The Department of Cell Biology and Neuroscience at Montana State University offers an innovative and exciting approach to undergraduate education. Award-winning faculty, many of whom have dual appointments as professors in the WWAMI Medical School program at MSU, teach our courses and mentor students in research labs. Students gain real-world, hands-on experience and develop practical skills for their future careers through undergraduate research and study abroad opportunities.

Researchers in the Department of Cell Biology and Neuroscience are using cells that contain the proteins that cause jellyfish to glow as part of a new biotechnology for studying how neurons communicate with each other.

CELL BIOLOGY AND NEUROSCIENCE
The Department of Cell Biology and Neuroscience offers a B.S. in Cell Biology and Neuroscience with options in biomedical sciences and cell biology and neuroscience, as well as a minor in genetics.

BIOMEDICAL SCIENCES OPTION
The curriculum of the biomedical sciences option provides a strong background for students who plan on a career in medicine or other health professions. This option is also for students who are interested in a biomedical sciences career in research or teaching in cell biology, molecular biology, developmental biology or neuroscience. The curriculum provides the opportunity to take the courses necessary to make a competitive application to health profession school, graduate school or to obtain a technical position. The curriculum has sufficient breadth to introduce students to a wide range of disciplines, but is flexible enough so that students can focus, in their last two years, on areas of specific interest.

The biomedical sciences curriculum allows students to take basic courses in physical sciences while tailoring the courses in life sciences to meet their personal objectives and interests. This is done by allowing 24 of the required credits in biology to be elective credits in life sciences: biology, biochemistry, microbiology or other appropriate fields.

CELL BIOLOGY AND NEUROSCIENCE OPTION
The curriculum in the Cell Biology and Neuroscience Option provides a strong background for students who are interested in a career in research or teaching in cell biology, molecular biology, developmental biology or neuroscience. This option provides the opportunity to take the courses necessary to make a competitive application to graduate school or to obtain a technical position. Advisor approved substitutions are possible for upper division courses to tailor the degree to the student’s interests.

Employment opportunities, especially at the technical level, are available with a B.S. in Cell Biology and Neuroscience. However, this curriculum is designed to prepare students for professional or graduate training.

Cell Biology and Neuroscience major Maggie Russell received a Goldwater Scholarship.
Options within Major
· Biomedical Sciences
· Cell Biology and Neuroscience

Specialized Areas of Study/Minors
The Department of Cell Biology and Neuroscience participates in MSU’s Genetics Minor and Global Health Minor.

What can I do with a degree in Cell Biology and Neuroscience?
· Bioethics
· Bioinformatics
· Biomechanics research
· Biomedical research
· Biophysicist
· Chiropractic school
· Dental school
· Embryologist
· Forensics
· Genomics research
· Graduate school
· Grant writer
· Health care sales
· Intellectual property & patent law
· Laboratory manager
· Laboratory technician
· Medical school
· Microscopist
· Molecular biology research
· Museum curator
· Naturopathic medical school
· Ophthalmology school
· Optometry school
· Osteopathic medical school
· Pharmacy sales
· Pharmacy school
· Physiologist
· Physician assistant school
· Process development/process science
· Quality control & quality assurance
· Regulatory affairs
· Research & development
· Research assistant
· Science teacher
· Science writer
· Scientific advisor
· Scientific business development
· Scientific sales
· Technical writer
· Toxicologist
· Veterinary school

UNDERGRADUATE RESEARCH
All of our students participate in scientific discovery through research-based courses, labs, summer research programs, and/or employment. A variety of research opportunities abound for students in this major, including courses such as Molecular Basis of Neurological Diseases, Gene Expression Lab, Gene Construction and Undergraduate Research, summer research programs, and employment including work-study appointments. Faculty in the department welcome inquiries from students regarding research opportunities in their labs. Students generally work on projects for credit, although research stipends are available via the Undergraduate Scholars (USP) Program.

HEALTH PROFESSIONS ADVISING
Cell Biology and Neuroscience majors have access to excellent preparation for entry to graduate programs in health professions, including medical, dental, optometry, pharmacy, physician assistant and others. In addition to working with an academic advisor and faculty mentors in the Cell Biology and Neuroscience department, the Health Professions Advising Office can assist students in exploring career options, understanding the academic requirements of professional schools and preparing the most competitive professional school application possible.

STUDY ABROAD
Our students have the ability to complete study abroad programs in a variety of destinations while meeting their academic goals and fulfilling course requirements. Montana State University offers over 250 study abroad programs in over 60 countries. The Department of Cell Biology and Neuroscience participates in a faculty-led study abroad program in León, Nicaragua where students can earn 6 credits learning medical Spanish and volunteering at a local medical clinic. At the clinic, students shadow doctors and nurses to learn about common third-world and tropical diseases while absorbing the cultural and linguistic interactions between health providers and patients.

For additional information, contact:
Department of Cell Biology & Neuroscience
Montana State University
510 Leon Johnson Hall
P.O. Box 173148
Bozeman, MT 59717-3148
Tel: 406-994-5120
Fax: 406-994-7077
cellbio.msu@gmail.com
www.montana.edu/cbn/

Students volunteer at a medical clinic in León, Nicaragua during a study abroad program.