

Japan's Ono Pharma enters into drug discovery partnership with Aitia for neurological diseases treatment

September 4, 2026 | News

REFS™ technology is a groundbreaking drug discovery platform developed exclusively by Aitia



Japan-based Ono Pharmaceutical has entered into a drug discovery partnership agreement with US-based Aitia, Inc. Under the terms of the agreement, Aitia will utilise its REFS™ technology to build Gemini Digital Twins (GDTs) of neurological diseases and identify new therapeutic targets and biomarkers.

Ono will have an exclusive worldwide option right to research, develop, and commercialise drug candidates to the targets identified by Aitia.

REFS™ technology is a groundbreaking drug discovery platform developed exclusively by Aitia, utilising advanced causal AI. By integrating and analysing patient clinical information and omics data through causal AI simulations, this technology creates virtual patient models (Gemini Digital Twins), from which it is possible to predict new therapeutic targets and disease hypotheses based on causal relationships—something that conventional correlation-based AI cannot achieve.

In particular, Aitia's REFS™ technology is expected to enable the discovery of previously unknown disease mechanisms and drug targets in the highly challenging neurology field, where disease mechanisms remain poorly understood.

“Through this collaboration, we are delighted to leverage cutting-edge REFS™ technology to identify true therapeutic targets in neurological diseases, where disease mechanisms are complex and not yet fully understood. We believe this will accelerate the development of innovative medicines. We will continue to expand our R&D pipeline in the neurology field and strive to deliver new treatments to patients,” said Seishi Katsumata, Corporate Officer / Executive Vice President, Discovery & Research of Ono.

“By utilising our state-of-the-art causal AI-powered REFS™ technology, we are confident that we can build Gemini Digital Twins that uncover true disease mechanisms and therapeutic targets that could not be identified with conventional AI, thereby accelerating the development of new therapies,” said Colin Hill, CEO and co-founder of Aitia.