Rob Maile

Education: I received my BSc (Hons) in Microbiology and PhD in Immunology from the University of Bristol, United Kingdom. My doctoral research, in the lab of Dr Colin Dayan, focused on non-professional antigen presentation by epithelial cells during autoimmune disease, specifically during thyroiditis. I then completed my postdoctoral training in Immunology in the Department of Microbiology and Immunology at the University of North Carolina at Chapel Hill in the Lab of Dr Jeffrey Frelinger, focusing on dissecting the minimal requirements for CD8+ T cell co-stimulation, specifically during graft rejection and tissue injury.

Professional Experience: I am currently Associate Professor in the Department of Surgery and hold a joint appointment in the Department of Molecular Genetics and Microbiology at the University of Florida. I also serve as Co-Director of the Sepsis and Critical Illness Research Center. Prior to joining UF in 2023, I was on the faculty (with promotion from Assistant to Associate Professor) at the University of North Carolina at Chapel Hill, serving in the Departments of Surgery and Microbiology and Immunology, and the Curriculum of Toxicology, and I was also founding Co-Director of the UNC Translational Recharge Center.

Research Interests: For more than twenty-five years, my research has focused on innate and adaptive immune regulation in health and disease. Over the past two decades, my program has centered on immune dysfunction after burn injury, inhalation injury, radiation injury, sepsis, and trauma, with particular emphasis on the mechanisms that drive susceptibility to infection, inflammatory dysregulation, and poor recovery. My laboratory integrates animal models and translational studies using patient biospecimens to identify biomarkers, immune endotypes, and therapeutic strategies aimed at improving outcomes in patients with Chronic Critical Illness. My current NIH- and DoD-funded areas of interest include extracellular vesicles, immune reprogramming during innate training, NRF2 and mTOR signaling, pulmonary immune dysfunction, and host-directed therapies after burn and sepsis.

Mentorship and Training: Across my career, I have mentored multiple trainees at many levels, including PhD students, postdoctoral fellows, clinical residents, fellows, medical students, and undergraduates, and has been actively involved in formal teaching (PhD and PA courses), curriculum development, and professional development through UNC and UF research and training programs, including T32-supported activities. At UF, I currently serve

as Co-PI of the NHLBI T35 program and as co-director of the UF Medical Student Summer Research Program (MSRP), leading a summer in-person research and enrichment program for more than 30 medical students each year.

Statement of Interest:

I am honored to be considered for the position of Councilor for the Society for Leukocyte Biology. SLB has long been an important intellectual home for investigators committed to understanding leukocyte biology in both fundamental and translational contexts, and I would welcome the opportunity to help advance the Society's mission. My career has centered on understanding how leukocytes respond to tissue injury, infection, and inflammatory stress in diverse diseases leading to critical illness. Throughout this work, I have valued communities like SLB that bring together investigators across disciplines, model systems, and career stages to exchange ideas and build collaborations.

My own participation in SLB, including service on the Professional Development Committee, has reinforced for me how important the Society is in fostering scientific rigor, career development, and a sense of professional community. As Councilor, I would work to support three priorities. First, I would like to strengthen opportunities for trainee and early-career member engagement, especially through mentorship, professional development programming, and clearer pathways into Society service. Mentorship has been a central part of my academic career, and I believe SLB can continue to distinguish itself as a society that actively invests in the next generation of leukocyte biologists. Second, I would like to help broaden the Society's reach by promoting connections across basic, translational, and clinical immunology. Leukocyte biology increasingly sits at the center of major problems in human health, including inflammation, infection, tissue repair, and immune-mediated disease and common-mechanisms are often understudied. SLB is uniquely positioned to highlight that breadth and to create productive interactions among scientists working in diverse but related areas. Third, I would like to contribute to the continued visibility and vitality of the Society by helping support strong annual programming, sustained member engagement, and thoughtful communication of the value of leukocyte biology to the broader scientific and biomedical communities. This is an especially important time to advocate for rigorous science, collaborative discovery, and the training environment needed for future advances.