

## Special Issue

# Molecular Mechanism of the Host Range and Virulence of Influenza Viruses

### Message from the Guest Editor

During the past several decades, avian influenza viruses have become endemic among poultry and wild birds across the globe. It is striking that avian influenza virus continuously crosses the species barrier to infect humans and mammals, posing serious public health issues. To achieve cross-species transmission (known as “host jump”), influenza viruses must change their tropism, evolving rapidly to target new host species, which influences the phenotype of influenza virus in different species. A well-known mammalian adaptive mutation of E627K and A588V in PB2 protein has been reported. However, other molecular bases of influenza virus are also critical when it comes to influencing the adaption of influenza virus in birds and mammals. Therefore, understanding the new molecular basis of host range and virulence of influenza virus is urgently needed. For this Special Issue on influenza viruses entitled “Molecular Mechanism of the Host Range and Virulence of Influenza Viruses”, we invite you to submit original research, reviews, and perspectives focusing on the molecular mechanisms of influenza viruses.

### Guest Editor

Prof. Dr. Wenbao Qi

National Avian Influenza Para-Reference Laboratory (Guangzhou),  
College of Veterinary Medicine, South China Agricultural University,  
Guangzhou 510642, China

### Deadline for manuscript submissions

closed (30 June 2022)



## Viruses

an Open Access Journal  
by MDPI

Impact Factor 3.5  
CiteScore 7.7  
Indexed in PubMed



[mdpi.com/si/100790](https://mdpi.com/si/100790)

*Viruses*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[viruses@mdpi.com](mailto:viruses@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)

[viruses](https://mdpi.com/journal/viruses)





# Viruses

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.5  
CiteScore 7.7  
Indexed in PubMed



[mdpi.com/journal/  
viruses](https://mdpi.com/journal/viruses)



## About the Journal

### Message from the Editor-in-Chief

*Viruses* (ISSN 1999-4915) is an open access journal which provides an advanced forum for studies of viruses. It publishes reviews, regular research papers, communications, conference reports and short notes. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. The full experimental details must be provided so that the results can be reproduced. We also encourage the publication of timely reviews and commentaries on topics of interest to the virology community and feature highlights from the virology literature in the 'News and Views' section.

Electronic files or software regarding the full details of the calculation and experimental procedure, if unable to be published in a normal way, can be deposited as supplementary material.

---

### Editor-in-Chief

Dr. Eric O. Freed

HIV Dynamics and Replication Program, Center for Cancer Research,  
National Cancer Institute, Frederick, MD 21702-1201, USA

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, PubAg, and other databases.

#### Journal Rank:

JCR - Q2 (Virology) / CiteScore - Q1 (Infectious Diseases)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.6 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2025).