Alan Sher, Ph.D.
Chief, Laboratory of Parasitic Diseases
Chief, Immunobiology Section
National Institute of Allergy and Infectious Diseases

Mon, May 16, 2011  2:30pm – 3:30 pm
Palmer Amphitheater, McIntyre Medical Bldg

Title: “Contrasting roles for type I IFN and IL-1 in the regulation of host resistance to Mycobacterium tuberculosis”

Cytokines play a critical role in host resistance to Mycobacterium tuberculosis (Mtbb) in both experimental models and human infection. Recent work has revealed a major function for IL-1 signaling in control of Mtbb in mice - although this requirement appears to occur independently of caspase-1 and the inflammasome. Studies over the years by many groups including our own have indicated that both endogenous and exogenously induced Type -1 IFN can play an opposite role and actually promote MTbb infection and disease. In this talk, I will present recent data in both human macrophages in vitro as well murine Mtbb infection in vivo that links these pathways and establishes Type I IFN production as a key regulator of the IL-1 response to this important pathogen. The possible implications of our findings for the pathogenesis and treatment of human tuberculosis will be discussed.

For information about the symposium including registration please visit http://www.mcgill.ca/gid-symposium