Study of brain vasculature network mapped using multiphoton laser microscopy in Alzheimer Mouse model using CFD

We want to study the mouse brain vasculature networks which are mapped using multi-photon laser microscopy in Alzheimer's disease and Wild-type mouse models using a 1D non-linear model taking into account the complex rheological properties of blood flow in microcirculation. This model predicts blood pressure, blood flow and hematocrit distributions, volumes of functional vascular territories, regional flow at voxel and network scales, etc. We may extend this project to 3D model as well.

Contact:

Mohammad Haft-Javaherian PhD Student, Schaffer-Nishimura Lab Meinig School of Biomedical Engineering B56 Weill Hall Cornell University Ithaca, NY 14853 mh973@cornell.edu (402) 617-0318 http://snlab.bme.cornell.edu