

**CofC Faculty Mentors:**

As part of the College of Charleston's collaboration with LMU, the following faculty members can sponsor students in their respective laboratories and provide a research experience. For interested exchange students, CofC can also provide a teacher-training experience. Students can participate in monthly meetings of the Psychology Department Pedagogy Working Group, help develop specific lesson plans for behavioral neuroscience and related courses, as well as make a limited number (based upon mutual interest) of presentations in undergraduate classes or faculty research seminars.

- Dr. Chris Korey
  - <http://biology.cofc.edu/about-the-department/faculty-staff-listing/korey-christopher.php>
  - The Korey lab is interested in the development and plasticity of the nervous system in invertebrates. In the past the lab has used the fruit fly, *Drosophila melanogaster*, as a model for studying neural development and as a model of human neurological disease. Currently the lab, is focusing on the sensory nervous system in a crustacean model system, the snapping shrimp. The snapping shrimp provides a unique system to study neural plasticity due to its ability to regenerate lost appendages and fully transform one type of claw form into another. The claws have completely different functions and correspondingly have different sensory nervous system capabilities. Our ultimate goal is to understand the neurological and molecular mechanisms associated with this incredible plasticity displayed by these shrimp.
  
- Dr. Jenn Wilhelm
  - <http://psychology.cofc.edu/about/faculty-and-staff/wilhelm-jennifer.php>
  - I am a neuroscientist interested in the recovery of function after peripheral nerve injury. Thousands of people each year suffer from traumatic peripheral nerve injury. Unfortunately full functional recovery from these injuries is rare due to the slow growth of regenerating axons and the changes in synapses onto the injured neurons. Exercise in the form of treadmill training can enhance the regeneration of axons via the modulation of the expression of neurotrophins such as brain derived neurotrophic factor (BDNF). This enhancement of regeneration appears to occur in a sex-dependent manner. Current studies in my lab explore the contributions that sex hormones make in the regeneration process (both in the PNS and CNS) and how those hormones interact with neurotrophins to guide axon regeneration after nerve injury.

# COLLEGE *of* CHARLESTON

- Dr. Michael Ruscio
  - <http://psychology.cofc.edu/about/faculty-and-staff/ruscio-michael.php>
  - I am a behavioral neuroendocrinologist interested in the neuroendocrine mechanisms associated with affiliative behaviors. I am interested in the degree to which certain social circumstances (living in isolation, with related individuals or with strangers) can be stressful or beneficial relative to the social or mating systems (monogamy vs. polygyny) of different species. I quantify a variety of different neuroendocrine mechanisms, including hormone receptors, neuropeptidergic activity and neurogenesis using vertebrate (California mouse, *Peromyscus californicus*) and more recently invertebrate (Snapping shrimp, *Alpheus angulosus*) models.