



Development of Safe and effective severe febrile thrombocytopenia syndrome (sfts) vaccine to protect humans and pets from infection

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Severe febrile thrombocytopenia syndrome (SFTS) is an extremely lethal tick-borne viral infection with a lethality rate of about 27%. SFTS is spreading overseas, has been reported not only through ticks, but also through human-to-human transmission and from pet animals. This raises concerns about the safety of not only the public, but also veterinarians and medical staff. Our research aims to develop a safe and secure mRNA-LNP vaccine against SFTSV by combining our original mRNA synthesis method (CAIOS method) with our proprietary LNP (lipid nanoparticle) technology.

In this research, vaccines will be produced using Japan's unique mRNA synthesis technology based on chemical synthesis, without using E. coli or plasmids. We will also utilize Japan's unique technology for LNPs to develop LNPs for vaccines with fewer side effects and superior safety. By combining these technologies, we will be able to respond quickly to mutant strains and develop vaccines in a short period of time. Ultimately, we aim to develop a vaccine for severe febrile thrombocytopenia syndrome that provides protection against infection and prevention of severe disease in humans and pet animals. SFTS patients have been confirmed to occur outside of Japan in China, South Korea, Taiwan, and Vietnam, etc. There is a market for SFTS vaccine in a wide area of Asia and the possibility of providing the vaccine on a global basis.