Innovative vaccine evaluation system for 100 days mission

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The purpose of this research is to establish an innovative vaccine evaluation system to provide vaccines to the world in 100 days in the next outbreak, epidemic, or pandemic of infectious diseases. The pandemic of the new coronavirus showed the aspect of a simultaneous worldwide disaster and revealed the importance of global health coverage through international collaboration as well as the importance and urgency of research on vaccine development in one's own country. The G7 countries have set a goal to provide vaccines within the next 100 days. In Japan, the proposal for this research on infectious diseases, immunological research, and animal studies calls for the participation of Japan's top research institutes and their collaboration with CROs in order to ignite an innovation in non-clinical studies for vaccine R&D in Japan. With the ultimate goal of providing vaccines in 100 days, researchers in the four essential areas of pathogen research, infection immunology research, vaccine design research, and animal model research will work together in an organic manner at all times to achieve the ultimate goal of providing vaccines in 100 days. The team of researchers in the four essential areas of pathogen research, infection immunity research, vaccine design research, and animal model research will be organically integrated at all times during normal times, and an implementation system will be established to enable seamless, rapid, accurate, and high-level preclinical drug efficacy testing (humoral and cellular immunity) in the event of an emergency.

In this study, the National Institute of Infectious Diseases, the Institute of Medical Science of the University of Tokyo, and the National Institute of Biomedical Innovation and Nutrition (and CRO) will form an organic unit with domestic and foreign researchers and development companies based on the experience and results from the pandemic caused by the novel coronavirus. The NIID and the Institute of Biomedical Research and Innovation (IBRI), the Institute of Medical Science, the University of Tokyo, and the National Institute of Biomedical Innovation, Health and Nutrition (NIBIOHN) (and the CRO) will form an organic unit with domestic and international researchers and developers, based on the results of their experience. The strengths and characteristics of this proposal are that it has already formed an organic joint research unit that can conduct everything from exploratory non-clinical studies to large animal validation studies by a CRO in the research and development of infectious disease vaccines using novel modalities.