

SHIONOGI Announces the Start of the Wastewater Epidemiological Surveillance Service for the Novel Coronavirus in Japan

OSAKA, Japan, June 14, 2021 - Shionogi & Co., Ltd. (hereafter "Shionogi") announced that it starts wastewater epidemiology surveillance service for the novel coronavirus (SARS-CoV-2) to wastewater treatment plants of municipality.

This is an investigative service to confirm the infection status of SARS-CoV-2 in the target area by regularly monitoring the amount of SARS-CoV-2 in wastewater based on wastewater epidemiology. By regularly collecting and monitoring wastewater at the wastewater treatment plants of each local government, it is expected to contribute to grasp the infection status in the target area.

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 in the wastewater 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.

Shionogi has developed a highly sensitive virus detection method with Hokkaido University since October 2020. Under the cooperation of the Prefectural Government of Osaka, the company started experimentally to monitor at wastewater treatment plants by utilizing this highly sensitive virus detection method⁴ and succeeded to detect SARS-CoV-2 quantitatively. Shionogi will start providing services for monitoring at wastewater treatment plants by utilizing this highly sensitive virus detection method.

The monitoring data of this service can be used as an objective index when each local government takes preventive measures against the spread of SARS-CoV-2 because it is possible to grasp the tendency of the spread and convergence of SARS-CoV-2 in the region without identifying individuals. Shionogi has begun to discuss for business partnership of aiming to build a social system for wastewater monitoring with Shimadzu Corporation⁵. Shionogi and Shimadzu will combine their strengths and aim to enable automatic detection of viruses in wastewater, infection status, and outbreak trends of mutant strains at an early stage by utilizing wastewater monitoring data.

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.

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

Press Release



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, 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:

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

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 : <https://coronadashboard.government.nl/landelijk/rioolwater>
4. [Press Release on April, 14](#)
Wastewater surveillance to monitor COVID-19 starts in Osaka Prefecture
5. [Press Release on June, 2](#)
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

Our efforts against COVID-19 are updated on our website as needed. A considerable amount of valuable information on COVID-19 from other websites is also summarized on this page, so please use it for reference: [SHIONOGI website](#)