



Genetics and Immunity of Mycobacterial Infections: A Battle of Two Genomes

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Message from the Guest Editors

Genetic investigation of TB infection susceptibility and disease severity has been ongoing for decades both in experimental and clinical settings. The previously unappreciated importance of innate host defense mechanisms has revolutionized the understanding of the host-pathogen relationship. Effective adaptive immune responses, including the key activity of mycobacteria-specific and bystander CD4 and CD8 effector and regulatory T cell populations, can control mycobacterial populations throughout the body, but can also promote the development of progressively destructive lesions in host tissues. Genetic and physiological manipulation of mycobacteria and the rational selection of genetically defined hosts in experimental settings provide useful information about how mycobacteria alter innate and acquired immune responses of the host, and what features of pathology underlie protective vs. pathogenic inflammatory responses. We believe that a series of articles within this framework will make a valuable contribution to a better understanding of these very important, rapidly developing and still highly controversial aspects of mycobacterial research.





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Message from the Editor-in-Chief

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