



July 8, 2020

Announcement of Collaboration between Medicago and GSK in the Development of COVID-19 Vaccine and the Start of Phase 1 Clinical Trials

Mitsubishi Tanabe Pharma Corporation (Head Office: Osaka, Japan; President & Representative Director; Hiroaki Ueno) announced today that its affiliated company, Medicago Inc. (Head Office: Quebec, Canada; CEO; Bruce D. Clark) is entering a collaboration with GlaxoSmithKline (Head Office: London, United Kingdom; hereafter, "GSK") on the development of a plant-derived virus-like particle (VLP) vaccine for prevention of coronavirus disease 2019 (COVID-19). Medicago will initiate phase 1 clinical trials of this candidate vaccine in mid-July.

In this collaboration, Medicago will manufacture VLP and GSK will provide its adjuvant to develop adjuvanted vaccines for COVID-19. An adjuvant is a substance that is used concomitantly to enhance or support the effects of drugs. Adjuvants can be added to vaccines to increase immune responses as well as to reduce the amount of antigen required per dose, allowing more vaccine doses to be produced. Collaboration in the development of this adjuvanted vaccine aims to deliver highly effective vaccines to more people. Based on the collaboration in this vaccine development, both companies also intend to expand their collaboration to develop vaccines against infections other than COVID-19.

Phase 1 clinical testing is planned to start in mid-July and will evaluate the safety and immunogenicity of three different dose levels of antigen combined with GSK's pandemic adjuvant and one additional adjuvant, administered on a one- and two-dose vaccination schedule, given 21 days apart.

Mitsubishi Tanabe Pharma Group will address the pressing social issue, prevention of COVID-19 through the collaboration with GSK in the development of vaccines. We will further contribute to the prevention of infections by working to deliver this vaccine for COVID-19 as soon as possible.

Joint release between Medicago and GSK (July 7, 2020, local time)

GSK and Medicago announce collaboration to develop a novel adjuvanted COVID-19 candidate vaccine.

Mitsubishi Tanabe Pharma Corporation
Corporate Communications Department

Media contacts: TEL: +81 6 6205 5119

About VLP Vaccine

A novel vaccine that employs virus-like particle (Virus Like Particle) manufacturing technology. VLP has the same external structure as viruses and are expected to have a high immune-acquisition effect (efficacy) when it adopted for vaccines. Since VLP does not have genetic information and viruses do not multiply in the body, VLP is expected to be a promising vaccine technology with excellent safety. Plant-based VLP manufacturing technology is also expected to enable large-scale production in a short period of time.