

NGG 588: Topics in Translational Neuroscience

Location:

Friday, January 18th, 2019: 1:00pm - 2:00pm
Smilow Center for Translational Research (SCTR)
10th Floor - Room 10-146AB

Time: Noon to 2 PM

This course will introduce graduate students in neuroscience and related disciplines to basic mechanisms and clinical features of major categories of nervous system disease. Each two-hour class will consist of two parts; a formal lecture followed by a seminar on the same topic. The formal basic science lectures will discuss genetic, molecular, and cellular mechanisms relevant to the disease examined while the seminar will illustrate how that information can be used in the clinical setting to promote further discovery and inform treatment. Some of the seminars will be associated with the Clinical Neuroscience Training Program (CNST) to provide the opportunity to interact with medical students and clinicians. The course will rely on assigned readings of primary research papers and discussions during class.

This is a weekly spring semester course consisting of two components:

- A one-hour lecture detailing the neurobiology of a particular disease
- A one-hour seminar delivered by the Clinical Neurosciences Training Program (CNST) Seminar Series

Participating faculty include:

- Course director Mariella De Biasi who will select weekly special lecturers and run the course
- A weekly lecturer who specializes in the disease being covered that week
- The CNST seminar speaker for that week, selected by the CNST directors Roy Hamilton and Dan Wolf

Contact Hours:

- 2.5 hours per week on Fridays
- 1CU

Activity Types:

- Lecture
- Seminar
- Small Group Discussion

Course Materials:

- Readings selected by the weekly lecturer

Prerequisites:

- Graduate-level students, senior undergraduates with permission from the Instructor
- Open to PSOM students with permission from the Department
- Priority given to NGG students, then other BGS, then other PSOM, then other Penn students on space-available basis

Student Details:

- Class size limit = 20 students
- Expected to attract second-year NGG, first or second year PGG and other PSOM

Evaluation of Student Performance: Students will be evaluated based on their ability to identify gaps in the current knowledge for the topic presented in each class/seminar (25%) and submit questions based on readings assigned before each class (25%). There will also be evaluated on a final short paper on a topic of their choice among those presented in class (45 %), and their general participation to the group discussions (5%).

Calendar of lectures for 2019

01-18-2019: Introduction to the course and CNST seminar

12-1PM: Mariella De Biasi, PhD, Course Director. Department of Psychiatry, PSOM

1-2 PM: Ronald L. Wolf, MD, PhD, Department of Radiology, PSOM

01-25-2019 Topic 1. Olfaction

12-1 PM: Joel Mainland, PhD, Monell Chemical Senses Center with NGG affiliation.

1-2 PM: Richard L. Doty, PhD, Department of Otorhinolaryngology, Smell and Taste Center, PSOM

02-01-2019 Topic 2. Sleep & anesthesia

12-1 PM: Matthew S. Kayser MD PhD, Department of Psychiatry, PSOM

1-2 PM: Alexander Proekt, M.D. Ph.D., Department of Anesthesiology and Critical Care, PSOM

02-08-2019 Topic 3 Neuronal networks science

12-1 PM Danielle Basset, PhD, Department of Engineering and Applied Science, UPenn

12-1 PM Ted Satterthwaite, MD, Department of Psychiatry, PSOM

02-15-2019 Topic 4: Sexual dimorphism in brain/behavior

12-1 PM: Mariella De Biasi, PhD, Department of Psychiatry, PSOM

1-2 PM: Ruben Gur, PhD, Department of Psychiatry, PSOM

02-22-2019 Topic 5. Pain and opioids

12-1PM: Gregory Corder, PhD, Department of Psychiatry, PSOM

1-2 PM: Wade Berrettini, MD, PhD, Department of Psychiatry, PSOM

03-01-2019 Topic 6. Neurodegeneration

12-1 PM: Edward B. Lee, MD, PhD, Department of Pathology and Laboratory Medicine, PSOM

1-2 PM: David John Irwin, MD, Department of Neurology, PSOM

03-02 to 03-08 2019 SPRING BREAK- NO NGG classes

03-15 2019 Topic 7: Autism

12- 1 PM: Marc Fuccillo, MD, PhD, Department of Neuroscience, PSOM

1-2 PM: J. Christopher Edgar, PhD, Division of Radiology at Children's Hospital of Philadelphia.

03-22 2019 Topic 8: Mitochondrial disease

12- 1 PM: James H. Eberwine, Ph.D., Department of Pharmacology, PSOM

1-2 PM: Douglas C. Wallace, PhD, Department of Pathology and Laboratory Medicine, PSOM & the Center for Mitochondrial and Epigenomic Medicine at CHOP

03-29 2019 Topic 9: Neurodevelopment

12-1 PM Kimberly M. Christian, PhD, Department of Neuroscience, PSOM

1-2 PM: Hao Huang, PhD, Department of Radiology, PSOM

04-05 2019 Topic 10: Brain-computer interfaces and robotic therapy

12-1 PM: Brian Litt, MD, Departments of Neurology and Bioengineering, PSOM

1-2 PM: Michelle J. Johnson, PhD, Department of Physical Medicine and Rehabilitation, PSOM

04-12 2019 Topic 11: Decision making/social cognition

12-1 PM: Adrianna C. Jenkins, Ph.D, Department of Psychology, University of Pennsylvania

1-2 PM: Rebecca Waller, PhD, Department of Psychology, University of Pennsylvania

04-19 2019 Topic 12: Traumatic Brain Injury

12-1 PM: Akiva Cohen, PhD, Department of Anesthesiology and Critical Care, PSOM

1-2 PM: M. Shawn Grady, MD, Department of Neurosurgery, PSOM

04-26 2019 Topic 13: Genetics and Novel Treatments of Epilepsy

12-1 PM: Ethan Goldberg, MD PhD, Department of Neurology, PSOM

1-2 PM: Eric Marsh, MD PhD, Department of Neurology at CHOP