



Eisai Co., Ltd. University of Tsukuba

EISAI AND UNIVERSITY OF TSUKUBA INITIATE JOINT INDUSTRY-ACADEMIA DEVELOPMENT OF NOVEL INFLAMMATORY BOWEL DISEASE TREATMENT USING NEW BIOMARKERS

Eisai Co., Ltd. (Headquarters: Tokyo, President and CEO: Haruo Naito, "Eisai") and the University of Tsukuba (Ibaraki Prefecture, President: Kyosuke Nagata) announced today that they have entered into an agreement to collaborate on development for a project adopted by the Japan Science and Technology Agency's (JST) <u>Newly extended Technology</u> transfer <u>Program</u> (NexTEP). NexTEP is a system supported by JST for projects that aim to lead joint development between industry and academia toward practical applications, based on seeds of research from universities and other institutions.

This project adopted by NexTEP will promote development on the small molecule E6007 discovered by Eisai as a new treatment for inflammatory bowel diseases, for which there are still significant unmet medical needs. E6007 has a new mechanism of action that inhibits adhesion and infiltration by multiple leukocyte types via activated integrin inhibitors, which could potentially have anti-inflammatory effects. In addition, by utilizing a new method for detecting activated integrins developed by a research group led by Professor Akiyoshi Fukamizu of the University of Tsukuba's Faculty of Life and Environmental Sciences (Life Science Center of Tsukuba Advanced Research Alliance (TARA)) as a biomarker in the clinical development process, they aim to sooner achieve proof of concept (POC) and subsequently receive regulatory approval.

Professor Fukamizu said, "Through this project supported by JST, we aim to contribute to the practical application of effective treatments and diagnostic methods for inflammatory bowel diseases. In addition, through this kind of collaborative development, we hope to further develop substantial industry-academia links between the University of Tsukuba and the corporate sector."

Mr. Terushige like, President, Eisai Japan/Asia Clinical Research Product Creation Unit, said, "Leveraging each other's strengths, Eisai and the University of Tsukuba have continuously collaborated on fundamental and exploratory research. We are now working to be able to deliver results as a new Japanese-developed medicine to patients as soon as possible, and make this project a successful example of co-operation between industry, government and academia."

[Please refer to the following notes for further information on NexTEP, the project proposal, and inflammatory bowel diseases.]

Media Inquiries	
Public Relations Department	Office of Public Relations
Eisai Co., Ltd.	University of Tsukuba
TEL: +81-(0)3-3817-5120	TEL: +81-(0)29-853-2039

<Notes to editors>

1. About the <u>Newly extended Technology transfer Program (NexTEP)</u>

NexTEP is a technology transfer assistance program supported by JST that aims to guide joint development between industry and academia toward practical applications, based on seeds of research from universities and other institutions. By backing the practical implementation of research, the program aims to spur civilian demand which will lead to sustained economic growth in Japan.

For more information on NexTEP, please visit: <u>http://www.jst.go.jp/jitsuyoka/index.html</u> (available in Japanese only).

2. About the Project Proposal

Project name:	Treating inflammatory bowel disease using small molecules and
	biomarkers
New technology researcher:	Professor Akiyoshi Fukamizu
	University of Tsukuba, Faculty of Life and Environmental Sciences (Life
	Science Center of Tsukuba Advanced Research Alliance (TARA))
Development company:	Eisai Co., Ltd.
Research outline:	Integrins are proteins on the plasma membrane of cell surfaces that
	belong to a superfamily of cell adhesion receptors. Through Eisai's
	research into new mechanisms of integrin inhibition, the company has
	developed a candidate compound, E6007, as an orally effective
	treatment that enables the suppression of adhesion and infiltration by
	lymphocytes and neutrophils. In addition, the Fukamizu research group
	of the University of Tsukuba has developed new techniques for detecting
	and visualizing activated integrins. While undertaking development
	aimed at creating a new treatment utilizing E6007 for inflammatory bowel
	diseases, especially ulcerative colitis, Eisai and the University of
	Tsukuba are also investigating the possibility of using the method of
	detecting integrins to indicate treatment efficiency, working to sooner
	achieve proof of concept (POC) and subsequently receive regulatory
	approval.

3. About Inflammatory Bowel Diseases

Inflammatory bowel diseases refer to a group of diseases, most commonly Crohn's disease and ulcerative colitis, which leads to ulcers and chronic inflammation in the mucus of the large or small intestines, resulting from an unidentifiable cause. Both Crohn's disease and ulcerative colitis are recognized in Japan as intractable diseases to be studied in the field of clinical research. According to a 2012 survey on the number of cases of patients receiving treatment for specified diseases in Japan, it was estimated that there were over 143,000 patients with ulcerative colitis, and over 36,000 patients with Crohn's disease, numbers which are increasing on a yearly basis.