

My research focuses on the cellular and molecular mechanisms by which immune cells contribute to organismal physiology and pathology. A notable contribution was discovering heterophagy, a form of cell cooperation where macrophages help cardiac cells stay healthy by removing their waste. My work identified macrophages as key players in cardiac physiology, as their elimination or impaired phagocytosis leads to cardiac metabolic dysfunction. For these discoveries, I received the Young Investigator Competitive Award from the International Society for Heart Research, among other honors. In 2024, I joined the University of California, San Francisco (UCSF) as a Principal Investigator in the Cardiovascular Research Institute (CVRI). My research explores the molecular mechanisms underlying communication between immune cells and other tissue elements, aiming to develop and test new treatments to improve tissue function through harnessing immune cell supportive roles.