

# Branching Out



## NEUROSCIENCE

**CONTRACT CONCENTRATION**  
Neuroscience

[www.stolaf.edu/depts/neuroscience](http://www.stolaf.edu/depts/neuroscience)

**A**utism, Alzheimer's, Parkinson's, schizophrenia, drug addiction, clinical depression: All are subjects of growing public conversation and concern. Progress toward understanding, controlling and perhaps even eliminating such conditions will rely on discovery in the field of neuroscience.

Once primarily a study of biological cause and effect — What makes the eye work? What causes us to perceive hot and cold sensations? — neuroscience has evolved to encompass examinations of social and cultural behaviors as well. Today's neuroscientists are interested in what the brain does when a person exhibits racism or practices Buddhist meditation.

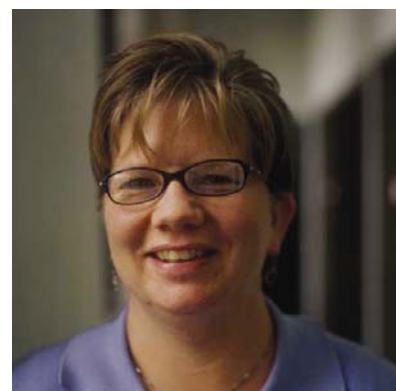
St. Olaf has responded to neuroscience's expanding nature by bolstering resources devoted to the discipline. Between 2003 and 2005, the college welcomed three new neuroscience faculty members; the program blends the energy and passion of these young, newly trained minds with the seasoned expertise of several senior faculty members.

"We're total geeks about the brain," concedes Shelly Dickinson, an assistant professor of psychology who teaches in the Neuroscience Program. Known among students for giving animated lectures about what she casually calls "brain parts," Dickinson is excited by the opportunities she sees — not just for herself and her fellow instructors, but for incoming students as well.

"Since neuroscience is a new program, if there are enough students who are interested in something in particular, we can put together a class or a discussion group, like the 'Neuronerds,'" she says. "That doesn't necessarily happen at other places."

The neuroscience concentration requires an introductory course plus classes in psychology and biology, and electives from both inside and outside the natural sciences and mathematics departments. Relevant choices range from chemistry and computer science classes to offerings in sociology and religion. Students plan their studies through individual contracts and complete the concentration with a capstone seminar.

"Hands-on research experiences also help students decide what they want to do," says Assistant Professor of Psychology Gary Muir, who joined the neuroscience faculty in 2004. "It's an important part of what we provide here." ■



### MEETINGS OF THE MINDS

**S**t. Olaf students get to compare notes and brainstorm with peers from other learning institutions through MidBrain Summer Institute for Neuroscience, a newly formed collaboration of several Minnesota colleges. Like-minded participants from St. Olaf, Carleton College in Northfield, Macalester College in St. Paul and Gustavus Adolphus College in St. Peter travel to one another's campuses to observe and discuss neurological research being conducted at each location.

*"If you are going to understand behavior, you have to understand how the brain works."*

—Shelly Dickinson  
Assistant Professor of Psychology

### NEURONERDS

Recently, as Professor of Biology Anne Walter's Introduction to Neuroscience course wound down, several students said they would miss their classroom discussions. Walters reminded them it was possible to create a quarter-credit "special topics" class. Within 24 hours, eight students had written a course description for "Neuroscience and Disease," secured Walters as their faculty adviser, set up a schedule and assignments and opened up the class to 12 students who dubbed themselves "Neuronerds." What's the coolest thing about the class? "We are all so interested in the topics we study and really want to go in-depth when we are learning about these neurological disorders," says biology and chemistry major Val Klema '06 (far right).

