

Understanding and Control of Virus-Human Interaction Networks

Project manager

Yoshiharu Matsuura

Director, CiDER Osaka Univ / Professor, RIMD, Osaka Univ



leader's institution

Osaka University

R&D institutions

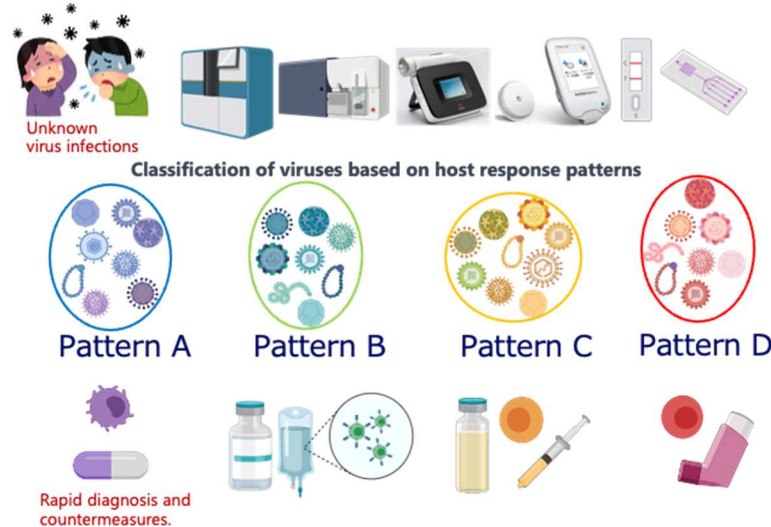
Osaka Univ, EVIDENT Inc, Kyusyu Univ, Kyoto Univ, Gunma Univ, Keio Univ, Chiba Univ, The Univ. of Tokyo, Tokushima Univ, Nagasaki Univ, Nagoya Univ, Hokkaido Univ., Univ. of Yamanashi, TMDU, RIKEN

Summary of the project

By comprehensively understanding the interaction network between viruses and the human body and classifying their patterns, we will preemptively prepare effective methods for diagnosing, preventing, and treating unknown viral infections. As a result, we aim to realize a society free from the threat of viral infections by 2050.

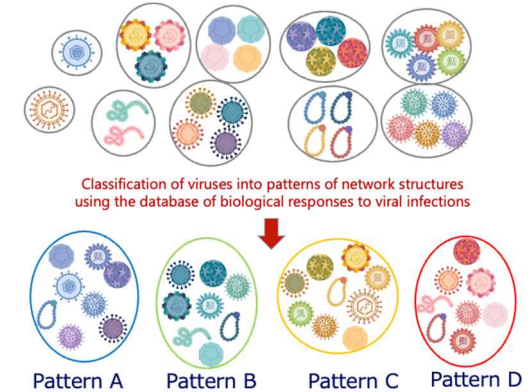
Milestone by the year 2030

Even if an unknown virus emerges, starting appropriate treatment at an early stage of infection can prevent the onset of infectious disease. Specifically, we will create a mathematical model based on the biological reaction caused by virus infection and classify the virus anew. In addition, we will identify biomarkers that detect early physical responses after virus infection and develop optimal diagnostic, therapeutic, and preventive methods for each class of virus.



Milestone by the year 2025

Toward the development of early diagnostic methods and effective prevention and treatment methods for viral infections, we will classify viruses based on biological reactions.



R&D theme structure of the project

