

TRAIN ALONGSIDE WORLD-CLASS RESEARCHERS ON LIFESAVING RESEARCH.

Researchers with the Purdue Institute for Integrative Neuroscience are focused on providing graduate students with the best possible support, education and experiences as they develop as scientists and future colleagues. Purdue offers:

- ▶ Interdisciplinary life science training programs
- ▶ Departmental graduate programs
- ▶ An innovative curriculum
- ▶ Diverse research opportunities
- ▶ Access to world-class facilities and resources
- ▶ Professional and Career Development Opportunities

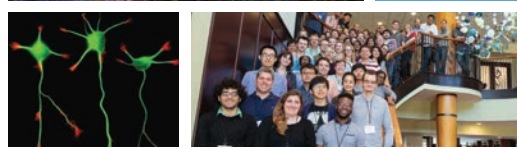
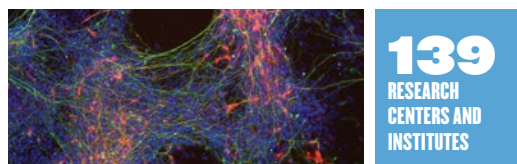
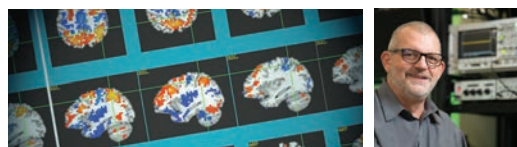
For additional information about Purdue graduate programs, please see the details in the back of this brochure.

CONTACT INFORMATION

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JOIN US IN UNRAVELING THE MYSTERIES OF THE BRAIN.

At the Purdue Institute for Integrative Neuroscience (PIIN), researchers are leveraging the university's expertise in neuroscience and engineering to unravel the mysteries of the brain. Spanning 25 departments across six colleges, Purdue's neuroscience enterprise includes more than 100 faculty engaged in neuroscience-related research. The institute's role is to encourage and exploit synergies across disciplines on Purdue's West Lafayette campus, with notable strengths in several key research areas:

▶ **DEVELOPMENT, GENETICS AND NEUROPHARMACOLOGY:** Scientists in developmental biology, genetics, chemistry and psychology are collaborating with engineers to understand and address disorders such as autism and depression.

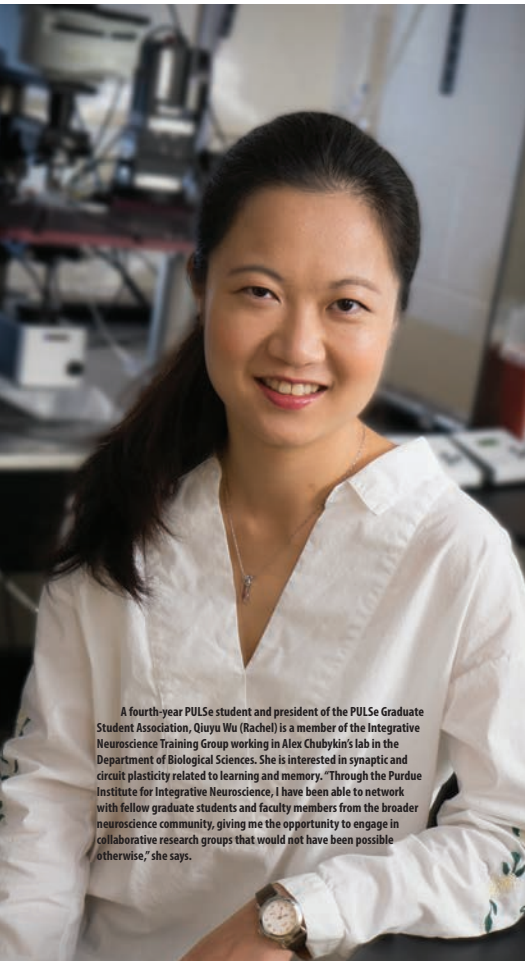
▶ **NEUROTRAUMA AND NEUROPATHOLOGY:** Researchers in this area are searching for new preventive measures, diagnostics and treatments for spinal cord injuries, traumatic brain injury, brain tumors and other illnesses.

▶ **AGING AND NEURODEGENERATION:** Life expectancy has nearly doubled over the last century, but age-related neurodegenerative diseases have dramatically increased. In this program area, scientists are studying why Alzheimer's, Parkinson's and other diseases occur and how to best fight them.

▶ **NEUROENGINEERING:** In partnership with engineers, scientists in this program area are developing new implantable, prosthetic, medical devices and neuroimaging tools to treat neurological illnesses from brain injuries to epilepsy to glaucoma.

