

April 23, 2008
Shionogi & Co.

Shionogi Announces the Conducting of Drug Discovery Competition “FINDS” in 2008

Osaka, April 23, 2008 – Shionogi & Co., Ltd. (Head Office: Osaka; President: Isao Teshirogi) publicly invites researchers in Japan to enter their innovative ideas in its drug discovery competition, FINDS (Pharma-Innovation Discovery competition Shionogi).

Shionogi strives constantly to provide medicine of the best possible kind essential for protection of the health of the people. Based on this policy, it has continuously offered superior medicines to many people. To continue fulfilling this objective, Shionogi is committed to finding novel drug “seeds” and develop them for practical use.

The FINDS drug discovery competition which started in fiscal 2007 is a newly collaborative industry-academic initiative in which researchers in Japan with innovative drug seeds can submit ideas that meet Shionogi’s specified needs and work with the company to develop them into commercially viable drugs.

Through FINDS, Shionogi will work to enhance its source of new drug seeds and basic discovery technologies and strengthen its search capabilities in order to continue to develop and manufacture new drugs for use around the world.

Competition Overview

1. Application period: June 2 to June 30, 2008
2. Number of research fields: 14
3. Selection method: Two-stage process
 - Stage 1: Preliminary screening to select about 30-50 candidates from online applications through Shionogi website.
 - Stage 2: In principle, execution of a comprehensive confidentiality agreement followed by submission of detailed written research plans, and a final selection of about 10 projects.
4. Selection criteria: Submissions will be assessed and selected on the basis of factors

including degree of correspondence with Shionogi's needs, originality, practicality,
potential for industrialization and conflict with existing company projects

5. Research budget: ¥2 million to ¥5 million per project (scheduled)
(It is not for scholarship)

For details, please refer to the attached "List of Applicable Research Fields."

For further information, contact:

Public Relations Unit

Shionogi & Co., Ltd.

(Osaka) Tel. +81-6-6209-7885 Fax: +81-6-6229-9596

(Tokyo) Tel: +81-3-3406-8164 Fax: +81-3-3406-8099

#

List of Applicable Research Field

Discovery of seeds for drugs to treat metabolic syndrome

Identification of target molecules used in the discovery of novel drug seeds for treatment of metabolic diseases, including diabetes and its associated complications, obesity, dyslipidemia, atherosclerosis and chronic kidney diseases. Study of physiological and pathological roles of novel molecules in animals and/or humans. Establishment of novel animal models related to human diseases. Development of novel drug screening techniques. Other ideas applicable to drug discovery in this field.

Discovery of seeds for drugs to treat allergies

Research on promising drugs for controlling the predisposing factors of allergies, including Th1/Th2 modulators, IgE inhibitors and immunotherapy. Other themes in this field.

Discovery of seeds for peptide/protein-based pharmaceuticals

Seed or lead peptide/protein molecules as potential candidates of therapeutic or diagnostic agents for infectious disease, pain, metabolic syndrome or allergosis.

New drug discovery technologies that will lead to next-generation leading-edge pharmaceuticals

Ideas for next-generation molecular-targeted biopharmaceuticals to replace antibody drugs, ribozyme, siRNA drugs, RNA aptamers and others. Excluded here are gene therapy, tissue engineering and cell therapy.

Efficient and optimal methods for expressing and isolating recombinant proteins with high yield and purity

Unique vector system, transfection technique, novel protein expressing/synthesizing system (especially in mammalian cells) to facilitate the purification of recombinant proteins with large quantities.

Novel assay technologies adaptable to high-throughput screening

Novel enzyme activity detection methods, interaction detection methods, gene variability analysis techniques. Novel molecular probes and sensors for cell imaging. Novel in vitro screening methods that would precisely reflect biological or pathological conditions in in vivo testing. Other novel technologies adaptable to high-throughput screening.

Methods to make specific modifications to protein

Efficient methods for modifying specific amino acids in protein using PEG, polysaccharides and other agents.

Interactive analysis between protein and protein

Simulation technologies for analyzing interactions between protein and protein.

Prediction of protein refolding condition

Technologies to predict an efficient protein refolding condition with high accuracy.

Novel technologies for peptide synthesis and high throughput chemistry technologies for low molecule organic compounds

Construction methods for peptide libraries and design or screening methods for physiologically active peptide. Efficient high throughput chemistry technologies for making pure hundreds (>300) of low molecule organic compounds in a week. Or automated purification methods of under 1mg scale synthesis even in case of a large number of compounds.

Technology for the generation of new chemical scaffold

Methods or program for the chemical structure hopping including bioisosteric replacement from database and calculation of substituent properties. Our final goal is to establish unique and efficient methodologies which provide new ideas or hints for creating bioactive compounds. Preferably, chemists can use this method through user-friendly software.

Prediction technologies for pharmacokinetics and toxic potency of modified or mutated peptides/proteins

Technologies to predict for pharmacokinetics and toxic potency of peptide/protein (including potency of oral absorption, blood-brain-barrier permeability or antigenicity).

Novel technologies for transdermal drug delivery to realize systemic exposure

Novel technologies for transdermal drug delivery of low molecule organic compounds and biotechnology-base pharmaceuticals to realize systemic exposure.

Potential alternative to injection for peptide/protein delivery

Formulation technologies or molecular modification methods for peptide/protein-based pharmaceuticals to realize non-injection delivery such as oral, transpulmonary, transdermal or transnasal.