

Pharma Foods Partners with The University of Tokyo For Next-Generation Antibody Drug Discovery ~A Leap Forward with AI and Advanced Molecular Engineering~

Pharma Foods International Co., Ltd. (Head Office: Kyoto, Japan; President and CEO: Mujo Kim; hereinafter "the Company") has initiated a **joint research project, effective October 2025**, with **Professor Kohei Tsumoto** of the **Graduate School of Engineering, The University of Tokyo**, with the goal of **establishing an innovative antibody drug discovery platform** through the integration of AI (Artificial Intelligence) and advanced molecular design technologies.

Professor Tsumoto is a world-leading authority in the fields of **antibody engineering and protein biophysics**. He holds unparalleled expertise and a proven track record in the **molecular design of antibodies, specifically focusing on critical "developability"** attributes—such as stability, and manufacturability—as well as on binding performance. His pioneering work includes the construction of sophisticated **synthetic antibody libraries** and the development of **cutting-edge analytical technologies** that have significantly propelled antibody therapeutics research.

This joint research will leverage Professor Tsumoto's advanced technologies to construct a **large-scale, next-generation synthetic antibody library** based on fully human **scFv (single-chain variable fragment)** frameworks. Crucially, the integration of **AI-driven molecular design** will address major bottlenecks in antibody creation - including **structural stability, high binding affinity, and production efficiency** - with the aim of achieving the **rapid, high-quality development of innovative antibody therapeutics**.

By establishing this new drug discovery foundation alongside its proprietary **ALAgene® technology**, the Company is strategically positioned to accelerate the journey toward next-generation antibody therapeutics, thereby contributing to global medical innovation and human well-being.

※ **Professor Kohei Tsumoto: Graduate School of Engineering, The University of Tokyo**

Department of Bioengineering / Department of Chemistry and Biotechnology

Tsumoto Laboratory: <https://webpark1550.sakura.ne.jp/home-en/>

※ **ALAgene® Technology:** The Company's proprietary ALAgene®

technology platform enables the creation of humanized therapeutic antibodies from chickens against disease-causing targets that are challenging to address in mammalian systems. This platform provides a powerful and versatile approach for developing next-generation antibody therapeutics.



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