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Eisai to involve jointly in COVID-19 drug discovery utilizing Eritoran and E6011

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Non-clinical research activities commence with a joint development agreement among Industry-Academia-Government aiming for COVID-19 drug discovery



Japan's Eisai has entered into a joint research agreement with four research organizations (KAN Research Institute, National Center for Global Health and Medicine, Nagasaki University, and Yokohama City University) in Japan concerning the "Development of Therapeutics to Prevent the aggravation of the novel Coronavirus Infectious Disease (COVID-19)" (Grant Number: 20fk0108255), which is a research project with Eisai as the representative research organization.

This joint research project "Development of Therapeutics for Novel Coronavirus Infectious Disease (COVID-19)" was adopted for the second public call by the Japan Agency for Medical Research and Development (AMED) as part of its operation for promotion of the research and development of innovative treatments for emerging and re-emerging infectious diseases in the fiscal year 2020.

SARS-CoV-2 along with causing severe respiratory infection causes subsequent multiple organ failure. The involvement of the formation and exacerbation of vasculopathy as well as the cytokine storm* in the process of aggravation are assumed. However, at this time, the mechanism of aggravation based on the SARS-CoV-2 infection is not fully understood.

In this collaborative research, a non-clinical animal model of SARS-CoV-2 infection will be constructed. Additionally, TLR (Toll-Like Receptor) 4 antagonist eritoran, discovered by Eisai, and an anti-FKN (fractalkine) antibody E6011, discovered by Eisai's research subsidiary KAN Research Institute, will be evaluated. In addition, this project will promote biomarker research using clinical samples derived from SARS-CoV-2 infected patients. This collaborative research aims to elucidate the mechanism of COVID-19 aggravation based on SARS-CoV-2 infection and to create drugs that prevent the aggravation of COVID-19.

*Cytokine storm: a state of immune runaway, in which the production of cytokines, which play a role in activating the immune response, becomes uncontrollable and cytokines are released in large amounts.