Improving Undergraduate Education in the Neurosciences

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Neuroscience is becoming one of the most popular undergraduate focus subjects among undergraduate psychology and biology majors at many of this country's best universities. Neuroscience courses are relevant to, and in demand by, students heading toward advanced education in a variety of disciplines including neuroscience, neural modeling, clinical, social, behavioral and cognitive psychology, medicine, kinesiology, pharmacology, and speech and language. Yet, while our undergraduate curriculum in neuroscience is quite good, it does not reach the standards of several of the top universities nationwide.

The purpose of this project is to explore ways to take us there. First I will identify what programs are considered by a majority of my colleagues to be the best in the nation. I will then visit at least two of these programs and interview the responsible faculty and administrators, tour the facilities, and study the curriculum. I will then pursue ways to implement the insights gained to change our own undergraduate neuroscience program here at C.U. At the most ambitious level, this may lead to establishing a new Neuroscience Undergraduate major if this is deemed by my colleagues in the various neuroscience related departments to be needed and workable. Another objective will be to greatly improve our laboratories for neuroscience instruction and to organize research experience opportunities for undergraduates as an official function of our honors program. The former goal will no doubt require substantial funding from the university and will depend on this in part for its success. Finally, at the very least, I expect that this project will improve my own neuroscience curriculum and those of our neuroscience faculty.

I will also be attending a workshop sponsored by the Faculty for Undergraduate Neuroscience called:

- A Project Kaleidoscope / FUN Workshop
  Undergraduate Neuroscience Education: Leadership, Laboratories and a Curriculum for the 21st Century
  Macalester College, St. Paul, Minnesota
  July 15-17, 2005