

Special Issue

The Role of Viral Vectors in Biological and Medical Research

Message from the Guest Editor

Viral vectors have become indispensable tools in cell and gene therapy (CGT) and modern biomedical research, bridging the gap between fundamental research and clinical applications. This Special Issue aims to highlight the evolving landscape of viral vector technologies—including, but not limited to, adeno-associated viruses (AAVs), lentiviruses, herpesviruses, adenoviruses, and poxviruses—in both biological discovery and medical translation. We invite contributions that explore novel viral vector engineering, advances in production and purification, applications in gene therapy and oncolytic virotherapy, as well as their utility in cell and gene therapy, genome editing, vaccine development and neural circuit mapping. This collection seeks to present the latest breakthroughs and advances that enhance the safety, efficiency, and specificity of viral vectors, driving forward fundamental biology research and precision medicine.

Guest Editor

Dr. Huadong Wang

The Brain Cognition and Brain Disease Institute (BCBDI), Shenzhen-Hong Kong Institute of Brain Science, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China

Deadline for manuscript submissions

31 March 2027



Viruses

an Open Access Journal
by MDPI

Impact Factor 3.8
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/281899

Viruses
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
viruses@mdpi.com

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





Viruses

an Open Access Journal
by MDPI

Impact Factor 3.8
CiteScore 7.6
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Viruses* (ISSN 1999-4915). *Viruses* is published in open access format—research articles, reviews and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Viruses* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We would be pleased to welcome you as one of our authors.

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 15.5 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2026).