

## Special Issue

# Viral Interactions with Anatomic Cellular Barriers– Overcoming Borders to Invade Tissues

### Message from the Guest Editors

Dear colleagues, In human body, innate and adaptive immune responses are continuously fighting against invasive microbes attempting to gain access to replicative niches in host tissues leading to cell infection, tissue damage, and disease. External and internal cellular barriers such as the skin, mucous membranes, and the endothelium lining the inner side of blood vessels constitute anatomic barriers of the innate immune system that collectively provide physical and physiological. Some of the strategies adopted by viruses to promote endothelial barrier disruption include manipulation of host membranes and cellular metabolism, production, and secretion of viral factors which directly promote tissue invasion resulting in breakdown of host adhesion molecules or cell-to-cell contacts, and activation of inflammatory responses. This Special Issue will focus on understanding the strategies used by viral pathogens to interact with and circumvent these host barrier interfaces leading to invasion of tissues which results in immune dysregulation and disease, which will enhance our understanding of viral pathogenesis and the development of novel antiviral compounds and vaccine candidates.

### Guest Editors

Dr. Henry Puerta-Guardo

Dr. Scott B. Biering

Dr. Dustin R. Glasner

### Deadline for manuscript submissions

closed (28 February 2023)



## Pathogens

an Open Access Journal  
by MDPI

Impact Factor 3.3  
CiteScore 6.8  
Indexed in PubMed



[mdpi.com/si/56823](https://mdpi.com/si/56823)

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

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





# Pathogens

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 6.8  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

The worldwide impact of infectious disease is incalculable. The consequences for human health in terms of morbidity and mortality are obvious and vast but, when infections of animals and plants are also taken into account, it is hard to imagine any other disease that has such a significant impact on our lives—on healthcare systems, on agriculture and on world economics.

*Pathogens* is proud to continue to serve the international community by publishing high quality studies that further our understanding of infection and have meaningful consequences for disease intervention.

---

### Editor-in-Chief

Prof. Dr. Hinh Ly

Department of Veterinary & Biomedical Sciences, University of Minnesota, Twin Cities, MN, USA

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

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

#### Journal Rank:

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