William M. Nauseef M.D.

Over the past ~ four decades, work in the Nauseef lab has focused its efforts on elucidating features of the cell and molecular biology of human neutrophils within the context of neutrophil-mediated antimicrobial action. As an Infectious Diseases fellow at Yale, he initiated two projects -- one to probe the mechanisms underpinning and regulating the neutrophil NADPH oxidase and the other to determine the basis of hereditary myeloperoxidase deficiency -- and these two themes have endured throughout his academic career. Along with Bob Clark, he discovered the NADPH oxidase cytosolic proteins $p47^{phox}$ and $p67^{phox}$, described features of the translocation of those proteins to flavocytochrome b and the subsequent assembly of a functional oxidase, and characterized aspects and consequences of phosphorylation of $p47^{phox}$. He identified steps in the biosynthesis of normal myeloperoxidase by human myeloid precursors and applied those observations to determine how the specific missense mutations that he identified in patients with hereditary myeloperoxidase deficiency compromised normal myeloperoxidase production. He applied many of these principles to study the biosynthesis of two other heme proteins, NOX3 and NOX 2. Recently, he has focused his attention on how the phagocytosis of *Staphylococcus aureus* dictates the fate of human neutrophils. Through these latter studies he has identified a previously unrecognized programmed cell death pathway that culminates in lysis of neutrophils, although the underlying mechanisms are currently unknown. From the very beginning of his career, Nauseef has been fortunate to have generous, thoughtful, and supportive colleagues as guides and sources of critical advice. Noteworthy among the many are Harry Malech and Dick Root, from the early days at Yale, and Bob Clark, who remains a mentor even now.

Dr. Nauseef has published more than 200 peer-reviewed articles and invited manuscripts and book chapters, has co-edited a book and co-written a laboratory manual. His laboratory has been supported by funding from the NIH, VA or both since 1984, as well as extramural support from other sources. He continues his clinical practice as a member of the Division of Infectious Diseases at the University of Iowa and is a member both of the American Society for Clinical Investigation (ASCI) and the Association of American Physicians (AAP). Dr. Nauseef has enjoyed a long and joyful relationship with SLB and the *Journal of Leukocyte Biology* (*JLB*), most notably as President of SLB from 2010 to 2012 and currently as a Deputy Editor for *JLB*. Nauseef was honored by the Society for Leukocyte Biology with the Bonazinga Award (now SLB Legacy Award) in 2016.