Special Issue

Therapeutic Interfering Particles (TIPs): A Promising Treatment for Viral Infections

Message from the Guest Editors

Viral defective interfering particles (DIPs) are produced by many RNA and DNA viruses. Due to their intrinsic ability to efficiently interfere with the replication of standard infectious viruses, there is growing interest in harnessing the inhibitory properties of DIPs and the related defective viral genomes (DVGs) as a therapeutic approach to prevent or treat acute and persistent viral infections. Termed therapeutic interfering particles (TIPs), these engineered versions of naturally occurring DIPs/DVGs are novel antiviral agents and have been applied to various viral diseases as a method to reduce viral load with a putative high bar for the evolution of resistance. In this Special Issue, we invite discussions on foundational studies of DIP formation, regulation, mechanisms of action, and impact on host fitness; novel methodologies to standardize the quantity and activity of DIPs/TIPs; translational approaches that apply these findings towards the design, stability, safety, and efficacy of TIPs in preclinical models; and review articles that summarize our current understanding of DIP biology, TIP theoretical frameworks, and the utility of TIPs in future clinical applications.

Guest Editors

Dr. Jason William Botten
Department of Medicine, University of Vermont, Burlington, VT, USA

Dr. Rebekah Honce
Department of Medicine, University of Vermont, Burlington, VT, USA

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

mdpi.com/journal/viruses

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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

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