MSTP STUDENT DESCRIPTION

NAME: Brian A. MacDonald Jr.
e-Mail address: bam37@buffalo.edu
Undergraduate College/University attended: Boston College
Major: Biology

Years in MSTP (1-8): 2

DEPARTMENT: Department of Microbiology and Immunology
THESIS ADVISOR: Dr. Paul Knight
RESEARCH DESCRIPTION:
PhD Thesis title: Not Applicable Yet

Date of Completion (or expected) of PhD: 2014

Research Description: Not Applicable Yet

PUBLICATIONS / ABSTRACTS PRESENTED:

MacDonald B and Charytan D, Sugimoto H, Pastan S, Staton G, Hennigar R, and Kalluri R. ***American Journal of Kidney Diseases***. An Unusual Case of Pulmonary-Renal Syndrome Associated with Defects in Type IV Collagen Composition and Anti–Glomerular Basement Membrane Autoantibodies. **MacDonald and Charytan, et al. Am J Kidney Dis. Vol 45, No 4 (April), 2005: 743-748**

MacDonald B, Sund M, Grant M, Pfaff K, Holthaus K, Zon L, Kalluri R. ***Blood: Journal of the American Society of Hematology***. Zebrafish to humans: evolution of the α3-chain of type IV collagen and emergence of the autoimmune epitopes associated with Goodpasture's Syndrome. **MacDonald et al. Blood. 2006 March 1; 107(5):1908-15**.

LeBleu V, **MacDonald B,** Kalluri R. ***Experimental Biology and Medicine***. Structure and Function of Basement Membranes. **LeBleu, MacDonald, et al. Exp Biol Med. 2007 Oct; 232(9):1121-9.**

Xie L, Palmsten K, **MacDonald B**, Kieran MW, Potenta S, Vong S, Kalluri R. ***Experimental Biology and Medicine.*** Basement membrane derived fibulin-1 and fibulin-5 function as angiogenesis inhibitors and suppress tumor growth. **Xie, Palmsten, MacDonald, et al. Exp Biol Med 2008 Feb; 233(2):155-62.**

PROFESSIONAL/EDUCATIONAL MEETINGS ATTENDED (name of meeting, dates of attendance, location):

Mayo Clinic Angiogenesis Symposium, "From Bench to Bedside to Bench" Rochester, MN
Research Presenter October 2004

- Was selected to present a poster of my work investigating and comparing human and zebrafish tumstatin, endostatin, arresten, and canstatin. The research displayed the remarkable conservation between these zebrafish proteins and human proteins (which are currently being investigated as non-toxic cancer therapeutics). This work was valuable for elucidating key amino acids conserved between these analogous proteins despite 450 million years since the divergence of humans and zebrafish. These conserved similarities are critical to their function of inhibiting tumor progression.

AWARDS / HONORS:
University at Buffalo School of Medicine and Biomedical Sciences Dean's Letter of Commendation (2007-2008 Academic Year)

MEDICAL SCHOOL ACTIVITIES:
AMA

EXTRACURRICULAR INTERESTS:
Hiking, Skiing, Fishing, Running, Working out, and enjoying anything outdoors.