Research Interests

Andrei Thomas-Tikhonenko Ph.D.

Dr. Thomas-Tikhonenko studies the role oncogenic retroviruses and their interactions with cellular oncoproteins leading to development of tumors in mice. He also studies the role of microRNAs and their regulation by the EBV encoded oncoprotein EBNA1 through interactions with the c-Myc oncoprotein. His group is studying anti-angiogenic cytokines produced in tumor-bearing animals in response to a concurrent microbial, viral, or protozoan infection. They have discovered that this phenomenon does not rely on cytotoxic immunity, as previously thought. Instead, infection-induced cytokines (e.g., IFNγ) are responsible for systemic suppression of tumor angiogenesis. They demonstrated that infection of p53-null bone marrow progenitors with a c-Myc-encoding retrovirus is sufficient for overt B-lymphomagenesis.

Interactions with other trainers: Dr. Thomas Tikhonenko is a highly interactive member of the program. He is the Director of the Cancer Biology course taken by students in the Tumor Virology Program and the Director of the Cancer Biology Program. He is engaged in collaborative efforts with Dr. Robertson, Lieberman, Chodosh, Wellen and Weiner on developing an animal models of Burkitt's lymphoma as well as GI cancers.