

Shionogi Announces the Conducting of Drug Discovery Competition “FINDS” in 2009

Osaka, June 1, 2009 – 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 1 to June 30, 2009
2. Number of research fields: 15 (see attached “List of Applicable Research Field”)
3. Selection method: Two-stage process
 - Stage 1: Preliminary screening to select about 10-20% of 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 yen per project (currently planned)
(It is not for scholarship)

Forward-Looking Statements

This announcement contains forward-looking statements. These statements are based on expectations in light of the information currently available, assumptions that are subject to risks and uncertainties which could cause actual results to differ materially from these statements. Risks and uncertainties include general domestic and international economic conditions such as general industry and market conditions, and changes of interest rate and currency exchange rate. These risks and uncertainties particularly apply with respect to product-related forward-looking statements. Product risks and uncertainties include, but are not limited to, completion and discontinuation of clinical trials; obtaining regulatory approvals; claims and concerns about product safety and efficacy; technological advances; adverse outcome of important litigation; domestic and foreign healthcare reforms and changes of laws and regulations. Also for existing products, there are manufacturing and marketing risks, which include, but are not limited to, inability to build production capacity to meet demand, unavailability of raw materials and entry of competitive products. The company disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

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List of Applicable Research Field

Discovery of seeds for drugs to treat infectious diseases caused by bacteria, fungi and viruses

Ideas applicable to identification of novel target molecules for drug discovery to treat infectious diseases caused by bacteria, fungi and viruses.

Ideas for development of novel drug screening techniques or novel animal infection models for the assessment of anti-infective agents to inhibit the growth or virulence of the pathogens, to prevent the infection and to enhance host immunity.

Discovery of seeds for drugs to treat metabolic syndrome

Ideas applicable to identification of novel target molecules for drug discovery to treat metabolic diseases, including diabetes, obesity, dyslipidemia, atherosclerosis and chronic kidney diseases.

Ideas for discovery of pathophysiological roles of these target molecules, establishment of novel animal models and development of novel drug screening techniques as well as biomarkers. Other ideas for drug discovery in this field.

Discovery of seeds for drugs to treat allergic diseases

Ideas applicable to identification of novel target molecules for drug discovery to treat asthma, allergic rhinitis and atopic dermatitis.

Ideas for establishment of novel animal models and discovery of biomarkers associated with the diseases. Other ideas for drug discovery in this field.

Novel technologies for expressing and isolating recombinant proteins with high yield and purity

Ideas for development of novel vector system, transfection methods and protein expressing/synthesizing system (especially in mammalian cells) to facilitate the yield of recombinant proteins.

Ideas for development of novel purification methods applicable to recombinant proteins difficult to isolate, including novel tags, elimination of non-specific binding proteins, suppression of aggregation and concentration with high recovery.

Ideas for novel technologies to express, purify and analyze recombinant proteins as bio-pharmaceuticals and bio-tools.

Ideas for development of novel sample preparation methods for membrane-bound proteins that can be used for structural analysis (X-ray crystallography or NMR).

Novel assay technologies adaptable to high-throughput screening

Ideas for development of novel and high-throughput assay methods to detect enzyme activity and interaction between target molecules and compounds.

Novel technologies for novel bio-affinity tags

Ideas for design of novel bio-affinity tags that have a high affinity comparable to biotin-avidin system as well as flexibility in interaction and labeling sites. Ideas for development of detection methods using these tags.

Novel technologies to apply stem cells to drug discovery

Ideas for development of novel screening methods and other drug discovery applications using stem cells.

Novel technologies to improve the accuracy of virtual screening

Ideas for development of novel computational technologies to improve prediction accuracy of virtual screening, including docking algorithms, scoring functions and consideration of induced fit.

Novel technologies to analyze structure-activity relationship

Ideas for development of novel technologies to analyze structure-activity relationship analysis in non-linear manner such as neural network methods.

Novel technologies for prediction of clinical pharmacokinetics

Ideas for development of novel technologies for prediction of clinical pharmacokinetics, drug metabolism and excretion.

Novel technologies for identification of target proteins to interact with bioactive compounds

Ideas for novel technologies for identification of target proteins to interact with bioactive compounds.

Discovery of seeds for novel bio-pharmaceuticals

Ideas applicable to identification of seeds for novel biopharmaceuticals including peptides, proteins, antibodies and vaccines to treat infectious diseases, metabolic syndrome, pain and allergic diseases.

Novel drug delivery technologies for biopharmaceuticals

Ideas for development of novel drug delivery technologies to effectively deliver biopharmaceuticals to specific organs and into cells, novel on-site drug activation technologies to activate biopharmaceuticals in specific target organs and novel formulation technologies applicable to non-injection delivery of biopharmaceuticals.

Novel technologies for protein modification

Ideas for development of efficient methods to modify specific amino acids in proteins with polymers and other proteins.

New drug discovery technologies for next-generation leading-edge pharmaceuticals

Ideas for development of next-generation antibody pharmaceuticals, including novel methods for antibody production without immunization, affinity maturation, agonistic antibodies and effector functions of Fc regions.

Ideas for development of next-generation molecular-targeted biopharmaceuticals to replaced antibody drugs, ribozyme, siRNA drugs, RNA aptamer and others.