



### Models in Evolution, Ecology & Systematics

Biology and mathematics majors receive training in research and professional development. The program focuses on both the use of models in experimental research and the building of models for theoretical research. Our diverse mentors provide excellent hands-on training in independent research.

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### Molecular Biosciences

This program provides an intensive 10-week summer research experience for curious and motivated undergraduates who are considering a doctorate in molecular biology or related discipline. Our faculty mentors conduct state-of-the-art research at three levels of investigation: molecules, cells, and organisms. Areas of research interests include studies on protein folding and protein design; mechanisms of cell-cell communication, cell division, and cell migration; and the genetics of complex traits, tissue development, and host-parasite interactions.

#### **John Connolly**

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### Pharmaceutical Chemistry

Students perform independent research under the supervision of faculty members, applying chemical principles to problems involving drugs and related molecules. The emphasis is on promoting the therapeutic effects of the drug or minimizing toxicity, or controlling delivery of the drug to specific sites of action. This process requires attention to physical-organic, physical, and analytical chemistry. Participants receive basic instruction in laboratory and research techniques, including laboratory safety, effective use of a university science library, and instruction in firsthand use of specialized laboratory instrumentation.

#### **Ann Heptig**

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