolysaccharides)

in the body. Hunter syndrome, which affects an estimated 2,000-3,000 individuals worldwide (according to JCR research), gives rise to a wide range of somatic and neurological symptoms. The current standard of care for Hunter syndrome is enzyme replacement therapy. Central nervous system symptoms related to MPS II have been unmet medical needs so far.

About JCR Pharmaceuticals Co., Ltd.

JCR Pharmaceuticals Co., Ltd. (TSE 4552) is a global specialty pharmaceutical company that develops treatments that go beyond rare diseases to solve the world's most complex healthcare challenges. We continue to build upon our 50-year legacy in Japan while expanding our global footprint into the U.S., Europe, and Latin America. We improve patients' lives by applying our scientific expertise and unique technologies to research, develop, and deliver next-generation therapies. Our approved products in Japan include therapies for the treatment of growth disorder, MPS II (Hunter syndrome), Fabry disease, acute graft-versus host disease, and renal anemia. Our investigational products in development worldwide are aimed at treating rare diseases including MPS I (Hurler, Hurler-Scheie and Scheie syndrome), MPS II, MPS IIIA and B (Sanfilippo syndrome type A and B), and more. Our core values – Putting people first, Forging our own path, Always advancing, and Committed to excellence – mean that the work we do benefits all our stakeholders, including employees, partners, and patients. We strive to expand the possibilities for patients while accelerating medical advancement at a global level. For more information, please visit JCR's global website: https://jcrpharm.com/.

Cautionary Statement Regarding Forward-Looking Statements

This document contains forward-looking statements that are subject to known and unknown risks and uncertainties, many of which are outside our control. Forward-looking statements often contain words such as "believe," "estimate," "anticipate," "intend," "plan," "will," "would," "target" and similar references to future periods. All forward-looking statements regarding our plans, outlook, strategy and future business, financial performance and financial condition are based on judgments derived from the information available to us at this time. Factors or events that could cause our actual results to be materially different from those expressed in our forward-looking statements include, but are not limited to, a deterioration of economic conditions, a change in the legal or governmental system, a delay in launching a new product, impact on competitors' pricing and product strategies, a decline in marketing capabilities relating to our products, manufacturing difficulties or delays, an infringement of our intellectual property rights, an adverse court decision in a significant lawsuit and regulatory actions. This document involves information on pharmaceutical products (including those under development). However, it is not intended for advertising or providing medical advice. Furthermore, it is intended to provide information on our company and businesses and not to solicit investment in securities we issue. Except as required by law, we assume no obligation to update these forward-looking statements publicly or to update the factors that could cause actual results to differ materially, even if new information becomes available in the future.

References

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6: Giugliani, et al. Enzyme Replacement Therapy with Pabinafusp Alfa for Neuronopathic Mucopolysaccharidosis II; an Integrated Analysis of Preclinical and Clinical Data. Int. J. Mol. Sci.

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