Research in my group focuses on adaptive immune responses employed by a variety of different animals rarely studied in immunological research labs. We are working to develop assays that can be used to determine the immune status of fish using minimally invasive procedures. Possible projects include characterization of fish skin mucus and measuring antigen specific antibodies in fish serum. Additionally, we are interested in cataloging the diversity of MHC class II molecules in a variety of ungulate species and relating the expression of pattern recognition receptors (PRRs) to life history in order to determine how a species life span influences the immune strategies employed to combat diseases.