Press Release



Notice Regarding an Exclusive license Agreement for a Sensitive Virus Detection Method of Viruses and Bacteria, Including Novel Coronavirus, between Hokkaido University and SHIONOGI

SAPPORO and OSAKA, Japan, June, 11, 2021 – Hokkaido University and Shionogi & Co., Ltd. (hereafter "Shionogi") announce that we have concluded an exclusive license agreement for a sensitive virus detection method of viruses and bacteria, including novel coronavirus (SARS-CoV-2). Shionogi will make an upfront payment to Hokkaido University in return for exclusive rights to use this method. Hokkaido University will be eligible to receive additional royalties based on sales of a service utilizing this method.

SARS-CoV-2 has been detected in the feces of a significant proportion of infected individuals¹. In the United States and the Netherlands, the amount of SARS-CoV-2 contained in the sewage of facilities and cities is regularly monitored to detect epidemics at an early stage and determine convergence^{2, 3}. In Japan, there have been fewer reported cases of COVID-19 infection per capita compared to the United States and some European countries and regions; therefore, for social implementation, the challenge had been to develop a virus detection method with increased sensitivity.

Hokkaido University and Shionogi developed a highly sensitive virus detection method and have begun to monitor wastewater at wastewater treatment plants by utilizing this highly sensitive virus detection method with the cooperation of the Prefectural Government of Osaka⁴. Shionogi has begun to discuss with Shimadzu Corporation regarding aiming to build a social system for wastewater monitoring⁵.

Based on this Agreement, Hokkaido University and Shionogi will combine their strengths regarding wastewater-based epidemiology and infectious diseases to realize early social implementation of this highly sensitive virus detection method and contribute to grasp infection status of regions or facilities.

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About Shionogi & Co., Ltd.

Shionogi is committed to "protect people worldwide from the threat of infectious diseases" as our key focus. We are not limiting ourselves to the research and development of therapeutics, but are also pursuing total care for infectious diseases, through pre-symptomatic, awareness building, prevention, diagnosis, and addressing exacerbations, as well as the treating the infection itself. As a leading company to fight infectious diseases, in order to contribute to the recovery of social security and safety through the early termination of COVID 19, we are working on the development of new therapeutic drugs and vaccines and maximizing the value of existing compounds. In addition, we will strengthen our efforts, including collaboration with external partners, to provide healthcare solutions to a larger number of patients.

About Hokkaido University

Founded in 1876 as Sapporo Agricultural College, Hokkaido University is one of the oldest, largest, and most prestigious universities in Japan. The university attracts prospective students all around the globe with the diverse degree programs offered and the all year round scenic beauty. The campuses are located in the cities of Sapporo and Hakodate of Hokkaido and 21 facilities are spread throughout Hokkaido and mainland Japan, contributing towards the resolution of global issues.

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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 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 production capacity to meet demand, lack of availability 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.

For Further Information, Contact:

Hokkaido University Institute for the Promotion of Business-Regional Collaboration Website Inquiry Form (In Japanese) : <u>https://www.mcip.hokudai.ac.jp/about/onestop.html</u>

SHIONOGI Website Inquiry Form : <u>https://www.shionogi.com/global/en/contact.html</u>

References:

- 1. Duration of SARS-CoV-2 viral shedding in faeces as a parameter for wastewater-based epidemiology: Re-analysis of patient data using a shedding dynamics model, Science of The Total Environment, Vol. 769, 15 May 2021
- 2. COVID-19 containment on a college campus via wastewater-based epidemiology, targeted clinical testing and an intervention, Science of The Total Environment, Vol. 779, 20 July 2021
- 3. Coronavirus monitoring in sewage research : <u>https://coronadashboard.government.nl/landelijk/rioolwater</u>
- <u>Shionogi Press Release on April, 14</u> Wastewater surveillance to monitor COVID-19 starts in Osaka Prefecture
- <u>Shionogi Press Release on June, 2</u>
 Notice Regarding the Signing of Basic Agreement of Business Partnership between SHIMADZU and SHIONOGI for Wastewater Surveillance for Viruses in the Field of Infectious Diseases, Including Novel Coronavirus