

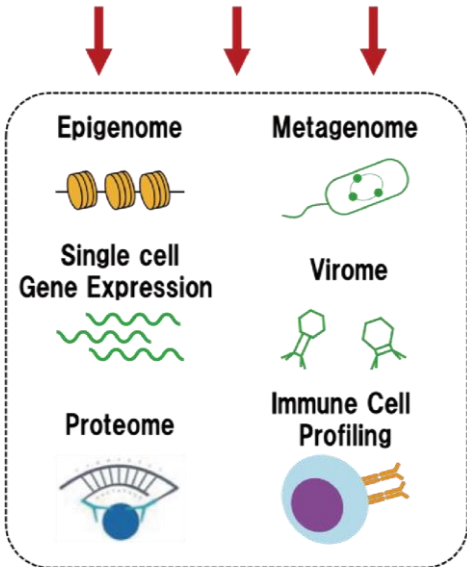
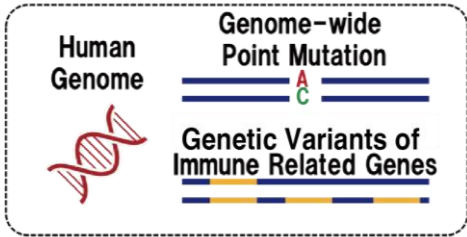
R&D Overview



Chief
Kazuhiko YAMAMOTO

Support institute for vaccine development by functional evaluation of human immune system through integration of genetic variations and multi-omics data.

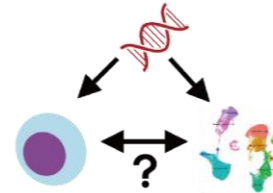
Support



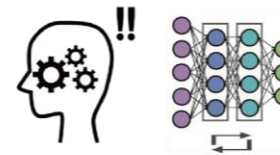
Using multi-omics analysis of genetic diversity and function, we will evaluate immune function of samples obtained during vaccine development. We will also provide technical support for measurement and data analysis to conduct a more detailed multilayered evaluation of human immune function through integrated analysis with reference datasets that contain the diversity of human immune function.

Advanced activity

Interpretation of Vaccination and Immune responses



Multi-modal Deep Learning



Personalized prediction of vaccine response



We aim to develop a system for predicting immune status that is useful for vaccine development by improving measurement technology that can handle small volume samples obtained during vaccine development.

We also advance technology for evaluating the relationship between various genomic plus environmental factors and immune function, as well as construction of a reference dataset of Japanese population that expresses the diversity of immune function based on human genetic variation.