

May 26, 2026  
JCR Pharmaceuticals Co., Ltd.

**JCR Pharmaceuticals Receives  
“The Prize of the Minister of Education, Culture, Sports, Science, and  
Technology” at the 2026 National Commendation for Invention**

**Hyogo, Japan – May 26, 2026 – [JCR Pharmaceuticals Co., Ltd.](#)** (TSE 4552; “JCR”) ,a global specialty biopharmaceutical company dedicated to developing therapies for rare and genetic diseases, today announced that its “Invention of a Technology for Brain Delivery of Biopharmaceuticals” received “The Prize of the Minister of Education, Culture, Sports, Science, and Technology (The Prize of the MEXT Minister)” at the 2026 National Commendation for Invention, organized by the Japan Institute of Invention and Innovation.

The National Commendation for Invention recognizes outstanding inventions, devices, and designs that have made significant contributions, as well as those expected to make substantial future contributions. Held annually with funds granted by the Imperial Household, the commendation aims to contribute to the advancement of science and technology and the development of industry in Japan.

“The Prize of the MEXT Minister” is a special prize presented in the first prize category to inventions that demonstrate outstanding scientific and technological advancement and have achieved significant practical results.

The Prize recognizes JCR’s invention of a drug delivery technology designed to deliver biologic medicines to the brain. The brain is protected by the blood–brain barrier (BBB), which restricts the delivery of therapeutic agents and has long been a major challenge in the treatment of central nervous system (CNS) disorders. JCR’s proprietary J-Brain Cargo® technology, Patent No. JP6797148 and related patents, represents an important advance in addressing this challenge. In Japan, the technology has already been put into practical use in a treatment for a lysosomal storage disorder, which is a rare disease. Global development is also underway, with potential applications being explored in neurodegenerative diseases such as Alzheimer’s disease and Parkinson’s disease, as well as neuroinflammatory diseases and CNS tumors.

JCR will continue to advance research and development to meet the needs of patients and families facing diseases with limited or no effective treatment options, and to open new possibilities in medicine.

**Overview of the Prize**

Prize Recipient (Title at the time of this prize)

Hiroyuki Sonoda, Ph.D.

Representative Director, President, Chief Scientific Officer  
JCR Pharmaceuticals Co., Ltd.

Kenichi Takahashi, Ph.D.

Scientific Expert Fellow, Director, Advanced Biopharmaceutical Research Institute  
JCR Pharmaceuticals Co., Ltd.

Name of Prize -winning Invention

Invention of a Technology for Brain Delivery of Biopharmaceuticals

Overview of the Prize -winning Invention

This invention is a drug delivery technology designed to transport biologic medicines to the brain.

It relates to a novel antibody targeting the transferrin receptor (TfR) and to medicines that use this antibody to transport therapeutic agents across the BBB.

The brain is protected by the BBB, which prevents harmful substances from entering the CNS. However, this barrier also makes brain delivery difficult and has long been a major challenge in developing treatments for CNS disorders. In particular, large-molecule biologics, including enzymes and antibodies, typically have limited ability to cross the BBB.

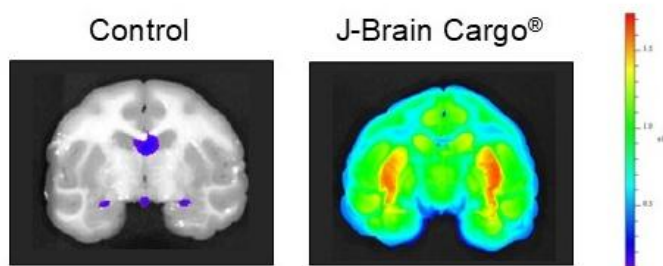
To address this, the invention leverages a physiological mechanism by which the brain takes up iron, an essential nutrient. Iron is transported into the brain via TfR, which is expressed on the surface of endothelial cells lining cerebral blood vessels. The antibody used in this invention is engineered to bind TfR and undergo BBB transport through the iron uptake pathway, without disrupting the receptor's physiological function.

As an initial practical application of this invention, a medicine combining the antibody with a therapeutic enzyme was developed and received marketing approval in Japan in 2021. This demonstrated that the antibody-based technology can function as an approved BBB-crossing drug delivery platform.

The drug delivery technology of this invention is applicable not only to proteins such as enzymes and antibodies, but also to a wide range of other modalities, including oligonucleotides, lipid nanoparticles, and gene therapies. Based on this applicability, research and development of new medicines using the invention is being pursued through collaborations with partners in Japan and overseas.

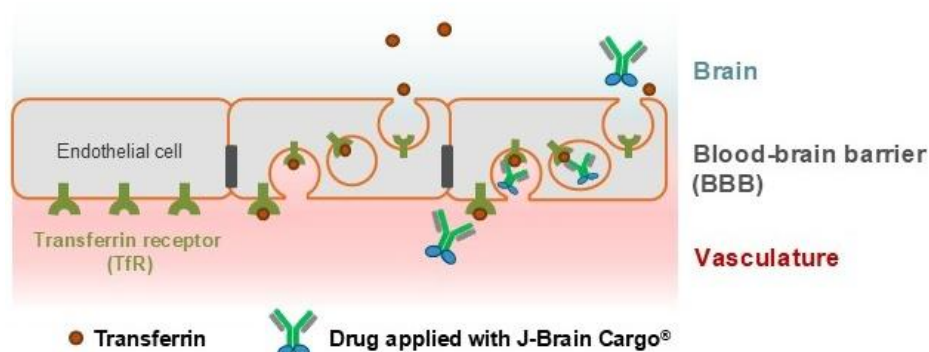
By enabling biologics to reach the brain across the BBB, this invention provides a practical drug delivery approach for CNS disorders, where effective delivery of therapeutic agents to the brain has remained a significant unmet medical need.

**Fig.1 Brain Distribution of J-Brain Cargo<sup>®</sup>, a Blood-Brain Barrier-Crossing Technology Developed through This Invention**



After intravenous injection of a fluorescently labeled antibody into a cynomolgus monkey, J-Brain Cargo<sup>®</sup> was distributed throughout the entire brain.

**Fig.2 Mechanism by Which a Drug Applied with J-Brain Cargo® Crosses the Blood–Brain Barrier**



### **About the J-Brain Cargo® Platform Technology**

JCR Pharmaceuticals has developed a proprietary blood-brain barrier-penetrating technology J-Brain Cargo®, to bring biotherapeutics into the central nervous system. The first drug developed based on this technology is IZCARGO™ (INN: pabinafusp alfa) and was approved in Japan for the treatment of a lysosomal storage disorder.

[J-Brain Cargo® | JCR Pharmaceuticals Co., Ltd.](#)

### **About Lysosomal Storage Disorders**

Lysosomal storage disorders are genetic diseases in which certain enzymes or proteins that remove unwanted substances from cells do not work as they should. When that happens, those substances build up inside the lysosomes and damage cells and tissues. The Symptoms differ depending on what builds up, and many of these conditions also affect the central nervous system.

### **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 partners, patients and employees. 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/>

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