

Japan explores Nafamostat inhalation formulation for COVID-19 treatment

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The University of Tokyo, RIKEN, Nichi-Iko and Daiichi Sankyo Reach Basic Agreement on Collaborative R&D



The University of Tokyo, RIKEN, Nichi-Iko Pharmaceutical Co., Ltd. and Daiichi Sankyo Company, Limited have reached a basic agreement on collaborative R&D on a Nafamostat inhalation formulation for the treatment of novel corona virus infection (COVID-19).

In the first stage of infection by the causative virus of COVID-19, SARS-CoV-2, the outer envelope of the virus fuses with the host cell surface membrane. Prof. Junichiro Inoue, Institute of Medical Science, The University of Tokyo (at the time of the study, currently Senior Professor at the University of Tokyo) and others discovered that by preventing this fusion, Nafamostat could efficiently inhibit the viral entry process. Nafamostat is an injectable that has been prescribed mainly as a treatment for acute pancreatitis and disseminated intravascular coagulation for many years in Japan and adequate safety-related clinical data has been accumulated.

RIKEN has established the program for drug discovery and medical technology platforms in order to optimize the medical seeds generated from basic research at RIKEN and at universities for use in the drug discovery process at pharmaceutical companies, and in clinical practice, as a bridge to companies and medical institutions. In this case, RIKEN will also support this collaborative R&D using RIKEN's multidisciplinary advanced technologies.

Nichi-Iko, the marketing authorization holder of FUTHAN® (generic name: nafamostat mesilate), will provide data collected on the product over many years as well as supply the API for this collaborative R&D.

Daiichi Sankyo will carry out R&D on the Nafamostat inhalation formulation using technology gained in the development of its anti-influenza virus agent, Inavir®. Non-clinical studies are scheduled to begin in July this year and after consultation with authorities with the aim of proceeding to clinical studies by March 2021.

Through the partnership, The University of Tokyo, RIKEN, Nichi-Iko and Daiichi Sankyo hope to provide patients with a new treatment option for COVID-19 as early as possible.