



Shionogi Expands its COVID-19 Product Portfolio by Initiating a Phase 1 Clinical Trial in Japan for a Second COVID-19 Antiviral

OSAKA, Japan, May 17, 2023 - Shionogi & Co., Ltd. (Head Office: Osaka, Japan; President and CEO: Isao Teshirogi, Ph.D.; hereinafter "Shionogi") today announced the initiation of a Phase 1 clinical trial in Japan of S-892216, an investigational agent which is being developed as an antiviral against COVID-19, caused by SARS-CoV-2 infection. The first dose in this Phase 1 clinical trial was administered successfully and no safety concerns have been identified.

S-892216 is a 3CL protease inhibitor discovered by Shionogi and its research and development is supported by Japan Agency for Medical Research and Development (AMED) under Grant Number JP21fk0108584. In addition to S-892216, Shionogi continues its extensive global development program for the novel COVID-19 oral antiviral ensitrelvir (generic name: ensitrelvir fumaric acid, Code No.: S-217622), known as Xocova[®] 125 mg tablet in Japan.¹⁻⁵

In pre-clinical trials, S-892216 demonstrated strong antiviral effect as well as ensitrelvir. In the Phase 1 clinical trial, Shionogi will evaluate the pharmacokinetics, safety, and tolerability of this agent in healthy adults.

Since the start of the COVID-19 pandemic, the emergence of new variants has often signaled the onset of a new wave of infection worldwide.^{6,7} While the rate of severe cases of COVID-19 leading to hospitalization has decreased due to vaccination programs, natural immunity and possibly less virulent variants, COVID-19 remains an ongoing health concern and future waves of infection are likely.^{6,8-12} Therefore, the development of additional antiviral drugs is needed.¹³

Shionogi is committed to the principle "Protecting people worldwide from the threat of infectious diseases" as our key focus, and is working on the realization of total care for infectious diseases. Shionogi will seek to contribute to re-establishing the safety and security of society by developing new products and services to address COVID-19, which continues to affect many individuals around the world, and continue to focus on research and development for COVID-19 so as to be prepared for the swift provision of therapeutic drugs and vaccines as necessary depending on the situation, such as the emergence of new variants or the future prevalence of the disease.

About ensitrelvir

Ensitrelvir (known in Japan as Xocova®), an oral antiviral drug for COVID-19 currently approved under the emergency regulatory approval system in Japan, is a 3CL protease inhibitor created through joint research between Hokkaido University and Shionogi. SARS-CoV-2 has an enzyme called 3CL protease, which is essential for the replication of the virus. Ensitrelvir suppresses the replication of SARS-CoV-2 by selectively inhibiting 3CL protease. Ensitrelvir is the first antiviral agent to show both clinical symptomatic efficacy for five typical Omicron-related symptoms (primary endpoint) and antiviral efficacy (key secondary endpoint) in a predominantly vaccinated population of patients with mild to moderate SARS-CoV-2 infection, regardless of risk factors, in the Phase 3 part of the Phase 2/3 study conducted during the Omicron-dominant phase of the epidemic. With regard to safety, most adverse events were mild in severity and no deaths were seen in the study. Among the most common treatment-related adverse events were temporary decreases in high-density lipoprotein and increased blood triglycerides, as observed in previous studies. Currently, the Phase 2b/3 part of the Phase 2/3 study targeting SARS-CoV-2 infected persons who were asymptomatic or only had mild symptoms is being conducted in Asia, mainly in Japan.

Recently, the U.S. Food and Drug Administration (FDA) granted Fast Track designation to ensitrelvir for COVID-19. FDA Fast Track designation is designed to facilitate the development and expedite the review of potential new therapies that treat serious conditions and fulfill an unmet medical need. Ensitrelvir remains an investigational drug outside of Japan and has not been approved outside of Japan. In addition, the brand name Xocova® has not been approved for use outside of Japan and pertains only to the approved drug in Japan.

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 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>

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