Title: Neural-Glial Antigen 2 Expression in the Macrocirculation

Student: Gordon Ho

Advisors: Walter Murfee, PhD, Geert Schmid-Schonbein, PhD

Department: Department of Bioengineering, University of California San Diego

Sponsor: UCSD Associated Students Undergraduate Scholastic Grants (US Grants)

Abstract:
Recent work suggests that Neural-Glial Antigen 2 (NG2) is expressed by perivascular cells along arterioles, but not along venules in adult quiescent rat microvascular networks. The objective of this study was to determine if NG2 is differentially expressed in arteries versus veins at the macrovessel level. Based on immuno-staining of the aorta, vena cava, and femoral artery/vein pair harvested from adult male Wistar rats, NG2 was found to be expressed by vascular cells along both arteries and veins. The results indicate that NG2 is locally regulated and highlights the differences in cellular phenotype along the hierarchy of the vasculature.