



Mechanisms of Gene Expression Regulation during Host-Pathogen Interaction

Guest Editors:

Dr. Jaeson Calla

1. Assistant Project Scientist,
School of Medicine, University of
California San Diego (UCSD), San
Diego, CA, USA

2. Principal Investigator,
Department of Cellular and
Molecular Sciences, Faculty of
Sciences and Philosophy,
Universidad Peruana Cayetano
Heredia (UPCH), Lima, Peru

Prof. Dr. Rossana Arroyo

Departamento de Infectómica y
Patogénesis Molecular, Centro de
Investigación y de Estudios
Avanzados del Instituto
Politécnico Nacional
(CINVESTAV), Mexico City, Mexico

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Message from the Guest Editors

Host–pathogen interaction is complex and triggers a change in gene expression in both organisms; the mechanisms associated with the gene regulation involve dynamic changes under control: transcriptional, post-transcriptional, translational, and or post-translational levels.

In this Special Issue, we are interested in describing how unicellular or pluricellular pathogens interact, adhere, internalize, colonize, establish, multiply, and egress to infect a new cell host during a successful infection, elucidating different gene-regulation mechanisms. These can then be used to identify targets in the development of new biomolecules which could block a specific mechanism and provide an anti-pathogenic effect, which could help to eradicate or eliminate individual pathogens.

The identification of target genes and proteins would help us to develop new compounds to prevent infection (prophylactic activity), eliminate the infectious agent (therapeutic activity), or even bring new strategies to develop ways to prevent infections (like vaccines).





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Editor-in-Chief

Prof. Dr. Moriya Tsuji

School of Engineering Medicine,
Texas A&M University, 2121 West
Holcombe Blvd., Suite 1007,
Houston, TX 77030, USA

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.

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Contact Us

Pathogens Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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