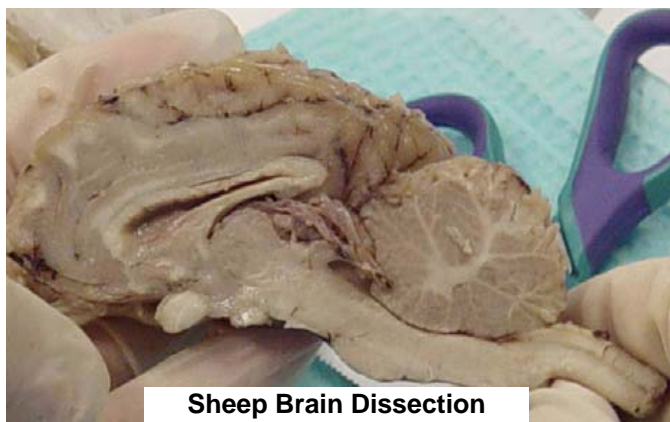


## **Duluth BrainU 101: Classroom Investigations of the Brain & How it Changes with Learning and Drugs (Biology Teachers Grades 9 - 12)**

### **4 weekends in Fall & Winter 2010-2011**

Investigate the master control system of human homeostasis. Examine some of the latest laboratory findings of brain function with the researchers that are conducting the investigations. Explore the mechanisms whereby learning actually alters the brain. Demystify the science behind drug abuse and how addictive drugs alter learning and memory. Understand the basic concepts of how the brain functions from changes at synapses to motivation and decision-making.



A major component of the workshop involves participants conducting hands-on, active-learning experiments and observations designed to probe different aspects of nervous system function. Dissect sheep brains. Design, execute, analyze, and evaluate experiments that can be done in your classroom. Explore how neuroscience research impacts teaching and learning. All content explored in the workshop maps to MN Science Standards with an emphasis on inquiry.

During the 2010-2011 school year, materials, resources, and classroom assistance will be provided to do investigations and experiments in participants' classrooms.

### **Location & Time**

U of Minn-Duluth 8AM – 4PM Friday & Saturday

Campus Site to be determined

### **Tentative Dates**

Oct. 1-2; Nov. 5-6; Dec 3-4, 2010; Jan 7-8, 2011; (Feb. 4-5, 2011 - alternate snow dates)  
Funds up to \$150/day are available to pay substitutes for Fridays.

### **Instructors**

Dr. Janet Dubinsky (Professor, Department of Neuroscience, UMN Medical School)

Dr. Gillian Roehrig (Associate Professor, Department of Curriculum and Instruction, College of Education and Human Development)

Three University of Minnesota graduate credits will be offered for BrainU (Nsci 5913). Tuition, College of Continuing Education registration fee, lunches, and parking will be covered by a Science Education Drug Abuse Partnership Award from the National Institutes of Drug Abuse, National Institutes of Health. Additional student fees may apply depending upon enrollment status.

**Apply online** <https://www.cbs.umn.edu/hawk/form516>

Class limited to 24 students. Applications received by Sept.17, 2010 will be given priority.

### **For more information, contact:**

Gillian Roehrig [roehr013@umn.edu](mailto:roehr013@umn.edu)

Janet Dubinsky [dubin001@umn.edu](mailto:dubin001@umn.edu)

Visit: <http://brainu.org/>