Peter A Keyel, PhD

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Education: Peter earned his B.S. in Chemistry and Biochemistry/molecular biology at the University of Minnesota Duluth PhD. His doctoral research in Cell biology & Molecular Physiology at the University of Pittsburgh focused on cargo-selective adaptors in clathrin-mediated endocytosis. His postdoctoral work focused first on mechanisms of NK cell killing at the Howard Hughes Medical Institute/Washington University in St Louis, and then mechanisms of inflammasome activation at the University of Pittsburgh.

Professional Experience: In 2013, Peter joined the faculty of the Department of Biological Sciences at Texas Tech University. In 2020, he was awarded tenure and promotion to Associate Professor.

Research Interests: Peter is interested in the control of inflammation by macrophages, and pursues two over-arching themes related to this. First, he looks at the mechanisms by which macrophages and other cells resist bacterial pore-forming toxins via membrane repair, and then alert the immune system to the presence of the pathogen. His group found that PFTs temporarily blind macrophage responses to bacteria. In later work, his group found that the MAP kinase kinase MEK controls ~70% of Ca^{2+}-activated membrane repair. The other broad theme focuses on determining the mechanisms by which the macrophage/dendritic cell endonuclease Dnase1L3 prevents DNA-dependent diseases, and modifying Dnase1L3 to act as a therapeutic for lupus and other DNA-dependent diseases. He holds a patent on modifying Dnase1L3 to improve its serum half-life, and co-founded the company ArdiyonBio to commercialize Dnase1L3 replacement therapy.

Statement of Interest: Peter joined SLB in 2010, and is active in the Society. He co-organized the Program for the 2023 Annual Meeting, and serves on the Publication committee, most recently as the current chair. On the Publications Committee, he led the creation of the Reviewer Training program to engage trainees in the *JLB* review process. Under his leadership, the Publications committee is developing an Ambassador Kit, and members set up an undergraduate corner in iSLB. Ambassador kits will better equip SLB members to speak to the benefits and prestige of publishing in *JLB*. The undergraduate corner for iSLB provides a space to talk about engaging undergraduates in immunology research and for undergraduates to share their findings and experiences.

As Councilor for SLB, he would like to help SLB build on its prior successes and continue to innovate to help SLB position itself as the model other scientific societies can follow in the 21st century. He would like to help find new ways to bring value to members, especially early career members and trainees, and increase public outreach. Three such opportunities include providing lay membership options to empower and engage the public, increasing professional development modules, and adopting cutting-edge technologies to connect members and accelerate science.