



Harnessing Host-Pathogen-Microbiota Interactions for Sustainable Disease Management

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Message from the Guest Editors

Pathogens transmitted by arthropods represent a global problem because they can affect plants, animals and humans, causing substantial economic losses and health concerns. Recent studies highlighted the importance of the interplay between the host and its microbial community (namely, the holobiont) in the context of the susceptibility and transmission of pathogens; however, these interactions are still poorly understood. Although the vast majority of this complex community is mutualistic or commensal, some of the indigenous microbes can confer resistance to or promote infection by pathogens and are commonly referred to as *pathobionts*.

Understanding microbiome stability and resilience to perturbing factors, how the host discriminates pathogens from beneficial microbes, and how the pathogen in turn impacts its host and microbial community dynamics are essential concepts to help define novel microbiome-based opportunities to reduce vector capacity and the ability to transmit infectious disease.





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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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