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Application of Omics in Virus Research

Guest Editor:

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Message from the Guest Editor

The interactions between the host and the virus play vital roles in inhibiting virus infections or causing pathogenic changes in the host. However, these interactions are complex and form an extensive interactive network. Therefore, the analysis of a single biomolecule or protein is not very useful for studying the pathogenic and infection mechanisms of viruses.

Omics, including genomics, proteomics, metabolomics, transcriptomics, and immunomics, offer new perspectives for exploring the pathogenesis of human or animal diseases by analyzing large amounts of data that represent an entire set of some kind, especially an entire set of molecules, such as proteins, lipids, or metabolites, in a cell, organ, or organism. In recent decades, significant progress has been made in elucidating the pathogenicity and infection of viruses through omics research. In this Special Issue, we aim to present the latest data and papers on the application of omics in virus research. Articles that integrate omics analysis with experimental verification are especially well-suited for this Special Issue. We welcome both original research articles and reviews.



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Message from the Editor-in-Chief

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