

Summer Undergraduate Research Program  
**Faculty Project Proposal Submission**

**Faculty Name:**

Lori Kohlstaedt

**Department/Organization Affiliation:**

Proteomics/Mass Spectrometry Laboratory/QB3

**Project Name(s):**

Post-translational modification of tau protein and its association with neuronal development and disease

**General Topic (Keywords):**

mass spectrometry, Alzheimer's disease, neurobiology

**Project Description(s):**

Hyperphosphorylation of tau protein has been associated with the formation of neurofibrillary tangles in Alzheimer's disease, but little is known about phosphorylation of tau during normal metabolism and development. The researcher will create samples from mouse brains and other tissues. He or she will collect and analyze mass spectrometry data to find sites of phosphorylation in the microtubule associated protein tau.

**Desired Skills or Experience:**

MCB 110 and 110L or equivalent

**Time Commitment:**

10-20 hrs/wk

**Preferred Starting Date:**

early June