

We are seeking a post-doctoral fellow with prior experience in molecular biology and immunology to carry out these and related studies of NKT cell and neutrophil biology.

Our laboratory is interested in understanding how specific signaling molecules regulate immune cell development and activation. Currently, there are two areas of research that are ongoing in the laboratory. In our first area of investigation, we are examining how the adaptor molecule SAP (Signaling Lymphocytic Activation Molecule [SLAM]-associated protein), which is mutated in individuals with the immunodeficiency X-linked lymphoproliferative disease (XLP), controls natural killer T (NKT) cell functions. We previously observed that SAP is crucial for NKT cell development (K.E. Nichols et al, *Nature Medicine*, 2005). Now we are trying to understand how SAP controls NKT cell ontogeny and to determine whether SAP plays a role in mature NKT cell functions (S. Nunez-Cruz, *Journal of Immunology*, 2008). In our second research area, we are studying how the adaptor molecule SLP-76 (SH2 domain containing leukocyte protein of 76kDa), which is critical for optimal integrin and Fc receptor-induced neutrophil functions (R. A. Clemens, *Journal of Immunology*, 2007), exerts its activity within this lineage (L.E. Lenox, *Journal of Allergy and Clinical Immunology*, 2009). By dissecting the roles of these and related signaling molecules, we hope to provide insights into how immune cell functions may be enhanced or otherwise manipulated to improve the treatment of human patients with diseases such as immunodeficiency, autoimmunity and/or cancer.

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Interested candidates should contact: Kim Nichols, MD
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A curriculum vitae and letters of reference from 2-3 prior employers who can attest to competency and skills in research will be required.