▶ **HEARING AND VISION:** Across six departments in engineering and life sciences, cohesive teams conduct research on many aspects of these two key sensory systems by employing innovative technologies and advanced computational models. The breadth and clinical translation in hearing research is especially distinguished.

PURDUE
UNIVERSITY



A fourth-year PULSE student and president of the PULSE Graduate Student Association, Qiyu Wu (Rachel) is a member of the Integrative Neuroscience Training Group working in Alex Chubykin's lab in the Department of Biological Sciences. She is interested in synaptic and circuit plasticity related to learning and memory. "Through the Purdue Institute for Integrative Neuroscience, I have been able to network with fellow graduate students and faculty members from the broader neuroscience community, giving me the opportunity to engage in collaborative research groups that would not have been possible otherwise," she says.

JOIN OUR INTEGRATIVE NEUROSCIENCE TRAINING PROGRAM.

The Integrative Neuroscience Program at Purdue is truly interdisciplinary. Our faculty represent around 10 different departments from 5 different colleges. Research approaches span from molecular/cellular to systems/behavioral/cognitive neuroscience.

PART OF THE PULSE PROGRAM

The Integrative Neuroscience Training Group is available through PULSE (Purdue University Life Science Program), a highly selective Ph.D. program that is designed for students with bachelor's degrees in life sciences. As a PULSE student, you will receive:

- ▶ Funding for the first year that allows you to complete the core requirements,
- ▶ At the end of your first year, the choice of 12 training groups, and
- ▶ Financial support in subsequent years from various resources.

APPLICATION PROCESS

- ▶ Submit your application for PULSE through the Graduate School.
- ▶ Your application will be considered by the PULSE Admissions Committee, which consists of representatives from all PULSE Training Groups.
- ▶ Please note that entry into PULSE is for the fall semester only.
- ▶ Deadline is December 1.

CONTACT INFORMATION

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A faculty member of the Integrative Neuroscience Training Group and the Purdue Institute of Integrative Neuroscience, Jean-Christophe Rochet, professor of medicinal chemistry and molecular pharmacology, is striving to develop new treatments for Parkinson's disease. Several years ago, one of Rochet's graduate students traveled to Nepal, where she interviewed residents and traditional healers about medicinal plants used in treating Parkinson's-related symptoms. Now, current students in his lab are studying extracts of those plants and characterizing promising new drug targets, with the ultimate goal of slowing down progression of the disease.

OR CHOOSE FROM OTHER GRADUATE PROGRAMS IN NEUROSCIENCE.

In addition to the PULSE program, students can also choose from other life-sciences related master's or Ph.D. level graduate programs:

Agriculture

- ▶ Animal Sciences
- ▶ Biochemistry
- ▶ Entomology
- ▶ Food Science

Engineering

- ▶ Agricultural and Biological Engineering
- ▶ Biomedical Engineering
- ▶ Chemical Engineering
- ▶ Electrical and Computer Engineering
- ▶ Materials Engineering
- ▶ Mechanical Engineering
- ▶ Industrial Engineering
- ▶ Nuclear Engineering

Health and Human Sciences

- ▶ Health and Kinesiology
- ▶ Health Sciences
- ▶ Human Development and Family Studies
- ▶ Nutrition Science
- ▶ Psychological Sciences
- ▶ Speech, Language, and Hearing Sciences

Interdisciplinary programs

- ▶ Biomedical Sciences Interdisciplinary Graduate Program
- ▶ Computational Life Sciences

- ▶ Computational Science & Engineering
- ▶ Ecological Sciences & Engineering
- ▶ Gerontology Dual-title Ph.D.
- ▶ Endocrine and Neural Controls of Ingestive Behavior
- ▶ Interdepartmental Nutrition Program

Medicine (M.D.)

- ▶ Indiana University School of Medicine - Lafayette

Pharmacy

- ▶ Medicinal Chemistry and Molecular Pharmacology

Science

- ▶ Biological Sciences
- ▶ Chemistry
- ▶ Mathematics
- ▶ Physics
- ▶ Statistics

Technology

- ▶ Technology

Veterinary Medicine

- ▶ Basic Medical Sciences
- ▶ Comparative Pathobiology
- ▶ Veterinary Clinical Sciences
- ▶ Veterinary Medicine (D.V.M.)

APPLICATION PROCESS

Review the admission requirements for the program of your preference and submit the online application along with the required documents. Deadlines may vary by program, so be sure to check with your program of interest.

CONTACT INFORMATION

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