

Going Viral

ACS Infectious Diseases is excited to publish its first special issue, a collection of work focused on “Virus Entry”. As viruses require host cell machinery to replicate, virus entry serves as an important life cycle target. Understanding the mechanism of virus entry is crucial for the development of both new vaccines and antiviral agents. Development of small molecule antiviral agents targeting virus entry has recently garnered much interest following the successful use of entry inhibitors for the treatment of HIV.

This special issue is particularly timely given the strong presence of emerging and re-emerging viral diseases in recent news headlines. The continual threat of pandemic flu, the ongoing Ebola outbreak in West Africa, and the resurgence of the measles virus in the Western world have demonstrated a dire need for the development of effective antiviral agents that can be used to treat viral infections when preventative measures such as vaccines are either unavailable or ineffective.

The papers in this collection highlight the multidisciplinary approaches required to understand the basic science underlying host–pathogen interactions as they pertain to virus entry. The breadth of work contained in this issue not only spans a wide range of viral pathogens including, Ebola virus, Middle East respiratory syndrome coronavirus, herpes simplex virus, influenza, hepatitis B and C viruses, and other mosquito- and tick-borne flaviviruses but also addresses the various aspects involved in virus entry. The research presented here delves into the science underlying (1) viral envelope composition, (2) biomechanics of envelope fusion with host cells, (3) host responses to virus entry, and (4) discovery of new small molecule inhibitors targeting virus entry.

With our strong focus on the basic science underlying infectious diseases, *ACS Infectious Diseases* is uniquely poised to address the growing need for development of new antiviral agents. We hope you enjoy this collection and that the work presented here inspires further collaboration across this multidisciplinary field.

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Notes

Views expressed in this editorial are those of the authors and not necessarily the view of the ACS.

Special Issue: Virus Entry

Received: August 27, 2015

Published: September 11, 2015