



Host Immune Responses and Pathogenesis to *Brucella* spp. Infection

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Message from the Guest Editors

Dear colleagues,

Brucellosis, caused by the facultative intracellular bacteria *Brucella* species, is one of the most prevalent zoonoses worldwide. *Brucella* causes >500,000 human infections per year, and brucellosis is underreported in endemic areas. Between livestock losses and human morbidity, brucellosis imposes a significant economic impact, perpetuating poverty in endemic regions. There is a considerable amount of evidence that indicates the capacity of *Brucella* sp. to avoid or interfere with components of the host immune responses that play a critical role in their virulence. It has been suggested that *Brucella* has developed a stealth strategy through PAMP reduction, modification and hiding, to ensure low stimulatory activity and toxicity for cells. This strategy allows *Brucella* to reach its replication niche before activating antimicrobial mechanisms by host immune responses. However, inside the host cells, *Brucella* releases vital molecules for the bacteria that trigger the activation of host cytosolic receptors. However, further studies are required to elucidate this complex circuit by which the host immune system recognizes *Brucella*-derived molecules.





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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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