



**Veneno Technologies Co. Ltd., a Novel Bio-Active DRP Discovery Company, has entered into a joint research agreement with Kyorin Pharmaceutical Co., Ltd.**

TSUKUBA CITY, Ibaraki Prefecture, Japan, January 22, 2024. **Veneno Technologies Co. Ltd.** ("Veneno") is pleased to announce that we have entered into a joint research agreement with KYORIN Pharmaceutical Co., Ltd. ("Kyorin")

Under the terms of the agreement, Veneno [<https://veneno.jp/>] will implement a program to obtain functional Disulfide-Rich Peptides (DRPs) using our next-generation peptide discovery technology, PERISS, for the target membrane proteins selected by the two companies.

Veneno Technologies, as a leading bio-active DRP discovery platform company, will continue to support bio-active DRP discovery research companies in the pharmaceutical field and promote a wide range of developments in the agro-science and materials fields based on this technology.

Kyorin aims to create high-value new drugs that meet medical needs under its long-term vision, "Vision 110". Kyorin will achieve continuous new drug creation through the active use of open innovation.

For inquiries regarding this release, please contact:

Veneno Technologies Co. Ltd.

info@veneno.jp

**About Veneno Technologies Co. Ltd.:**

Representative: Kazunori Yoshikawa, President and Representative Director

Headquarters: 2-1-6 Sengen, Tsukuba City, Ibaraki Prefecture, Japan

Establishment: July 2020

Business: Development of pharmaceutical, agrochemical, and bio-chemical materials based on functional peptides (DRPs) and provision of development services

We are a deep-tech company developing functional DRPs for use in the pharmaceutical, agrochemical, and biomaterial fields. Our technological competitiveness and business

concept have been highly evaluated, and AIST Solutions, a subsidiary of the National Institute of Advanced Industrial Science and Technology (AIST), has recognized us as an AISol Startup and provided us with various kinds of support.

### **What is a disulfide-rich peptide (DRP)?**

DRPs are a general term for peptides with multiple disulfide bonds in the molecule, usually consisting of 20 to 80 amino acids. The rigid framework created by the multiple disulfide bonds makes DRPs resistant to degradative enzymes and highly thermally stable. It is also known to have low immunogenicity due to its compact and stable structure. These properties make DRP a useful lead molecule for bio-active peptide discovery.

### **What is the PERISS method, a next-generation peptide discovery technology?**

The PERISS method is a high-throughput screening technology based on evolutionary molecular engineering that enables the discovery of DRPs acting on membrane proteins. By co-expressing a drug target membrane protein and DRP in *E. coli*, a plasmid encoding the DRP bound to the target membrane protein is recovered, and DNA sequence analysis is performed to identify the amino acid sequence. This method is advantageous because it can target membrane proteins such as ion channels, GPCRs, and transporters, which have so far been considered challenging to discover drugs by other evolutionary molecular engineering methods such as mRNA display and phage display. Another significant advantage is the ability to search for target membrane protein-binding DRPs in a very short period of time from a huge size library, which is an order of magnitude larger than the conventional high-throughput screening from chemical libraries.

### **About KYORIN**

KYORIN aims to become a company that contributes broadly to people's health by pursuing innovation in drug discovery to strengthen drug discovery capability to create high-value new drugs that meet medical needs, accelerating its evaluation and acquisition of in-licensed products and establishing a presence in designated fields.

Trade Name: KYORIN Pharmaceutical Co., Ltd.

Location: 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo

Foundation: December 1923

President & CEO: Yutaka Ogihara

URL : <https://www.kyorin-pharm.co.jp/>