

TITLE: Study of cerebral aneurysm formation, rupture and treatment

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RESEARCH PROJECT DESCRIPTION (brief overview of background, hypothesis, methods, role of medical student, funding and relevant publications -- SHOULD NOT EXCEED ~ 250 WORDS)

Our laboratory performs research investigating: 1) the biologic mechanisms for aneurysm formation and rupture using a mouse model of intracranial aneurysms; 2) the mechanisms by which hemodynamic stress at bifurcations cause inflammation that leads to aneurysm formation using in vitro cell culture flow models; 3) the development of biologic and tissue-engineered therapies for the treatment of aneurysms using a murine carotid aneurysm model; and 4) the identification of cytokines and factors responsible for aneurysm formation and rupture using human cerebral aneurysm tissue.

Role of Medical Student: to learn basic vascular biology and inflammation research

Current Funding: NIH R01, NIH R21, Brain Aneurysm Foundation

Relevant Publications: see <https://www.ncbi.nlm.nih.gov/pubmed/?term=hoh+b>