

Maternal and Neonatal Immunology and Infectious Disease



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The overall goal of the Bonney laboratory is to determine if pregnancy changes the rules by which the immune system is regulated. The recent focus of her laboratory has been the regulation of T cell homeostasis during pregnancy and the particular role of cytokines such as interleukin 15, 7 and 10 and molecules such as Fas and Programmed Death 1. Further, she is interested in the role T cell homeostasis plays in resistance to preterm birth, persistent viral (lymphocytic choriomeningitis virus) infection in the placenta, the vascular biology of pregnancy, and the post-partum susceptibility to autoimmune disease. In addition, she seeks to determine the role of T cell homeostasis in adverse pregnancy in humans. With members of the Vermont Center for Immunology, she is also studying neonatal immunity to influenza. Her laboratory is adept with the use of animal models and basic techniques in immunology. Dr. Bonney has served as an ad hoc member on both the Human Embryology and the Cellular and Molecular Integrative Reproduction Study Sections and was a standing member of the Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions Study Section. Dr. Bonney has participated in the training of several graduate students, residents, fellows and junior faculty. Her clinical interests include vulvar pain syndromes, vaginitis and sexually transmitted infections. She currently serves on the Infectious Disease Practice Committee and the University of Vermont College of Medicine Dean's Advisory Committee on Diversity and Inclusion.